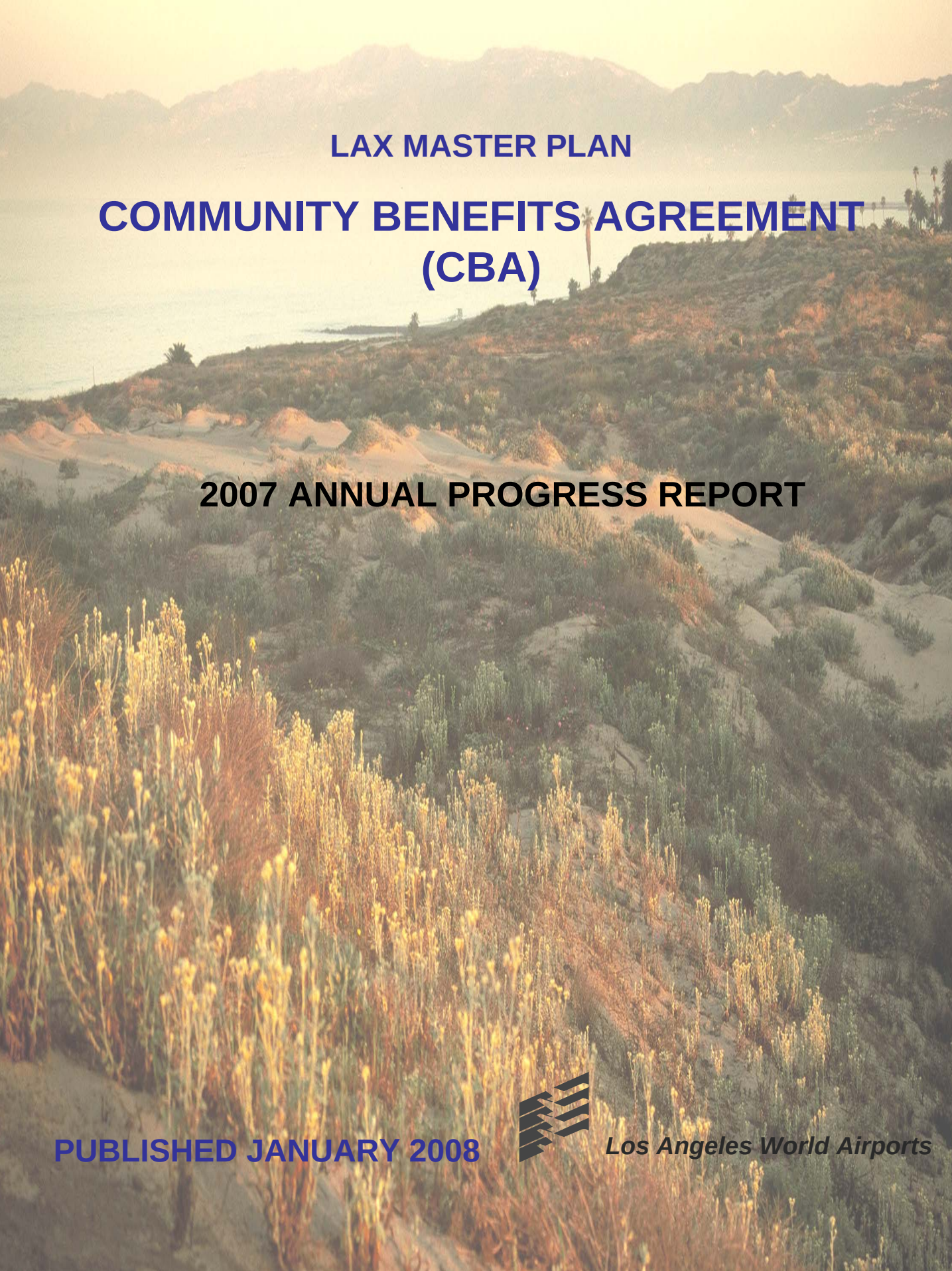

LAX MASTER PLAN

COMMUNITY BENEFITS AGREEMENT (CBA)

2007 ANNUAL PROGRESS REPORT

PUBLISHED JANUARY 2008

Los Angeles World Airports

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Prepared by
Mitigation Compliance Division

Los Angeles World Airports

LAX Master Plan Program
CBA Annual Progress Report
December 2007

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1.0 Executive Summary

On December 6, 2004, the Los Angeles World Airports' Board of Airport Commissioners (BOAC) unanimously approved an agreement with the LAX Coalition for Economic, Environmental and Educational Justice (Coalition) that provides environmental mitigation programs and jobs-related benefits to communities that would be impacted by the implementation of the Los Angeles International Airport (LAX) Master Plan. This agreement is the first of its kind to be negotiated with a government entity. Los Angeles World Airports (LAWA) - the City agency that owns and operates LAX and three other Southern California airports – and Coalition members worked to resolve the Coalition's legal and policy concerns about the LAX Master Plan through cooperation and settlement, rather than through litigation.

The LAX Coalition for Economic, Environmental and Educational Justice includes approximately 22 community, educational, religious, environmental, and labor organizations. In particular, it represents the interests of low-income and minority populations located near LAX. In related actions, the BOAC approved settlement agreements with the Lennox and Inglewood School Districts to provide noise abatement improvements at specific schools within each of the two school districts that are located in areas subject to high noise levels from aircraft operations at LAX. The Lennox and Inglewood School Districts are members of the LAX Coalition. As a part of its action approving the agreements, the BOAC also certified the Final Environmental Impact Report (FEIR), including three addenda for the LAX Master Plan Program.

The Community Benefits Agreement includes measures to mitigate noise, pollutant emissions and traffic impacts of the Master Plan, as well as benefits such as job training and hiring programs for eligible residents of the Project Impact Area and the City of Los Angeles. Implementation of the specified elements of the agreement is tied to approvals of the LAX Master Plan by the City Council and the Federal Aviation Administration (FAA). The agreement precludes LAWA from making expenditures or taking actions prohibited by the FAA or any other regulatory authority. The Cooperation Agreement prohibits the use of Los Angeles City's General Fund or any other City-controlled source of funds to meet any of LAWA's obligations under the agreement.

In accordance to Section XVI "Miscellaneous" of the Agreement, LAWA is required to prepare annual reports on the implementation of the Community Benefits Agreement and the progress of the LAX Master Plan Program. LAWA is to provide the annual reports to the Coalition Representatives and make them available for at least one month on the LAWA website. This document is the third annual report on the progress of the Agreement. This document has been provided to the Coalition Representative and is available at LAWA website www.laxmasterplan.org.

2.0 Introduction/Background

LAWA worked in partnership with the LAX Coalition to develop a program to ensure that communities impacted by the LAX Master Plan Program also receive benefits as a result of the implementation of the Program.

The Coalition, which includes community groups, environmental organizations and labor unions, had expressed legal and policy concerns regarding the proposed LAX Master Plan Program. LAWA and the Coalition agreed that it was in their mutual interest to resolve concerns through cooperation and settlement, rather than through litigation. Over a period of 10 months, LAWA and the Coalition met regularly to resolve these concerns and negotiate a community benefits agreement.

The Community Benefits Agreement is comprised of several documents as follows:

1. **Cooperation Agreement.** The Cooperation Agreement sets out the legal framework of the Agreement, including conditions, commitments, obligations, enforcement, etc.,

2. **Community Benefits Agreement (CBA).** The CBA details the various proposals of mitigation and benefits, and is an attachment to the Cooperation Agreement. The various proposals include:

   Noise Mitigation

   - Increased Funding for Airport Noise Mitigation Program
   - End-of-Block Soundproofing
   - Suspension of Avigation Easement
   - Limitations on Nighttime Departures

   Economic Development Benefits

   - Job Training Program
   - Work Experience Programs
   - First Source Hiring Program
   - Small Business Attraction and Retention Program
   - Living Wage, Worker Retention and Contractor Responsibility

   Community Environmental/Health Studies

   - LAX Air Quality and Source Apportionment Study
   - Health Study of Upper Respiratory System and Hearing Loss Impacts
   - Environmental Justice Community-Based Research Studies

Air Quality/Emission Reductions and Control

- Electrification of Passenger Gates
- Electrification of Cargo Operations Areas
- Electrification of Hangars
- Emission Reductions from Ground Service Equipment
- Emission Reductions from On-Road Trucks, Buses and Shuttles
- Conversion of On-site Trucks, Shuttles and Buses to Alternative Fuel
- Limits on Diesel Idling
- Assessment and Mitigation of Particulate Matter
- Provision of Alternative Fuel
- Hydrogen Fuel Cell Infrastructure at LAX

Environmental Mitigations/Commitments for Construction

- Construction-Related Diesel Emission Reduction Requirements
- Rock Crushing Operations/Materials Stockpiles Away from Residential Areas
- Application of Green Building Principles
- Diversion of Construction Traffic from Residential Streets.

3. **Settlement Agreement with Inglewood Unified School District.** This Agreement includes the conditions, commitments, obligations, enforcement, etc., of both LAWA and the Inglewood Unified School District in the provision of the following:

   LAWA Funding of Certain District Mitigation Measures: LAWA will fund certain mitigation measures for the Inglewood Unified School District in an amount not to exceed $118,500,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

   Security-Related Items: LAWA will assist the Inglewood Unified School District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups and the local communities in the event of an airport-related emergency.

   Community Programs: LAWA will work collaboratively with the Inglewood Unified School District to support a variety of community programs, such as job training and academic programs.

4. **Settlement Agreement with Lennox School District.** Likewise, this Agreement includes the conditions, commitments, obligations, enforcement, etc., of both LAWA and the Lennox School District in the provision of the following:

   LAWA Funding of Certain District Mitigation Measures: LAWA will fund certain mitigation measures for the Lennox School District not to exceed $111,000,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

   Security-Related Items: LAWA will assist the Lennox School District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups and the local communities in the event of an airport-related emergency.

   Community Programs: LAWA will work collaboratively with the Lennox School District to support a variety of community programs, such as job training and academic programs.

The execution of the specified elements of the Agreements is tied to final City Council and FAA approval of the LAX Master Plan Program. As described in each Agreement, LAWA's obligations are conditioned upon FAA approval of these expenditures and use of airport revenues for these specific purposes. Under no circumstance will any of LAWA's obligations under these Agreements require any expenditure from the City's General Fund or any other City-controlled source of funds.

It is estimated that the combined value of these community benefits efforts is approximately $500 million.

LAWA commits to taking all action required by the Agreements and will not take any action regarding the LAX Master Plan Program that conflicts with the terms of the Agreements.

With these Agreements, LAWA confirms its partnership and commitment to the community and ensures continued dialogue and community participation throughout the implementation of the LAX Master Plan Program.

3.0 Community Benefits Agreement Progress Update

Section III. Residential Noise Mitigation:

III.A Funding of Aircraft Noise Mitigation Program (ANMP)

The Agreement states:

"Beginning in fiscal year 2004-2005, LAWA shall fund its Aircraft Noise Mitigation Program (ANMP) at least at the following levels:

- $4.275 million per year for the Inglewood component;
- $4.275 million per year for the County of LA component.

These funding levels shall be met by LAWA. LAWA shall use additional revenue, including Airport Improvement Program funds, as appropriate. LAWA expenditure of funds under this Section III.A is contingent on the City of Inglewood and the County of Los Angeles complying with all requirements established in BOAC Resolution Nos. 21481 and 21360, and with FAA regulations."

Status → Completed:
The allocation of funds in 2007 is as follows:

Calendar Year 2007	
County of Los Angeles	*$ 5.60 million*
City of El Segundo	*$ 7.45 million*
City of Inglewood	*$ 12.25 million*
City of Inglewood	*$ 1.45 million*
Total	*$ 26.75 million*

Projected for Calendar Year 2008	
County of Los Angeles	*$ 7.71 million*
City of El Segundo	*$ 5.58 million*
City of Inglewood	*$ 9.21 million*
Total	*$22.50 million*

III.B Acceleration of Noise-Mitigation Programs for City

The Agreement states:

"Within eight (8) months of the effective date of this Agreement, LAWA will provide a written schedule and work program to the Coalition Representative that is designed to achieve completion of the ANMP soundproofing program for the City by the end of 2008, and will take all reasonable steps to timely implement that schedule and work program."

Status → In Progress:
While progress on this program is driven by the voluntary participation of impacted residential homeowners in the communities of Playa del Rey, Westchester and South Los Angeles, the program is substantially complete. LAWA has to-date spent

approximately $120 million on the implementation of this program. ***Reference Appendix A for complete Program Updated.***

III.C. Acceleration of Noise-Mitigation of Places of Worship

The Agreement states:

"LAWA shall accelerate the program of soundproofing places of worship as part of the ANMP in effect as of the effective date of this Agreement. Within eight months of the effective date of this Agreement, LAWA shall conduct a needs assessment for this program, in consultation with the Coalition Representative. LAWA shall provide annual reports on the progress of the program."

Status → In Progress:
Coordination is continuing with Coalition Representatives on the definition of places of worship. Coordination with the Coalition on this provision will be on-going.

III.D End of Block Soundproofing

The Agreement states:

"Within one year of the completion of the current ANMP for participating jurisdictions, LAWA shall commence an end-of-block soundproofing program, under which, if any residence on a particular city-block falls within the applicable noise contour for that block, then each residence on that block will be eligible for noise mitigation as described in Section III.D. Offers of soundproofing shall be made to the owner of each residence, whether or not the owner of that residence chose to participate in previous soundproofing programs. Soundproofing under this program shall reduce interior noise at participating residences to an interior CNEL of 45 decibels or less, within habitable rooms."

Status → In Progress:
LAWA is committed to providing end-of-block soundproofing and has in October 2007 secured the funding needed for this purpose. There are approximately 1,100 dwelling units added under this program. Program eligibility notification letters to owners of these units are being sent out at this time.

III.E Suspension of Avigation Easement

The Agreement states:

"1. Present Avigation Easement Requirements. All homeowners receiving LAWA provided or funded noise insulation measures within the 65 dBA CNEL noise contour presently must execute express, full avigation easements (as set out in Exhibit A). In return for LAWA's providing these noise insulation benefits, each homeowner presently must sign a full, express avigation easement, expressly waiving his or her ability to sue LAWA with respect to the impacts (listed in the avigation easements) that are created by aircraft operations at LAX on the affected residences.

2. Proposed Modified Easement Requirements. In order to promote the cooperation between LAWA and the Coalitions that is envisioned by this Agreement, and as long as this Agreement remains in effect, LAWA agrees to suspend its requirement that express, full avigation easements be executed by homeowners receiving LAWA provided or funded noise insulation benefits for particular residences located within the 65 dBA CNEL noise contour in the City of Los Angeles, City of Inglewood, and Los Angeles County communities of Lennox and West Athens, and only under the following circumstances:

    a. Caltrans approves LAWA' compromise position as described in this Agreement during the effective term of this Agreement. This approval is necessary because Caltrans currently requires avigation easements as part of LAWA's ongoing noise variance within its permit from Caltrans to operate LAX;

    b. In lieu of requiring full, express avigation easements (as set out in Exhibit A), the homeowners will execute the Noise Easement attached as Exhibit B. The homeowners will provide, among other things, a written acknowledgment, accompanying the homeowner's authorization to proceed with the installation that the homeowner is aware of the proposed level of noise reduction that the installation is intended to provide. After the installation, the homeowner will execute an acknowledgement that the improvements have been installed and have attenuated the noise.

LAWA promises to make all reasonable efforts to obtain Caltrans' expedited approval of suspension of the requirement for full, express avigation easement (as set out in Exhibit A) and use of the Noise Easement (as set out in Exhibit B) in its place."

Status → Completed:
The dedication of avigation or any other easements in return for funding of, or participation in, the residential soundproofing program has been eliminated except under very limited circumstances as required by California Airport Noise Standards. Under these limited criteria, a modified noise easement similar to the one proposed by the CBA is being used.

III.F Compatibility with Local Building Codes

The Agreement states:

"LAWA shall not require property owners participating in the ANMP to satisfy regulations or standards related to property conditions where these regulations or standards are more stringent than those actually enforced by the local government jurisdiction possessing code enforcement authority over the property in question."

Status → No action at this time:
No action is required on this provision since these requirements are not part of LAWA's noise mitigation programs. It is the permitting agencies', such as the City of Los Angeles Building and Safety Department, role to enforce building codes, not LAWA.

III.G. Limitations on Nighttime Departures

The Agreement states in part:

"LAWA and the Coalition agree that restrictions on departures between the hours of midnight and 6:30 a.m. over the communities to the east of LAX would be desirable, when LAX is operating under normal weather conditions (when LAX is either in Over-Ocean Operations or remains in Westerly Operations and excluding times when LAX operates in Easterly Operations). This is known as the "LAX Proposed Restriction".

1. Part 161 Study. By April of 2005, LAWA shall have completed a Contract Award Process for a study on the feasibility of implementing The LAX Proposed Restriction (the "Part 161 Study"). Within 90 days of the contract award, the contract will have commenced. LAWA shall require that the Part 161 Study meet the relevant requirements of 14 C.F.R. Part 161, and that the entity performing the Study provide annual reports to LAWA on study progress and findings.

2. Record of Eastbound Departures. LAWA shall maintain a record of all nighttime eastbound departures during Over-Ocean Operations and Westerly Operations. This record shall be made available to the public on the LAWA website and shall be updated monthly.

3. Community Response Program. LAWA shall operate a community response program through which the public may report nighttime flights in the areas east of LAX. LAWA shall maintain a record of all individual reports, and shall prepare annual reports documenting individual reports, including records of airline, flight, date, and time of each reported flight, where possible. All records of reports, excluding the reporting individual's name and address, shall be maintained as public records and posted on the LAWA website."

Status → In Progress:
In June 2005, LAWA initiated a Part 161 Study at LAX intended to restrict departures between the hours of midnight and 6:30 a.m. over the communities to the east of LAX, when LAX is operating under normal weather conditions (when LAX is either in over-ocean operations or remains in westerly operations). The scheduled completion date for required analyses of the Proposed Restrictions is June 2008. Applications and reports for submittal to FAA are scheduled for November 2008. Public outreach efforts will continue through June 2009.

While much progress has been made towards completion of the LAX Part 161 Study, the project has been put on-hold until LAWA finalizes the baseline and projected fleet mix forecasts for the LAX Specific Plan Amendment Study. Once the new fleet mix forecast is released, it will be forwarded to LAWA's consulting team to perform the required modeling. LAWA is also studying extending the starting hours of the Proposed Restriction to 10:00 p.m. from the midnight start time. LAWA has established a website for the study at www.laxpart161.com, which is accessible via LAWA's website, www.lawa.org.

Regarding provisions III.G. 2 and 3, LAWA maintains a record of all nighttime eastbound departures during Over-Ocean Operations and Westerly Operations on LAWA's website

and operates a community response program through which the public may report nighttime flights in the areas east of LAX.

The LAX Rules and Regulations include noise abatement policies that have been developed with cooperation from the FAA to address various types of aircraft noise impact on surrounding communities. These include programs such as Preferential Runway Use, Over-Ocean Operations, Early Turn Notification, Maintenance Restrictions, and Helicopter Operations.

The LAX Preferential Runway Use Policy essentially states that the outer runways, which are closer to neighboring communities, are preferred for use by arrivals and the inner runways (closer to the terminals) are preferred for use by departures, which are usually louder than arrivals. This policy is implemented by the FAA who determines the runway and operational needs of the airport. During the noise-sensitive hours of 10 p.m. to 7 a.m., the FAA Air Traffic Control is to maximize the use of the inner runways and taxiways for all operations.

The Over-Ocean Operations Procedure involves a change in aircraft arrival routes that moves them from low approaches over communities to the east of LAX to low approaches over the ocean from the west. The procedure is implemented by the FAA on a nightly basis from midnight to 6:30 a.m., weather and safety permitting. This provides some noise relief to those close-in communities to the east, such as the City of Inglewood, South Los Angeles, and the Lennox community.

The Early Turn Notification Program involves full-time monitoring of all LAX departures to the west to determine if any aircraft turned north or south before reaching the shoreline (without specific instructions from the FAA Air Traffic Control), thereby flying over residential communities such as Playa del Rey and Westchester to the north and the City of El Segundo to the south. Staff issues notification letters to those operators, requesting an explanation as to why the incident occurred and what actions will be taken to correct the problem for future departures.

The Maintenance Restrictions prohibit the run-up of mounted aircraft engines for maintenance or testing between 11 p.m. and 6 a.m. daily, except as waived by the Executive Director or a duly authorized representative of the airport. This greatly reduces the noise impact on close-in communities during the nighttime hours.

The LAX Noise Management Program also includes the In-Flight Monitoring Program whereby operations are reviewed on a monthly basis for compliance with specific arrival and departure procedures pertaining to described minimum altitudes and location. Included are procedures such as the Go-Arounds, Loop Departures, Short Turn Arrivals, Monterey Park Over Flights, Palos Verdes Peninsula Over Flights, and East Departures during Over-Ocean or Westerly Operations.

Section IV. Job Training.

The Agreement states in part:

"Job Training Program. Beginning in fiscal year 2005-2006, LAWA shall provide $3 million per year for five years, not to exceed $15 million over five years, to fund job training for Airport Jobs and Aviation-Related Jobs, and for Pre-apprenticeship Programs. Any funds unspent in a particular year shall be rolled over to the subsequent year. At the conclusion of the five-year period, any unused funds shall revert to the job training funds described in Section XV…"

Status → In Progress:
LAWA has committed to providing $3 million annually for five years to fund this training program for LAX airport jobs, aviation-related jobs and LAX Master Plan Program constructions pre-apprenticeships. The FAA has not approved implementation of this program as detailed in the Agreement but they have advised that the FAA can approve a modified program. LAWA, the Coalition and other affected groups will continue to work collaboratively to develop a job training program that will meet FAA approval, and provide the same, if not more, benefits to affected residents in the Project Impact Areas.

Section V. First Source Hiring Program

The Agreement states in part:

"First Source Hiring Program for Airport Jobs. The First Source Hiring Program shall provide early access to targeted applicants for available Airport Jobs, and employers will receive prompt, cost-free referrals of qualified and trained applicants. Except where City's Worker Retention Policy requires retention of particular workers, LAWA shall require participation in the First Source Hiring Program with regard to all Airport Jobs by any:

- New Airport Contractor, Airport Lessee, and/or Airport Licensee resulting from the approved LAX Master Plan Program;
- Airport Contractor that enters into or receives a new, amended, or renewed Airport Contract, or receives a voluntary extension of an existing Airport Contract;
- Airport Lessee that enters into or receives a new, amended, or renewed lease of any property owned by LAWA, or receives a voluntary extension of an existing lease; and
- Airport Licensee that agrees, receives, or is subject to a new, amended, extended, or revised licensing or permitting agreement or set of requirements.

As of July 1, 2005, LAWA shall ensure that the First Source Hiring Program, attached as Exhibit C, is a material term of all Airport Contracts, lease agreements, and licensing or permitting agreements or sets of requirements that are new, extended, amended, renewed, or revised. Under these Airport Contracts, agreements, or requirements, employer participation in the First Source Hiring Program shall commence on the effective date of the Airport Contract agreement, or requirement in question, or on July 1, 2005, whichever is later…."

Status → In Progress:
The First Source Hiring Program provides early access to targeted applicants for available Airport Jobs, and employers will receive prompt, cost-free referrals of qualified and trained applicants. The FSHP was adopted by BOAC in April 2005 and its provisions are included in all LAWA contracts and agreements, where applicable. On eligible construction projects such as TBIT Renovation, LAWA has been working with Coalition Representatives to implement the LAX Project Labor Agreement in a manner that, to the extent possible, enhances employment opportunities for underemployed individuals residing in the Project Impact Area and the City, especially minorities and women.

The FAA approved implementation of this program in October 2006. LAWA commenced phased implementation of the FSHP in December 2006 with one company participating, Hudson News, and it has now grown to over 45 companies.

Section VI. Living Wage, Worker Retention, and Contractor Responsibility

The Agreement states:

"LAWA shall apply to all Airport Contractors, Airport Lessees, and Airport Licensees the City's Living Wage Ordinance, as set forth in Los Angeles Administrative Code Section 10.37; the City Worker Retention Policy, as set forth in Los Angeles Administrative Code Section 10.36; and the Contractor Responsibility Program set forth in BOAC Resolution No. 21601, in accordance with City policy."

Status → Completed:
This provision currently applies to all LAWA contracts as set forth in Board Resolution No. 21601.

Section VII. Air Quality Study.

The Agreement states in part:

"Air Quality Study. LAWA shall fund a study by an Independent Expert of toxic air contaminants and criteria air pollutant emissions from jet engine exhaust and other emission sources ("Air Quality Study"). In addition to other contaminant and pollutant emissions, the Air Quality Study shall measure jet engine exhaust emissions and provide chemical composition data from a representative sample of engine types and ages under a variety of conditions that reflect actual operations, and shall include this data and all other relevant study results as part of the final study provided to LAWA."

Status → In Progress:
To better assess air quality in areas adjacent to LAX, LAWA will shortly commence an Air Quality Source Apportionment Study (AQSAS). This AQSAS will be the most comprehensive air monitoring, modeling, and data analysis program to be undertaken by LAWA for one of its facilities, or for that fact, by any airport authority nationwide.

This study will cover the installation of eleven (11) fully equipped monitoring stations in selected areas to discreetly collect and measure a large variety of both criteria and toxic air pollutants on site at LAX and at numerous sites in the communities surrounding LAX. Data will be collected continuously for at least three months for the Pilot Study and twelve months for the Long-term Study. Criteria pollutants to be measured include nitrogen dioxide, carbon monoxide, particulate matter, and sulfur dioxide. Toxic air pollutants to be measured include many species of volatile organic compounds, semi-volatile organic compounds, trace metals, and other inorganic compounds. This study is planned to be conducted in three phases, with the first phase scheduled to commence in February 2008.

The Study's scope or Work Plan have already been developed by a Technical Working Group (TWG) that is comprised of representatives from U.S. Environmental Protection Agency (EPA), Federal Aviation Administration (FAA), California Air Resources Board, South Coast Air Quality Management District, research experts in the fields of receptor modeling and air pollutant monitoring and representatives from the City of El Segundo and the LAX Coalition for Economic, Environmental, and Educational Justice. The TWG will continue to participate on this study by reviewing all stages of the AQSAS to ensure that the study follows reliable methods to produce useful results.

Furthermore, status, progress and results of the study will be communicated to a larger Policy Advisory Group (PAG) consisting of a diverse panel of environmental and public health regulatory agencies, as well as Federal, State and Local elected officials. It is anticipated that this group will be assembled shortly and that the first Policy Advisory Group meeting will be held in early March 2008.

VIII. Health Study.

The Agreement states in part:

"Health Study. LAWA shall fund a study to measure and investigate upper respiratory system and hearing loss impacts of LAX operations due to LAX Master Plan Program. LAWA, in consultation with the Coalition Representative, shall develop a scope of work and objectives for the Health study…"

Status → Not applicable at this time:
It is expected that the Health Study will commence after the completion of the Air Quality Study described in Section VII.

Section IX. Community-Based Research Studies as Part of LAWA's Future LAX Master Plan Program Project-Level Analysis.

The Agreement states in part:

"Inclusion in Project-Level Environmental Analysis. LAWA acknowledges that, pursuant to CEQA, it will perform additional environmental review on the various LAX Master Plan Program project components as they are processed for future approval. In undertaking this additional environmental review, LAWA shall require the general contractor preparing the environmental documents for these future project-level analysis to subcontract with an Independent Expert to coordinate community-based research studies as described in Section IX.B (the "Community-Based Studies"), that are designed to become a part of the environmental analysis. LAWA shall expend no less than $300,000 on the Community-Based Studies…"

Status → Not applicable at this time:
No project-level environmental analysis was done in 2007.

Section X. Air Quality.

The Agreement states in part:

Section X.A. Electrification of Passenger Gates.

"1. Passenger Gate Electrification Schedule. LAWA shall ensure that all Passenger Gates are equipped and able to provide electricity sufficient for aircraft needs under the following schedule:

a. All Passenger Gates for which new construction (excluding maintenance) is completed after the effective date of this Agreement shall be equipped and able to provide electricity to parked aircraft from date of initial operation and at all time thereafter.

b. Three years from the effective date of this Agreement, and at all times thereafter, at least fifty percent of Passenger Gates at LAX shall be equipped and able to provide electricity to parked aircraft.

c. Five years from the effective date of this Agreement, and at all times thereafter, one hundred percent of Passenger Gates at LAX shall be quipped and able to provide electricity to parked aircraft.

2. Aircraft Use of Gate-Provided Electricity. LAWA shall ensure that gate-provided electricity is provided to all aircraft parked at Equipped Passenger Gates and, except for the exemptions identified in this section, that all aircraft use the gate-provided electricity in lieu of engine operation of aircraft or mobile/ground auxiliary power units…

3. Assessment of Electrification of Passenger Loading Areas. LAWA shall conduct an assessment of operations at Passenger Loading Areas for the purpose of determining whether electrification of Passenger Loading Areas is Operationally Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…

4. Commuter Flight Loading and Unloading. By the conclusion of the LAX Master Plan Program, loading and unloading of passengers of commercial aircraft shall be performed only through Passenger Gates."

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment and in the process of evaluating the electrification program at the Passenger Loading Areas. The first phase found that centralized 400 hertz power, or equivalent, is available for aircraft use at all gates (100%). In addition, over 55 percent of the gates also have available pre conditioned air.

Section X.B. Electrification of Cargo Operations Areas.

"1. Cargo Operations Areas Electrification Schedule. LAWA shall ensure that all, unless determined under procedures described below to be Operationally

Infeasible and/or Technically Infeasible, all Cargo Operations Areas are equipped and able to provide electricity sufficient for aircraft needs as following:

a. All Cargo Operations Areas for which new construction, not maintenance, is completed after the effective date of this Agreement shall be equipped and able to provide electricity to parked aircraft from date of initial operation of the Cargo Operations Area at LAX and at all time thereafter.

b. Three years from the effective date of this Agreement, and at all times thereafter, at least fifty percent of Cargo Operations Areas at LAX shall be equipped and able to provide electricity to parked aircraft.

c. Five years from the effective date of this Agreement, and at all times thereafter, one hundred percent of Cargo Operations Areas at LAX shall be equipped and able to provide electricity to parked aircraft.

2. Aircraft in Cargo Operations Areas Use of LAX-Provided Electricity if Available. LAWA shall ensure that electricity sufficient for aircraft needs is provided to all aircraft parked at Equipped Cargo Operations Areas and that all these aircraft use LAX-provided electricity as power in lieu of engine operation of aircraft or ground/mobile auxiliary power units…

3. Assessment of Electrification of Cargo Operation Areas and Feasibility Evaluation. LAWA shall conduct an assessment of Cargo Operations Areas for the purpose of evaluating whether electrification of a particular Cargo Operations Areas is Operationally Infeasible and/or Technically Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…"

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment and is in the process of reviewing this assessment and evaluating the electrification program for cargo operations at individual locations.

Section X.C. Electrification of LAX hangars.

"LAWA shall conduct an assessment of operations at LAX Hangars for the purpose of determining whether electrification of LAX Hangars to provide electricity sufficient for aircraft needs at LAX Hangars is Operationally Infeasible and/or Technically Infeasible. The assessment shall include, but not limited to, inventory utilization, operations, technological trends, and capital and maintenance costs…"

Status → In Progress:
LAWA has completed the first phase of the feasibility assessment and is in the process of reviewing this assessment and evaluating the electrification program at these hangars.

Section X. D. FAA Prohibition.

"If an FAA Determination, as defined in and pursuant to the procedures set out in the Cooperative Agreement, or any other regulatory authority prohibits LAWA from taking actions required by Subsections A through C of this Section X, or threatens to withhold federal funding if LAWA takes actions required by Subsections A through C of this Section, then LAWA shall set aside $1.7 million to the air quality fund described in Section XV."

Status → Not applicable at this time:
Action required only if the FAA prohibits LAWA from implementing this section.

Section X. E. Reporting.

"LAWA shall report in writing to the Coalition Representative on the progress of electrification of Passenger Gates, Cargo Operations Areas, and LAX Hangars semiannually. Reports shall include, but not be limited to, the number and types of facilities and areas electrified, operational guidelines issued, a summary of exemptions granted, reports of violations of usage requirements, and actions taken by LAWA to enforce usage requirements."

Status → In Progress:
Currently part of the CBA annual report.

Section X. F. Construction Equipment.

"1. Best Available Emission Control Devices Required. LAWA shall require that all diesel equipment used for construction related to the LAX Master Plan Program be outfitted with the best available emission control devices primarily to reduce diesel emissions of PM, including fine PM, and secondarily, to reduce emissions of NOx. This requirement shall apply to diesel-powered off-road equipment (such as construction machinery), on-road equipment (such as trucks) and stationary diesel engines (such as generators)…"

Status → In Progress:
As stipulated in Section X.F.8 of the Community Benefits Agreement (CBA), an Independent Third Party Monitor has been retained by LAWA to monitor compliance with the requirements of Section X.F. The role of the Independent Third Party Monitor is to monitor, document, and report on a semiannual basis to LAWA and the Coalition compliance with all elements of Section X.F., including but not limited to the use of verified diesel emission control systems (VDECS) on LAX Master Plan Program construction-related diesel equipment, a summary of exemptions granted, and any reports of violations or noncompliance with the requirements of CBA Section X.F. ***(Reference Appendix C for Semi-Annual Third Party Monitor Report)***

The following is an update of activities and findings reported by the Independent Third Party Monitor as it relates to diesel construction equipment operating on the on-going South Airfield Improvement Project (SAIP).

Section X.F.1 – Best Available Emissions Control Devices Required

All diesel equipment used for construction related to the LAX Master Plan Program is required to be outfitted with best available emission control devices, primarily to reduce diesel particulate matter emissions, including fine particulate, and secondarily to reduce emissions of oxides of nitrogen (NOx). This requirement applies to diesel-powered off-road equipment, on-road equipment, and stationary diesel engines. The emission control devices utilized for the equipment at the LAX Master Plan Program construction shall be verified or certified by the California Air Resources Board (CARB) or Environmental Protection Agency (EPA) for use on on-road or off-road vehicles or engines.

Status → In Progress:
The Independent Third Party Monitor has reviewed the documentation submitted by the Contractor for each piece of diesel equipment operating on the SAIP or proposed for potential use on the SAIP as it pertains to the use of Best Available Emissions Control Devices. Approximately 255 pieces of diesel equipment have been assessed so far determine compatibility with a CARB-verified or EPA-certified diesel emission control device.

To assist in performance of this Section, the Independent Third Party Monitor developed and implemented a monitoring process to track each piece of diesel equipment and document each construction firm's compliance as it relates to outfitting their diesel construction equipment with the best available emissions control devices.

Initial findings for this Section are as follows:

- *Of the approximately 255 pieces of diesel equipment proposed for potential use on the SAIP, approximately 25 percent of all equipment is equipped with engines compatible with a Level 3 (85 percent particulate matter reduction) off-road Verified Diesel Emission Control System (VDECS). If the Contractor wishes to operate a piece of diesel equipment on the SAIP that has been shown to be compatible with a Level 3 VDECS, this equipment must be retrofitted with the VDECS prior to commencing work, unless the equipment has been granted an exemption in accordance with Section X.F.4;*
- *A recent field inventory of equipment operating on the SAIP found 61 pieces of off-road diesel equipment, plus approximately one dozen on-road dirt hauling vehicles used for debris removal from the jobsite. Of these 61 vehicles operating on the airfield, seven (7) were retrofitted with a Level 3 VDECS;*
- *Off-road diesel equipment operating on the SAIP whose engines are compatible with a Level 3 VDECS, but not retrofitted with the best available emissions control technology, was documented. This diesel equipment has been granted exemptions in accordance with Section X.F.4.*

F.2 - Demonstration Projects

Notwithstanding the verification or certification requirement set forth in Section X.F.1, LAWA may allow diesel equipment used for construction related to the LAX Master Plan Program to be outfitted with a new emission control device designated by LAWA as a "Demonstration Project", even if the device has not yet been verified or certified by CARB or EPA for use in on-road or off-road vehicle or engine applications. These devices shall, at a minimum, meet all pollution reduction requirements specified in Section X.F.3.

Status → In Progress:
The Independent Third Party Monitor is assisting LAWA and the LAX Coalition in identifying potential opportunities to conduct a Demonstration Project in accordance with Section X.F.2.

Section X. F.3 - Emission Reduction Standards

Emission control devices used pursuant to Section X.F.1 shall achieve emission reductions no less than what would be achieved by a Level 2 (50 percent particulate matter reduction) diesel emission control strategy for a similar sized engine as defined by CARB regulations. Under no circumstances shall an emission reduction device or strategy used on the LAX Master Plan Program construction site increase the emission of any pollutant above that which is the standard for that engine.

Status → In Progress:
The Independent Third Party Monitor has assessed each piece of diesel construction equipment equipped with a VDECS pursuant to Section X.F.1 and documented its compliance as it relates to meeting or exceeding Level 2 diesel emission reductions.

Initial findings for this Section are as follows:

Seven (7) pieces of diesel construction equipment operating on the SAIP are equipped with VDECS. The specific device is the Engine Control Systems Purifilter device, verified at Level 3 (85 percent particulate matter reduction). Currently, no Level 1 or Level 2 VDECS have been identified for vehicles assessed pursuant to Section X.F.1;

The Third Party Monitor has verified with CARB that the Level 3 device currently in operation on the SAIP does not result in an increase of any pollutant above which is standard for that equipment's engine.

Section X. F.4 – Exemptions

The requirements of Sections X.F.1 through X.F.3 do not apply to a piece of construction related diesel equipment for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emissions of pollutants as requires by Sections X.F.1 through X.F.3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing exhaust emissions is available and appropriate for that vehicle or engine, if any. In addition, Sections X.F.1 through X.F.3 do not apply to a piece of construction related diesel equipment that is used on LAX Master Plan Program construction sites for fewer than twenty- (20) calendar days per calendar year.

Status → In Progress:
The Third Party Monitor reviewed each piece of diesel construction equipment proposed for use on the SAIP as it pertains to the requirements of Sections X.F.1 and X.F.3.and independently determined if a CARB verified or EPA certified diesel emission control system was compatible. These findings were documented and compared with exemptions granted by LAWA. Initial findings for this Section are as follows:

- *Equipment whose engine is compatible with a CARB verified or EPA certified diesel emission control system, but whose use on the SAIP will not exceed twenty (20) calendar days per calendar year was granted a "20-day" exemption by LAWA. The Third Party Monitor maintains an independent database of all equipment operating under the 20-day exemption rule, including the date the equipment was moved onsite and the date the equipment must be removed from the airfield;*
- *The Third Party Monitor also reviewed and documented cases in which it appeared a CARB verified diesel emission control system was compatible with a piece of equipment that had received a prior exemption from LAWA. Each case was subsequently investigated to determine why an exemption had been granted. Specific types and models of off-road construction equipment, including rubber tire loaders and motor graders, received an exemption from installing a VDECS due to safety concerns. It was determined that the VDECS would impair the equipment operator's field of vision. Thus, these vehicle classes received an exemption from LAWA on the basis of safety. The Independent Third Party Monitor has reviewed and documented each piece of diesel construction equipment that has received a safety exemption;*
- *The Third Party Monitor also independently assessed and documented diesel equipment for which no CARB verified or EPA certified diesel emission control system is currently available. This equipment has been granted an exemption by LAWA on the basis of unavailability.*

Section X. F.5 - Ultra-Low Sulfur Diesel and Other Fuels

All diesel equipment used for construction related to the LAX Master Plan Program shall use only Ultra-Low Sulfur Diesel Fuel (ULSD) with a sulfur content of fifteen (15) parts per million or lower. If adequate supplies of ULSD are not available in the Southern California area, other fuels may be used, provided that the other fuels do not result in greater emissions of fine particulate matter or oxides of nitrogen that that which would be produced by the use of ULSD.

Status → In Progress:
The Third Party Monitor has independently reviewed and documented fuel purchase records for diesel fuel used on the SAIP. Initial findings for this Section are as follows:

- *South Coast AQMD Rule 431.2, which took effect on June 1, 2006, requires diesel fuel refined and sold for on-road and off-road use within the jurisdiction of the AQMD to contain no more than 15 ppm sulfur by weight. This requirement was subsequently adopted on a statewide basis by the California Air Resources Board, effective September 1, 2006. Thus, ULSD is the only diesel fuel legally available for purchase within California.*

- *No shortages of ULSD have been experienced to date within Southern California. No substitution of any fuel in lieu of 15 ppm ULSD has occurred to date;*
- *The Third Party Monitor has reviewed all fuel purchase records as provided by LAWA on behalf of the construction firms operating equipment on the SAIP. All fuel purchased has been independently verified to be ULSD; no exceptions to the requirements of Section X.F.5 have been documented;*
- *The Independent Third Party does not monitor on-road vehicles operating on the SAIP that are fueled off-site. Fuel purchase records are only provided for vehicles that are fueled on the airfield using mobile refueling trucks.*

Section X. F. 6 - Operational Requirements

Operational Requirements pertaining to excessive vehicle idling and required engine maintenance intervals shall be issued by LAWA and enforced.

Status → In Progress:
The Third Party Monitor has monitored excessive vehicle idling and compliance with engine maintenance intervals based on independent observation, review and documentation of enforcement actions, and review of construction firm engine maintenance procedures and records. Initial findings as it relates to this Section include the following:

- *No written violations pertaining to excessive equipment idling have been cited by LAWA on any construction firm to date. On approximately several occasions, vehicles deemed to be idling beyond the period of time stipulated in CARB regulations have been instructed to turn off their engines. It was deemed that these cases involved equipment operators who were unaware of the idling restrictions as opposed to a deliberate intent to violate idling restrictions; thus formal enforcement actions were not deemed necessary;*
- *Each construction firm proposing a piece of diesel equipment must submit in writing the scheduled maintenance procedures for that piece of equipment. The Third Party Monitor has reviewed each maintenance plan submitted to date.*

Section X. F.7 – Enforcement by LAWA

Compliance with all requirements delineated in Sections X.F. is required of all Airport Contractors, Airport Lessees, and Airport Licensees. LAWA shall enforce the findings and determinations of the Independent Third Party Monitor.

Status → In Progress:
The Third Party Monitor has independently reviewed each enforcement action taken to date by LAWA. The Third Party Monitor maintains a database of each enforcement action, documenting the date of enforcement, entity the action was taken against, and the disposition/resolution of each enforcement action. Examples of typical enforcement actions taken by LAWA to date include the following:

- *Diesel equipment removed from airfield at the conclusion of a 20-day exemption period (X.F.4);*

- *Diesel equipment removed from airfield due to failure to properly submit documentation regarding best available control devices (X.F.1);*
- *Removal of one (1) piece of diesel equipment due to excessive smoking. Vehicle was subsequently repaired and returned to operation.*

Section X. F. 8 – Independent Third Party Monitor.

Compliance with requirements of Section X.F is required to be monitored, documented, and reported by an Independent Third Party Monitor.

Status → In Progress:
LAWA has retained an interim Independent Third Party Monitor. Summary of findings are reported in this document herein and under the attached Appendix C.

Section X. F. 9 – Reassessments of Emission Control Devices

Status → *At this time, the Third Party Monitor has performed no reassessments of Emission Control Devices.*

Section X. G. Ground Service Equipment Diesel Emissions Reduction Incentive Program.

"GSE Incentive Program. LAWA shall create a program providing incentives for the reduction of GSE diesel emissions ("GSE Incentive Program"). LAWA shall expend at least $500,000 on the GSE Incentive Program. Participation by GSE operators in the GSE Incentive Program shall be voluntary. Funding for the program shall commence in fiscal year 2005-06."

Status → In Progress:
LAWA is working with the Coalition, the airlines, and others to develop a GSE conversion policy and an associated incentive program.

Section X. H. Ground Service Equipment Inventory.

"1. Scope of GSE Inventory. LAWA shall prepare a study ("GSE Inventory") detailing all GSE operated On-Site. The GSE Inventory shall include, but not be limited to, an inventory of the number, type, sizes, model year, usage history, and identify of operator for all GSE operated On-Site at the time of the GSE Inventory…

2. Determination of 1997 GSE Fleet for Nonparticipating GSE Operators. The GSE Inventory shall include a determination of the number and types of On-Site GSE that were operated On-Site in 1997 by each Nonparticipating GSE Operator…"

Status → In Progress:
LAWA initiated the GSE Inventory in June 2005 and received limited responses from GSE owners and operators. In January 2006, LAWA formed a task force consisting of

LAWA, consultants and airlines to revamp the survey. The task force worked through a number of issues including sensitivity of data, uniform equipment list, and standardized responses. In June 2006, LAWA reissued the survey and received responses from 70 percent of the total number of parties surveyed. The study has been completed and its final results summarized in ***Appendix B.*** *Results were issued to the Coalition in May of 2007.*

Section X. I. Requirements for Emissions Reductions by Nonparticipating GSE.

"In order to achieve emission reductions from GSE operated at LAX by Nonparticipating GSE Operators, LAWA shall issue requirements leading to the use of less-polluting GSE by Nonparticipating GSE Operators, as described in this Section X.I. New, amended, renewed, or extended Airport Contracts, lease agreements, and any relevant LAX licensing or permitting requirements for Nonparticipating GSE Operators shall include language requiring compliance with requirements of this Section X.I. and allowing assessment of liquidated damages as described in this Section X.I against any entity responsible for a violation…"

Status → In Progress:
See above regarding status of GSE Inventory.

Section X. J. Emission Reductions From On-Road Trucks, Buses, and Shuttles.

"1. Inventory of On-Road Heavy-Duty Vehicle Traffic and Study of Feasible Mitigation.

a. Heavy-Duty Vehicle Study. LAWA shall fund a study of on-road Heavy-Duty Vehicle traffic related to LAX Operations. This study shall begin no later than one year from the effective date of this Agreement. The study shall be completed within twelve months of its initiation. The Study shall be conducted by an Independent Expert, selected through a Contract Award Process…"

Status → In Progress:
A draft scope for this study was submitted to Coalition in July 2005. LAWA is currently coordinating with the Coalition regarding the work scope.

Also, LAWA has developed Alternative Fuels Conversion Policy that applies to all on-road vehicles weighing 8,500 lbs gross or larger. This policy is currently in effect and requires the conversion of car rental shuttles, trucks, and other large vehicles in use at LAX. It is LAWA's intent to make this policy applicable to all four airports.

Section X. K. Particulate Matter (PM 2.5).

"1. Assessment of PM 2.5. LAWA shall assess and mitigate impacts of PM 2.5 in compliance with all applicable provisions of state and federal law. LAWA's obligation to mitigate PM 2.5 impacts within the context of the CEQA may be limited by feasibility, overriding considerations or other requirements articulated in applicable state and federal laws.

2. Determination of PM 2.5 Significance Thresholds. The assessment and mitigation of PM 2.5 impacts shall comply with the requirements for both attainment of PM 2.5 ambient air quality standards and the mitigation of significant project-related and cumulative impacts under CEQA.

3. Conferring with Applicable Agencies. LAWA shall confer with applicable agencies, including SCAQMD, CARB, and the EPA, to assure compliance with state and federal PM 2.5 ambient air quality standards after guidance for measuring and evaluating exceedances has been established. With respect to projects requiring CEQA analysis, LAW shall include the SCAQMD as a responsible agency in the review process to seek adherence to the threshold standards to be established.

4. LAWA Project Assessment of PM 2.5. LAWA shall conduct and complete a CEQA assessment of PM 2.5 impacts related to the first LAX Master Plan Program project to be initiated after establishment of applicable thresholds, either by SCAQMD or as outlined above. This assessment shall be completed in consultation with SCAQMD as a responsible agency in the CEQA review process."

Status → In Progress:
This requirement will be implemented in conjunction with the next project to be completed under the LAX Master Plan. Note: This requirement was not considered to apply to the SAIP based on the fact that the CEQA analysis for that project was already well underway before the CBA took effect (i.e., SAIP EIR NOP was published in August 2004, while CBA was not executed until February 2005.)

Section X. L. Rock-Crushing Operations and Construction Material Stockpiles.

"LAWA shall locate rock-crushing operations and construction material stockpiles for all construction related to the LAX Master Plan Program in areas away from LAX-adjacent residents to reduce impacts from emissions of fugitive dust…"

Status → In Progress:
Subject requirement has been included in construction specifications of the South Airfield Improvement Project and the rock-crushing plant for the SAIP project complies with this requirement. This request will be included in all upcoming projects at LAX.

Section X. M. Limits on Diesel Idling.

"LAWA shall prohibit diesel-powered vehicles from idling or queuing for more than ten consecutive minutes On-Site, unless CARB adopts a stricter standard, in which case LAWA shall enforce that standard. Exemptions to this rule may be granted for safety-related and operational reasons, as defined in CARB regulations."

Status → In Progress:
Subject requirement has been included in construction specifications of the South Airfield Improvement Project and is being monitored by LAWA's Independent Third Party Monitor. This request will be included in all upcoming projects at LAX.

Section X. N. Provision of Alternative Fuel.

"LAWA shall ensure that its infrastructure for providing fuel to Alternative-Fuel Vehicles is sufficient and available, where not Operationally Infeasible and/or Technically Infeasible, to meet all requests for alternative fuel from contractors and other uses of LAX."

Status → In Progress:
LAWA has this infrastructure developed.

Section X. O. Hydrogen Fuel Cell Infrastructure.

"LAWA shall support efforts to place a hydrogen fuel cell system for the generation of electricity at or near LAX. This fuel cell system shall meet or exceed CARB 2007 distributed generation certification standard."

Status → In Progress:
LAWA is currently evaluating the placement of a fuel cell system.

Section X. P. Cleaner Burning Jet Fuels.

"LAWA shall support efforts to encourage the airlines and petroleum industries to embark on a study to promote the use of jet fuels that minimize air pollutants emissions from jet engines."

Status → In Progress:
LAWA continues to monitor and support efforts where appropriate.

XI. Green Building Principles

The Agreement states in part:

"To the extent practical and feasible, in accordance with local building codes and California state codes, and subject to limitation or restrictions in accordance with FAA or Transportation Security Administration standards guidelines, LAWA shall incorporate Leadership in Energy and Environmental Design (LEED) building standards into demolition, design, construction and operation of all aspects of the LAX Master Program. LAWA shall apply the LEED standards for New Commercial and Major Renovations, Version 2.1, as defined by the U.S. Green Building Council.

LAWA shall abide by all applicable City regulations with respect to energy efficiency, sustainability and green building design."

Status → In Progress:
Currently in practice to the extent feasible and practical. LAWA has developed the Airport's Sustainability Planning, Design, and Construction Guidelines that are attached as ***Appendix D****.*

XII. Traffic.

The Agreement states in part:

"A. Construction Traffic.

1. Designated Routes. LAWA shall designate routes for construction equipment, construction-related vehicles, and trucks participating in construction projects related to the LAX Master Plan Program to access LAX. These route designations shall ensure that such construction equipment, construction-related vehicles, and trucks do not travel (i) on 111th Street between Hawthorne Boulevard and Inglewood Avenue; (ii) on 104th Street between Hawthorne Boulevard and Inglewood Avenue; (iii) on Inglewood Avenue between Century Boulevard and Inglewood Ave….

    a. Community Response Program. LAWA shall establish a mechanism for members of the public to report instances of non-compliance with designated truck routes….

2. Lennox/405 Interchange. If LAWA participates in construction of an interchange to the 405 Freeway at Lennox Boulevard, LAWA shall consult with the Coalition Representative and impacted residents in developing mitigation measures that shall be included in the project's Environmental Impact Report, to minimize negative impacts such as residential relocations and the demolition of a community center. These mitigation measures shall include pedestrian and bicycle access over or under the 405 Freeway at Lennox Boulevard, to ensure that local residents can safely access both sides of the 405 Freeway at Lennox Boulevard."

Status → In Progress:
LAWA, working with L.A. Department of Transportation, designates routes for construction traffic on a project by project basis. LAWA has developed a website to provide construction information for the general public, including a phone number to report incidences of non-compliance on the South Airfield Improvement Project and this site will be used for all future LAX Master Plan construction.

XIII. Minority Business Enterprise, Women Business Enterprise and Small Business Utilization and Retention Program.

The Agreement states in part:

"A. LAWA shall coordinate with the Mayor's Office, CDD, and other relevant business advocacy and assistance organizations to initiate a program to increase participation in the planning, construction, operation and maintenance of LAX by Project Impact Area small businesses and minority-owned business enterprises and women-owned business enterprises (MBE/WBE)…..

Status → In Progress:
LAWA's Business and Job Opportunities Division (BJOD) and Procurement Division are currently working closely with the Mayor's Office, CDD, and other business advocacy groups to enhance MBE/WBE participation on all LAWA projects. The BJOD Small Business Program provides an entry point through which local business enterprises can obtain information on future airport business contracting opportunities and on a wide array of business assistance services, networking activities, workshops and referrals. The BJOD has established facility near the Airport, on Century Boulevard, with enough square footage to house staff; consultants; and a Surety Bond Liaison. The BJOD will serve as a clearinghouse for information in its three core program areas: business outreach, employment outreach and educational outreach.

XIV. Community Preparedness for Airport-Related Emergency.

The Agreement states:

"LAWA shall assist in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, FEMA), and the local communities in the event of an airport-related emergency."

Status → In Progress:
LAWA continues to coordinate with local law enforcement agencies, emergency response groups and local communities. LAWA's Executive Director is a member of the newly formed advisory team for the Los Angeles Mayor's newly Homeland Security Advisors Group. This group of diverse leaders will improve the City of Los Angeles' counter-terrorism intelligence coordination and disaster preparedness training and response capabilities. The advisory team will be organized into working groups and tasked with five major missions: Counter-terrorism measures; Private sector outreach and involvement; Governmental outreach and involvement; Evacuation planning; and Emergency Preparedness.

XV. Designated Airport Funds.

The Agreement states in part:

"Where this Agreement provides that LAWA shall contribute airport revenues to job training funds or air quality funds, LAWA will follow the procedures set forth in the Cooperative Agreement regarding "Alternative Job Training and Air Quality Expenditure."

Status → In Progress:
If an FAA determination, as defined in and pursuant to the procedures set out in the Cooperative Agreement, or any other regulatory authority prohibits LAWA from taking actions required by the CBA Sections V, VII, VIII, IX, X, or threatens to withhold federal funding if LAWA takes actions required by the referenced sections, then LAWA will set aside funds to the Job Training and Air Quality Funds to the extent allowed.

XVI. Miscellaneous.

The Agreement states in part:

"A. Implementation Meetings. To facilitate implementation of this Agreement, address concerns, and ensure an ongoing dialogue between the Coalition Representative and LAWA, the Coalition Representative and LAWA shall have regular Implementation Meetings….

B. Annual Reports. LAWA shall prepare annual reports on the implementation of this Agreement and the progress of the LAX Master Plan Program, and shall forward these reports to the Coalition Representative and post the reports on the LAWA website for at least a one-month period….

C. Contract Award Process. Where a provision of this Agreement refers to a Contract Award Process, that process shall be as described in this Section XVI.C. A Contract Award Process is "initiated" on the date the draft protocols and/or scope of work to be included in the RFP are provided to the Coalition Representative…"

D. Special Arbitrator.

E. General LAWA Enforcement Responsibility…"

Status → In Progress:
Implementation meetings are held regularly with the Coalition. LAWA prepares annual reports on the implementation of the CBA and the progress of the LAX Master Plan Program.

4.0 Lennox School District – Sound Attenuation Measure

The Agreement states in part:

"LAWA Funding of Certain District Mitigation Measures. Subject to FAA Determination regarding the use of airport funds under the federal anti-revenue diversion laws, LAWA will fund certain mitigation measures for the District not to exceed $118,500,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

Security-Related Items. LAWA will assist the District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, Federal Emergency Management Agency) and the local communities in the event of an airport-related emergency.

Community Programs. LAWA will work collaboratively with the District to support a variety of community programs, such as job training and academic programs; and…"

Status → In Progress:
On December 7, 2005, LAWA and Lennox School District submitted a request to the FAA for an advisory opinion on the use of airport revenues for noise mitigation measures at Whelan School. In their response on January 12, 2006, the FAA raised questions and issues regarding the Los Angeles County Superior Courts' April 8, 1976 Judgment and Final Order. At this time, legislation has been proposed by Congresswoman Harman that will amend title 49, United States Code, to expand passenger facility fee eligibility for noise compatibility projects and specifically allow LAWA to provide funding to Lennox and Inglewood schools as outlined in the Agreement. This legislation (H.R. 6285) is pending at this time.

5.0 Inglewood School District – Sound Attenuation Measure

The Agreement states in part:

"LAWA Funding of Certain District Mitigation Measures. Subject to FAA Determination regarding the use of airport funds under the federal anti-revenue diversion laws, LAWA will fund certain mitigation measures for the District not to exceed $111,000,000 for noise abatement. Mitigation measures include replacement of HVAC equipment with pollution abatement, double-paned windows and/or sound reduction windows and doors, roofing upgrades, replacement of relocatable classrooms, and temporary housing during construction.

Security-Related Items. LAWA will assist the District in the coordination and dissemination of appropriate information related to emergency preparedness and response of local law enforcement agencies, emergency response groups (e.g., Red Cross, Federal Emergency Management Agency) and the local communities in the event of an airport-related emergency.

Community Programs. LAWA will work collaboratively with the District to support a variety of community programs, such as job training and academic programs; and…"

***Status → In Progress**:*
On December 7, 2005, LAWA and Lennox School District submitted a request to the FAA for an advisory opinion on the use of airport revenues for noise mitigation measures at Whelan School. In their response on January 12, 2006, the FAA raised questions and issues regarding the Los Angeles County Superior Courts' April 8, 1976 Judgment and Final Order. At this time, legislation has been proposed by Congresswoman Harman that will amend title 49, United States Code, to expand passenger facility fee eligibility for noise compatibility projects and specifically allow LAWA to provide funding to Lennox and Inglewood schools as outlined in the Agreement. This legislation (H.R. 6285) is pending at this time.

6.0 Summary

To date, LAWA continues to implement applicable provisions from the Community Benefits Agreement. Construction-related provisions were included in the first LAX Master Plan project, the SAIP, using contract specifications and are implemented during construction. Working together with the Coalition, LAWA continues to monitor and implement the required provisions as the LAX Master Plan Program moves forward.

APPENDIX A

Updated Noise Mitigation Program and Schedule

LAWA - Residential Soundproofing Program

December 2007

LAX Residential Soundproofing Program

Background

Los Angeles World Airport's (LAWA) Residential Soundproofing Program (RSP) was established in early 1997 to implement the Airport's noise mitigation measures by soundproofing dwelling units in noise impacted areas in the City of Los Angeles. The program covers approximately 8,200 residential units in areas of the City of Los Angeles, around LAX, with a recorded Community Noise Equivalent Level (CNEL) of 65 decibels (dB) and higher, as shown on the map produced by LAWA for the fourth quarter of 1992. For the most part, these homes are located in Playa del Rey, Westchester and areas of South Los Angeles. The RSP is strictly voluntary and will not incur any cost to the property owner.

Typical examples of soundproofing include replacing or modifying loose-fitting doors and windows with acoustically rated doors and windows, adding insulation to attics, upgrading the air ventilation system, and fitting chimneys and vents with dampers and/or acoustic louvers. Residences located east of the San Diego Freeway also receive a central air conditioning system in lieu of the ventilation system.

It is estimated that the program will be substantially completed by 2009/2010 at a cost of about $150 million. Two soundproofing demonstration model homes continue to be available to interested homeowners, one in Playa del Rey, and another within Council District 8. This Soundproofing Program is fully funded by Passenger Facility Charges (PFCs).

Program Status

There are approximately 8,200 dwelling units eligible for the program. As of December 2007, the total number of units signed into the program is 6,924 (this number changes daily as participations and/or declines/delays are recorded on the database). So far, 336 units have been placed on a delayed or declined status by their property owners. 940 units have yet to reply to our mailings or sign up for the program.

Through December 2007, over 6,000 units have been soundproofed or are in the process of completing the soundproofing installation. To date, there have been 112 construction contracts awarded totaling approximately $125 million. The design/acoustic consultant's contract has been amended to complete the design on the remaining approximately 1,000 dwelling units. The BOAC's awarded the design/acoustic contract in January 2007. Owners of non-participating units were notified of the imminent program completion.

PROJECT COMPLETION PLAN

Re-notify non-participants via a second ‘return receipt requested” letter that their property could be deemed land use compatible unless they agree to participate by a set date, beginning 2009.

Project Budget: $150 million **Project Completion Date:** 2010

Project Spent to date: $125 million **Project Percent Complete:** 85%

Van Nuys Residential Soundproofing Program

Background

The Soundproofing Section also developed and began implementation of a noise mitigation program for the affected residences near Van Nuys Airport. The Van Nuys program covers 1,100 residential units. It is estimated that this program will be substantially completed by early 2008 at a cost of about $15 million. The program, launched in May 2000, covers residential units located within City Council Districts 6 and 12. This program is on schedule and approximately $8 million from airport revenues has been expended so far.

Program Status

The total number of eligible dwelling units is approximately 1,100. Participation agreements covering 750 residential units have already been signed and design of the required acoustical modifications for these units is continuing. 9 units have elected to delay or reject the program. Construction has been completed or is in the process of completing the soundproofing installation for 593 units. Approximately 80 units are awaiting a construction contract.

Project Budget: $15 million **Project Completion Date:** 2008
Project Spent to date: $8 Million **Project Percent Complete:** 55%

PROJECT COMPLETION PLAN

Same as above.

Land Use Mitigation Program

The Residential Soundproofing Division also administers LAWA's Land Use Mitigation Program, including oversight of eligible jurisdictions' noise mitigation programs and funding for the cities of Inglewood, Ontario, El Segundo and Los Angeles County.

LAWA continues to provide funding to the participating jurisdictions at or above the levels set in the Community Benefits Agreement.

In calendar year 2006-2007, the following funding amounts were released to the respective jurisdictions:

City of Inglewood	$24.5 million
City of El Segundo	$14.9 million
County of Los Angeles	$20.6 million

APPENDIX B

LAX GSE Inventory Report dated May 2007

LAX GSE Inventory Report

May 2007

Prepared for:

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Prepared by:

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Table of Contents

Attachments

List of Tables

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1. INTRODUCTION

This document presents the results of an inventory of Ground Service Equipment (GSE) operating at Los Angeles International Airport (LAX) in October 2006. The *LAX GSE Inventory* was completed pursuant to the requirements of the LAX Master Plan *Mitigation Monitoring and Reporting Program* (MMRP),[1] which is based on the *LAX Master Plan Final EIS/EIR,*[2] the LAX Master Plan Program *Community Benefits Agreement (CBA),*[3] and the LAX Master Plan *Stipulated Settlement.*[4] These requirements relate to LAWA's commitment towards a complete conversion of GSE at LAX to extremely low emission technology by 2015, as reflected in the *Final EIS/EIR.* In addition, the *Final General Conformity Determination*[5] for the LAX Master Plan establishes a goal of zero emissions for GSE by 2015.

This document provides a description of the inventory methodology, a summary of inventory results, and a detailed listing of the individual GSE included in the inventory.

2. METHODOLOGY

2.1 Background

LAWA initiated the development of the LAX GSE Inventory in April of 2005 and on June 14, 2005, initially notified potential GSE owners/operators to provide, by July 1, 2005, specific information and data (e.g., type and number of vehicles or equipment, fuel type, level of use, etc.). (See Attachment A.) The list and contact information of GSE owner/operators surveyed was developed from a compendium of sources including LAWA, internet searches, and in-the-field observations.

Of the 32 GSE owners/operators at LAX that were notified in June 2005, only nine responded, including four airlines and five other GSE service providers.

In light of this limited response, combined with inquiries LAWA received from airlines regarding the GSE survey effort, it was determined that the request should be re-submitted with specific modifications and other clarifications made to the survey methodology and the request form. These changes were accomplished through the formation of a LAX GSE Inventory Task Force, as described below.

2.2 GSE Inventory Task Force

In January 2006, a LAX GSE Inventory Task Force was formed for the purposes of improving the survey methodology and data request form and achieve a more complete response from the GSE owners/operators. The Task Force members included representatives from the following entities:

- LAWA
  - Airfield Operations Division
  - Long-Range Planning Division
  - Environmental Consultants to LAWA
- Airlines
  - Air Transport Association
  - United Airlines

Over a three-month period, the Task Force met four times to evaluate and formulate the GSE survey

1 LAX Master Plan MPAQ Mitigation Measure MM-AQ-4, (*Operational-Related Mitigation Measures*), Measure 2 - *Prepare Detailed Inventory of all GSE at LAX*.

2 Los Angeles International Airport (LAX) Proposed Master Plan Improvements, Final Environmental Impact Report (December 2004) and Final Environmental Impact Statement (May 2005).

3 Cooperation Agreement - Los Angeles International Airport Master Plan Program (February 2005).

4 Stipulated Settlement (December 2005).

5 LAX Master Plan Final EIS - Final Clean Air Act General Conformity Determination (January 2005).

purpose, structure, and approach. The following summarizes the key outcomes of these efforts:

- **Use of Inventory Data:** Important clarifications regarding the intended use of the inventory data were made to the survey request form to focus on the information considered most useful and reasonably obtainable.[6] Further clarification regarding the intended use of inventory data was also evaluated by the Task Force relative to detailed GSE information being considered by airlines as confidential/proprietary business-related information.
- **Basis for Inventory Time Period:** The number and types of GSE at LAX is constantly in a state of flux due to ongoing changes in airline business practices, variations in airport operational levels, changes in aircraft fleet mix characteristics of individual airlines, and other such considerations. Therefore, it was resolved that the common basis for the GSE Inventory would be January 2006. It was further resolved that due to the absence of historical data, the retrospective development of a 1997 GSE inventory called for in the CBA was not practical to achieve.
- **Coordination with LAWA Airfield Operations Division Regarding Registration of Ground Equipment at LAX:** LAWA is developing a Certification program whereby all GSE and other ground equipment operating at LAX, among other program objectives, must be registered with LAWA and have a current registration tag affixed/displayed. It was agreed that information from GSE owners/operators requested as part of the registration portion of the program could include GSE-related information, which would be of use in developing and maintaining a GSE inventory at LAX. Additionally, the tagging of equipment as part of that program could be very useful in conducting a physical survey and inventory confirmation of GSE at LAX, particularly in terms of being able to distinguish on the airfield those pieces of equipment that have been inventoried and included in the GSE database for LAX from those pieces of equipment that have not. It was further agreed that, inasmuch as the California Air Resources Board (CARB) has, or will, set forth a registration and tagging program for identifying non-road equipment that meets certain CARB requirements for emissions control, the respective LAWA and CARB registration and tagging programs should be coordinated to the extent practical.
- **Synonym List:** One key area of discussion within the Task Force was the need to develop a standardized list of GSE types with a "synonym list" to account for the fact that certain types of GSE can be referred to by several different names. The development of such a list was considered to be particularly beneficial relative to concerns expressed by GSE owner/operators in the June 2005 GSE survey on how to categorize certain pieces of equipment. The Task Force developed a list of 25 categories of GSE, which included the common name of each equipment type, a description of the typical use and function of the equipment type, and a photograph of the equipment. The list also included general instructions and guidance as to how to categorize equipment for the purposes of the LAX GSE Inventory. A copy of the list is provided herewith as Attachment B.

2.3 Development of Inventory Form/Spreadsheet

The survey form and instructions for the inventory were developed with consistency and simplicity in mind. Because it was important to obtain the same kind of information from the individual respondents, a unified set of data was requested by way of using a custom Microsoft Excel spreadsheet developed by the Task Force. The spreadsheet included a number of "built-in" features to make data entry easy for the respondent and to help to secure valid entries. For example, when entering the type of GSE into the spreadsheet, a drop-down list of 25 categories of GSE appears, at which the spreadsheet user would

[6] For example, data regarding the average load for each piece of GSE, as requested in the June 2005 survey, may be helpful in future calculations of air pollutant emissions from GSE operations at LAX; however, the level of effort associated with the survey participants providing complete and accurate information on the average load for each piece of equipment could be substantial. This could detract from the willingness and/or ability of GSE owners/operators to provide complete and accurate information and may discourage participation in the survey. As an alternative to asking survey participants to provide such information, the Task Force agree that use of default factors developed as part of the Southern California GSE Memorandum of Understanding would be sufficient for use in future air quality calculations; therefore, the need for such information was deleted in the revised survey form.

simply click on the relevant category. Such drop-down lists were included for several types of data entry. The spreadsheet also included instructions and useful tips for data entry, which the spreadsheet user could access by simply clicking on a column heading.

The spreadsheet included three worksheets for data entry, including one for contact information, one for GSE information, and one for small equipment information (explained below), as well as an attached worksheet that provided the description of GSE categories noted above (i.e., Attachment B. A copy of the three data entry worksheets is provided herewith as Attachment C).

While the focus of the GSE Inventory is on equipment with internal combustion engines (ICE) of 25 horsepower or greater, or comparable electric/alternative-powered equipment, the task force felt that it could be beneficial and timely to also request information regarding small equipment, such as portable generators, pumps/compressors, landscaping equipment, and the like, of less than 25 horsepower. The nature of information requested in the spreadsheet for small equipment was much less extensive than for GSE, with the intent being to simply compile basic statistics on the nature and number of small equipment at LAX rather than any detailed information such as manufacturer, year, horsepower, etc. If, based on the survey results, it was found that a substantial amount of small equipment is used at LAX, consideration would be given to seeking additional information regarding such equipment in any subsequent surveys.

2.4 Updating of Distribution List

As discussed above, the initial GSE owner/operator contact list was developed from a compendium of information provided by LAWA combined with in-the-field observations and other means. This listing was continually updated based upon feedback from the respondents, un-opened or undeliverable surveys, ongoing communications between LAWA and GSE owner/operators, and input from Air Transport Association (ATA). The updated distribution list includes the parties identified below in Table 1.

2.5 Distribution of Inventory Survey

On May 12, 2006, or at sometime thereafter, each party identified on the distribution list was sent an electronic copy of the Microsoft Excel spreadsheet, described above, along with a cover letter from LAWA. The cover letter explained the background of the GSE inventory, described the data and information needs, specified the due dates for the survey information, and provided contact information. The cover letter also noted that two informal workshops would be held at LAX to answer any questions regarding the survey and offer assistance in completing the spreadsheet if desired. A copy of the cover letter is provided herewith as Attachment D.

2.6 Inventory Survey Response

Over the three months that followed distribution of the survey, responses were received from the majority of the parties that were sent a survey request. This includes airlines that are members of the ATA, which provided their survey information to ATA and ATA consolidated all the information into a single submittal by ATA to LAWA. By March 2007, all but six parties had either provided GSE information directly to LAWA or to LAWA through the ATA, or responded back to LAWA indicating that they do not operate GSE at LAX. Table 1 lists the parties that were sent a survey request and the status of each party's response. Although responses were not received from five of the parties on the survey distribution list, it was felt that the size and nature of operations associated with those businesses would not have a substantial influence on the overall GSE makeup at LAX.

Table 1

May 2006 Survey - Distribution List and Response Status

GSE Owner/Operator	Response to Survey Request
Aero California	Indicated that company does not operate any GSE at LAX.
Aero Mexico	Completed survey submitted to LAWA.
Air Canada	Completed survey submitted to LAWA.
Air New Zealand	Completed survey submitted to LAWA.
Air Trans Airways	Indicated that company has no GSE, but rather is provided through Midwest Express Airlines (Information provided by ATA-see below).
ATA Airlines	Completed survey submitted to LAWA.
Airborne Express	Now part of DHL. Completed survey received from DHL
Aircraft Services International Group	Limited information provided in survey submitted to LAWA (i.e., primarily just the number and type of GSE).
Airport Terminal Services	Indicated that company no longer operates GSE at LAX.
Alaska Airlines	ATA member - GSE information provided to LAWA though ATA.
American Airlines	ATA member - GSE information provided to LAWA though ATA.
America West/US Airways	ATA member - GSE information provided to LAWA though ATA.
Continental Airlines	ATA member - GSE information provided to LAWA though ATA.
Delta Airlines	ATA member - GSE information provided to LAWA though ATA.
DHL Express	Completed survey submitted to LAWA.
Evergreen Aviation	Completed survey submitted to LAWA.
Federal Express	ATA member - GSE information provided to LAWA though ATA.
Globe Ground/SERVISAIR	Completed survey submitted to LAWA.
Hallmark Aviation	Indicated that company does not operate any GSE at LAX.
Hawaiian Airlines	Indicated that company does not operate any GSE at LAX.
Hilltop Aviation	Initial verbal response indicated that company only has 3-4 passenger vehicles at LAX; however, follow-up requests by LAWA for clarification/confirmation of that response were not answered.
IBC Aviation	No response received. Company may no longer be in business and/or operating at LAX. Phone number was disconnected.
Japan Airlines	Completed survey submitted to LAWA.
Korean Air	Completed survey submitted to LAWA.
Landmark Aviation	Landmark Aviation is now operating what used to be Garrett Aviation. Survey request was inadvertently not sent to Landmark (new operator). LAWA is now following up with Landmark; however it is anticipated that Landmark operates relatively few GSE.
LSG Skychefs	No response received. Voice-mail and e-mail messages unanswered.
Menzies Aviation	Completed survey submitted to LAWA.
Mercury Air Center	No information received. Although company contact person indicated that he would follow-up internally to get information to LAWA, no information ever received.
Midwest Express Airlines	ATA member - GSE information provided to LAWA though ATA.
Northwest Airlines	ATA member - GSE information provided to LAWA though ATA.
Sky West	ATA member - GSE information provided to LAWA though ATA.
Southwest Airlines	ATA member - GSE information provided to LAWA though ATA.
Swiss International Airlines	Completed survey submitted to LAWA.
Swissport	Completed survey submitted to LAWA.
United Airlines	ATA member - GSE information provided to LAWA though ATA.
United Parcel Service (UPS)	ATA member - GSE information provided to LAWA though ATA.
U.S. Coast Guard	Completed survey submitted to LAWA.

U.S. Postal Services	Completed survey submitted to LAWA.

3. INVENTORY RESULTS

The inventory results provide generally complete data relative to the overall nature, number, and fuel type of GSE operating at LAX; however, some notable data gaps exist relative to fueling method, power (brake horsepower), and GSE usage (i.e., hour meter/odometer information). Table 2 delineates the number of responses received for each of the key data fields included in the survey form.

Table 2

Number of Responses Received for Each Data Field

Data Field	Number of Responses	Percent of Total[1]
GSE Category	3,040	99.7
Manufacturer	2,892	94.9
Model Year	2,792	91.6
Fuel Type	3,026	99.3
Fueling Method	2,470	81.1
Power (BHP)	2,206	72.4
Hour Meter/Odometer Information		
Installed	2,243	73.6
Hours/Miles	1,640	53.8
Date Read	1,557	51.1
On-Road Equivalent	2,707	88.8

[1] Based on a total of 3,047 records entered into database.

As indicated above, the 2006 GSE Inventory survey results provide a good indication of the overall nature, number, and fuel type of GSE operating at LAX. Table 3 summarizes those results. The complete consolidated database of GSE information received from all of the survey responses is provided herewith as Attachment E.

No notable information was obtained from the survey relative to small equipment (i.e., equipment less than 25 horsepower), other than the identification of eight pieces of equipment, four of which were electric powered, two of which had small gasoline engines, and two of which were portable light stands with small diesel engines.

Table 3

Summary of Nature, Number, and Fuel Type of GSE at LAX

	Equipment Type		Fuel Type									
			Diesel		Gasoline		Electric		LPG/CNG		Not Specified	
GSE Category	Count	% of Total	Count	% of Category	Count	% of Category	Count	% of Category	Count	% of Category	Count	% of Category
Air Conditioner	9	0.3%	8	88.9%		0.0%	1	11.1%		0.0%		0.0%
Air Start	32	1.1%	32	100.0%		0.0%		0.0%		0.0%		0.0%
Aircraft Tractor	176	5.8%	157	89.2%	3	1.7%	14	8.0%	2	1.1%		0.0%
Baggage Tractor	600	19.7%	55	9.2%	79	13.2%	293	48.8%	173	28.8%		0.0%
Belt Loaders	280	9.2%	42	15.0%	94	33.6%	103	36.8%	34	12.1%	7	2.5%
Bobtails	32	1.1%	4	12.5%	26	81.3%		0.0%	2	6.3%		0.0%
Cargo Loader	164	5.4%	156	95.1%	8	4.9%		0.0%		0.0%		0.0%
Cargo Tractor	229	7.5%	21	9.2%	109	47.6%	4	1.7%	95	41.5%		0.0%
Cart	162	5.3%	6	3.7%	2	1.2%	152	93.8%	2	1.2%		0.0%
Catering Truck	62	2.0%	41	66.1%	17	27.4%		0.0%	4	6.5%		0.0%
Deicer	1	0.0%		0.0%	1	100.0%		0.0%		0.0%		0.0%
Fork Lift	251	8.2%	24	9.6%	15	6.0%	54	21.5%	153	61.0%	5	2.0%
Fuel Truck	36	1.2%	28	77.8%	6	16.7%		0.0%	2	5.6%		0.0%
Generator	17	0.6%	11	64.7%	6	35.3%		0.0%		0.0%		0.0%
Ground Power Unit	125	4.1%	96	76.8%	16	12.8%	12	9.6%	1	0.8%		0.0%
Hydrant Truck	26	0.9%	15	57.7%	11	42.3%		0.0%		0.0%		0.0%
Lavatory Truck	45	1.5%	9	20.0%	35	77.8%		0.0%		0.0%	1	2.2%
Lift	138	4.5%	32	23.2%	46	33.3%	38	27.5%	22	15.9%		0.0%
Other	102	3.3%	52	51.0%	34	33.3%	15	14.7%	1	1.0%		0.0%
Other ORE	303	9.9%	9	3.0%	272	89.8%	7	2.3%	15	5.0%		0.0%
Passenger Stand	51	1.7%	4	7.8%	27	52.9%	19	37.3%	1	2.0%		0.0%
Service Truck	180	5.9%	30	16.7%	140	77.8%	8	4.4%	2	1.1%		0.0%
Sweeper	10	0.3%	1	10.0%	4	40.0%	2	20.0%	1	10.0%	2	20.0%
Water Truck	9	0.3%	1	11.1%	7	77.8%		0.0%		0.0%	1	11.1%
Not Specified	7	0.2%		0.0%	1	14.3%		0.0%		0.0%	6	85.7%
Total Number And % Of Total	**3,047**	**100.0%**	**834**	**27.4%**	**959**	**31.5%**	**722**	**23.7%**	**510**	**16.7%**	**22**	**0.7%**

4. NEXT STEPS

The survey results of the 2006 GSE Inventory provide a very good overview of the existing GSE characteristics at LAX. While the nature, number, and fuel type of GSE at LAX is well documented by the survey results, additional information is needed regarding size (i.e., horsepower) and usage (i.e., hour-meter/odometer readings over time). As indicated above, LAWA is in the process of establishing a Certification program for all ground equipment at LAX and will be coordinating that effort with CARB's non-road equipment reporting and labeling program requirements, including those associated with the currently proposed regulation of in-use off-road diesel vehicles. The Certification program will establish minimum operational standards that all ground handlers will have to comply with for the safe and efficient function of all GSE. The program will also require that each piece of equipment be registered and identified by means of tagging that is consistent with similar requirements by applicable State regulations. The State's reporting requirements include most of the types of information reflected in the LAX GSE survey, such as manufacturer, model year, horsepower, and requires that such information be provided to the State on an annual basis. These State requirements are well suited for inclusion in LAWA's ground equipment registration information requirements; however, LAWA will also require usage information for each piece of equipment.

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Attachment A

2005 LAX GSE Inventory Survey - Request Letter

MEMORANDUM

Date: June 14, 2005

To: LAX GSE Owners and Operators

From: Patricia Tubert, Deputy Executive Director for Quality and Compliance

Subject: Ground Support Equipment (GSE) Inventory at LAX

Introduction

As a condition of the recently approved LAX Master Plan, Los Angeles World Airports (LAWA) is required to conduct an inventory of ground support equipment (GSE) at the airport. The aim of this study is to obtain a comprehensive and up-to-date accounting of tenant-owned (or operated) GSE. The results will be used in support of the ongoing GSE-conversion program under the South Coast GSE Memorandum of Understanding (MOU), the Master Plan environmental mitigation commitments and various information needs of the LAWA Department of Operations and the LAX Ground Handlers Task Force - including the future license and tagging program for GSE.

On behalf of the entire LAWA staff, I wish to thank-you in advance for your participation in this important undertaking.

Data & Information Needs

For the purposes of this inventory, GSE are defined to include motorized vehicles and equipment that are either "street legal" or designated as "off-road" but are intended for use on the "airside" of the airport. The following is a listing of the types of GSE subject to this inventory:

---------- GSE Types ----------

- Air conditioners
- Air starts
- Baggage tractors
- Belt loaders
- Cargo loaders
- Cargo tractors
- Container / pallet loaders
- Deicers
- Employee work vehicles (cars, trucks and vans)
- Fork lifts
- Galley and other cabin service trucks
- Ground power units
- Lavatory and portable water vehicles
- Passenger / employee transfer vehicles (vans and buses)
- Passenger stands
- Push-back and tow tractors
- Refuelers and hydrant trucks
- Others (as appropriate)

Information and data that will be collected in connection with this inventory will include the following:

---------- GSE Data & Information ----------

- Owner/operator contact information
- Vehicle/equipment type
- Total number of each type
- Fuel type
- Engine horse power
- Average load factor
- Manufacturer
- Model year
- Infrastructure requirements
- Fueling method and location
- Annual usage (hours or miles)

Approach & Schedule

The data and information collection components of the GSE inventory will be conducted in two stages, as described below:

- Stage 1 – Paper Survey: GSE owners/operators provide paper and/or electronic inventory vehicles and equipment to LAWA. June 14 - July 1, 2005

- Stage 2 – Physical Survey: LAWA conducts in-the-field survey of GSE to augment and cross-check paper survey. July 11 - August 11, 2005

Contact Information

Questions and comments regarding this inventory should be directed to either of the following:

Dennis Quilliam
LAWA Master Plan Division
310.646.7614
dquilliam@lawa.org

Alan Murphy
LAWA Office of Quality & Compliance
310.977.0270
amurphy@lawa.org

Data/Information Submittal

The data and information should be submitted to the following on (or before) July 1, 2005. Electronic format (excel) is preferable.

Alan Murphy
1 World Way
Room 224
Los Angeles, CA 90045
310 646 9974
amurphy@lawa.org

End of memorandum

Attachment B

2006 LAX GSE Inventory Survey - Synonym List

“Ground Support Equipment,” “Ground Service Equipment,” or “GSE” means any vehicle or portable equipment if:

- The unit is powered by an electric motor, internal combustion engine (ICE), or alternative-power source;
- The equipment is used to support airfield operations, and can generally be classified using the categories defined below.
- For conventional gasoline, CNG/LPG, and diesel units, only units twenty-five (25) horsepower or greater (ICE equivalent) are included in the GSE inventory (electric and alternative-powered units included in one of the categories below are still considered GSE); *and*
- The GSE is operated on the airfield, aircraft or GSE maintenance areas, or aircraft or GSE storage areas, and *not* exclusively for airline passenger transport (*i.e.*, ground access vehicles are *not* considered GSE).

The following table lists, for each GSE type, a brief description, reference model, picture, and/or distinction from other similar categories. The reference models and descriptions are provided as a guide, and are not intended to be exhaustive or restrictive. GSE units that fall within a category based on design, engine selection, and duty cycle should be categorized as such (i.e., rather than as “Other”) wherever possible.

#	GSE Category	Description	Reference Model/ Picture
1	Air Conditioner	PORTABLE; either on skids, carts, or on the back of truck beds, that provide conditioned air to aircraft	 ACE 802: www.fsm-vienna.at

#	GSE Category	Description	Reference Model/ Picture
			 ACE 804: www.fsm-vienna.at
2	Air Start	PORTABLE; that provide high air flow to start aircraft jet engines; can be IC engines or turbine engines (must be specified in survey if turbine); bottle-starts (compressed air) are not included in survey	 ACE 300/400: www.fsm-vienna.at
3	Aircraft Tractor	Includes wide-body, narrow-body, push-back, and long-haul or maintenance tractors used to move aircraft (aka paymover); conventional and towbarless; (mounted GPU engines should be reported as a separate unit under “Ground Power Unit”)	 S&S/TUG GT-35: www.ssss.com
			 S&S/TUG MC: www.ssss.com
			 Douglas TBL-180: www.douglas-tugmaster.co.uk

#	GSE Category	Description	Reference Model/ Picture
			 Douglas TBL-400: www.douglas-tugmaster.co.uk
			 S&S/TUG GT-50G: www.ssss.com
			 S&S/TUG T-750: www.ssss.com
4	Baggage Tractor	Hitched to a series of carts to transport luggage between the aircraft and the terminal; distinguished from cargo tractor by drawbar (3,000 lbs. vs. 5,000 lbs. for cargo tractor), tow capacity (30,000 lbs. vs. 50,000 lbs.) and duty cycle (intermittent vs. 6-12 hrs. non-stop) (see also “Cargo Tractor” description)	 S&S/TUG MA-50: www.ssss.com

#	GSE Category	Description	Reference Model/ Picture
5	Belt Loader	Used to load baggage into aircraft	 S&S TUG 660: www.ssss.com
6	Bobtail	ORE	 Eagle Bobtail F350: www.eagleindustrialtruck.com
7	(Cabin Service Truck)	ORE; classify as "Catering Truck" (same duty cycle, emissions)	 Hi-Way/TUG 660 chassis: www.tescohilift.com
			 Hi-Way F650 chassis: www.tescohilift.com

#	GSE Category	Description	Reference Model/ Picture
8	Cargo Loader	Loads cargo in aircraft via a platform that is loaded then launched up to the deck level	 FMC Commander 15: www.fsm-vienna.at
			 FMC Commander 30: www.airport-technology.com
9	Cargo Tractor	Hauls heavy cargo loads in carts; distinguished from baggage tractors by drawbar (4,000-12,000 lbs. vs. 3,000-3,500 lbs. for baggage tractors), tow capacity (50,000-60,000 lbs. vs. 30,000 lbs.) and duty cycle (6-12 hrs. non-stop vs. intermittent); also, cargo tractors frequently use a side hitch (see also description of "Baggage Tractor")	 S&S/TUG MT: www.ssss.com
10	Cart	Include only self-propelled carts (e.g., personnel carts, some lavatory carts and hydrant carts) in the inventory; do *not* include baggage carts, cargo carts, hydrant carts, etc., that are towed.	 Taylor Dunn: www.taylor-dunn.com

#	GSE Category	Description	Reference Model/ Picture
11	Catering Truck	ORE; include cabin service trucks of all types in this category	 Hi-Way/TUG 660 chassis: www.tescohilift.com
			 Hi-Way F650 chassis: www.tescohilift.com
12	Deicer	Used to spray deicing fluid on aircraft; list both engines in the inventory	 FMC LMD, Dual engines: www.airport-technology.com
			 FMC Tempest II, single engine: www.fsm-vienna.at

#	GSE Category	Description	Reference Model/ Picture
13	Fork Lift	All fork lifts are included in this category, including aircraft engine fork lifts	 Toyota 5,000 lb: www.loadstarmhe.com
14	Fuel Truck	ORE	 F750, DART: www.dukestransportation.com
			 DART 10,000 gal: www.dukestransportation.com
15	Generator	PORTABLE; includes welders, light stands, etc.; only include portable generators in the inventory; stationary emergency backup generators, shop generators, and handheld generators smaller than the threshold cutoff should not be listed	 MD-3: www.victorygse.com

#	GSE Category	Description	Reference Model/ Picture
16	Ground Power Unit	PORTABLE; provides electrical power to aircraft located in remote areas, when the APU is not operational, or when the gate does not supply power	 TLD GPU-4000: www.tld-gse.com
			 TLD ACE: www.tld-gse.com
			 TLD GPU-4090: www.tld-gse.com
17	Hydrant Truck	ORE; do not include non-motorized hydrant carts	Ford F250/F350 chassis

#	GSE Category	Description	Reference Model/ Picture
18	Lavatory Truck	ORE; you all know what this one is	 TLD ACE-1410: www.tld-gse.com
			 Wollard TLS-770/F350 chassis: www.gseservices-llc.com
19	Lift		 ML15-20: www.tescohilift.com
20	Passenger Stand	ORE; indicate in the survey if the unit is ORE or not	 Wollard CMPS170/228: www.nmc-wollard.com

#	GSE Category	Description	Reference Model/ Picture
21	Service Truck	ORE; this category is broad, but does *not* include passenger cars, vans, or buses (those units should be classified as “Other ORE”)	 Ford F250/F350: www.contentedits.com
22	Sweeper	Street and shop sweepers	 Tennant: www.tennantco.com
23	Water Truck	ORE	 Wollard TWS-402, F250/F350 chassis: www.nmc-wollard.com
24	Other	Anything that absolutely does not fit into a category listed above; do *not* include ORE in this category (see “Other ORE”)	Only categorize it as “Other” if it does not fit into another category.
25	Other ORE	ORE; any ORE that absolutely does not fit into a category listed above (e.g., cars, buses, vans)	Only categorize it as “Other” if it does not fit into another category. Examples include: Ford E350 vans, passenger cars, Blue Bird buses, etc.

Attachment C

2006 LAX GSE Inventory Survey - Data Entry Worksheets

Owner/Operator:	Airline 1
Contact:	Operator
Address:	LAX
	Mailstop
	Los Angeles, CA ZIP
Phone:	(310) 555-1212
E-mail:	mymail@lax.com

Survey current as of:	1/1/2006

Notes or Comments:	

Operator Equipment ID	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-road Equivalent	Notes and Comments
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed (Y/N)	Hours/Miles	Date Read		
EXAMPLE 1	Bobtail	Ford	1971	diesel	On-Airport Stationary	140	Yes - Works	86,124.3	01/07/2006	Yes - Other	
EXAMPLE 2	Cargo Loader	TUG	1986	diesel	On-Airport Mobile Fueler	210	Yes - Doesn't Work			No	

LAX Los Angeles World Airports

Equipment Group	Fuel Type	Number of Units	Notes and Comments
generators/lights/welders	gasoline	17	EXAMPLE 1
utility carts	LPG	11	EXAMPLE 2

Attachment D

2006 LAX GSE Inventory Survey - Request Letter

Ground Service Equipment (GSE) Owners and Operators at LAX

Re: LAX GSE Inventory – Follow-up

Dear Sir or Madam:

The purpose of this letter is to request your continued cooperation, input and support for the ongoing GSE Inventory at LAX. On June 14, 2005, Los Angeles World Airports (LAWA) sent you the initial request for information in connection with this important initiative. As a follow-up to that initial effort, additional information is needed to refine and more fully develop the GSE data in order to satisfy existing requirements and agreements applicable to all GSE operations at LAX. **As described in greater detail below, certain information being requested herein must be submitted to LAWA by June 15, 2006 and other information should be submitted by July 1, 2006.** On behalf of LAWA, I thank you in advance for your cooperation and timely response to this request.

Our goal is to obtain as complete an inventory of GSE as possible. To this end, after we have an opportunity to review the results of the paper inventory, we expect to have an on-site survey of your GSE to verify the inventory and gain a better understanding of operational factors in the field. The on-site survey is anticipated to be conducted in the summertime.

Background Information

Under existing local, state, and federal requirements applicable to LAX, as well as agreements made with nearby communities and stakeholders, LAWA is to conduct an inventory of GSE at the airport as part of a comprehensive air quality mitigation program. These include the Mitigation, Monitoring & Reporting Program for the LAX Master Plan and the Community Benefits Agreement. The aim of the inventory is to obtain a comprehensive and up-to-date accounting of tenant-owned or operated GSE. In addition to being used for the air quality mitigation program, the results will help meet the various information needs of the LAX Airport Operations Division and the LAX Ground Handlers Task Force, including the future GSE Registration and Tagging Program at LAX. Based on the results of the GSE survey request distributed by LAWA last year, the need for a follow-up survey was identified. LAWA has redesigned the survey, based in

part on input from the Air Transport Association and selected airline representatives to facilitate timely completion and to request only those data readily available to the respondents and critical to the LAWA inventory effort. Airlines, ATA, and LAWA continue to discuss confidentiality issues and how they may be resolved to ensure LAWA receives the information it needs while potentially sensitive business information is protected as appropriate.

Data & Information Needs

The data and information being requested in the follow-up survey are divided into two general categories: (1) GSE - 25 Horsepower and Greater; and, (2) Small Equipment - Less than 25 Horsepower.

GSE - 25 Horsepower and Greater: For the purposes of this inventory, GSE are defined to include motorized vehicles and equipment, with engines of 25 hp or greater, that are either designated as "off-road" or "street legal" and are intended for use on the "airside" of airport operations. Also included in this category are all electric-powered GSE of any horsepower rating. Enclosed is a listing of various categories of GSE typically associated with airside operations. This listing provides a guide for you to use in reporting the GSE that you own or operate at LAX.

The information requested for each piece of GSE with an engine of 25 hp or greater (along with all electric-powered GSE) basically includes:

- Respondent contact information
- GSE category
- Fuel type
- Engine horse power
- Manufacturer
- Model year
- Equipment Identification Number
- Fueling method
- Odometer/Hour Meter Reading

LAWA has developed an electronic spreadsheet, in Microsoft Excel, that must be used to submit the requested information. An electronic copy of the spreadsheet is provided on the enclosed CD. The spreadsheet has been customized to facilitate your entry of the information, including the ability to use "drop-down" menus for entering certain information. ***If you have any difficulty accessing, downloading or opening the file, please notify immediately either of the contact people below.***

Please note that if you already submitted such information in response to last year's request, we would appreciate an update and resubmittal of the information using the new spreadsheet.

Small Equipment - Less than 25 Horsepower: In addition to the detailed inventory of individual pieces of GSE described above, LAWA is also including in the inventory, at a more general level, equipment with internal combustion engines of less than 25 horsepower (excluding the electric-powered GSE addressed in the other section of the survey). Such equipment includes portable generators, power-washers, landscaping equipment, small compressors, etc. that you own or operate at LAX. For inventory purposes, only an estimate of the total number of pieces of equipment by equipment type, fuel type, and average annual

usage needs to be indicated. It is not necessary to provide detailed information such as manufacturer, model year, identification number, etc. such as in the case of the GSE of 25 hp or greater. Also, it is not necessary to include equipment used by outside contractors that you retain (i.e., landscape maintenance service, steam-cleaning services, etc.) as part of your survey response. Those contractors will be surveyed separately.

Contact Information

Questions and comments regarding this inventory can be directed to either of the following:

Dennis Quilliam
LAWA, Long Range Planning Division
(310) 646-7614, Ext. 1017
dquilliam@lawa.org

or

Mike Kenney
KB Environmental Sciences Inc.
(727) 578-5152
mkenney@KBEnv.com

LAWA will be offering two informal workshops to discuss the types of GSE information being requested, describe how entries to the electronic spreadsheet should be made, and answer any questions related thereto. The informal workshops will occur on:

Wednesday, May 24, 2006
2:00 - 3:00 p.m. (Pacific)
LAX Airport Operations Conference Room (3rd Floor)
7333 World Way West
(LAX Badge Office Building)

and

Thursday – June1, 2006
10:00 – 11:00 a.m. (Pacific)
LAX Airport Operations Conference Room (3rd Floor)
7333 World Way West
(LAX Badge Office Building)

Data/Information Submittal
The data and information should be submitted, in electronic form by e-mail, to:

Dennis Quilliam
dquilliam@lawa.org

The deadline for submittal of information for GSE with engines 25 horsepower (hp) or greater is Thursday, June 15, 2006, and for small equipment with engines less than 25 hp the deadline is Friday, July 1, 2006. If you do not own or operate GSE at LAX, please indicate so in your reply back to LAWA prior to June 15, 2006.

Again, thank you in advance for your participation in this effort.

Sincerely,

Patricia V. Tubert

Patricia Tubert
Deputy Executive Director

PT:JR:TS:cl

Enclosure

Attachment E

2006 LAX GSE Inventory Survey - Consolidated Results

LAX GSE Inventory

as of

29 April 2007

ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
334145	Air Conditioner	AIRAPLANE	1997	DIESEL	On-Airport Stationary	260	Yes - Works	1,070.0	05/15/06	No
346458	Air Conditioner	DEUTZ	1995	DIESEL	On-Airport Stationary	194	Yes - Works	672.0	02/02/02	No
S/N: 9581	Air Conditioner	Ellis and Watts.	1982	electric	On-Airport Stationary	12	No			No
282317	Air Conditioner	STEWART & STEVENSON	1995	DIESEL	On-Airport Stationary	277	Yes - Works	1,835.0	05/15/06	No
348110	Air Conditioner	TRILECTRON	1998	DIESEL	On-Airport Mobile Fueler					No
502124	Air Conditioner	TRILECTRON	1998	DIESEL	On-Airport Mobile Fueler					No
534443	Air Conditioner	TRILECTRON	1998	DIESEL	On-Airport Mobile Fueler					No
271334	Air Conditioner	TRILECTRON	2000	DIESEL	On-Airport Mobile Fueler	97	Yes - Works	3,202.0	05/15/06	No
353171	Air Conditioner	TRILECTRON	2000	DIESEL	On-Airport Mobile Fueler	97	Yes - Works	3,909.0	05/15/06	No
460726	Air Start - ICE	DETROIT	2000	DIESEL	On-Airport Stationary		Yes - Works	343.0	02/09/02	No
281596	Air Start - ICE	DEUTZ	1997	DIESEL	On-Airport Stationary		Yes - Works	519.0	02/05/02	No
330036	Air Start - ICE	DEUTZ	2005	DIESEL	On-Airport Stationary	470	Yes - Works			No
334768	Air Start - ICE	S & S TUG	1997	DIESEL	On-Airport Mobile Fueler	400	Yes - Works	346.0	06/02/06	No
553504	Air Start - ICE	S AND S	1999	DIESEL		330				No
366275	Air Start - ICE	S AND S	2000	DIESEL		330				No
553847	Air Start - ICE	S AND S	2000	DIESEL		330				No
AS 6690	Air Start - ICE	S&S	1999	diesel	On-Airport Mobile Fueler	710	Yes - Works	549.0	05/22/2006	No
305361	Air Start - ICE	S&S TUG	1997	DIESEL		352				No
221326	Air Start - ICE	STANG		DIESEL	On-Airport Mobile Fueler					No
516537	Air Start - ICE	STEWART & STEVENSON	1977	DIESEL	On-Airport Stationary	364	Yes - Works	63.0	05/15/06	No
240597	Air Start - ICE	STEWART & STEVENSON	1977	DIESEL	On-Airport Stationary	364	Yes - Works	5,314.0	05/15/06	No
307965	Air Start - ICE	STEWART & STEVENSON	1985	DIESEL	On-Airport Stationary	430	Yes - Works	108.0	05/15/06	No
233597	Air Start - ICE	TRILECTRON	1998	DIESEL	On-Airport Mobile Fueler	357	Yes - Works			No
435190	Air Start - ICE	TRILECTRON	2000	DIESEL	On-Airport Mobile Fueler	357	Yes - Works			No
486724	Air Start - ICE	TRLCT	1997	DIESEL	On-Airport Mobile Fueler	450	Yes - Works			No
535227	Air Start - ICE	TRLCT	1997	DIESEL	On-Airport Mobile Fueler	450	Yes - Works			No
542885	Air Start - ICE	TRLCT	1997	DIESEL	On-Airport Mobile Fueler	450	Yes - Works			No
436534	Air Start - ICE	TRLCT	1999	DIESEL	On-Airport Mobile Fueler	585	Yes - Works			No
8733	Air Start - ICE			Diesel	On-Airport Mobile Fueler		Yes - Works	791.0	11/01/2006	No
8725	Air Start - ICE			Diesel	On-Airport Mobile Fueler		Yes - Works	1,345.0	11/01/2006	No
217840	Air Start - Turbine	AIRESEARCH	1961	DIESEL		352				No
365988	Air Start - Turbine	AIRESEARCH	1962	DIESEL		352				No
564375	Air Start - Turbine	AIRESEARCH	1976	DIESEL		352				No
378546	Air Start - Turbine	MAK	1996	DIESEL	On-Airport Stationary	396	Yes - Works	217.0	05/15/06	No
12129	Air Start - Turbine	S&S	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
12135	Air Start - Turbine	S&S	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
284095	Air Start - Turbine	SS TUG	1999	DIESEL	On-Airport Mobile Fueler	585	Yes - Works	343.0	05/15/06	No
358617	Air Start - Turbine	SS TUG	2000	DIESEL	On-Airport Mobile Fueler	500	Yes - Works	67.0	05/15/06	No
271341	Air Start - Turbine	SS TUG	2000	DIESEL	On-Airport Mobile Fueler	500	Yes - Works	77.0	05/15/06	No
ASU553	Air Start - Turbine	Stewart Stevenson	1996	Diesel	On-Airport Mobile Fueler	425	Yes - Works	3,245.6		No
AS1	Air Start Unit	S&S TMSS-280	1990	Diesel	On-Airport Mobile Fueler					No
465255	Aircraft Tractor	CATERPILLA	1990	DIESEL	On-Airport Stationary	300	Yes - Works	1,973.0	02/16/06	No
341376	Aircraft Tractor	CUMMINS	1965	DIESEL	On-Airport Stationary		Yes - Works	5,268.0	06/08/06	No

LAX GSE Inventory

as of

29 April 2007

ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
250404	Aircraft Tractor	CUMMINS	1981	DIESEL	On-Airport Stationary		Yes - Works	3,099.0	05/12/06	No
481677	Aircraft Tractor	CUMMINS	1998	DIESEL	On-Airport Stationary	165	Yes - Works	1,644.0	01/22/02	No
326116	Aircraft Tractor	CUMMINS	1998	DIESEL	On-Airport Stationary	165	Yes - Works	4,199.0	04/11/06	No
313929	Aircraft Tractor	CUMMINS	1999	DIESEL	On-Airport Stationary	123	Yes - Works	3,491.0	06/01/06	No
26-546	Aircraft Tractor	CUMMINS	2004	diesel	On-Airport Stationary	300	Yes - Works	1,049.0	05/19/2006	
515949	Aircraft Tractor	DETROIT	1964	DIESEL	On-Airport Stationary		Yes - Works	2,455.0	04/25/06	No
512771	Aircraft Tractor	DETROIT	1966	DIESEL	On-Airport Stationary		Yes - Works	3,381.0	06/05/06	No
314657	Aircraft Tractor	DETROIT	1977	DIESEL	On-Airport Stationary		Yes - Works	8,749.0	12/02/01	No
447720	Aircraft Tractor	DETROIT	1979	DIESEL	On-Airport Stationary	200	Yes - Works	8,187.0	05/30/06	No
302659	Aircraft Tractor	DETROIT	1980	DIESEL	On-Airport Stationary		Yes - Works	1,586.0	05/29/06	No
474880	Aircraft Tractor	DETROIT	1987	DIESEL	On-Airport Stationary		Yes - Works	4,811.0	02/12/02	No
542815	Aircraft Tractor	DETROIT	1987	DIESEL	On-Airport Stationary		Yes - Works	435.0	05/06/06	No
224469	Aircraft Tractor	DETROIT		DIESEL	On-Airport Stationary		Yes - Works	107.0	06/11/06	No
255794	Aircraft Tractor	DEUTZ	1996	DIESEL	On-Airport Stationary	261	Yes - Works	2,149.0	03/25/06	No
537271	Aircraft Tractor	DOUGLAS	1997	DIESEL		155				No
252140	Aircraft Tractor	DOUGLAS	1999	DIESEL		155				No
353584	Aircraft Tractor	DOUGLAS	1999	DIESEL		155				No
356202	Aircraft Tractor	DOUGLAS	1999	DIESEL		155				No
479983	Aircraft Tractor	DOUGLAS	1999	DIESEL		155				No
500318	Aircraft Tractor	DOUGLAS	1999	DIESEL		155				No
ATC009	Aircraft Tractor	Ecotech	2004	Diesel	On-Airport Mobile Fueler	350	Yes - Works	9,311.0		No
10172	Aircraft Tractor	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
10182	Aircraft Tractor	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
10178	Aircraft Tractor	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
10179	Aircraft Tractor	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
HT 5180	Aircraft Tractor	FMC	2000	diesel	On-Airport Mobile Fueler	185	Yes - Works	1,096.0	05/22/2006	No
HT 5200	Aircraft Tractor	FMC	2000	diesel	On-Airport Mobile Fueler	185	Yes - Works	1,289.0	05/22/2006	No
T16	Aircraft Tractor	FMC B1200	2001	Diesel	On-Airport Mobile Fueler					No
263760	Aircraft Tractor	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
342489	Aircraft Tractor	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
363293	Aircraft Tractor	FMCXX	1999	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
339360	Aircraft Tractor	FMCXX	2002	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
26-519	Aircraft Tractor	GM	1971	diesel	On-Airport Stationary	300	Yes - Works	222.0	05/19/2006	
26-526	Aircraft Tractor	GM	1971	diesel	On-Airport Stationary	300	Yes - Works	9,383.0	05/19/2006	
26-535	Aircraft Tractor	GM	1985	diesel	On-Airport Stationary	300	Yes - Works	4,858.0	05/19/2006	
330204	Aircraft Tractor	HOUGH	1969	DIESEL		260				No
550557	Aircraft Tractor	HOUGH	1971	DIESEL	On-Airport Mobile Fueler	343	Yes - Works	6,788.0	05/15/06	No
ATC905 T500	Aircraft Tractor	Hough	1972	Diesel	On-Airport Mobile Fueler	550	Yes - Works	2,508.5		No
ATC901 T500	Aircraft Tractor	Hough	1972	Diesel	On-Airport Mobile Fueler	550	Yes - Works	3,652.7		No
309575	Aircraft Tractor	HOUGH	1972	DIESEL	On-Airport Mobile Fueler	205	Yes - Works			No
334803	Aircraft Tractor	HOUGH	1972	DIESEL	On-Airport Mobile Fueler	205	Yes - Works			No
237734	Aircraft Tractor	HOUGH	1972	DIESEL		343				No

LAX GSE Inventory
as of
29 April 2007

ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
365337	Aircraft Tractor	HOUGH	1972	DIESEL		343				No
482069	Aircraft Tractor	HOUGH	1972	DIESEL		343				No
386981	Aircraft Tractor	HOUGH	1973	DIESEL	On-Airport Mobile Fueler	225	Yes - Works	152.0	05/15/06	No
468566	Aircraft Tractor	HOUGH	1973	DIESEL		343				No
515333	Aircraft Tractor	HOUGH	1988	DIESEL	On-Airport Mobile Fueler	170	Yes - Works	3,420.0	05/15/06	No
397348	Aircraft Tractor	HOUGH	1968	GASOLINE	On-Airport Stationary	200	Yes - Works	4,487.0	05/15/06	No
256543	Aircraft Tractor	HOUGH	1969	DIESEL	On-Airport Stationary	200	Yes - Works	6,845.0	05/15/06	No
279741	Aircraft Tractor	HOUGH	1970	DIESEL	On-Airport Stationary	200	Yes - Works	1,324.0	05/15/06	No
534667	Aircraft Tractor	HOUGH	1970	DIESEL	On-Airport Stationary	200	Yes - Works	2,420.0	05/15/06	No
532686	Aircraft Tractor	HOUGH	1970	DIESEL	On-Airport Stationary	200	Yes - Works	3,070.0	05/15/06	No
470190	Aircraft Tractor	HOUGH	1977	DIESEL	On-Airport Stationary	200	Yes - Works	1,886.0	05/15/06	No
420721	Aircraft Tractor	HOUGH	1979	DIESEL	On-Airport Stationary	200	Yes - Works	602.0	05/15/06	No
T1	Aircraft Tractor	Hough T-500	1975	Diesel	On-Airport Mobile Fueler					No
T12	Aircraft Tractor	Hough T-500	1976	Diesel	On-Airport Mobile Fueler					No
T2	Aircraft Tractor	Hough T-500	1977	Diesel	On-Airport Mobile Fueler					No
T3	Aircraft Tractor	Hough T-500	1977	Diesel	On-Airport Mobile Fueler					No
T14	Aircraft Tractor	Hough T-500	1979	Diesel	On-Airport Mobile Fueler					No
T17	Aircraft Tractor	Hough T-500	1979	Diesel	On-Airport Mobile Fueler					No
T4	Aircraft Tractor	Hough T-500	1989	Diesel	On-Airport Mobile Fueler					No
T20	Aircraft Tractor	Hough T-650	1988	Diesel	On-Airport Mobile Fueler					No
303758	Aircraft Tractor	INGERSOLL	1984	DIESEL	On-Airport Mobile Fueler					No
556759	Aircraft Tractor	INGERSOLL	1985	DIESEL	On-Airport Mobile Fueler					No
522074	Aircraft Tractor	JETLINE	1995	DIESEL	On-Airport Mobile Fueler					No
508564	Aircraft Tractor	JETLINE	1998	DIESEL	On-Airport Mobile Fueler					No
319620	Aircraft Tractor	JETLINE	2000	DIESEL	On-Airport Mobile Fueler					No
217203	Aircraft Tractor	JETLINE		DIESEL	On-Airport Mobile Fueler					No
501858	Aircraft Tractor	PAYMOVER	1989	DIESEL	On-Airport Stationary	200	Yes - Works	865.0	05/15/06	No
243299	Aircraft Tractor	PAYMOVER	1989	DIESEL	On-Airport Stationary	200	Yes - Works	4,245.0	05/15/06	No
303814	Aircraft Tractor	PAYMOVER	1989	DIESEL	On-Airport Stationary	200	Yes - Works	7,214.0	05/15/06	No
473410	Aircraft Tractor	PAYMOVER	2000	DIESEL	On-Airport Stationary	200	Yes - Works	2,661.0	05/15/06	No
S/N: 95-0639V	Aircraft Tractor	Pettibone	1995	LPG	On-Airport Mobile Fueler	112	Yes - Works	1,024.0	06/07/2006	No
S/N: 95-0640	Aircraft Tractor	Pettibone	1995	LPG	On-Airport Mobile Fueler	112	Yes - Works	1,152.0	06/07/2006	No
317723	Aircraft Tractor	S & S TUG	1986	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	883.0	06/02/06	No
553042	Aircraft Tractor	S & S TUG	1990	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	173.0	06/02/06	No
390628	Aircraft Tractor	S & S TUG	1990	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	496.0	06/02/06	No
528710	Aircraft Tractor	S & S TUG	1990	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	584.0	06/02/06	No
375340	Aircraft Tractor	S & S TUG	1991	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	2,123.0	06/02/06	No
272356	Aircraft Tractor	S & S TUG	1992	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	240.0	06/02/06	No
283115	Aircraft Tractor	S & S TUG	1992	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	484.0	06/02/06	No
385994	Aircraft Tractor	S & S TUG	1992	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	1,228.0	06/02/06	No
434623	Aircraft Tractor	S & S TUG	1993	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	981.0	06/02/06	No
478471	Aircraft Tractor	S & S TUG	1994	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	881.0	06/02/06	No

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		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
386288	Aircraft Tractor	S & S TUG	1995	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	1,222.0	06/02/06	No
431410	Aircraft Tractor	S & S TUG	1995	DIESEL	On-Airport Mobile Fueler	136	Yes - Works	1,465.0	06/02/06	No
347928	Aircraft Tractor	S AND S	1982	DIESEL		256				No
424851	Aircraft Tractor	S AND S	1984	DIESEL		256				No
336084	Aircraft Tractor	S AND S	1999	DIESEL		168				No
451059	Aircraft Tractor	S AND S	1999	DIESEL		168				No
455203	Aircraft Tractor	S AND S	1999	DIESEL		168				No
285943	Aircraft Tractor	S AND S	2000	DIESEL		168				No
498603	Aircraft Tractor	S AND S	2000	DIESEL		168				No
557039	Aircraft Tractor	S AND S	2000	DIESEL		168				No
10155	Aircraft Tractor	S&S	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
10153	Aircraft Tractor	S&S	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
10171	Aircraft Tractor	S&S	1998	diesel	On-Airport Mobile Fueler		Yes - Works			
10194	Aircraft Tractor	S&S	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
10252	Aircraft Tractor	S&S	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
T21	Aircraft Tractor	S&S GT110	2001	Diesel	On-Airport Mobile Fueler					No
T7	Aircraft Tractor	S&S GT32	1983	Diesel	On-Airport Mobile Fueler					No
T5	Aircraft Tractor	S&S GT32	1984	Diesel	On-Airport Mobile Fueler					No
T6	Aircraft Tractor	S&S GT32	1984	Diesel	On-Airport Mobile Fueler					No
T10	Aircraft Tractor	S&S GT32	1984	Diesel	On-Airport Mobile Fueler					No
T19	Aircraft Tractor	S&S GT32	1984	Diesel	On-Airport Mobile Fueler					No
T9	Aircraft Tractor	S&S GT35	2000	Diesel	On-Airport Mobile Fueler					No
T11	Aircraft Tractor	S&S GT35	2000	Diesel	On-Airport Mobile Fueler					No
T15	Aircraft Tractor	S&S GT35	2001	Diesel	On-Airport Mobile Fueler					No
T22	Aircraft Tractor	S&S T-100	1994	Diesel	On-Airport Mobile Fueler					No
T13	Aircraft Tractor	S&S T-750	1996	Diesel	On-Airport Mobile Fueler					No
514136	Aircraft Tractor	S/S	1978	DIESEL	On-Airport Mobile Fueler	136	Yes - Works			No
541247	Aircraft Tractor	S/S	1984	DIESEL	On-Airport Mobile Fueler	136	Yes - Works			No
504980	Aircraft Tractor	S/S	1986	DIESEL	On-Airport Mobile Fueler	136	Yes - Works			No
325843	Aircraft Tractor	S/S	1987	DIESEL	On-Airport Mobile Fueler	205	Yes - Works			No
483294	Aircraft Tractor	SMRND	1980	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
302540	Aircraft Tractor	SRAND	1990	DIESEL	On-Airport Stationary	200	Yes - Works	4,702.0	05/15/06	No
309869	Aircraft Tractor	SS TUG	1979	DIESEL	On-Airport Mobile Fueler	131	Yes - Works	389.0	05/15/06	No
226842	Aircraft Tractor	SS TUG	1986	DIESEL	On-Airport Mobile Fueler	225	Yes - Works	4,843.0	05/15/06	No
542381	Aircraft Tractor	SS TUG	1999	DIESEL	On-Airport Mobile Fueler	190	Yes - Works	3,669.0	05/15/06	No
382011	Aircraft Tractor	SS TUG	2000	DIESEL	On-Airport Mobile Fueler	255	Yes - Works	2,187.0	05/15/06	No
415436	Aircraft Tractor	SS TUG	2003	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	1,165.0	05/15/06	No
446579	Aircraft Tractor	STEWART & STEVENSON	1986	DIESEL	On-Airport Mobile Fueler					No
533575	Aircraft Tractor	STEWART & STEVENSON	1982	DIESEL	On-Airport Stationary	200	Yes - Works	1,543.0	05/15/06	No
315525	Aircraft Tractor	STEWART & STEVENSON	1983	ELECTRIC	On-Airport Stationary	200	Yes - Works	2,599.0	05/15/06	No
322959	Aircraft Tractor	STEWART & STEVENSON	1983	ELECTRIC	On-Airport Stationary	200	Yes - Works	7,939.0	05/15/06	No
531244	Aircraft Tractor	STEWART & STEVENSON	1983	ELECTRIC	On-Airport Stationary	200	Yes - Works	9,695.0	05/15/06	No

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280539	Aircraft Tractor	STEWART & STEVENSON	1984	ELECTRIC	On-Airport Stationary	200	Yes - Works	2,940.0	05/15/06	No
374318	Aircraft Tractor	STEWART & STEVENSON	1984	ELECTRIC	On-Airport Stationary	200	Yes - Works	7,995.0	05/15/06	No
313390	Aircraft Tractor	STEWART & STEVENSON	1986	ELECTRIC	On-Airport Stationary	200	Yes - Works	1,122.0	05/15/06	No
565278	Aircraft Tractor	STEWART & STEVENSON	1986	ELECTRIC	On-Airport Stationary	200	Yes - Works	4,529.0	05/15/06	No
298424	Aircraft Tractor	STEWART & STEVENSON	1987	ELECTRIC	On-Airport Stationary	200	Yes - Works	1,331.0	05/15/06	No
489503	Aircraft Tractor	STEWART & STEVENSON	1988	ELECTRIC	On-Airport Stationary	200	Yes - Works	1,681.0	05/15/06	No
538223	Aircraft Tractor	STEWART & STEVENSON	1988	DIESEL	On-Airport Stationary	200	Yes - Works	1,785.0	05/15/06	No
220661	Aircraft Tractor	STEWART & STEVENSON	1989	ELECTRIC	On-Airport Stationary	200	Yes - Works	4,472.0	05/15/06	No
398538	Aircraft Tractor	STEWART & STEVENSON	1990	ELECTRIC	On-Airport Stationary	200	Yes - Works	3,892.0	05/15/06	No
350357	Aircraft Tractor	STEWART & STEVENSON	1991	DIESEL	On-Airport Stationary	200	Yes - Works	430.0	05/15/06	No
527205	Aircraft Tractor	STEWART & STEVENSON	1994	DIESEL	On-Airport Stationary	200	Yes - Works	0.0	05/15/06	No
433223	Aircraft Tractor	STEWART & STEVENSON	1996	ELECTRIC	On-Airport Stationary	200	Yes - Works	77.0	05/15/06	No
226296	Aircraft Tractor	STEWART & STEVENSON	1996	DIESEL	On-Airport Stationary	200	Yes - Works	8,733.0	05/15/06	No
274631	Aircraft Tractor	STEWART & STEVENSON	1997	DIESEL	On-Airport Stationary	200	Yes - Works	7,385.0	05/15/06	No
241052	Aircraft Tractor	STEWART & STEVENSON	1998	ELECTRIC	On-Airport Stationary	200	Yes - Works	521.0	05/15/06	No
ATC908 GT110	Aircraft Tractor	Stewart Stevenson	1996	Diesel	On-Airport Mobile Fueler	450	Yes - Works	2,023.0		No
ATC909 GT110	Aircraft Tractor	Stewart Stevenson	2000	Diesel	On-Airport Mobile Fueler	450	Yes - Works	6,286.9		No
ATC 913 GT35A	Aircraft Tractor	Stewart Stevenson	2005	Diesel	On-Airport Mobile Fueler	250	Yes - Works	1,709.9		No
ATC910 GT110 LT	Aircraft Tractor	Stewart Stevenson	2005	Diesel	On-Airport Mobile Fueler	450	Yes - Works	2,860.7		No
ATC912 GT110 LT	Aircraft Tractor	Stewart Stevenson	2005	Diesel	On-Airport Mobile Fueler	450	Yes - Works	3,580.0		No
ATC 914 GT35A	Aircraft Tractor	Stewart Stevenson	2005	Diesel	On-Airport Mobile Fueler	250	Yes - Doesn't Work			No
425670	Aircraft Tractor	STEWART&STEVENSON		DIESEL	On-Airport Mobile Fueler	162				No
438774	Aircraft Tractor	STEWART&STEVENSON		DIESEL	On-Airport Mobile Fueler	162				No
423857	Aircraft Tractor	STEWART&STEVENSON		DIESEL	On-Airport Mobile Fueler					No
432103	Aircraft Tractor	STWST	1980	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
482258	Aircraft Tractor	STWST	1980	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
453054	Aircraft Tractor	STWST	1989	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
516824	Aircraft Tractor	STWST	1996	ELECTRIC	On-Airport Stationary	265	Yes - Works			No
10201	Aircraft Tractor	TLD	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
ATL001 TPX500	Aircraft Tractor	TLD	2006	Diesel	On-Airport Mobile Fueler	650	Yes - Works	1,116.6		No
T23	Aircraft Tractor	TLDTPX 500	2004	Diesel	On-Airport Mobile Fueler					No
495355	Aircraft Tractor	TLDXX	2004	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
446642	Aircraft Tractor	TLDXX	2005	DIESEL	On-Airport Mobile Fueler	265	Yes - Works			No
479346	Aircraft Tractor	TRACMA	1999	DIESEL		280				No
260897	Aircraft Tractor	TRACMA	2000	DIESEL		280				No
445641	Aircraft Tractor	TUG	1994	DIESEL		86	Yes - Works			No
VIN-387-402U	Aircraft Tractor	TUG	N/A	GASOLINE	On-Airport Mobile Fueler		Yes - Works	-	N/A	Yes - Other
T8	Aircraft Tractor	United SM200		Gasoline	On-Airport Mobile Fueler					No
8712	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	697.0	11/01/2006	No
10174	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	1,959.0	11/01/2006	No
10175	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	2,564.0	11/01/2006	No
10283	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	2,741.0	11/01/2006	No

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3492	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	2,877.0	11/01/2006	No
10282	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	2,969.0	11/01/2006	No
8688	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	3,651.0	11/01/2006	No
8788	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	3,874.0	11/01/2006	No
8783	Aircraft Tractor			Diesel	On-Airport Mobile Fueler		Yes - Works	6,298.0	11/01/2006	No
499737	Aircraft Tractor			DIESEL						No
334782	Baggage Tractor	CHARLATTE	1996	ELECTRIC		95				No
352282	Baggage Tractor	CHARLATTE	1996	ELECTRIC		95				No
248983	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
277676	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
303051	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
368900	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
370489	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
388738	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
408121	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
415639	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
508655	Baggage Tractor	CHARLATTE	1997	ELECTRIC		95				No
218400	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
303072	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
338807	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
370636	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
420959	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
453600	Baggage Tractor	CHARLATTE	1998	ELECTRIC		95				No
224630	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
226667	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
264075	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
271523	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
274484	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
274603	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
274617	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
276675	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
280364	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
289380	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
309001	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
309302	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
315812	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
323617	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
324800	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
329616	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
337743	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
338345	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
340221	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No

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342181	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
346626	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
348320	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
350350	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
352534	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
362026	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
362901	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
367675	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
372645	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
393099	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
398727	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
412083	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
414596	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
414904	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
434651	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
435827	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
440846	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
442211	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
443919	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
454741	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
456127	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
460852	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
472339	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
472563	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
473963	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
485933	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
487501	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
490777	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
491512	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
496958	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
498197	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
503048	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
508823	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
514703	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
522725	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
525917	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
530747	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
534296	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
545804	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
547162	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
553294	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
561428	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No

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564410	Baggage Tractor	CHARLATTE	1999	ELECTRIC		95				No
534744	Baggage Tractor	CHARLATTE	2000	ELECTRIC		92				No
333746	Baggage Tractor	CHARLATTE	2000	ELECTRIC		95				No
348033	Baggage Tractor	CHARLATTE	2000	ELECTRIC		95				No
462161	Baggage Tractor	CHARLATTE	2000	ELECTRIC		95				No
332584	Baggage Tractor	CHARLATTE	2001	ELECTRIC		95				No
239302	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
250579	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
261163	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
320103	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
343861	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
351708	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
351799	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
374759	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
375004	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
377083	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
394261	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
397278	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
416906	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
419069	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
429863	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
457506	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
463022	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
471051	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
481481	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
485457	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
554995	Baggage Tractor	CHARLATTE	2002	ELECTRIC		95				No
471758	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	14.0	05/15/06	No
535514	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	97.0	05/15/06	No
405412	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	123.0	05/15/06	No
292495	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	246.0	05/15/06	No
551166	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	322.0	05/15/06	No
359114	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	369.0	05/15/06	No
293727	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	385.0	05/15/06	No
266182	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	644.0	05/15/06	No
436324	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	696.0	05/15/06	No
227696	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	792.0	05/15/06	No
231483	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,058.0	05/15/06	No
374514	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,135.0	05/15/06	No
254030	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,284.0	05/15/06	No
476322	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,311.0	05/15/06	No
304948	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,986.0	05/15/06	No

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445242	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,132.0	05/15/06	No
548835	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,970.0	05/15/06	No
254590	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,230.0	05/15/06	No
354592	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,237.0	05/15/06	No
361963	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,367.0	05/15/06	No
229586	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,638.0	05/15/06	No
221452	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,642.0	05/15/06	No
421554	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,652.0	05/15/06	No
451143	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,702.0	05/15/06	No
396858	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,769.0	05/15/06	No
317800	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,790.0	05/15/06	No
559041	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,880.0	05/15/06	No
282863	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,929.0	05/15/06	No
555009	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,185.0	05/15/06	No
307160	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,237.0	05/15/06	No
467824	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,483.0	05/15/06	No
516635	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,497.0	05/15/06	No
390642	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,684.0	05/15/06	No
505183	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,838.0	05/15/06	No
292089	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,394.0	05/15/06	No
477911	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,565.0	05/15/06	No
265755	Baggage Tractor	CHARLATTE	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	37,907.0	05/15/06	No
412587	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,833.0	05/15/06	No
281351	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,991.0	05/15/06	No
414526	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,353.0	05/15/06	No
230433	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,371.0	05/15/06	No
437535	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,458.0	05/15/06	No
467852	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,664.0	05/15/06	No
441700	Baggage Tractor	CHARLATTE	1996	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,813.0	05/15/06	No
543242	Baggage Tractor	CHARLATTE	1997	ELECTRIC	On-Airport Stationary	85	Yes - Works	86.0	05/15/06	No
220815	Baggage Tractor	CHARLATTE	1997	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,440.0	05/15/06	No
320971	Baggage Tractor	CHARLATTE	1997	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,440.0	05/15/06	No
351680	Baggage Tractor	CHARLATTE	1997	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,749.0	05/15/06	No
348411	Baggage Tractor	CLARK	1978	LPG	On-Airport Mobile Fueler	95	Yes - Works	1,797.0	05/15/06	No
223566	Baggage Tractor	CLARK	1983	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	712.0	06/02/06	No
342916	Baggage Tractor	CLARK	1961	GASOLINE	On-Airport Stationary	93	Yes - Works	166.0	05/15/06	No
240667	Baggage Tractor	CLARK	1970	LPG	On-Airport Stationary	93	Yes - Works	3,745.0	05/15/06	No
334642	Baggage Tractor	CLARK	1976	GASOLINE	On-Airport Stationary	93	Yes - Works	2,978.0	05/15/06	No
389620	Baggage Tractor	CLARK	1979	GASOLINE	On-Airport Stationary	93	Yes - Works	1,543.0	05/15/06	No
493941	Baggage Tractor	CLARK	1979	GASOLINE	On-Airport Stationary	93	Yes - Works	7,240.0	05/15/06	No
277837	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
319732	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No

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354991	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
391272	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
417424	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
456414	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
457415	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
466865	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
472444	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
505547	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
528584	Baggage Tractor	COA	2000	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
321867	Baggage Tractor	COA	2001	ELECTRIC	On-Airport Mobile Fueler	92	Yes - Works			No
370300	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	5,311.0	04/28/06	No
394065	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	111.0	05/24/06	No
414162	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	461.0	06/01/06	No
550571	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	312.0	06/08/06	No
289772	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	1,479.0	06/08/06	No
462084	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	9,957.0	06/09/06	No
362306	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	257.0	06/11/06	No
480284	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	449.0	06/11/06	No
465353	Baggage Tractor	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	940.0	06/11/06	No
305676	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	499.0	04/30/06	No
311717	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	9,743.0	05/09/06	No
459753	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	460.0	05/19/06	No
387933	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	5,138.0	05/23/06	No
244601	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	68.0	05/30/06	No
440566	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	133.0	05/30/06	No
402367	Baggage Tractor	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	9,467.0	06/06/06	No
241773	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	3,190.0	02/04/01	No
529221	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	684.0	11/22/01	No
235788	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	2,721.0	11/24/01	No
471128	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	8,374.0	04/28/06	No
485121	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	5,661.0	06/01/06	No
538783	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	8,107.0	06/04/06	No
312144	Baggage Tractor	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	2,517.0	06/09/06	No
415429	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	240.0	11/28/01	No
386995	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	2.0	01/15/02	No
404866	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	21.0	01/15/02	No
217665	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	29.0	01/15/02	No
296009	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	462.0	02/01/02	No
563962	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	618.0	02/07/02	No
384398	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	572.0	02/15/02	No
261569	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	6,060.0	03/24/06	No
558306	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	6,154.0	03/24/06	No

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345513	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	115.0	04/11/06	No
265699	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	590.0	05/16/06	No
390229	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	5,870.0	05/24/06	No
460796	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	9,845.0	06/06/06	No
345268	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	5,678.0	06/07/06	No
408268	Baggage Tractor	DEUTZ	2001	DIESEL	On-Airport Stationary	60	Yes - Works	4,682.0	06/11/06	No
285677	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	4.0	05/15/06	No
367178	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	410.0	05/15/06	No
475195	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,609.0	05/15/06	No
356587	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,968.0	05/15/06	No
507409	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,033.0	05/15/06	No
404964	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,096.0	05/15/06	No
284242	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,897.0	05/15/06	No
427546	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,182.0	05/15/06	No
241752	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,604.0	05/15/06	No
505106	Baggage Tractor	ELGIN ELECTRIC	1992	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,015.0	05/15/06	No
248381	Baggage Tractor	ELGIN ELECTRIC	1993	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,612.0	05/15/06	No
224595	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	71.0	05/15/06	No
425775	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	138.0	05/15/06	No
527142	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	399.0	05/15/06	No
547414	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	567.0	05/15/06	No
445284	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	577.0	05/15/06	No
280329	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,176.0	05/15/06	No
468580	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,728.0	05/15/06	No
326781	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,692.0	05/15/06	No
515410	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,870.0	05/15/06	No
378700	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,953.0	05/15/06	No
224924	Baggage Tractor	ELGIN ELECTRIC	1994	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,185.0	05/15/06	No
259154	Baggage Tractor	EQUI-TECH		GASOLINE	On-Airport Mobile Fueler	95				No
316120	Baggage Tractor	FORD	1978	GAS	On-Airport Stationary	118	Yes - Works	1,898.0	02/13/02	No
239603	Baggage Tractor	FORD	1987	GAS	On-Airport Stationary	118	Yes - Works	3,097.0	06/08/06	No
265412	Baggage Tractor	FORD	1991	GAS	On-Airport Stationary	118	Yes - Works	2,518.0	04/01/06	No
397670	Baggage Tractor	FORD	1991	GAS	On-Airport Stationary	118	Yes - Works	8,316.0	06/01/06	No
259637	Baggage Tractor	HARLAN	1984	GASOLINE	On-Airport Mobile Fueler					No
262878	Baggage Tractor	HARLAN	1984	GASOLINE	On-Airport Mobile Fueler					No
288407	Baggage Tractor	HARLAN	1984	GASOLINE	On-Airport Mobile Fueler					No
278740	Baggage Tractor	HARLAN	1983	DIESEL	On-Airport Stationary	93	Yes - Works	3,993.0	05/15/06	No
493472	Baggage Tractor	HARLAN	1983	DIESEL	On-Airport Stationary	93	Yes - Works	8,967.0	05/15/06	No
395675	Baggage Tractor	JETLINE	1992	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	13,505.0	06/02/06	No
495068	Baggage Tractor	JETLINE	1992	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	18,711.0	06/02/06	No
344036	Baggage Tractor	JETLINE	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	579.0	06/02/06	No
296667	Baggage Tractor	JETLINE	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,763.0	06/02/06	No

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471352	Baggage Tractor	JETLINE	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	7,074.0	06/02/06	No
312746	Baggage Tractor	JETLINE	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	10,045.0	06/02/06	No
491897	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	379.0	06/02/06	No
419979	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,972.0	06/02/06	No
322812	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,077.0	06/02/06	No
420266	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,177.0	06/02/06	No
539329	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	6,955.0	06/02/06	No
315679	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	8,563.0	06/02/06	No
537656	Baggage Tractor	JETLINE	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	20,105.0	06/02/06	No
346885	Baggage Tractor	JETLINE	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	6,522.0	06/02/06	No
245378	Baggage Tractor	JETLINE	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	13,457.0	06/02/06	No
443541	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	1,226.0	06/02/06	No
444409	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	1,339.0	06/02/06	No
551544	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,456.0	06/02/06	No
292313	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	7,887.0	06/02/06	No
460481	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	7,943.0	06/02/06	No
366779	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	8,176.0	06/02/06	No
507780	Baggage Tractor	JETLINE	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	15,220.0	06/02/06	No
222075	Baggage Tractor	JETLINE		GASOLINE	On-Airport Mobile Fueler	95				No
258475	Baggage Tractor	JETLINE		GASOLINE	On-Airport Mobile Fueler	95				No
284767	Baggage Tractor	JETLINE		GASOLINE	On-Airport Mobile Fueler	95				No
525539	Baggage Tractor	JETLINE		GASOLINE	On-Airport Mobile Fueler	95				No
550858	Baggage Tractor	JETLINE		GASOLINE	On-Airport Mobile Fueler	95				No
430241	Baggage Tractor	KALAMAZOO	1974	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,485.0	05/15/06	No
265762	Baggage Tractor	NAVISTAR	2000	DIESEL	On-Airport Stationary	93	Yes - Works	6,451.0	05/15/06	Yes - Other
218589	Baggage Tractor	NORTH	1995	GASOLINE	On-Airport Mobile Fueler					No
328006	Baggage Tractor	NORTHWESTERN	1995	DIESEL	On-Airport Stationary	93	Yes - Works	11,842.0	05/15/06	No
386323	Baggage Tractor	NORTHWESTERN	1996	DIESEL	On-Airport Stationary	93	Yes - Works	6,910.0	05/15/06	No
304815	Baggage Tractor	NORTHWESTERN	1996	DIESEL	On-Airport Stationary	93	Yes - Works	9,086.0	05/15/06	No
512967	Baggage Tractor	NORTHWESTERN	1996	DIESEL	On-Airport Stationary	93	Yes - Works	9,155.0	05/15/06	No
456421	Baggage Tractor	NORTHWESTERN	1996	DIESEL	On-Airport Stationary	93	Yes - Works	15,406.0	05/15/06	No
254205	Baggage Tractor	NORTHWESTERN	1996	DIESEL	On-Airport Stationary	93	Yes - Works	17,156.0	05/15/06	No
16516	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16531	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16532	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16533	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16534	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16535	Baggage Tractor	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
257124	Baggage Tractor	SS TUG	1987	LPG	On-Airport Mobile Fueler	95	Yes - Works	3,199.0	05/15/06	No
416647	Baggage Tractor	SS TUG	1987	LPG	On-Airport Mobile Fueler	95	Yes - Works		05/16/06	No
410179	Baggage Tractor	SS TUG	1993	LPG	On-Airport Mobile Fueler	95	Yes - Works	280.0	05/15/06	No
531755	Baggage Tractor	SS TUG	1993	LPG	On-Airport Mobile Fueler	95	Yes - Works	886.0	05/15/06	No

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377531	Baggage Tractor	SS TUG	1993	LPG	On-Airport Mobile Fueler	95	Yes - Works	8,916.0	05/15/06	No
478205	Baggage Tractor	SS TUG	1993	LPG	On-Airport Mobile Fueler	95	Yes - Works	1,147.0		No
374857	Baggage Tractor	SS TUG	1996	LPG	On-Airport Stationary	95	Yes - Works	3,534.0	05/15/06	No
317170	Baggage Tractor	SS TUG	1997	LPG	On-Airport Stationary	95	Yes - Works	5,212.0	05/15/06	No
266637	Baggage Tractor	SS TUG	1998	LPG	On-Airport Mobile Fueler	95	Yes - Works	234.0	05/15/06	No
225498	Baggage Tractor	SS TUG	1998	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,425.0	05/15/06	No
447517	Baggage Tractor	SS TUG	1998	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,585.0	05/15/06	No
327691	Baggage Tractor	SS TUG	1998	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,625.0	05/15/06	No
451262	Baggage Tractor	SS TUG	1998	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,734.0	05/15/06	No
412916	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	2,838.0	05/15/06	No
387170	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	4,637.0	05/15/06	No
231371	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,086.0	05/15/06	No
332108	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,189.0	05/15/06	No
389123	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,314.0	05/15/06	No
388164	Baggage Tractor	SS TUG	1999	LPG	On-Airport Mobile Fueler	95	Yes - Works	5,690.0	05/15/06	No
297143	Baggage Tractor	SS TUG	2001	ELECTRIC		29	Yes - Works	2,939.0	05/15/06	No
476511	Baggage Tractor	SS TUG	2001	ELECTRIC		29	Yes - Works	3,214.0	05/15/06	No
510510	Baggage Tractor	SS TUG	2003	ELECTRIC		29	Yes - Works	3,861.0	05/15/06	No
271313	Baggage Tractor	TAYLOR DUNN	2000	ELECTRIC		92				No
264201	Baggage Tractor	TAYLOR DUNN	2000	ELECTRIC		95				No
382823	Baggage Tractor	TAYLOR DUNN	2000	ELECTRIC		95				No
TG 1550	Baggage Tractor	TIGER MFG	1999	LPG	On-Airport Mobile Fueler	124	Yes - Works	4,637.0	05/22/2006	No
TG 1450	Baggage Tractor	TIGER MFG	1999	LPG	On-Airport Mobile Fueler	124	Yes - Works	8,447.0	05/22/2006	No
56 RT 127	Baggage Tractor	Tiger TIG 50	2000	Gasoline	On-Airport Mobile Fueler					No
57 RT 128	Baggage Tractor	Tiger TIG 50	2000	Gasoline	On-Airport Mobile Fueler					No
6 RT 115	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
12 RT 116	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
18 RT 117	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
19 RT 118	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
20 RT 119	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
22 RT 120	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
24 RT 121	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
25 RT 122	Baggage Tractor	Tiger TIG 50	2000	Propane	On-Airport Mobile Fueler					No
366842	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,748.0	05/15/06	No
240128	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,905.0	05/15/06	No
373730	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,199.0	05/15/06	No
370132	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,954.0	05/15/06	No
550018	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,064.0	05/15/06	No
375214	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,363.0	05/15/06	No
374451	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,387.0	05/15/06	No
459158	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,418.0	05/15/06	No
362698	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,563.0	05/15/06	No

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ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
319130	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,627.0	05/15/06	No
360759	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,704.0	05/15/06	No
255234	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,254.0	05/15/06	No
334586	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,475.0	05/15/06	No
409087	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,652.0	05/15/06	No
516481	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,802.0	05/15/06	No
495348	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,953.0	05/15/06	No
401023	Baggage Tractor	TOYOTA	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,982.0	05/15/06	No
370664	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,331.0	05/15/06	No
306271	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,513.0	05/15/06	No
490903	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,609.0	05/15/06	No
230888	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,614.0	05/15/06	No
434714	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,639.0	05/15/06	No
435386	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	6,994.0	05/15/06	No
325948	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,276.0	05/15/06	No
246827	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,882.0	05/15/06	No
371658	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,948.0	05/15/06	No
346297	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,454.0	05/15/06	No
515746	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,462.0	05/15/06	No
224091	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,592.0	05/15/06	No
517832	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,675.0	05/15/06	No
339073	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,706.0	05/15/06	No
436009	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,706.0	05/15/06	No
431837	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,847.0	05/15/06	No
565397	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,877.0	05/15/06	No
433349	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	8,879.0	05/15/06	No
560693	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,025.0	05/15/06	No
253827	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,029.0	05/15/06	No
242263	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,039.0	05/15/06	No
412265	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,123.0	05/15/06	No
253414	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,525.0	05/15/06	No
238763	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,536.0	05/15/06	No
217763	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,547.0	05/15/06	No
312984	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,556.0	05/15/06	No
432187	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,577.0	05/15/06	No
473088	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,626.0	05/15/06	No
333816	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,650.0	05/15/06	No
518049	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,716.0	05/15/06	No
323085	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,720.0	05/15/06	No
484617	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,730.0	05/15/06	No
366814	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,755.0	05/15/06	No
240009	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,768.0	05/15/06	No

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238154	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,769.0	05/15/06	No
260050	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,817.0	05/15/06	No
352170	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,831.0	05/15/06	No
551957	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,845.0	05/15/06	No
489706	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,892.0	05/15/06	No
287098	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,898.0	05/15/06	No
250586	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,923.0	05/15/06	No
534100	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,938.0	05/15/06	No
312249	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,958.0	05/15/06	No
353332	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	9,966.0	05/15/06	No
294728	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,102.0	05/15/06	No
329812	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,230.0	05/15/06	No
435057	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,289.0	05/15/06	No
494102	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,339.0	05/15/06	No
441287	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,452.0	05/15/06	No
441084	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	10,551.0	05/15/06	No
305228	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	11,060.0	05/15/06	No
323589	Baggage Tractor	TOYOTA	2002	ELECTRIC	On-Airport Stationary	85	Yes - Works	11,123.0	05/15/06	No
TG 0270	Baggage Tractor	TUG	1984	LPG	On-Airport Mobile Fueler	124	Yes - Works	1,701.0	05/22/2006	No
TG 0250	Baggage Tractor	TUG	1985	LPG	On-Airport Mobile Fueler	127	Yes - Works	9,161.0	05/22/2006	No
TG 0260	Baggage Tractor	TUG	1985	LPG	On-Airport Mobile Fueler	124	Yes - Works	22,264.0	05/22/2006	No
TG 1220	Baggage Tractor	TUG	1986	LPG	On-Airport Mobile Fueler	124	Yes - Works	7,542.0	05/22/2006	No
BTU344 LPG	Baggage Tractor	TUG	1987	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
TUG	Baggage Tractor	TUG	1988	gasoline	On-Airport Mobile Fueler		Yes - Works	14,888.0	06/13/2006	No
264621	Baggage Tractor	TUG	1988	GASOLINE	On-Airport Mobile Fueler					No
285271	Baggage Tractor	TUG	1988	GASOLINE	On-Airport Mobile Fueler					No
349468	Baggage Tractor	TUG	1988	GASOLINE	On-Airport Mobile Fueler					No
266882	Baggage Tractor	TUG	1989	GASOLINE	On-Airport Mobile Fueler					No
TG 1210	Baggage Tractor	TUG	1991	LPG	On-Airport Mobile Fueler	124	Yes - Works	7,226.0	05/22/2006	No
381080	Baggage Tractor	TUG	1992	GASOLINE	On-Airport Mobile Fueler					No
16251	Baggage Tractor	TUG	1992	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16256	Baggage Tractor	TUG	1992	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16258	Baggage Tractor	TUG	1992	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16259	Baggage Tractor	TUG	1993	LPG	On-Airport Mobile Fueler	170	Yes - Works			
17281	Baggage Tractor	TUG	1993	LPG	On-Airport Mobile Fueler	170	Yes - Works			
222432	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
254583	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
390614	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
427728	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
448588	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
475482	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
517727	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No

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		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
547939	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
554211	Baggage Tractor	TUG	1994	GASOLINE	On-Airport Mobile Fueler					No
254912	Baggage Tractor	TUG	1995	GASOLINE		95	Yes - Works			No
241675	Baggage Tractor	TUG	1995	ELECTRIC		92				No
242753	Baggage Tractor	TUG	1995	ELECTRIC		92				No
425950	Baggage Tractor	TUG	1995	ELECTRIC		92				No
495775	Baggage Tractor	TUG	1995	ELECTRIC		92				No
539000	Baggage Tractor	TUG	1995	ELECTRIC		92				No
283038	Baggage Tractor	TUG	1995	GASOLINE	On-Airport Mobile Fueler					No
BTU353 GAS	Baggage Tractor	TUG	1995	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU376 GAS	Baggage Tractor	TUG	1995	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU395 GAS	Baggage Tractor	TUG	1995	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU354 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU375 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU378 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU382 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU387 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU388 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU393 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU394 LPG	Baggage Tractor	TUG	1995	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
335293	Baggage Tractor	TUG	1996	GASOLINE		95	Yes - Works			No
BTU396 GAS	Baggage Tractor	TUG	1996	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU397 GAS	Baggage Tractor	TUG	1996	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
17324	Baggage Tractor	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16325	Baggage Tractor	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16344	Baggage Tractor	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16347	Baggage Tractor	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16348	Baggage Tractor	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16349	Baggage Tractor	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
542059	Baggage Tractor	TUG	1998	GASOLINE	On-Airport Mobile Fueler					No
16424	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16425	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16426	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16427	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16433	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16435	Baggage Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
BTU398 LPG	Baggage Tractor	TUG	2000	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU399 LPG	Baggage Tractor	TUG	2000	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU400 LPG	Baggage Tractor	TUG	2000	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU401 LPG	Baggage Tractor	TUG	2000	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
TG 1740	Baggage Tractor	TUG	2001	LPG	On-Airport Mobile Fueler	124	Yes - Works	7,889.0	05/22/2006	No
TG 1760	Baggage Tractor	TUG	2001	LPG	On-Airport Mobile Fueler	124	Yes - Works	8,373.0	05/22/2006	No

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		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
TG 1750	Baggage Tractor	TUG	2001	LPG	On-Airport Mobile Fueler	124	Yes - Works	1.0	05/31/2006	No
461636	Baggage Tractor	TUG	2001	GASOLINE			Yes - Works			No
BTU389 LPG	Baggage Tractor	TUG	2004	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU402 GAS	Baggage Tractor	TUG	2005	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU403 GAS	Baggage Tractor	TUG	2005	Gasoline	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU404 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU405 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU406 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU407 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU408 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU409 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
BTU410 LPG	Baggage Tractor	TUG	2005	LPG	On-Airport Mobile Fueler	160	Yes - Doesn't Work			Yes - Other
7	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	14.0	11/01/2006	No
6	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	16.0	11/01/2006	no
3	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	18.0	11/01/2006	no
1	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	22.0	11/01/2006	no
8	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	23.0	11/01/2006	no
4	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	25.0	11/01/2006	no
5	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	31.0	11/01/2006	no
2	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	33.0	11/01/2006	no
8700	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	440.0	11/01/2006	no
8757	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	534.0	11/01/2006	no
8755	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	689.0	11/01/2006	no
8701	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	989.0	11/01/2006	no
8702	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,024.0	11/01/2006	no
13189	Baggage Tractor	tug		Diesel	On-Airport Mobile Fueler		Yes - Works	1,029.0	11/01/2006	no
8791	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,341.0	11/01/2006	no
13190	Baggage Tractor	tug		Diesel	On-Airport Mobile Fueler		Yes - Works	1,445.0	11/01/2006	no
13193	Baggage Tractor	tug		Diesel	On-Airport Mobile Fueler		Yes - Works	1,541.0	11/01/2006	no
13813	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,626.0	11/01/2006	no
8708	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,780.0	11/01/2006	no
8479	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,803.0	11/01/2006	no
8693	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	1,854.0	11/01/2006	no
13192	Baggage Tractor	tug		Diesel	On-Airport Mobile Fueler		Yes - Works	1,908.0	11/01/2006	no
8486	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,095.0	11/01/2006	no
8789	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,147.0	11/01/2006	no
3885	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,218.0	11/01/2006	no
8758	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,381.0	11/01/2006	no
8477	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,591.0	11/01/2006	no
8760	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,865.0	11/01/2006	no
8756	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,982.0	11/01/2006	no
8759	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	2,983.0	11/01/2006	no

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8774	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	3,654.0	11/01/2006	no
8682	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	3,842.0	11/01/2006	no
8724	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	3,946.0	11/01/2006	no
8683	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	4,375.0	11/01/2006	no
13814	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	4,634.0	11/01/2006	no
8690	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	5,267.0	11/01/2006	no
8681	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	5,517.0	11/01/2006	no
8783	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	5,700.0	11/01/2006	no
14391	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	5,750.0	11/01/2006	no
8684	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	6,587.0	11/01/2006	no
8772	Baggage Tractor	tug		LPG	On-Airport Mobile Fueler		Yes - Works	9,726.0	11/01/2006	no
241850	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
325024	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
407610	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
429800	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
462392	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
493759	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
520072	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
537887	Baggage Tractor	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
484624	Baggage Tractor	TUG	1987	GASOLINE	On-Airport Stationary	93	Yes - Works	4,683.0	05/15/06	No
272279	Baggage Tractor	TUG	1989	LPG	On-Airport Stationary	93	Yes - Works	285.0	05/15/06	No
454258	Baggage Tractor	TUG	1989	DIESEL	On-Airport Stationary	93	Yes - Works	3,900.0	05/15/06	No
409570	Baggage Tractor	TUG	1989	DIESEL	On-Airport Stationary	93	Yes - Works	9,783.0	05/15/06	No
332934	Baggage Tractor	TUG	1990	LPG	On-Airport Stationary	93	Yes - Works	1,427.0	05/15/06	No
351596	Baggage Tractor	TUG	1990	LPG	On-Airport Stationary	93	Yes - Works	1,987.0	05/15/06	No
316582	Baggage Tractor	TUG	1990	LPG	On-Airport Stationary	93	Yes - Works	5,971.0	05/15/06	No
221578	Baggage Tractor	TUG	1993	LPG	On-Airport Stationary	93	Yes - Works	7,127.0	05/15/06	No
287000	Baggage Tractor	TUG	1993	LPG	On-Airport Stationary	93	Yes - Works	8,104.0	05/15/06	No
1 RT 01	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
2 RT 02	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
3 RT 03	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
4 RT 04	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
5 RT 05	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
7 RT 07	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
8 RT 09	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
9 RT 11	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
10 RT 12	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
11 RT 13	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
13 RT 15	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
14 RT 16	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
15 RT 17	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
16 RT 18	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No

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21 RT 45	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
23 RT 51	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
26 RT 55	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
27 RT 57	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
28 RT 58	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
29 RT 59	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
30 RT 123	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
31 RT 61	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
32 RT 62	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
33 RT 63	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
34 RT 64	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
35 RT 65	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
36 RT 66	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
37 RT 67	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
38 RT 68	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
49 RT 109	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
50 RT 112	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
51 RT 111	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
52 RT 10	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
64 RT 114	Baggage Tractor	Tug Inc MA	1995	Propane	On-Airport Mobile Fueler					No
39 RT 101	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
40 RT 102	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
41 RT 103	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
42 RT 104	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
43 RT 105	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
44 RT 106	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
47 RT 108	Baggage Tractor	Tug Inc MA	1996	Propane	On-Airport Mobile Fueler					No
17 RT 126	Baggage Tractor	Tug Inc MA	1997	Propane	On-Airport Mobile Fueler					No
48 RT 110	Baggage Tractor	Tug Inc MA	1997	Propane	On-Airport Mobile Fueler					No
53 RT 124	Baggage Tractor	Tug Inc MA	1997	Propane	On-Airport Mobile Fueler					No
54 RT 125	Baggage Tractor	Tug Inc MA	1997	Propane	On-Airport Mobile Fueler					No
55 RT 126	Baggage Tractor	Tug Inc MA	1997	Propane	On-Airport Mobile Fueler					No
388374	Baggage Tractor	WOLLARD	1999	DIESEL	On-Airport Stationary	85	Yes - Works	2,045.0	05/15/06	No
316092	Baggage Tractor	WOLLARD	1999	DIESEL	On-Airport Stationary	85	Yes - Works	7,198.0	05/15/06	No
545188	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	14,780.0	12/28/00	No
369145	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	773.0	11/18/01	No
520891	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	801.0	02/12/02	No
354879	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	720.0	04/19/06	No
324002	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	183.0	05/15/06	No
336602	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	3,234.0	05/18/06	No
384860	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	676.0	06/04/06	No
345793	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	975.0	06/08/06	No

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310870	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	2,649.0	06/08/06	No
247632	Baggage Tractor		1995	ELEC	On-Airport Stationary		Yes - Works	1,986.0	06/11/06	No
401058	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	2,594.0	09/18/01	No
458094	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	4.0	01/30/02	No
318059	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	1,302.0	01/30/06	No
308749	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	3,101.0	04/19/06	No
552496	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	6,321.0	04/24/06	No
450114	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	95.0	05/26/06	No
303856	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	2,785.0	06/11/06	No
411796	Baggage Tractor		1996	ELEC	On-Airport Stationary		Yes - Works	3,624.0	06/11/06	No
359863	Baggage Tractor		1997	ELEC	On-Airport Stationary		Yes - Works	4,846.0	02/03/02	No
285509	Baggage Tractor		1997	ELEC	On-Airport Stationary		Yes - Works	3,395.0	02/13/02	No
457716	Baggage Tractor		1997	ELEC	On-Airport Stationary		Yes - Works	133.0	05/07/06	No
375564	Baggage Tractor		1997	ELEC	On-Airport Stationary		Yes - Works	5,271.0	06/08/06	No
445795	Baggage Tractor		2005	ELEC	On-Airport Stationary		Yes - Works	1,118.0	10/01/05	No
246141	Baggage Tractor		2005	ELEC	On-Airport Stationary		Yes - Works	1.0	05/18/06	No
424158	Baggage Tractor		2005	ELEC	On-Airport Stationary		Yes - Works	1.0	05/18/06	No
476385	Baggage Tractor		2005	ELEC	On-Airport Stationary		Yes - Works	1.0	05/18/06	No
261849	Belt Loader	CHARLATTE	1996	ELECTRIC		95				No
535241	Belt Loader	CHARLATTE	1996	ELECTRIC		95				No
250523	Belt Loader	CHARLATTE	1998	ELECTRIC		95				No
366016	Belt Loader	CHARLATTE	1998	ELECTRIC		95				No
388318	Belt Loader	CHARLATTE	1998	ELECTRIC		95				No
416920	Belt Loader	CHARLATTE	1998	ELECTRIC		95				No
494578	Belt Loader	CHARLATTE	1998	ELECTRIC		95				No
221200	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
231784	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
234850	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
244923	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
250999	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
273448	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
324478	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
327194	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
338443	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
343021	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
384657	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
396193	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
420602	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
424179	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
448301	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
459550	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
498568	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No

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504567	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
540603	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
546308	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
548464	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
549353	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
550053	Belt Loader	CHARLATTE	1999	ELECTRIC		95				No
245343	Belt Loader	CHARLATTE	2000	ELECTRIC		95				No
357546	Belt Loader	CHARLATTE	2000	ELECTRIC		95				No
447300	Belt Loader	CHARLATTE	2000	ELECTRIC		95				No
529053	Belt Loader	CHARLATTE	2000	ELECTRIC		95				No
BELTLOADER #2	Belt Loader	COCHRAN WESTERN	1979	gasoline	On-Airport Mobile Fueler		Yes - Works			No
532007	Belt Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	60	Yes - Works	2,365.0	05/31/06	No
561505	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	4,795.0	01/13/02	No
494893	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	4,029.0	01/22/02	No
377307	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	4,300.0	01/29/02	No
227311	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	7,835.0	03/29/06	No
407799	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	6,870.0	05/20/06	No
386750	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	1,478.0	05/31/06	No
220164	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	1,518.0	06/06/06	No
541086	Belt Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	60	Yes - Works	2,151.0	06/08/06	No
321797	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	1,603.0	10/30/01	No
401632	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	5,243.0	02/28/06	No
505372	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	7,900.0	03/24/06	No
353605	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	7,983.0	04/01/06	No
381066	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	7,570.0	05/17/06	No
417452	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	9,637.0	05/24/06	No
319074	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	708.0	06/02/06	No
555471	Belt Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	8,229.0	06/12/06	No
546378	Belt Loader	FORD	1979	GAS	On-Airport Stationary		Yes - Works	3,357.0	01/29/02	No
33-016	Belt Loader	FORD	1983	LPG	On-Airport Stationary	120	Yes - Works	2,393.0	05/19/2006	
33-018	Belt Loader	FORD	1983	LPG	On-Airport Stationary	120	Yes - Works		05/19/2006	
33-073	Belt Loader	FORD	1990	LPG	On-Airport Stationary	120	Yes - Works	76.0	05/19/2006	
33-051	Belt Loader	FORD	1990	LPG	On-Airport Stationary	120	Yes - Works	100.0	05/19/2006	
256011	Belt Loader	LANTIS	1984	GASOLINE	On-Airport Mobile Fueler					No
532931	Belt Loader	LANTIS	1984	GASOLINE	On-Airport Mobile Fueler					No
BL 1040	Belt Loader	LANTIS		gasoline	On-Airport Mobile Fueler	124	Yes - Works	2,853.0	05/22/2006	No
356538	Belt Loader	NMC-WOLLARD	2000	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
374654	Belt Loader	NMC-WOLLARD	2000	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
484323	Belt Loader	NMC-WOLLARD	2000	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
439404	Belt Loader	ONAN	1987	DIESEL	On-Airport Stationary		Yes - Works	929.0	02/05/02	No
526309	Belt Loader	ONAN	1988	DIESEL	On-Airport Stationary	45	Yes - Works	1,488.0	01/15/02	No
BTL2	Belt Loader	S & S TUG	2003	gasoline	On-Airport Mobile Fueler	95	Yes - Works	872.0	06/13/2006	No

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15249	Belt Loader	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16263	Belt Loader	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15282	Belt Loader	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15283	Belt Loader	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15284	Belt Loader	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15285	Belt Loader	S&S	2001	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15413	Belt Loader	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15414	Belt Loader	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15415	Belt Loader	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
290339	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	61.0	05/15/06	No
307055	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	1,013.0	05/15/06	No
562023	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,050.0	05/15/06	No
335097	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,456.0	05/15/06	No
434007	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,626.0	05/15/06	No
399147	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,710.0	05/15/06	No
263074	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,834.0	05/15/06	No
437262	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,851.0	05/15/06	No
436716	Belt Loader	SS TUG	2001	ELECTRIC		25	Yes - Works	6,856.0	05/15/06	No
BTL1	Belt Loader	TLD	1990	diesel	On-Airport Mobile Fueler	95	Yes - Doesn't Work			No
466151	Belt Loader	TUG	1990	GASOLINE	On-Airport Mobile Fueler					No
BELTLOADER #1	Belt Loader	TUG	1992	gasoline	On-Airport Mobile Fueler		Yes - Works	930.8	06/11/2006	No
413644	Belt Loader	TUG	1992	GASOLINE		95				No
560994	Belt Loader	TUG	1992	GASOLINE		95				No
440398	Belt Loader	TUG	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,402.0	06/02/06	No
477022	Belt Loader	TUG	1993	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	6,336.0	06/02/06	No
331898	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	578.0	06/02/06	No
247282	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	1,760.0	06/02/06	No
254254	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	2,193.0	06/02/06	No
318577	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,891.0	06/02/06	No
463568	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,645.0	06/02/06	No
268793	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,662.0	06/02/06	No
456561	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,988.0	06/02/06	No
359030	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,119.0	06/02/06	No
295904	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,370.0	06/02/06	No
326865	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,440.0	06/02/06	No
495250	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,969.0	06/02/06	No
399483	Belt Loader	TUG	1994	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	9,142.0	06/02/06	No
272230	Belt Loader	TUG	1994	GASOLINE		95	Yes - Works			No
15185	Belt Loader	TUG	1994	LPG	On-Airport Mobile Fueler	170	Yes - Works			
302568	Belt Loader	TUG	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	2,610.0	06/02/06	No
453698	Belt Loader	TUG	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,399.0	06/02/06	No
541751	Belt Loader	TUG	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,832.0	06/02/06	No

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329546	Belt Loader	TUG	1995	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	9,424.0	06/02/06	No
CBL151	Belt Loader	TUG	1995	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL255	Belt Loader	TUG	1995	Gasoline	On-Airport Mobile Fueler	140	No			No
541149	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	2,094.0	06/02/06	No
223559	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	2,933.0	06/02/06	No
550480	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	3,297.0	06/02/06	No
538440	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,618.0	06/02/06	No
305823	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	4,936.0	06/02/06	No
235956	Belt Loader	TUG	1996	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	5,737.0	06/02/06	No
383446	Belt Loader	TUG	1996	GASOLINE		95	Yes - Works			No
15194	Belt Loader	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15204	Belt Loader	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
BL 1630	Belt Loader	TUG	1997	gasoline	On-Airport Mobile Fueler	124	Yes - Works	7,469.0	05/22/2006	No
246316	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
307790	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
417354	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
448686	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
460180	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
544138	Belt Loader	TUG	1997	GASOLINE	On-Airport Mobile Fueler					No
15207	Belt Loader	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15208	Belt Loader	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
230636	Belt Loader	TUG	1998	GASOLINE		95	Yes - Works			No
15231	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15234	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15235	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15236	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15237	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15238	Belt Loader	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
458486	Belt Loader	TUG	1999	GASOLINE		95	Yes - Works			No
15240	Belt Loader	TUG	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15241	Belt Loader	TUG	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
CBL152	Belt Loader	TUG	2000	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL153	Belt Loader	TUG	2000	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL154	Belt Loader	TUG	2000	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL155	Belt Loader	TUG	2000	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL156	Belt Loader	TUG	2000	Gasoline	On-Airport Mobile Fueler	140	No			No
15262	Belt Loader	TUG	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
CBL 149	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL 150	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL 157	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL 160	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL 161	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No

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CBL147	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
CBL148	Belt Loader	TUG	2005	Gasoline	On-Airport Mobile Fueler	140	No			No
15416	Belt Loader	TUG	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15417	Belt Loader	TUG	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
236404	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
264397	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
310282	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
312732	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
379533	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
402493	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
465584	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
485156	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
504686	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
527016	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
530376	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
531349	Belt Loader	TUG		GASOLINE	On-Airport Mobile Fueler	95				No
265195	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	17.0	05/15/06	No
360836	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	85.0	05/15/06	No
508256	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	365.0	05/15/06	No
400113	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	449.0	05/15/06	No
231315	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	496.0	05/15/06	No
448133	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	496.0	05/15/06	No
400421	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	662.0	05/15/06	No
437815	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,033.0	05/15/06	No
244818	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,088.0	05/15/06	No
430234	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,551.0	05/15/06	No
466494	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,980.0	05/15/06	No
432194	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,584.0	05/15/06	No
415660	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,567.0	05/15/06	No
526631	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,044.0	05/15/06	No
378686	Belt Loader	TUG	1995	ELECTRIC	On-Airport Stationary	85	Yes - Works	7,647.0	05/15/06	No
306229	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	2.0	05/15/06	No
475734	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	249.0	05/15/06	No
504672	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,302.0	05/15/06	No
275527	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,087.0	05/15/06	No
343105	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,495.0	05/15/06	No
375102	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,890.0	05/15/06	No
523936	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,892.0	05/15/06	No
445571	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,364.0	05/15/06	No
544285	Belt Loader	TUG	1999	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,187.0	05/15/06	No
298151	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	30.0	05/15/06	No
407561	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	417.0	05/15/06	No

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524475	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	652.0	05/15/06	No
341439	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	752.0	05/15/06	No
560630	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	843.0	05/15/06	No
478212	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,034.0	05/15/06	No
532728	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,057.0	05/15/06	No
289842	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,240.0	05/15/06	No
235655	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,263.0	05/15/06	No
321349	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,553.0	05/15/06	No
380184	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	1,996.0	05/15/06	No
500913	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,057.0	05/15/06	No
297745	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,229.0	05/15/06	No
412097	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,261.0	05/15/06	No
300825	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,576.0	05/15/06	No
538587	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,657.0	05/15/06	No
295323	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,662.0	05/15/06	No
305312	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,695.0	05/15/06	No
433601	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,717.0	05/15/06	No
539161	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,761.0	05/15/06	No
419167	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	2,923.0	05/15/06	No
547400	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,215.0	05/15/06	No
388108	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,522.0	05/15/06	No
227458	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	3,579.0	05/15/06	No
421981	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	4,253.0	05/15/06	No
296415	Belt Loader	TUG	2000	ELECTRIC	On-Airport Stationary	85	Yes - Works	5,220.0	05/15/06	No
BL18	Belt Loader	Tug 660	1993		On-Airport Mobile Fueler					
BL13	Belt Loader	Tug 660	1994	Gasoline	On-Airport Mobile Fueler					
BL15	Belt Loader	Tug 660	1994		On-Airport Mobile Fueler					
BL22	Belt Loader	Tug 660	1994		On-Airport Mobile Fueler					
BL16	Belt Loader	Tug 660	1997	Gasoline	On-Airport Mobile Fueler					
BL17	Belt Loader	Tug 660	1997		On-Airport Mobile Fueler					
BL21	Belt Loader	Tug 660	1997		On-Airport Mobile Fueler					
BL12	Belt Loader	Tug 660	1999	Gasoline	On-Airport Mobile Fueler					
BL34	Belt Loader	Tug 660	2000	Diesel	On-Airport Mobile Fueler					
BL35	Belt Loader	Tug 660	2000	Diesel	On-Airport Mobile Fueler					
BL36	Belt Loader	Tug 660	2000		On-Airport Mobile Fueler					
BL2	Belt Loader	Tug 661	1989	Gasoline	On-Airport Mobile Fueler					
226695	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
243551	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
290276	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
312480	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
350245	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
383089	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No

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400372	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
450037	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
461223	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
550088	Belt Loader	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
BL23	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL24	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL26	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL28	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL31	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL32	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL33	Belt Loader	WASP A01771D-3305	1998	Gasoline	On-Airport Mobile Fueler					
BL42	Belt Loader	WASP A01771D-3305	1999	Diesel	On-Airport Mobile Fueler					
BL43	Belt Loader	WASP A01771D-3305	1999	Diesel	On-Airport Mobile Fueler					
BL25	Belt Loader	WASP A01771D-3305	1999	Gasoline	On-Airport Mobile Fueler					
BL27	Belt Loader	WASP A01771D-3305	1999	Gasoline	On-Airport Mobile Fueler					
BL29	Belt Loader	WASP A01771D-3305	1999	Gasoline	On-Airport Mobile Fueler					
BL30	Belt Loader	WASP A01771D-3305	1999	Gasoline	On-Airport Mobile Fueler					
BL44	Belt Loader	WASP A01771D-3305	2005	Gasoline	On-Airport Mobile Fueler					
BL45	Belt Loader	WASP A01771D-3305	2005	Gasoline	On-Airport Mobile Fueler					
BL46	Belt Loader	WASP A01771D-3305	2005	Gasoline	On-Airport Mobile Fueler					
BL47	Belt Loader	WASP A01771D-3305	2005	Gasoline	On-Airport Mobile Fueler					
431179	Belt Loader	WOLLARD	1986	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
491078	Belt Loader	WOLLARD	1986	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
483112	Belt Loader	WOLLARD	1988	DIESEL	On-Airport Mobile Fueler	41	Yes - Works			No
BL 1230	Belt Loader	WOLLARD	1990	LPG	On-Airport Stationary	124	Yes - Works	3,174.0	05/22/2006	No
323127	Belt Loader		2006		On-Airport Stationary		Yes - Works	21.0	06/08/06	No
8	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	7.0	11/01/2006	No
7	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	11.0	11/01/2006	No
1	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	14.0	11/01/2006	No
4	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	15.0	11/01/2006	No
5	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	18.0	11/01/2006	No
3	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	24.0	11/01/2006	No
2	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	30.0	11/01/2006	No
6	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	31.0	11/01/2006	No
8780	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	660.0	11/01/2006	No
8770	Belt Loader			LPG	On-Airport Mobile Fueler		Yes - Works	1,458.0	11/01/2006	No
8482	Belt Loader			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,959.0	11/01/2006	No
8480	Belt Loader			Gasoline	On-Airport Mobile Fueler		Yes - Works	2,877.0	11/01/2006	No
8727	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	3,974.0	11/01/2006	No
8786	Belt Loader			Gasoline	On-Airport Mobile Fueler		Yes - Works	4,038.0	11/01/2006	No
3489	Belt Loader			LPG	On-Airport Mobile Fueler		Yes - Works	4,092.0	11/01/2006	No
8715	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	4,748.0	11/01/2006	No

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8763	Belt Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	5,065.0	11/01/2006	No
12127	Belt Loader			LPG	On-Airport Mobile Fueler		Yes - Works	7,654.0	11/01/2006	No
8785	Belt Loader			Gasoline	On-Airport Mobile Fueler		Yes - Works	7,901.0	11/01/2006	No
27772	Belt Loader			LPG	On-Airport Mobile Fueler		Yes - Works	8,004.0	11/01/2006	No
BOB2	Bobtail	EAGLE	1983	gasoline	On-Airport Mobile Fueler	235	Yes - Works	#######	06/13/2006	Yes - Other
BOB4	Bobtail	EAGLE	1989	gasoline	On-Airport Mobile Fueler	235	Yes - Works	79,999.0	06/13/2006	Yes - Other
387086	Bobtail	EAGLE	1990	GASOLINE	On-Airport Mobile Fueler					Yes - Other
BOB5	Bobtail	EAGLE	2002	gasoline	On-Airport Mobile Fueler	235	Yes - Works	23,841.0	06/13/2006	Yes - Other
26-051	Bobtail	FORD	1971	gasoline	On-Airport Stationary	140	Yes - Works	0.1	05/19/2006	
461986	Bobtail	FORD	1975	GASOLINE		210				Yes - Other
262955	Bobtail	FORD	1981	GASOLINE		210				Yes - Other
26-227	Bobtail	FORD	1981	diesel	On-Airport Stationary	160	Yes - Works	2,268.0	05/19/2006	
CTT279	Bobtail	FORD	1983	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	2,300.7		No
26-315	Bobtail	FORD	1985	gasoline	On-Airport Stationary	140	Yes - Works	9,261.0	05/19/2006	
407575	Bobtail	FORD	1986	GASOLINE		175				Yes - Other
CTT278	Bobtail	FORD	1990	Gasoline	On-Airport Mobile Fueler	450	Yes - Works	5,801.0		No
26-316	Bobtail	FORD	1992	diesel	On-Airport Stationary	160	Yes - Works	5,098.0	05/19/2006	
CTT280	Bobtail	FORD	1994	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	68.1		No
CTT285	Bobtail	FORD	1995	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	6,895.5		No
CTT284	Bobtail	FORD	1995	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	7,294.1		No
CTT281	Bobtail	FORD	1997	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	4,807.4		No
228928	Bobtail	FORD	1997	GASOLINE		175				Yes - Other
546238	Bobtail	FORD	1997	GASOLINE		175				Yes - Other
375907	Bobtail	FORD		LPG	On-Airport Mobile Fueler	95				No
539791	Bobtail	FORD		LPG	On-Airport Mobile Fueler	95				No
17171	Bobtail	NMC	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
17172	Bobtail	NMC	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
17176	Bobtail	NMC	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
17184	Bobtail	NMC	2000	gasoline	On-Airport Mobile Fueler		Yes - Works			
17185	Bobtail	NMC	2000	gasoline	On-Airport Mobile Fueler		Yes - Works			
17187	Bobtail	NMC	2001	gasoline	On-Airport Mobile Fueler		Yes - Works			
17205	Bobtail	TUG	2004	gasoline	On-Airport Mobile Fueler		Yes - Works			
2306	Bobtail			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,427.0	11/01/2006	No
10490	Bobtail			Diesel	On-Airport Mobile Fueler		Yes - Works	3,475.0	11/01/2006	Yes - Other
8707	Bobtail			Gasoline	On-Airport Mobile Fueler		Yes - Works	5,124.0	11/01/2006	Yes - Other
8718	Bobtail			Diesel	On-Airport Mobile Fueler		Yes - Works	8,534.0	11/01/2006	Yes - Other
294000	Cargo Loader	AMMFG	1980	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
32-146	Cargo Loader	CUMMINS	2000	diesel	On-Airport Mobile Fueler	200	Yes - Works	310.0	05/19/2006	
377573	Cargo Loader	DEUTZ	1996	DIESEL	On-Airport Stationary	67	Yes - Works	5,345.0	02/13/02	No
283829	Cargo Loader	DEUTZ	1996	DIESEL	On-Airport Stationary	67	Yes - Works	9,825.0	04/18/06	No
32-145	Cargo Loader	DEUTZ	1996	diesel	On-Airport Mobile Fueler	170	Yes - Works	1,539.0	05/19/2006	
379848	Cargo Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	67	Yes - Works	9,016.0	01/23/02	No

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394828	Cargo Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	67	Yes - Works	9,836.0	01/24/02	No
494592	Cargo Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	67	Yes - Works	10,745.0	01/31/02	No
295428	Cargo Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	67	Yes - Works	6,923.0	02/03/06	No
298263	Cargo Loader	DEUTZ	1997	DIESEL	On-Airport Stationary	67	Yes - Works	12,911.0	04/30/06	No
263067	Cargo Loader	DEUTZ	1998	DIESEL	On-Airport Stationary	67	Yes - Works	6,191.0	11/03/01	No
32-160	Cargo Loader	DEUTZ	1998	diesel	On-Airport Mobile Fueler	250	Yes - Works	209.0	05/19/2006	
404803	Cargo Loader	DEUTZ	1999	DIESEL	On-Airport Stationary	87	Yes - Works	9,790.0	03/24/06	No
504392	Cargo Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	67	Yes - Works	1,722.0	01/15/02	No
396284	Cargo Loader	DEUTZ	2000	DIESEL	On-Airport Stationary	67	Yes - Works	2,045.0	01/22/02	No
394359	Cargo Loader	DEUTZ	2002	DIESEL	On-Airport Stationary	87	Yes - Works	3,398.0	04/01/06	No
LDL	Cargo Loader	FMC	1979	diesel	On-Airport Mobile Fueler		Yes - Works	5,219.4	06/11/2006	No
132618	Cargo Loader	FMC	1979	diesel	On-Airport Mobile Fueler		Yes - Works			
MDL1	Cargo Loader	FMC	1981	diesel	On-Airport Mobile Fueler	125	Yes - Works	10,216.0	06/13/2006	No
13108	Cargo Loader	FMC	1986	diesel	On-Airport Mobile Fueler		Yes - Works			
MDL2	Cargo Loader	FMC	1989	diesel	On-Airport Mobile Fueler	130	Yes - Works	6,070.0	06/13/2006	No
LDL	Cargo Loader	FMC	1990	diesel	On-Airport Mobile Fueler		Yes - Works	6,855.0	06/11/2006	No
13131	Cargo Loader	FMC	1990	diesel	On-Airport Mobile Fueler		Yes - Works			
301560	Cargo Loader	FMC	1993	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	1,174.0	05/15/06	No
344904	Cargo Loader	FMC	1993	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	3,351.0	05/15/06	No
LDL656 CDR	Cargo Loader	FMC	1995	Diesel	On-Airport Mobile Fueler	200	Yes - Works	765.0		No
LDL655 CDR	Cargo Loader	FMC	1995	Diesel	On-Airport Mobile Fueler	200	Yes - Works	2,450.2		No
13157	Cargo Loader	FMC	1995	diesel	On-Airport Mobile Fueler		Yes - Works			
13166	Cargo Loader	FMC	1995	diesel	On-Airport Mobile Fueler		Yes - Works			
LDL1	Cargo Loader	FMC	1996	diesel	On-Airport Mobile Fueler	87	Yes - Works	10,223.0	06/13/2006	No
LDL650 CDR	Cargo Loader	FMC	1996	Diesel	On-Airport Mobile Fueler	200	Yes - Works	1,850.0		No
LDL654 CDR	Cargo Loader	FMC	1996	Diesel	On-Airport Mobile Fueler	200	Yes - Works	13,092.2		No
13174	Cargo Loader	FMC	1996	diesel	On-Airport Mobile Fueler		Yes - Works			
314664	Cargo Loader	FMC	1997	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	4,449.0	05/15/06	No
LDL633 CDR	Cargo Loader	FMC	1997	Diesel	On-Airport Mobile Fueler	200	Yes - Works	8,216.0		No
13175	Cargo Loader	FMC	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
13192	Cargo Loader	FMC	1998	diesel	On-Airport Mobile Fueler		Yes - Works			
13193	Cargo Loader	FMC	1998	diesel	On-Airport Mobile Fueler		Yes - Works			
370349	Cargo Loader	FMC	1999	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	4,004.0	05/15/06	No
CL 2540	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler	165	Yes - Works	4,547.0	05/22/2006	No
MDL	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler	192	Yes - Works	3,776.2	06/11/2006	No
13194	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
13195	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
13196	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
13197	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
13201	Cargo Loader	FMC	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
262192	Cargo Loader	FMC	2000	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	3,456.0	05/15/06	No
CL 2670	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler	165	Yes - Works	3,323.0	05/22/2006	No

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CL 2680	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler	165	Yes - Works	4,241.0	05/22/2006	No
13222	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
13223	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
13226	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
13209	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
13210	Cargo Loader	FMC	2000	diesel	On-Airport Mobile Fueler		Yes - Works			
13228	Cargo Loader	FMC	2001	diesel	On-Airport Mobile Fueler		Yes - Works			
13232	Cargo Loader	FMC	2001	diesel	On-Airport Mobile Fueler		Yes - Works			
MDL800	Cargo Loader	FMC	2005	Diesel	On-Airport Mobile Fueler	250	Yes - Works	2,595.0		No
13301	Cargo Loader	FMC	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
13301-A	Cargo Loader	FMC	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
MDL801	Cargo Loader	FMC	2006	Diesel	On-Airport Mobile Fueler	250	Yes - Works	1,338.0		No
502565	Cargo Loader	FMC	1991	DIESEL	On-Airport Stationary	102	Yes - Works	951.0	05/15/06	No
259700	Cargo Loader	FMC	1991	DIESEL	On-Airport Stationary	102	Yes - Works	3,137.0	05/15/06	No
265685	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	5,269.0	05/15/06	No
465654	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	5,389.0	05/15/06	No
304969	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	5,460.0	05/15/06	No
530222	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	5,930.0	05/15/06	No
439586	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	7,861.0	05/15/06	No
293741	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	8,448.0	05/15/06	No
331527	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	8,626.0	05/15/06	No
533596	Cargo Loader	FMC	1996	DIESEL	On-Airport Stationary	102	Yes - Works	9,371.0	05/15/06	No
235410	Cargo Loader	FMC	1997	DIESEL	On-Airport Stationary	102	Yes - Works	3,012.0	05/15/06	No
367801	Cargo Loader	FMC	1997	DIESEL	On-Airport Stationary	102	Yes - Works	6,433.0	05/15/06	No
409395	Cargo Loader	FMC	1997	DIESEL	On-Airport Stationary	102	Yes - Works	7,191.0	05/15/06	No
381255	Cargo Loader	FMC	1997	DIESEL	On-Airport Stationary	102	Yes - Works	8,571.0	05/15/06	No
524923	Cargo Loader	FMC	1997	DIESEL	On-Airport Stationary	102	Yes - Works	9,226.0	05/15/06	No
377041	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	5,761.0	05/15/06	No
257768	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	7,338.0	05/15/06	No
442631	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	7,472.0	05/15/06	No
377202	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	7,667.0	05/15/06	No
563829	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	7,672.0	05/15/06	No
491624	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	8,156.0	05/15/06	No
472934	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	8,257.0	05/15/06	No
513842	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	8,450.0	05/15/06	No
402409	Cargo Loader	FMC	1998	DIESEL	On-Airport Stationary	102	Yes - Works	8,791.0	05/15/06	No
226611	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
234290	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
245623	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
261611	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
411215	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
516677	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No

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522571	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
557116	Cargo Loader	FMCXX	1989	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
379155	Cargo Loader	FMCXX	1995	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
482062	Cargo Loader	FMCXX	1995	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
558089	Cargo Loader	FMCXX	1995	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
326508	Cargo Loader	FMCXX	1996	DIESEL	On-Airport Mobile Fueler	133	Yes - Works			No
359317	Cargo Loader	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
222579	Cargo Loader	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	133	Yes - Works			No
482713	Cargo Loader	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	133	Yes - Works			No
497210	Cargo Loader	FMCXX	1997	DIESEL	On-Airport Mobile Fueler	133	Yes - Works			No
542857	Cargo Loader	FMCXX	1998	DIESEL	On-Airport Mobile Fueler	165	Yes - Works			No
553511	Cargo Loader	FMCXX	1998	DIESEL	On-Airport Mobile Fueler	165	Yes - Works			No
258125	Cargo Loader	FMCXX	2001	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
326879	Cargo Loader	FMCXX	2001	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
551327	Cargo Loader	FMCXX	2001	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
380618	Cargo Loader	FMCXX	2001	DIESEL	On-Airport Mobile Fueler	165	Yes - Works			No
32-100	Cargo Loader	GM	1975	diesel	On-Airport Mobile Fueler	200	Yes - Works	4,687.0	05/19/2006	
32-147	Cargo Loader	GM	1979	diesel	On-Airport Mobile Fueler	200	Yes - Works	5,254.0	05/19/2006	
32-045	Cargo Loader	GM	1980	diesel	On-Airport Mobile Fueler	160	Yes - Works	1,796.0	05/19/2006	
32-021	Cargo Loader	GM	1980	diesel	On-Airport Mobile Fueler	160	Yes - Works		05/19/2006	
366506	Cargo Loader	LANTIS	1984	DIESEL		95				No
531937	Cargo Loader	LANTIS	1984	DIESEL		95				No
373779	Cargo Loader	LANTIS	1984	DIESEL		120				No
245735	Cargo Loader	LANTIS	1988	DIESEL		86				No
338135	Cargo Loader	LANTIS	1988	DIESEL		86				No
345681	Cargo Loader	LANTIS	1988	DIESEL		86				No
394492	Cargo Loader	LANTIS	1988	DIESEL		86				No
452732	Cargo Loader	LANTIS	1988	DIESEL		86				No
546917	Cargo Loader	LANTIS	1988	DIESEL		86				No
383516	Cargo Loader	LANTIS	1989	DIESEL		86				No
266665	Cargo Loader	LANTIS	1990	DIESEL		120				No
528360	Cargo Loader	LANTIS	1990	DIESEL	On-Airport Mobile Fueler					No
237440	Cargo Loader	LANTIS	1991	DIESEL		86				No
336616	Cargo Loader	LANTIS	1991	DIESEL		86				No
260253	Cargo Loader	LANTIS	1992	DIESEL		86				No
284788	Cargo Loader	LANTIS	1992	DIESEL		86				No
270543	Cargo Loader	LANTIS	1994	DIESEL	On-Airport Mobile Fueler					No
274911	Cargo Loader	LANTIS	1994	DIESEL	On-Airport Mobile Fueler					No
337988	Cargo Loader	LANTIS	1994	DIESEL	On-Airport Mobile Fueler					No
382130	Cargo Loader	LANTIS	1994	DIESEL	On-Airport Mobile Fueler					No
415723	Cargo Loader	LANTIS	1994	DIESEL	On-Airport Mobile Fueler					No
LDL653 Lantis	Cargo Loader	Lantis	1995	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	2,157.2		No

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LDL642 Lantis	Cargo Loader	Lantis	1995	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	9,272.5		No
LDL641 Lantis	Cargo Loader	Lantis	1995	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	11,445.9		No
LDL649 Lantis	Cargo Loader	Lantis	1996	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	4,658.9		No
LDL639 Lantis	Cargo Loader	Lantis	1996	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	6,954.4		No
LDL645 Lantis	Cargo Loader	Lantis	1996	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	11,888.9		No
424571	Cargo Loader	LANTIS	1996	DIESEL		102				No
279363	Cargo Loader	LANTIS	1998	DIESEL		102				No
MDL802	Cargo Loader	Lantis	1999	Diesel	On-Airport Mobile Fueler	250	Yes - Works	2,477.0		No
LDL637 Lantis	Cargo Loader	Lantis	2001	Diesel	On-Airport Mobile Fueler	200	Yes - Works	776.1		No
LDL636 Lantis	Cargo Loader	Lantis	2001	Diesel	On-Airport Mobile Fueler	200	Yes - Works	9,047.0		No
LDL657 CDR	Cargo Loader	Lantis	2006	Diesel	On-Airport Mobile Fueler	200	Yes - Works	573.7		No
32-068	Cargo Loader	PERKINS	1992	diesel	On-Airport Mobile Fueler	160	Yes - Works	4,810.0	05/19/2006	
32-064	Cargo Loader	PERKINS	1992	diesel	On-Airport Mobile Fueler	160	Yes - Works	7,334.0	05/19/2006	
32-087	Cargo Loader	PERKINS	1996	diesel	On-Airport Mobile Fueler	160	Yes - Works	112.0	05/19/2006	
32-135	Cargo Loader	PERKINS	1999	diesel	On-Airport Mobile Fueler	170	Yes - Works	202.0	05/19/2006	
MDL3	Cargo Loader	TLD	2002	diesel	On-Airport Mobile Fueler	133	Yes - Works	4,215.0	06/13/2006	No
350056	Cargo Loader	WASP	1995	GASOLINE		102				No
526211	Cargo Loader	WASP	2001	DIESEL		102				No
10841	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	554.0	11/01/2006	
8020	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	925.0	11/01/2006	
3462	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	927.0	11/01/2006	
8762	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	1,190.0	11/01/2006	
12142	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	2,515.0	11/01/2006	
8767	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	2,798.0	11/01/2006	
12141	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	2,823.0	11/01/2006	
8720	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	3,029.0	11/01/2006	
8747	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	4,004.0	11/01/2006	
8686	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	4,033.0	11/01/2006	
8766	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	6,767.0	11/01/2006	
8710	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	9,118.0	11/01/2006	
8754	Cargo Loader			Diesel	On-Airport Mobile Fueler		Yes - Works	10,354.0	11/01/2006	
814	Cargo Tractor	Clark Lift	2000	LPG	Off Airport		Yes - Works		06/15/2006	No
815	Cargo Tractor	Clark Lift	2000	LPG	Off Airport		Yes - Works		06/15/2006	No
816	Cargo Tractor	Clark Lift	2000	LPG	Off Airport		Yes - Works		06/15/2006	No
817	Cargo Tractor	Clark Lift	2000	LPG	Off Airport		Yes - Works		06/15/2006	No
26-141	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	242.0	05/19/2006	
26-653	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	251.0	05/19/2006	
26-142	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	311.0	05/19/2006	
26-151	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	322.0	05/19/2006	
26-626	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	361.0	05/19/2006	
26-621	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	417.0	05/19/2006	
26-651	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	498.0	05/19/2006	

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26-143	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	1,601.0	05/19/2006	
26-138	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	1,914.0	05/19/2006	
26-145	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	1,954.0	05/19/2006	
26-152	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	2,025.0	05/19/2006	
26-139	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	5,137.0	05/19/2006	
26-357	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	5,684.0	05/19/2006	
26-652	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	6,090.0	05/19/2006	
26-144	Cargo Tractor	FORD	1992	LPG	On-Airport Stationary	140	Yes - Works	7,864.0	05/19/2006	
26-022	Cargo Tractor	FORD	2001	LPG	On-Airport Stationary	140	Yes - Works	5,890.0	05/19/2006	
CTV7	Cargo Tractor	Ford F700	1987	Gasoline	On-Airport Mobile Fueler					
CTV5	Cargo Tractor	Ford F700	1988	Diesel	On-Airport Mobile Fueler					
CTV1	Cargo Tractor	Ford F700	1988	Gasoline	On-Airport Mobile Fueler					
CTV10	Cargo Tractor	Ford F700	1988	Gasoline	On-Airport Mobile Fueler					
CTV8	Cargo Tractor	Ford F700	1989	Diesel	On-Airport Mobile Fueler					
CTV13	Cargo Tractor	Ford F700	1989	Gasoline	On-Airport Mobile Fueler					
809	Cargo Tractor	Harlan Corp	1994	diesel	Off Airport		Yes - Works	8,343.0	06/15/2006	No
LDL638 Lantis	Cargo Tractor	Lantis	1996	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	6,925.0		No
17168	Cargo Tractor	NMC	1998	diesel	On-Airport Mobile Fueler	170	Yes - Works			
17169	Cargo Tractor	NMC	1998	diesel	On-Airport Mobile Fueler	170	Yes - Works			
17182	Cargo Tractor	NMC	2000	diesel	On-Airport Mobile Fueler	170	Yes - Works			
129	Cargo Tractor	Northwestern	1994	LPG	Off Airport		Yes - Works	1,291.0	06/15/2006	No
16444	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16445	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
15446	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16447	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16448	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16449	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16450	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16451	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16452	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16453	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16454	Cargo Tractor	S&S	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16462	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16453	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16454	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16480	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16481	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16483	Cargo Tractor	S&S	2000	LPG	On-Airport Mobile Fueler	170	Yes - Works			
17192	Cargo Tractor	S&S	2003	diesel	On-Airport Mobile Fueler	170	Yes - Works			
16779	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16780	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16781	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			

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16782	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16783	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16784	Cargo Tractor	S&S	2005	LPG	On-Airport Mobile Fueler	170	Yes - Works			
407351	Cargo Tractor	S&S TUG	2004	GASOLINE		101				No
512701	Cargo Tractor	S&S TUG	2004	GASOLINE		101				No
TUG #15	Cargo Tractor	S&W TUG	2001	diesel	On-Airport Mobile Fueler		Yes - Works	3,219.4	06/11/2006	No
TUG #16	Cargo Tractor	S&W TUG	2001	diesel	On-Airport Mobile Fueler		Yes - Works	3,281.7	06/11/2006	No
TUG #14	Cargo Tractor	S&W TUG	2001	diesel	On-Airport Mobile Fueler		Yes - Works	3,283.6	06/11/2006	No
TUG #17	Cargo Tractor	S&W TUG	2001	diesel	On-Airport Mobile Fueler		Yes - Works	32,189.6	06/11/2006	No
TUG #18	Cargo Tractor	S&W TUG	2004	diesel	On-Airport Mobile Fueler		Yes - Works	563.6	06/11/2006	No
TUG #19	Cargo Tractor	S&W TUG	2004	diesel	On-Airport Mobile Fueler		Yes - Works	611.4	06/11/2006	No
331366	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	150.0	05/15/06	No
317100	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	1,021.0	05/15/06	No
491358	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	3,440.0	05/15/06	No
485443	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	3,868.0	05/15/06	No
249956	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	4,520.0	05/15/06	No
500262	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	4,777.0	05/15/06	No
508683	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	5,819.0	05/15/06	No
367822	Cargo Tractor	SS TUG	1999	LPG	On-Airport Stationary	95	Yes - Works	6,217.0	05/15/06	No
TUG #11	Cargo Tractor	STEWART & STEVENSON	1989	gasoline	On-Airport Mobile Fueler		Yes - Works	1,061.0	06/11/2006	No
TUG #12	Cargo Tractor	STEWART & STEVENSON	1989	gasoline	On-Airport Mobile Fueler		Yes - Works	2,712.3	06/11/2006	No
TUG #13	Cargo Tractor	STEWART & STEVENSON	1990	gasoline	On-Airport Mobile Fueler		Yes - Works	292.9	06/11/2006	No
TUG #2	Cargo Tractor	STEWART & STEVENSON	1991	gasoline	On-Airport Mobile Fueler		Yes - Works	279.8	06/11/2006	No
TUG #1	Cargo Tractor	STEWART & STEVENSON	1991	gasoline	On-Airport Mobile Fueler		Yes - Works	305.4	06/11/2006	No
344932	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Mobile Fueler	140	Yes - Works			No
230706	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
234591	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
294441	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
298564	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
308343	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
309323	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
310107	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
369782	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
402731	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
403361	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
457954	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
483616	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
487921	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
501410	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
517125	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
520184	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No
544957	Cargo Tractor	TIGER	1997	GASOLINE	On-Airport Stationary	140	Yes - Works			No

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225988	Cargo Tractor	TIGER	2000	GASOLINE	On-Airport Stationary	140	Yes - Works			No
372092	Cargo Tractor	TIGER	2000	GASOLINE	On-Airport Stationary	140	Yes - Works			No
367052	Cargo Tractor	TIGER	2000	GASOLINE		101				No
401079	Cargo Tractor	TIGER	2000	GASOLINE		101				No
453194	Cargo Tractor	TIGER	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
488306	Cargo Tractor	TIGER	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
498414	Cargo Tractor	TIGER	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
521542	Cargo Tractor	TIGER	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
401289	Cargo Tractor	TIGER	2002	GASOLINE	On-Airport Stationary	140	Yes - Works			No
412629	Cargo Tractor	TIGER	2002	GASOLINE	On-Airport Stationary	140	Yes - Works			No
474705	Cargo Tractor	TIGER	2002	GASOLINE	On-Airport Stationary	140	Yes - Works			No
501550	Cargo Tractor	TIGER	2002	GASOLINE	On-Airport Stationary	140	Yes - Works			No
506149	Cargo Tractor	TIGER	2002	GASOLINE	On-Airport Stationary	140	Yes - Works			No
236614	Cargo Tractor	TUG	1985	LPG		107				No
248325	Cargo Tractor	TUG	1985	LPG		107				No
453726	Cargo Tractor	TUG	1985	LPG		107				No
TG 1200	Cargo Tractor	TUG	1987	diesel	On-Airport Mobile Fueler	124	Yes - Works	7,260.0	05/30/2006	No
218232	Cargo Tractor	TUG	1989	LPG		107				No
265839	Cargo Tractor	TUG	1989	LPG		107				No
410501	Cargo Tractor	TUG	1989	LPG		107				No
443947	Cargo Tractor	TUG	1989	LPG		107				No
496664	Cargo Tractor	TUG	1989	LPG		107				No
TG 0550	Cargo Tractor	TUG	1990	LPG	On-Airport Mobile Fueler	124	Yes - Works	4,637.0	05/22/2006	No
243712	Cargo Tractor	TUG	1990	LPG		107				No
235970	Cargo Tractor	TUG	1992	LPG		107				No
16280	Cargo Tractor	TUG	1993	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16282	Cargo Tractor	TUG	1993	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16283	Cargo Tractor	TUG	1993	LPG	On-Airport Mobile Fueler	170	Yes - Works			
TG 0730	Cargo Tractor	TUG	1994	LPG	On-Airport Mobile Fueler	124	Yes - Works	5,099.0	05/22/2006	No
238910	Cargo Tractor	TUG	1994	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	3,043.0	06/02/06	No
494907	Cargo Tractor	TUG	1994	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	3,570.0	06/02/06	No
546070	Cargo Tractor	TUG	1994	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	4,775.0	06/02/06	No
16292	Cargo Tractor	TUG	1994	LPG	On-Airport Mobile Fueler	170	Yes - Works			
240569	Cargo Tractor	TUG	1995	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	9,198.0	06/02/06	No
537901	Cargo Tractor	TUG	1995	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	9,500.0	06/02/06	No
522984	Cargo Tractor	TUG	1995	LPG		107				No
291473	Cargo Tractor	TUG	1996	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	7,465.0	06/02/06	No
16343	Cargo Tractor	TUG	1996	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16350	Cargo Tractor	TUG	1997	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16436	Cargo Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16441	Cargo Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			
16442	Cargo Tractor	TUG	1998	LPG	On-Airport Mobile Fueler	170	Yes - Works			

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TG 1540	Cargo Tractor	TUG	1999	gasoline	On-Airport Mobile Fueler	124	Yes - Works	940.0	05/22/2006	No
349783	Cargo Tractor	TUG	1999	LPG		107				No
406357	Cargo Tractor	TUG	1999	LPG		107				No
241871	Cargo Tractor	TUG	1999	LPG		150				No
16443	Cargo Tractor	TUG	1999	LPG	On-Airport Mobile Fueler	170	Yes - Works			
307958	Cargo Tractor	TUG	2000	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	4,448.0	06/02/06	No
286867	Cargo Tractor	TUG	2000	LPG		107				No
339332	Cargo Tractor	TUG	2000	LPG		107				No
359338	Cargo Tractor	TUG	2000	LPG		107				No
361501	Cargo Tractor	TUG	2000	LPG		107				No
365162	Cargo Tractor	TUG	2000	LPG		107				No
407036	Cargo Tractor	TUG	2000	LPG		107				No
458472	Cargo Tractor	TUG	2000	LPG		107				No
468762	Cargo Tractor	TUG	2000	LPG		107				No
474047	Cargo Tractor	TUG	2000	LPG		107				No
514108	Cargo Tractor	TUG	2000	LPG		107				No
532994	Cargo Tractor	TUG	2000	LPG		107				No
533547	Cargo Tractor	TUG	2000	LPG		107				No
445536	Cargo Tractor	TUG	2000	LPG		150				No
CTV9	Cargo Tractor	TUG High Speed	1988	Propane	On-Airport Mobile Fueler					
CTV11	Cargo Tractor	TUG High Speed	1988	Propane	On-Airport Mobile Fueler					
CTV12	Cargo Tractor	TUG High Speed	1988	Propane	On-Airport Mobile Fueler					
456855	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Mobile Fueler	140	Yes - Works			No
479178	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Mobile Fueler	140	Yes - Works			No
522018	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Mobile Fueler	140	Yes - Works			No
366562	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
392700	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
452599	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
462539	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
468461	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
473375	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
495005	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
525847	Cargo Tractor	TUGMN	1980	GASOLINE	On-Airport Stationary	140	Yes - Works			No
265475	Cargo Tractor	TUGMN	1993	GASOLINE	On-Airport Stationary	140	Yes - Works			No
499765	Cargo Tractor	TUGMN	1993	GASOLINE	On-Airport Stationary	140	Yes - Works			No
513135	Cargo Tractor	TUGMN	1993	GASOLINE	On-Airport Stationary	140	Yes - Works			No
220010	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
220199	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
234689	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
240422	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
245644	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
258776	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No

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288841	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
293384	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
310135	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
315546	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
336133	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
339906	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
348621	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
370678	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
407715	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
432068	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
467222	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
478443	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
489167	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
502236	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
529970	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
542304	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
550256	Cargo Tractor	TUGMN	1994	GASOLINE	On-Airport Stationary	140	Yes - Works			No
298193	Cargo Tractor	TUGMN	2000	GASOLINE	On-Airport Stationary	140	Yes - Works			No
405867	Cargo Tractor	TUGMN	2000	GASOLINE	On-Airport Stationary	140	Yes - Works			No
473767	Cargo Tractor	TUGMN	2000	GASOLINE	On-Airport Stationary	140	Yes - Works			No
288281	Cargo Tractor	TUGMN	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
391622	Cargo Tractor	TUGMN	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
422870	Cargo Tractor	TUGMN	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
429877	Cargo Tractor	TUGMN	2001	GASOLINE	On-Airport Stationary	140	Yes - Works			No
236894	Cargo Tractor	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
242200	Cargo Tractor	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
246841	Cargo Tractor	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
293069	Cargo Tractor	TUGMN	2003	ELECTRIC	On-Airport Stationary	90	Yes - Works			No
216433	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
216657	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
224273	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
244069	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
275247	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
283570	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
334411	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
367570	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
409269	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
488537	Cargo Tractor	TUGMN	2003	GASOLINE	On-Airport Stationary	90	Yes - Works			No
230034	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
250929	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
264082	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
283535	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No

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333683	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
349055	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
424669	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
428344	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
432362	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
476630	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
499422	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
543319	Cargo Tractor	TUGMN	2004	GASOLINE	On-Airport Stationary	90	Yes - Works			No
231840	Cargo Tractor		1999	LPG	On-Airport Stationary	95	Yes - Works	4,018.0	05/15/06	No
262318	Cart	ACE-DEVTEC-NORDCO	1985	GASOLINE		40				No
63235	Cart	Bosserman	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
63236	Cart	Bosserman	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
63237	Cart	Bosserman	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
476350	cart	CUSHMAN	1985	ELECTRIC			Yes - Works	0.0	05/15/06	No
63223	Cart	DTS	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
63225	Cart	DTS	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
63226	Cart	DTS	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
434392	Cart	EVI	1999	ELECTRIC		55				No
289009	Cart	EVI	2000	ELECTRIC		55				No
438081	Cart	EZ GO	1978	ELECTRIC			Yes - Works	0.0	05/15/06	No
519232	Cart	EZ GO	1990	ELECTRIC		55				No
562093	Cart	EZ GO	1990	ELECTRIC		55				No
323302	Cart	EZ GO	1999	ELECTRIC			Yes - Works	0.0	05/15/06	No
254380	Cart	EZ GO	1999	ELECTRIC			Yes - Works	531.0	05/15/06	No
413798	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	96.0	05/15/06	No
410921	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,049.0	05/15/06	No
527226	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,260.0	05/15/06	No
415037	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,943.0	05/15/06	No
250201	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,263.0	05/15/06	No
332976	Cart	EZEGO	1988	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,432.0	05/15/06	No
410592	Cart	EZEGO	1989	ELECTRIC	On-Airport Stationary	6	Yes - Works	565.0	05/15/06	No
222523	Cart	EZEGO	1989	ELECTRIC	On-Airport Stationary	6	Yes - Works	618.0	05/15/06	No
463862	Cart	EZEGO	1989	ELECTRIC	On-Airport Stationary	6	Yes - Works	814.0	05/15/06	No
235361	Cart	EZEGO	1989	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,146.0	05/15/06	No
521752	Cart	EZEGO	1990	ELECTRIC	On-Airport Stationary	6	Yes - Works	476.0	05/15/06	No
548093	Cart	EZEGO	1990	ELECTRIC	On-Airport Stationary	6	Yes - Works	891.0	05/15/06	No
275394	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	296.0	05/15/06	No
494963	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	410.0	05/15/06	No
314069	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	683.0	05/15/06	No
373604	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	769.0	05/15/06	No
405538	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,118.0	05/15/06	No
227472	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,444.0	05/15/06	No

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316897	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,509.0	05/15/06	No
472570	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,977.0	05/15/06	No
264180	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,987.0	05/15/06	No
284081	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,406.0	05/15/06	No
490259	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,489.0	05/15/06	No
557830	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,546.0	05/15/06	No
557053	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,708.0	05/15/06	No
216461	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	3,139.0	05/15/06	No
258230	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	6,379.0	05/15/06	No
336105	Cart	EZEGO	1991	ELECTRIC	On-Airport Stationary	6	Yes - Works	8,042.0	05/15/06	No
512036	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	458.0	05/15/06	No
546252	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	574.0	05/15/06	No
519358	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	700.0	05/15/06	No
307426	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	855.0	05/15/06	No
467390	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,312.0	05/15/06	No
327936	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,592.0	05/15/06	No
226401	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	3,252.0	05/15/06	No
492695	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	3,407.0	05/15/06	No
429814	Cart	EZEGO	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	3,853.0	05/15/06	No
534002	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	708.0	05/15/06	No
524083	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	815.0	05/15/06	No
222180	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,634.0	05/15/06	No
270221	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,674.0	05/15/06	No
363678	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,417.0	05/15/06	No
304752	Cart	EZEGO	1994	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,586.0	05/15/06	No
302505	Cart	EZEGO	1995	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,003.0	05/15/06	No
355523	Cart	EZEGO	1996	ELECTRIC	On-Airport Stationary	6	Yes - Works	467.0	05/15/06	No
340046	Cart	EZEGO	1996	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,471.0	05/15/06	No
342237	Cart	EZEGO	1996	ELECTRIC	On-Airport Stationary	6	Yes - Works	3,604.0	05/15/06	No
353528	Cart	EZEGO	1996	ELECTRIC	On-Airport Stationary	6	Yes - Works	5,133.0	05/15/06	No
325010	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	3.0	05/15/06	No
382214	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	40.0	05/15/06	No
372029	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	418.0	05/15/06	No
426020	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	455.0	05/15/06	No
319410	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	512.0	05/15/06	No
284858	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	850.0	05/15/06	No
239190	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	4,603.0	05/15/06	No
470372	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	5,566.0	05/15/06	No
267092	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	6,091.0	05/15/06	No
467733	Cart	EZEGO	1997	ELECTRIC	On-Airport Stationary	6	Yes - Works	7,952.0	05/15/06	No
411810	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	1.0	05/15/06	No
259581	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	5.0	05/15/06	No

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219989	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	89.0	05/15/06	No
242452	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	130.0	05/15/06	No
364924	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	183.0	05/15/06	No
254618	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	213.0	05/15/06	No
250320	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	214.0	05/15/06	No
471667	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	286.0	05/15/06	No
326347	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	478.0	05/15/06	No
403676	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	501.0	05/15/06	No
467859	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	662.0	05/15/06	No
317492	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	921.0	05/15/06	No
455119	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,096.0	05/15/06	No
284326	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,399.0	05/15/06	No
486584	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,564.0	05/15/06	No
450520	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,863.0	05/15/06	No
312347	Cart	EZEGO	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	4,967.0	05/15/06	No
268338	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	100.0	05/15/06	No
344484	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	109.0	05/15/06	No
370965	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	221.0	05/15/06	No
267337	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	377.0	05/15/06	No
333697	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	425.0	05/15/06	No
543326	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	508.0	05/15/06	No
219576	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	698.0	05/15/06	No
221823	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	827.0	05/15/06	No
513989	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	928.0	05/15/06	No
417018	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,331.0	05/15/06	No
522655	Cart	EZEGO	1999	ELECTRIC	On-Airport Stationary	6	Yes - Works	8,144.0	05/15/06	No
312662	Cart	EZEGO	2000	ELECTRIC	On-Airport Stationary	6	Yes - Works	6,085.0	05/15/06	No
411649	Cart	EZEGO	2002	ELECTRIC	On-Airport Stationary	6	Yes - Works	1,481.0	05/15/06	No
276227	Cart	E-Z-GO	1988	ELECTRIC		30				No
387926	Cart	E-Z-GO	1988	ELECTRIC		30				No
235606	Cart	E-Z-GO	1990	ELECTRIC		30				No
257327	Cart	GEM		ELECTRIC						Yes - Other
266756	Cart	GEM		ELECTRIC						Yes - Other
357301	Cart	GEM		ELECTRIC						Yes - Other
360115	Cart	GEM		ELECTRIC						Yes - Other
406462	Cart	MCKINLEY	1985	ELECTRIC		55				No
407708	Cart	MCKINLEY	1985	ELECTRIC		55				No
337519	Cart	NORDSROG	1990	ELECTRIC		30				No
326270	Cart	PHOENIX METAL	2002	ELECTRIC		40				No
543123	Cart	TAYLOR DUNN	2002	ELECTRIC	On-Airport Stationary		No		06/01/06	No
344617	Cart	TAYLOR DUNN	2004	ELECTRIC	On-Airport Stationary		No		06/01/06	No
247849	Cart	TAYLOR DUNN	1976	ELECTRIC	On-Airport Stationary	6	Yes - Works	9,472.0	05/15/06	No

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315868	Cart	TAYLOR DUNN	1980	ELECTRIC	On-Airport Stationary	6	Yes - Works	2,065.0	05/15/06	No
229383	Cart	TAYLOR DUNN	1988	GASOLINE	On-Airport Stationary	8	Yes - Works	76.0	05/15/06	No
516803	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	21.0	05/15/06	No
270207	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	68.0	05/15/06	No
315203	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	88.0	05/15/06	No
353178	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	109.0	05/15/06	No
371679	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	121.0	05/15/06	No
301721	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	125.0	05/15/06	No
407435	Cart	TAYLOR DUNN	2001	ELECTRIC	On-Airport Stationary	6	Yes - Works	161.0	05/15/06	No
301959	Cart	TAYLOR-DUNN	1995	ELECTRIC		30				No
268058	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
351323	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
365169	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
369292	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
407001	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
457135	Cart	TAYLOR-DUNN	1997	ELECTRIC		30				No
240156	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
254702	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
279342	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
299425	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
330722	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
364609	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
382872	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
395724	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
396487	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
453019	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
467635	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
471058	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
485324	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
501102	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
510965	Cart	TAYLOR-DUNN	2000	ELECTRIC		30				No
357490	Cart	TAYLOR-DUNN	2000	LPG		30				No
378266	Cart	TAYLOR-DUNN	2000	LPG		30				No
259525	Cart	TAYLOR-DUNN	2001	ELECTRIC		30				No
269773	Cart	TAYLOR-DUNN	2001	ELECTRIC		30				No
348894	Cart	TAYLOR-DUNN	2001	ELECTRIC		30				No
384335	Cart	TAYLOR-DUNN	2001	ELECTRIC		30				No
490364	Cart	TAYLOR-DUNN	2001	ELECTRIC		30				No
499534	Cart	UALXX	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	56.0	05/15/06	No
558978	Cart	UALXX	1993	ELECTRIC	On-Airport Stationary	6	Yes - Works	569.0	05/15/06	No
276808	Cart	YAMAHA	1989	ELECTRIC	On-Airport Stationary		No		06/01/06	No
436296	Cart		1986	ELEC	On-Airport Stationary		Yes - Works			No

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318626	Cart		1995	ELEC	On-Airport Stationary		Yes - Works	8,983.0	09/21/05	No
266196	Cart		1995	ELEC	On-Airport Stationary		Yes - Works	624.0	02/02/06	No
485758	Cart			ELEC	On-Airport Stationary		Yes - Works			No
224959	Catering Truck	CUMMINS	1997	DIESEL	On-Airport Stationary	175	Yes - Works	12,005.0	01/31/01	Yes - Other
341348	Catering Truck	FORD	1980	GASOLINE		175				Yes - Other
328398	Catering Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	208.0	01/28/02	Yes - Other
544747	Catering Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	4,331.0	06/11/06	Yes - Other
425887	Catering Truck	FORD	1988	LPG	On-Airport Stationary	210	Yes - Works	2,146.0	05/15/06	Yes - Other
362635	Catering Truck	FORD	1988	LPG	On-Airport Stationary	210	Yes - Works	3,752.0	05/15/06	Yes - Other
408338	Catering Truck	FORD	1988	GASOLINE	On-Airport Stationary	210	Yes - Works	5,375.0	05/15/06	Yes - Other
269605	Catering Truck	FORD	1988	GASOLINE	On-Airport Stationary	210	Yes - Works	6,956.0	05/15/06	Yes - Other
535556	Catering Truck	FORD	1988	LPG	On-Airport Stationary	210	Yes - Works	8,029.0	05/15/06	Yes - Other
317289	Catering Truck	FORD	1988	GASOLINE	On-Airport Stationary	210	Yes - Works	9,367.0	05/15/06	Yes - Other
358540	Catering Truck	FORD	1989	GASOLINE	On-Airport Stationary	210	Yes - Works	3,250.0	05/15/06	Yes - Other
402696	Catering Truck	FORD	1989	GASOLINE	On-Airport Stationary	210	Yes - Works	3,742.0	05/15/06	Yes - Other
537390	Catering Truck	FORD	1989	GASOLINE	On-Airport Stationary	210	Yes - Works	5,893.0	05/15/06	Yes - Other
473123	Catering Truck	FORD	1989	GASOLINE	On-Airport Stationary	210	Yes - Works	8,073.0	05/15/06	Yes - Other
408660	Catering Truck	FORD	1989	LPG	On-Airport Stationary	210	Yes - Works	8,276.0	05/15/06	Yes - Other
407946	Catering Truck	FORD	1989	GASOLINE	On-Airport Stationary	210	Yes - Works	16,919.0	05/15/06	Yes - Other
241710	Catering Truck	FORD	1990	GASOLINE	On-Airport Stationary	210	Yes - Works	2,278.0	05/15/06	Yes - Other
231609	Catering Truck	FORD	1990	GAS	On-Airport Stationary		Yes - Works	9,565.0	05/31/06	Yes - Other
446047	Catering Truck	FORD	1991	DIESEL	On-Airport Stationary	207	Yes - Works	229.0	05/15/06	Yes - Other
494564	Catering Truck	FORD	1991	GAS	On-Airport Stationary		Yes - Works	1,628.0	05/26/06	Yes - Other
472430	Catering Truck	FORD	1997	DIESEL	On-Airport Stationary	175	Yes - Works	1,647.0	01/18/02	Yes - Other
232477	Catering Truck	FORD	1998	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	4,793.0	05/15/06	Yes - Other
496496	Catering Truck	FORD	1998	GASOLINE	On-Airport Stationary	210	Yes - Works	6,847.0	05/15/06	Yes - Other
383404	Catering Truck	FORD	2004	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	937.0	05/15/06	Yes - Other
238350	Catering Truck	FORD	2004	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	1,320.0	05/15/06	Yes - Other
448560	Catering Truck	FORD	2004	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	2,115.0	05/15/06	Yes - Other
377790	Catering Truck	FORD	2005	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	141.0	05/15/06	Yes - Other
373975	Catering Truck	FORD	2005	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	1,126.0	05/15/06	Yes - Other
226527	Catering Truck	FORD	2005	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	2,145.0	05/15/06	Yes - Other
563507	Catering Truck	FORD	1990	DIESEL	On-Airport Stationary	207	Yes - Works	6,611.0	05/15/06	Yes - Other
399952	Catering Truck	FORD	1990	DIESEL	On-Airport Stationary	207	Yes - Works	6,969.0	05/15/06	Yes - Other
449988	Catering Truck	FREIGHTLINER	1995	DIESEL	On-Airport Stationary	207	Yes - Works	9,352.0	05/15/06	No
447188	Catering Truck	FREIGHTLINER	1997	DIESEL	On-Airport Stationary	207	Yes - Works	7,420.0	05/15/06	Yes - Other
321482	Catering Truck	GLOBAL	1999	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	16.0	05/15/06	Yes - Other
266539	Catering Truck	GLOBAL	1999	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	1,482.0	05/15/06	Yes - Other
431494	Catering Truck	ISUZU	1990	DIESEL	On-Airport Stationary	207	Yes - Works	9,622.0	05/15/06	Yes - Other
401359	Catering Truck	MITSUBISHI	1992	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	2,759.0	06/02/06	Yes - Other
303450	Catering Truck	MITSUBISHI	1992	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	3,464.0	06/02/06	Yes - Other
401898	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	21,592.0	06/02/06	Yes - Other

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541821	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	24,992.0	06/02/06	Yes - Other
390397	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	25,442.0	06/02/06	Yes - Other
413469	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	25,917.0	06/02/06	Yes - Other
363048	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	26,926.0	06/02/06	Yes - Other
407995	Catering Truck	MITSUBISHI	1994	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	29,709.0	06/02/06	Yes - Other
349923	Catering Truck	MITSUBISHI	1995	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	5,171.0	06/02/06	Yes - Other
539119	Catering Truck	MITSUBISHI	1995	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	5,690.0	06/02/06	Yes - Other
368018	Catering Truck	MITSUBISHI	1995	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	30,562.0	06/02/06	Yes - Other
531517	Catering Truck	MITSUBISHI	1995	DIESEL	On-Airport Mobile Fueler	155	Yes - Works	32,480.0	06/02/06	Yes - Other
535472	Catering Truck	MITSUBISHI	2005	DIESEL	On-Airport Mobile Fueler	185	Yes - Works	1,782.0	06/02/06	Yes - Other
248024	Catering Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	207	Yes - Works	3,869.0	05/15/06	Yes - Other
516075	Catering Truck	NAVISTAR	1993	DIESEL	On-Airport Stationary	207	Yes - Works	8,350.0	05/15/06	Yes - Other
328762	Catering Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	207	Yes - Works	2,297.0	05/15/06	Yes - Other
322490	Catering Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	207	Yes - Works	8,544.0	05/15/06	Yes - Other
514864	Catering Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	207	Yes - Works	8,724.0	05/15/06	Yes - Other
533960	Catering Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	207	Yes - Works	10,175.0	05/15/06	Yes - Other
356944	Catering Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	207	Yes - Works	22,436.0	05/15/06	Yes - Other
345324	Catering Truck	NAVISTAR	2000	DIESEL	On-Airport Stationary	207	Yes - Works	25,430.0	05/15/06	Yes - Other
354774	Catering Truck	NAVISTAR	2002	DIESEL	On-Airport Stationary	207	Yes - Works	12,777.0	05/15/06	Yes - Other
2308	Catering Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,757.0	11/01/2006	Yes - Other
267946	Deicer	DODGE	1986	GASOLINE	On-Airport Mobile Fueler	200	Yes - Works	176.0	06/02/06	Yes - Light Duty
454398	Fork Lift	ALLIS-CHAMERS	1979	GASOLINE	On-Airport Stationary	80	Yes - Works	441.0	05/15/06	No
455889	Fork Lift	CAT	1995	LPG	On-Airport Mobile Fueler	104	Yes - Works	4,989.0	06/02/06	No
247408	Fork Lift	CATER	1989	LPG	On-Airport Stationary					No
483672	Fork Lift	CATER	1990	ELECTRIC						No
295281	Fork Lift	CATERPILLAR		LPG	Off Airport	95				No
60136	Fork Lift	Clark	1975		On-Airport Mobile Fueler		Yes - Works			No
399154	Fork Lift	CLARK	1982	LPG	On-Airport Mobile Fueler	80	Yes - Works			No
7	Fork Lift	Clark	1986	electric	Off Airport		Yes - Works	887.0	06/15/2006	No
6	Fork Lift	Clark	1986	electric	Off Airport		Yes - Works	7,176.0	06/15/2006	No
426510	Fork Lift	CLARK	1988	LPG	On-Airport Stationary	70	Yes - Works	3,306.0	05/15/06	No
446887	Fork Lift	CLARK	1988	DIESEL	On-Airport Mobile Fueler	80	Yes - Works	3,228.0	06/01/06	No
FL16	Fork Lift	CLARK	1988	diesel	On-Airport Mobile Fueler		Yes - Works	1,451.0	06/13/2006	No
FL05	Fork Lift	CLARK	1988	LPG	On-Airport Stationary		Yes - Works	10,177.0	06/13/2006	No
256480	Fork Lift	CLARK	1989	LPG		82				No
466844	Fork Lift	CLARK	1989	LPG		110				No
233170	Fork Lift	CLARK	1990	LPG	On-Airport Stationary	49	Yes - Works	80.0	05/15/06	No
301798	Fork Lift	CLARK	1990	ELECTRIC			Yes - Works	1,686.0	05/15/06	No
386477	Fork Lift	CLARK	1990	LPG	On-Airport Stationary	49	Yes - Works	6,337.0	05/15/06	No
223783	Fork Lift	CLARK	1990	LPG	On-Airport Stationary	49	Yes - Works	8,904.0	05/15/06	No
320075	Fork Lift	CLARK	1990	LPG	On-Airport Mobile Fueler	180	Yes - Works			No
499478	Fork Lift	CLARK	1991	LPG	On-Airport Mobile Fueler	60	Yes - Works	889.0	06/01/06	No

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364497	Fork Lift	CLARK	1991	GASOLINE	On-Airport Mobile Fueler	40	Yes - Works	3,374.0	06/01/06	No
436499	Fork Lift	CLARK	1996	GASOLINE		80				No
FL 75900	Fork Lift	CLARK		LPG	On-Airport Mobile Fueler	45	Yes - Works	7,180.0	05/22/2006	No
281848	Fork Lift	CLARK LIFT	1977	GASOLINE	On-Airport Stationary	80	Yes - Works	7,551.0	05/15/06	No
308091	Fork Lift	CLARK LIFT	1979	ELECTRIC	On-Airport Stationary	80	Yes - Works	819.0	05/15/06	No
279524	Fork Lift	CLARK LIFT	1979	ELECTRIC	On-Airport Stationary	80	Yes - Works	1,439.0	05/15/06	No
251223	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	561.0	05/15/06	No
444822	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	1,640.0	05/15/06	No
311402	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	1,672.0	05/15/06	No
240870	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	3,389.0	05/15/06	No
538874	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	4,479.0	05/15/06	No
338548	Fork Lift	CROWN	1994	ELECTRIC			Yes - Works	5,527.0	05/15/06	No
426118	Fork Lift	CROWN		ELECTRIC			No		05/15/06	No
430262	Fork Lift	CROWN		ELECTRIC			No		05/15/06	No
284109	Fork Lift	CTRPL	1989	DIESEL	On-Airport Mobile Fueler	45	Yes - Works			No
365736	Fork Lift	CUMMINS	1991	DIESEL	On-Airport Stationary	250	Yes - Works	1,049.0	02/06/06	No
FL02	Fork Lift	DAEWOO	1998	LPG	On-Airport Stationary		Yes - Works	9,498.0	06/13/2006	No
6011529	Fork Lift	Datsun	1981		On-Airport Mobile Fueler		Yes - Works			No
257635	Fork Lift	DETROIT	1985	LP	On-Airport Stationary		Yes - Works	1,860.0	02/06/02	No
349811	Fork Lift	FREIGHTLINER	1995	DIESEL	On-Airport Stationary	80	Yes - Works	367.0	05/15/06	No
30-204	Fork Lift	GM	2004	LPG	Off Airport	120	Yes - Works		05/19/2006	
267848	Fork Lift	HYSTER	1959	GASOLINE		60				No
316148	Fork Lift	HYSTER	1970	DIESEL		180				No
455763	Fork Lift	HYSTER	1970	LPG		225				No
519883	Fork Lift	HYSTER	1975	GASOLINE		100				No
538580	Fork Lift	HYSTER	1978	DIESEL	On-Airport Mobile Fueler	225	Yes - Works	7,786.0	05/15/06	No
371063	Fork Lift	HYSTER	1979	LPG		60				No
312991	Fork Lift	HYSTER	1980	ELECTRIC		80				No
362159	Fork Lift	HYSTER	1980	ELECTRIC		80				No
511539	Fork Lift	HYSTER	1980	ELECTRIC		100				No
379071	Fork Lift	HYSTER	1980	DIESEL		200				No
30-508	Fork Lift	HYSTER	1980	diesel	On-Airport Stationary	200	Yes - Works		05/19/2006	
454762	Fork Lift	HYSTER	1982	DIESEL	On-Airport Mobile Fueler	88	Yes - Works	3,129.0	05/15/06	No
FL12	Fork Lift	HYSTER	1984	diesel	On-Airport Mobile Fueler		Yes - Works	1,033.0	06/13/2006	No
554561	Fork Lift	HYSTER	1987	LPG	On-Airport Stationary	88	Yes - Works	5,234.0	05/15/06	No
FL07	Fork Lift	HYSTER	1990	LPG	On-Airport Stationary		Yes - Works	8,521.0	06/13/2006	No
FL17	Fork Lift	HYSTER	1991	LPG	On-Airport Stationary		Yes - Works	7,634.0	06/13/2006	No
492156	Fork Lift	HYSTER	1991	LPG		94				No
454755	Fork Lift	HYSTER	1991	LPG		100				No
FL06	Fork Lift	HYSTER	1992	LPG	On-Airport Stationary		Yes - Works	12,566.0	06/13/2006	No
320838	Fork Lift	HYSTER	1992	LPG		94				No
F/L #1	Fork Lift	HYSTER	1995	LPG	Off Airport		Yes - Works	7,648.0	06/11/2006	No

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F/L #2	Fork Lift	HYSTER	1996	LPG	Off Airport		Yes - Works	7,539.5	06/11/2006	No
FL 1000	Fork Lift	HYSTER	1997	LPG	On-Airport Mobile Fueler	90	Yes - Works	6,592.0	05/22/2006	No
FL04	Fork Lift	HYSTER	1998	LPG	On-Airport Stationary		Yes - Works	11,700.0	06/13/2006	No
FL03	Fork Lift	HYSTER	1998	LPG	On-Airport Stationary		Yes - Works	15,085.0	06/13/2006	No
fl164	fork lift	Hyster	1999	LPG	On-Airport Mobile Fueler	30	Yes - Doesn't Work			No
60193	Fork Lift	Hyster	2000		On-Airport Mobile Fueler		Yes - Works			No
FL08	Fork Lift	HYSTER	2001	LPG	On-Airport Stationary		Yes - Works	12,769.0	06/13/2006	No
FL09	Fork Lift	HYSTER	2001	LPG	On-Airport Stationary		Yes - Works	13,076.0	06/13/2006	No
FL11	Fork Lift	HYSTER	2001	LPG	On-Airport Stationary		Yes - Works	13,173.0	06/13/2006	No
FL10	Fork Lift	HYSTER	2001	LPG	On-Airport Stationary		Yes - Works	14,163.0	06/13/2006	No
221060	Fork Lift	HYSTER	2001	GASOLINE	On-Airport Mobile Fueler	42	Yes - Works			No
S/N: D187V30098A	Fork Lift	Hyster	2003	LPG	On-Airport Mobile Fueler	63	Yes - Works	69.0	06/07/2006	No
FL13	Fork Lift	HYSTER	2005	diesel	On-Airport Stationary		Yes - Works	48.0	06/13/2006	No
CET 23	Fork Lift	Hyster		alt1 - specify			Yes - Works		06/14/2006	
CET 23	Fork Lift	Hyster		alt1 - specify			Yes - Works		06/14/2006	
CGC 1	Fork Lift	Hyster		electric			Yes - Works		06/14/2006	
CET 8	Fork Lift	Hyster		electric			Yes - Works		06/14/2006	
264915	Fork Lift	HYSTER	1972	GASOLINE	On-Airport Stationary	80	Yes - Works	2,114.0	05/15/06	No
555345	Fork Lift	HYSTER	1988	DIESEL	On-Airport Stationary	80	Yes - Works	8,491.0	05/15/06	No
455896	Fork Lift	HYSTER	1996	LPG	On-Airport Stationary	80	Yes - Works	2,575.0	05/15/06	No
449638	Fork Lift	HYSTER	1996	ELECTRIC	On-Airport Stationary	80	Yes - Works	3,408.0	05/15/06	No
553770	Fork Lift	HYSTER	1997	DIESEL	On-Airport Stationary	80	Yes - Works	1,085.0	05/15/06	No
331422	Fork Lift	HYSTER	1997	LPG	On-Airport Stationary	80	Yes - Works	1,231.0	05/15/06	No
406077	Fork Lift	HYSTER	1997	LPG	On-Airport Stationary	80	Yes - Works	9,373.0	05/15/06	No
484386	Fork Lift	HYSTER	1998	LPG	On-Airport Stationary	80	Yes - Works	895.0	05/15/06	No
455462	Fork Lift	HYSTER	1998	LPG	On-Airport Stationary	80	Yes - Works	1,507.0	05/15/06	No
549843	Fork Lift	HYSTER	1998	LPG	On-Airport Stationary	80	Yes - Works	9,029.0	05/15/06	No
464030	Fork Lift	HYSTER	1999	ELECTRIC	On-Airport Stationary	80	Yes - Works	138.0	05/15/06	No
258510	Fork Lift	HYSTER	1999	ELECTRIC	On-Airport Stationary	80	Yes - Works	263.0	05/15/06	No
397166	Fork Lift	HYSTER	1999	LPG	On-Airport Stationary	80	Yes - Works	834.0	05/15/06	No
463190	Fork Lift	HYSTER	2001	LPG	On-Airport Stationary	80	Yes - Works	3,046.0	05/15/06	No
415240	Fork Lift	HYSTR	1980	DIESEL	On-Airport Mobile Fueler	45	Yes - Works			No
397173	Fork Lift	HYSTR	1996	DIESEL	On-Airport Mobile Fueler	225	Yes - Works			No
528185	Fork Lift	HYSTR	1996	ELECTRIC	On-Airport Stationary	225	Yes - Works			No
518791	Fork Lift	JLG	1994	LPG	On-Airport Stationary					No
319802	Fork Lift	JLG	1997	ELECTRIC						No
F/L #4	Fork Lift	KOMATSU	1987	electric			Yes - Works	3,476.2	06/11/2006	No
F/L #16	Fork Lift	KOMATSU	1989	gasoline	On-Airport Mobile Fueler		Yes - Works	33,146.9	06/11/2006	No
F/L #18	Fork Lift	KOMATSU	1990	LPG	Off Airport		Yes - Works	13,489.3	06/11/2006	No
30-065	Fork Lift	KOMATSU	1992	gasoline	On-Airport Stationary	80	Yes - Works	260.0	05/19/2006	
427252	Fork Lift	KOMATSU		LPG	Off Airport					No
366240	Fork Lift	KOMATSU	1993	LPG	On-Airport Stationary	80	Yes - Works	633.0	05/15/06	No

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317926	Fork Lift	KOMATSU	1993	LPG	On-Airport Stationary	80	Yes - Works	1,315.0	05/15/06	No
411740	Fork Lift	NISSAN	1984	LPG	On-Airport Mobile Fueler	120	Yes - Works	8,419.0	06/02/06	No
266315	Fork Lift	NISSAN	1996	LP	On-Airport Stationary		Yes - Works	1,109.0	02/07/02	No
472045	Fork Lift	NISSAN	1996	LP	On-Airport Stationary		Yes - Works	147.0	02/15/02	No
244832	Fork Lift	NISSAN	1997	LP	On-Airport Stationary		Yes - Works	1,100.0	01/25/01	No
415793	Fork Lift	NISSAN	1997	LP	On-Airport Stationary		Yes - Works	9,348.0	02/07/02	No
231203	Fork Lift	NISSAN	1998	LP	On-Airport Stationary		Yes - Works	1,611.0	12/22/01	No
F/L #3	Fork Lift	NISSAN	1998	LPG	Off Airport		Yes - Works	7,432.9	06/11/2006	No
499009	Fork Lift	NISSAN	1999	LP	On-Airport Stationary		Yes - Works	3,881.0	12/22/01	No
451577	Fork Lift	PEUGUOT	1986	LP	On-Airport Stationary		Yes - Works	4,440.0	06/01/01	No
FL 5570	Fork Lift	RAYMOND		electric	On-Airport Stationary		Yes - Works	1,803.0	05/22/2006	No
294357	Fork Lift	RAYMOND	1997	ELECTRIC	On-Airport Stationary	80	Yes - Works	920.0	05/15/06	No
359044	Fork Lift	ROYAL	2003	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
250621	Fork Lift	TAYLR	1994	DIESEL	On-Airport Mobile Fueler	225	Yes - Works			No
366653	Fork Lift	TOYOT	2003	GASOLINE	On-Airport Mobile Fueler	45	Yes - Works			No
560518	Fork Lift	TOYOT	2005	GASOLINE	On-Airport Mobile Fueler	45	Yes - Works			No
223979	Fork Lift	TOYOT	2005	ELECTRIC	On-Airport Stationary	45	Yes - Works			No
302323	Fork Lift	TOYOT	2005	ELECTRIC	On-Airport Stationary	45	Yes - Works			No
437584	Fork Lift	TOYOT	2005	ELECTRIC	On-Airport Stationary	45	Yes - Works			No
FL 5540	Fork Lift	TOYOTA	1984	LPG	On-Airport Mobile Fueler	41	Yes - Works	5,216.0	05/22/2006	No
313187	Fork Lift	TOYOTA	1985	DIESEL		65				No
FL DNT	Fork Lift	TOYOTA	1989	LPG	On-Airport Mobile Fueler	45	Yes - Works	4,496.0	05/22/2006	No
230867	Fork Lift	TOYOTA	1990	DIESEL	On-Airport Mobile Fueler	85	Yes - Works	6,601.0	05/15/06	No
423696	Fork Lift	TOYOTA	1990	GASOLINE		60				No
273973	Fork Lift	TOYOTA	1991	LPG	On-Airport Stationary	69	Yes - Works	10,297.0	05/15/06	No
FL19	Fork Lift	TOYOTA	1991	LPG	On-Airport Stationary	52	Yes - Works	31,390.0	06/13/2006	No
488222	Fork Lift	TOYOTA	1993	LPG	On-Airport Stationary	52	Yes - Works	3,227.0	05/15/06	No
FL 6240	Fork Lift	TOYOTA	1993	LPG	On-Airport Mobile Fueler	84	Yes - Works	2,189.0	05/22/2006	No
FL21	Fork Lift	TOYOTA	1993	LPG	On-Airport Stationary	52	Yes - Works	29,099.0	06/13/2006	No
FL20	Fork Lift	TOYOTA	1993	LPG	On-Airport Stationary	52	Yes - Works	29,409.0	06/13/2006	No
FL22	Fork Lift	TOYOTA	1993	LPG	On-Airport Stationary	52	Yes - Doesn't Work			No
FL23	Fork Lift	TOYOTA	1994	LPG	On-Airport Stationary	52	Yes - Works	29,739.0	06/13/2006	No
FL25	Fork Lift	TOYOTA	1995	LPG	On-Airport Stationary	52	Yes - Works	18,585.0	06/13/2006	No
FL24	Fork Lift	TOYOTA	1995	LPG	On-Airport Stationary	52	Yes - Works	33,900.0	06/13/2006	No
FL A/F	Fork Lift	TOYOTA	1998	LPG	On-Airport Mobile Fueler	45	Yes - Works	17,418.0	05/22/2006	No
340942	Fork Lift	TOYOTA	1998	LPG		90				No
390425	Fork Lift	TOYOTA	1998	LPG		90				No
389417	Fork Lift	TOYOTA	2000	LPG	On-Airport Stationary	62	Yes - Works	2,188.0	05/15/06	No
403480	Fork Lift	TOYOTA	2000	LPG	On-Airport Stationary	62	Yes - Works	4,716.0	05/15/06	No
374108	Fork Lift	TOYOTA	2000	LPG	On-Airport Stationary	62	Yes - Works	5,355.0	05/15/06	No
265083	Fork Lift	TOYOTA	2000	LPG	On-Airport Stationary	62	Yes - Works	7,521.0	05/15/06	No
531146	Fork Lift	TOYOTA	2000	LPG	On-Airport Stationary	62	Yes - Works	8,207.0	05/15/06	No

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318745	Fork Lift	TOYOTA	2000	LPG		53				No
379841	Fork Lift	TOYOTA	2000	LPG		53				No
554141	Fork Lift	TOYOTA	2000	LPG		53				No
454181	Fork Lift	TOYOTA	2000	LPG		73				No
381038	Fork Lift	TOYOTA	2001	LPG	On-Airport Stationary	95	Yes - Works	805.0	05/15/06	No
559062	Fork Lift	TOYOTA	2001	LPG	On-Airport Stationary	53	Yes - Works	2,088.0	05/15/06	No
FL ELEC	Fork Lift	TOYOTA	2001	electric	On-Airport Stationary		Yes - Works	4,102.0	05/30/2006	No
265881	Fork Lift	TOYOTA	2001	ELECTRIC		75				No
411761	Fork Lift	TOYOTA	2001	ELECTRIC		75				No
540456	Fork Lift	TOYOTA	2001	ELECTRIC		75				No
521444	Fork Lift	TOYOTA	2002	LPG	On-Airport Mobile Fueler	104	Yes - Works	10,737.0	06/02/06	No
364308	Fork Lift	TOYOTA	2002	LPG	On-Airport Mobile Fueler	104	Yes - Works	11,238.0	06/02/06	No
451423	Fork Lift	TOYOTA	2002	LPG	On-Airport Mobile Fueler	104	Yes - Works	11,285.0	06/02/06	No
242158	Fork Lift	TOYOTA	2003	LPG		75				No
326095	Fork Lift	TOYOTA	2003	LPG		75				No
417550	Fork Lift	TOYOTA	2003	LPG		75				No
517559	Fork Lift	TOYOTA	2003	LPG		75				No
427560	Fork Lift	TOYOTA	2004	LPG	On-Airport Mobile Fueler	104	Yes - Works	6,625.0	06/02/06	No
335314	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
341705	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
346563	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
352016	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
420868	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
431466	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
433461	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
447762	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
475370	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
475748	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
505561	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
527478	Fork Lift	TOYOTA	2004	ELECTRIC		75				No
551691	Fork Lift	TOYOTA	2005	LPG	On-Airport Stationary	60	Yes - Works	40.0	05/15/06	No
302372	Fork Lift	TOYOTA	2005	LPG	On-Airport Mobile Fueler	104	Yes - Works	2,771.0	06/02/06	No
FL28	Fork Lift	TOYOTA	2005	LPG	On-Airport Stationary	52	Yes - Works	344.0	06/13/2006	No
FL26	Fork Lift	TOYOTA	2005	LPG	On-Airport Stationary	52	Yes - Works	1,600.0	06/13/2006	No
FL27	Fork Lift	TOYOTA	2005	LPG	On-Airport Stationary	52	Yes - Works	1,709.0	06/13/2006	No
229005	Fork Lift	TOYOTA	2006	LPG	On-Airport Stationary		Yes - Works	37.0	05/15/06	No
fl164	Fork Lift	Toyota		LPG	On-Airport Mobile Fueler	Yes - Doesn't Work				
437927	Fork Lift	TOYOTA	1987	LPG	On-Airport Stationary	80	Yes - Works	4,342.0	05/15/06	No
8	Fork Lift	Toyota Lift	1997	electric	Off Airport		Yes - Works	10,756.2	06/15/2006	No
14	Fork Lift	Toyota Lift	2006	electric	Off Airport		Yes - Works	104.5	06/15/2006	No
15	Fork Lift	Toyota Lift	2006	electric	Off Airport		Yes - Works	197.8	06/15/2006	No
306719	Fork Lift	UNKNOWN	1986	ELECTRIC		100				No

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11	Fork Lift	Yale	1996	LPG	Off Airport		Yes - Works	7,452.0	06/15/2006	No
10	Fork Lift	Yale	1997	LPG	Off Airport		Yes - Works	7,414.0	06/15/2006	No
FL 5590	Fork Lift	YALE	1998	LPG	On-Airport Mobile Fueler	45	Yes - Works	18,095.0	05/22/2006	No
FL 5580	Fork Lift	YALE	1998	LPG	On-Airport Mobile Fueler	45	Yes - Works	18,586.0	05/22/2006	No
F/L #21	Fork Lift	YALE	2001	LPG	Off Airport	180	Yes - Works	8,791.0	06/11/2006	No
F/L #22	Fork Lift	YALE	2001	LPG	Off Airport	180	Yes - Works	9,799.2	06/11/2006	No
F/L #23	Fork Lift	YALE	2001	LPG	Off Airport	180	Yes - Works	10,909.5	06/11/2006	No
F/L #25	Fork Lift	YALE	2002	LPG	Off Airport	180	Yes - Works	7,918.3	06/11/2006	No
F/L #24	Fork Lift	YALE	2002	LPG	Off Airport	180	Yes - Works	8,489.6	06/11/2006	No
F/L #10	Fork Lift	YALE	2003	gasoline	On-Airport Mobile Fueler		Yes - Works	612.0	06/11/2006	No
F/L #26	Fork Lift	YALE	2003	LPG	Off Airport	180	Yes - Works	6,340.4	06/11/2006	No
F/L #29	Fork Lift	YALE	2004	LPG	Off Airport	180	Yes - Works	3,236.0	06/11/2006	No
F/L #27	Fork Lift	YALE	2004	LPG	Off Airport	180	Yes - Works	3,258.7	06/11/2006	No
F/L #28	Fork Lift	YALE	2004	LPG	Off Airport	180	Yes - Works	3,731.8	06/11/2006	No
F/L #30	Fork Lift	YALE	2005	LPG	Off Airport	180	Yes - Works	1,161.0	06/11/2006	No
F/L #31	Fork Lift	YALE	2005	LPG	Off Airport	180	Yes - Works	1,308.0	06/11/2006	No
13	Fork Lift	Yale		electric	Off Airport		Yes - Works	14,366.0	06/15/2006	No
375753	Fork Lift	YALE		LPG	Off Airport	95				No
261975	Fork Lift	YALEX	1989	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
310051	Fork Lift	YALEX	1989	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
507227	Fork Lift	YALEX	1993	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
516040	Fork Lift	YALEX	1993	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
300930	Fork Lift	YALEX	1994	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
524286	Fork Lift	YALEX	1994	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
236383	Fork Lift	YALEX	1997	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
282289	Fork Lift	YALEX	1997	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
250544	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
269171	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
293930	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
351267	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
362649	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
384503	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
391048	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
411894	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
448462	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
474733	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
482237	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
496412	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
527450	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
561904	Fork Lift	YALEX	1998	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
398580	Fork Lift	YALEX	2000	LQ PRPN	On-Airport Mobile Fueler	45	Yes - Works			No
374325	Fork Lift	YALEX	2001	ELECTRIC	On-Airport Stationary	45	Yes - Works			No

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405944	Fork Lift	YALEX	2001	LQ PRPN	On-Airport Stationary	45	Yes - Works			No
558117	Fork Lift		1985	LP	On-Airport Stationary		Yes - Works	388.0	11/20/01	No
232659	Fork Lift		1985	GAS	On-Airport Stationary		Yes - Works	6,483.0	02/14/02	No
527926	Fork Lift		1991	ELEC	On-Airport Stationary		Yes - Works	5,927.0	01/03/02	No
465024	Fork Lift		1996	ELEC	On-Airport Stationary		Yes - Works	4,457.0	03/23/06	No
226800	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
304395	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
304878	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
330638	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
340039	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
394786	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
420448	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
435533	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
477589	Fork Lift		2001	LP	On-Airport Stationary		Yes - Works			No
8719	Fork Lift			Diesel	On-Airport Mobile Fueler		Yes - Works	554.0	11/01/2006	No
8792	Fork Lift			Diesel	On-Airport Mobile Fueler		Yes - Works	724.0	11/01/2006	No
1065	Fork Lift			LPG	On-Airport Mobile Fueler		Yes - Works	1,772.0	11/01/2006	No
8717	Fork Lift			Diesel	On-Airport Mobile Fueler		Yes - Works	3,128.0	11/01/2006	No
8722	Fork Lift			LPG	On-Airport Mobile Fueler		Yes - Works	3,883.0	11/01/2006	No
8713	Fork Lift			Diesel	On-Airport Mobile Fueler		Yes - Works	7,620.0	11/01/2006	No
64285	Fuel Truck	Bosserman	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
64339	Fuel Truck	Bosserman	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
292565	Fuel Truck	CRANE CARRIER CORP.	1997	DIESEL	On-Airport Stationary	137	Yes - Works	2,893.0	05/15/06	No
09-060	Fuel Truck	FORD	1971	LPG	On-Airport Stationary	140	Yes - Works	31.0	05/19/2006	
344659	Fuel Truck	FORD	1974	LPG	On-Airport Stationary	95	Yes - Works	3,438.0	05/15/06	Yes - Other
09-851	Fuel Truck	FORD	1982	gasoline	On-Airport Stationary	140	Yes - Works	6,354.0	05/19/2006	
332269	Fuel Truck	FORD	1990	GASOLINE		140				Yes - Other
64282	Fuel Truck	Ford	1998	diesel	On-Airport Mobile Fueler		Yes - Works			
431172	Fuel Truck	FORD	1999	GASOLINE		173				Yes - Other
FT3	Fuel Truck	Ford F700	1991	Diesel	On-Airport Mobile Fueler					Yes - Other
64200	Fuel Truck	Garsite	1991	diesel	On-Airport Mobile Fueler		Yes - Works			
285600	Fuel Truck	GENERAL MOTORS	1981	GASOLINE		105				Yes - Light Duty
64134	Fuel Truck	GTI	1987	diesel	On-Airport Mobile Fueler		Yes - Works			
64298	Fuel Truck	GTI	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
64299	Fuel Truck	GTI	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
64170	Fuel Truck	GTI	2002	diesel	On-Airport Mobile Fueler		Yes - Works			
64372	Fuel Truck	GTI	2005	diesel	On-Airport Mobile Fueler		Yes - Works			
1HTM5AAR95H158489	Fuel Truck	International	2005	diesel	On-Airport Mobile Fueler	225	Yes - Works	1,172.0	06/07/2006	Yes - Other
GFU001	Fuel Truck	ISUZU	2002	Diesel	On-Airport Mobile Fueler	200	Yes - Works	34,856.0		Yes - Other
291116	Fuel Truck	LIFT-A-LOFT	2001	DIESEL		175				No
528500	Fuel Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	137	Yes - Works	3,610.0	05/15/06	Yes - Other
7128	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	2,568.0	11/01/2006	No

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2241	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	3,404.0	11/01/2006	No
2297	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	6,190.0	11/01/2006	No
2265	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	6,211.0	11/01/2006	No
17151	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	6,426.0	11/01/2006	No
10145	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	6,607.0	11/01/2006	No
2262	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	9,190.0	11/01/2006	No
2234	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	10,111.0	11/01/2006	No
17127	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	11,147.0	11/01/2006	No
22878	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	#######	11/01/2006	No
2264	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	894.0	11/01/2006	Yes - Other
2249	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	1,679.0	11/01/2006	Yes - Other
2266	Fuel Truck			Diesel	On-Airport Stationary		Yes - Works	5,596.0	11/01/2006	Yes - Other
2270	Fuel Truck			Gasoline	On-Airport Stationary		Yes - Works	5,707.0	11/01/2006	Yes - Other
2250	Fuel Truck			Gasoline	On-Airport Stationary		Yes - Works	6,550.0	11/01/2006	Yes - Other
440755	Generator	AMMFG	1980	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
554407	Generator	AMMFG	1980	DIESEL	On-Airport Mobile Fueler	90	Yes - Works			No
261338	Generator	DEUTZ	1999	DIESEL	On-Airport Stationary	135	Yes - Works	2,115.0	11/24/01	No
554134	Generator	DEUTZ	1999	DIESEL	On-Airport Stationary	135	Yes - Works	1,300.0	06/07/06	No
517006	Generator	DEUTZ	1999	DIESEL	On-Airport Stationary	135	Yes - Works	9,521.0	06/08/06	No
352422	Generator	DEUTZ	2000	DIESEL	On-Airport Stationary	135	Yes - Works	8,180.0	06/06/06	No
551145	Generator	DEUTZ	2000	DIESEL	On-Airport Stationary	135	Yes - Works	7,259.0	06/07/06	No
444794	Generator	DEUTZ	2000	DIESEL	On-Airport Stationary	135	Yes - Works	8,975.0	06/07/06	No
333599	Generator	DEUTZ	2000	DIESEL	On-Airport Stationary	135	Yes - Works	9,213.0	06/09/06	No
304563	Generator	DEUTZ	2001	DIESEL	On-Airport Stationary	134	Yes - Works	8,002.0	06/02/06	No
374262	Generator	FORD	1986	GAS	On-Airport Stationary		Yes - Works	3,394.0	05/25/06	No
299712	Generator	FORD	1986	GAS	On-Airport Stationary	118	Yes - Works	8,811.0	06/09/06	No
512225	Generator	FORD	1996	GAS	On-Airport Stationary		Yes - Works	14,571.0	11/28/01	No
290913	Generator	FORD	1996	GAS	On-Airport Stationary	118	Yes - Works	2,281.0	05/20/06	No
343980	Generator	FORD	1996	GAS	On-Airport Stationary	118	Yes - Works	6,041.0	06/01/06	No
316379	Generator	FORD	1997	GAS	On-Airport Stationary	118	Yes - Works	3,055.0	06/03/06	No
461118	Generator		2001	DIESEL	On-Airport Stationary		Yes - Works	8,208.0	04/06/06	No
404180	Ground Power Unit	ACE EQUIPMENT CO.	1996	DIESEL	On-Airport Stationary	194	Yes - Works	4,060.0	05/15/06	No
421078	Ground Power Unit	ACE EQUIPMENT CO.	1996	DIESEL	On-Airport Stationary	194	Yes - Works	4,892.0	05/15/06	No
321069	Ground Power Unit	ACE EQUIPMENT CO.	1996	DIESEL	On-Airport Stationary	194	Yes - Works	5,165.0	05/15/06	No
398503	Ground Power Unit	ACE EQUIPMENT CO.	1996	DIESEL	On-Airport Stationary	194	Yes - Works	8,030.0	05/15/06	No
478135	Ground Power Unit	ACE EQUIPMENT CO.	1996	DIESEL	On-Airport Stationary	194	Yes - Works	11,323.0	05/15/06	No
382333	Ground Power Unit	ACE EQUIPMENT CO.	1997	DIESEL	On-Airport Stationary	194	Yes - Works	2,690.0	05/15/06	No
316344	Ground Power Unit	ARVIC	1996	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
410214	Ground Power Unit	ARVICO	1997	DIESEL	On-Airport Mobile Fueler	181	Yes - Works	3,810.0	05/15/06	No
469098	Ground Power Unit	ARVICO	2000	DIESEL	On-Airport Mobile Fueler	99	Yes - Works	1,777.0	05/15/06	No
391125	Ground Power Unit	ARVICO	2000	DIESEL	On-Airport Mobile Fueler	181	Yes - Works	4,332.0	05/15/06	No
553203	Ground Power Unit	ARVICO	2000	DIESEL	On-Airport Mobile Fueler	181	Yes - Works	4,742.0	05/15/06	No

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419538	Ground Power Unit	ARVICO	2000	DIESEL	On-Airport Mobile Fueler	116	Yes - Works	6,390.0	05/15/06	No
PU 3940	Ground Power Unit	ARVICO	2000	diesel	On-Airport Mobile Fueler	116	Yes - Works	6,570.0	05/22/2006	No
PU 4090	Ground Power Unit	ARVICO	2000	diesel	On-Airport Mobile Fueler	152	Yes - Works	6,954.0	05/22/2006	No
PU 4050	Ground Power Unit	ARVICO	2000	diesel	On-Airport Mobile Fueler	152	Yes - Works	7,006.0	05/22/2006	No
PU 4080	Ground Power Unit	ARVICO	2000	diesel	On-Airport Mobile Fueler	152	Yes - Works	7,772.0	05/22/2006	No
521332	Ground Power Unit	ARVICO	2001	DIESEL	On-Airport Mobile Fueler	116	Yes - Works	3,056.0	05/15/06	No
233709	Ground Power Unit	ARVICO	2003	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	1,850.0	05/15/06	No
PU8	Ground Power Unit	Arvico KVA-120	1998	Diesel	On-Airport Mobile Fueler					No
343532	Ground Power Unit	CUMMINS	1999	DIESEL	On-Airport Stationary	165	Yes - Works	3,388.0	01/08/02	No
416353	Ground Power Unit	CUMMINS	2001	DIESEL	On-Airport Stationary	200	Yes - Works	4,169.0	05/20/06	No
417928	Ground Power Unit	DAVCO	1999	ELECTRIC		149				No
428526	Ground Power Unit	DAVCO	1999	ELECTRIC		149				No
558971	Ground Power Unit	DAVCO	1999	ELECTRIC		149				No
276556	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
277480	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
394275	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
397215	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
419818	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
461832	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
488390	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
514535	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
550872	Ground Power Unit	DAVCO	2000	ELECTRIC		149				No
227402	Ground Power Unit	FORD	1976	GAS	On-Airport Stationary		Yes - Works	4,505.0	02/12/02	No
401681	Ground Power Unit	FORD	1977	GAS	On-Airport Stationary		Yes - Works	2,563.0	01/17/02	No
480795	Ground Power Unit	FORD	1977	GAS	On-Airport Stationary		Yes - Works	4,702.0	05/09/06	No
416787	Ground Power Unit	FORD	1986	GAS	On-Airport Stationary		Yes - Works	4,330.0	01/24/01	No
220941	Ground Power Unit	FORD	1998	GAS	On-Airport Stationary		Yes - Works	1,805.0	11/29/01	No
280266	Ground Power Unit	FORD	1998	GAS	On-Airport Stationary		Yes - Works	17.0	02/07/02	No
560882	Ground Power Unit	FORD	1999	GAS	On-Airport Stationary		Yes - Works	459.0	11/02/01	No
236509	Ground Power Unit	FORD	1999	GAS	On-Airport Stationary		Yes - Works	79,395.0	12/05/01	No
492842	Ground Power Unit	FORD	2000	GAS	On-Airport Stationary		Yes - Works	200.0	10/21/00	No
403067	Ground Power Unit	FORD	2000	GAS	On-Airport Stationary		Yes - Works	461.0	10/21/00	No
263676	Ground Power Unit	FORD	2000	GAS	On-Airport Stationary		Yes - Works	4,356.0	07/24/01	No
312676	Ground Power Unit	FORD	2000	GAS	On-Airport Stationary		Yes - Works	5,276.0	08/07/01	No
511798	Ground Power Unit	FORD	2000	GAS	On-Airport Stationary		Yes - Works	29,213.0	10/15/01	No
504735	Ground Power Unit	FORD	2000	CNG	On-Airport Stationary		Yes - Works	5,092.0	12/06/01	No
303289	Ground Power Unit	FORD		GAS	On-Airport Stationary		Yes - Works	1,216.0	04/15/06	No
469203	Ground Power Unit	HOBART	1971	DIESEL		150				No
241472	Ground Power Unit	HOBART	1979	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	3,165.0	05/15/06	No
297843	Ground Power Unit	HOBART	1979	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	7,478.0	05/15/06	No
412888	Ground Power Unit	HOBART	1990	DIESEL		70				No
497784	Ground Power Unit	HOBART	1992	DIESEL		70				No

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11178	Ground Power Unit	Hobart	1995	diesel	On-Airport Mobile Fueler		Yes - Works			
11181	Ground Power Unit	Hobart	1995	diesel	On-Airport Mobile Fueler		Yes - Works			
216307	Ground Power Unit	HOBART	1997	DIESEL	On-Airport Mobile Fueler					No
460341	Ground Power Unit	HOBART	1997	DIESEL	On-Airport Mobile Fueler					No
11200	Ground Power Unit	Hobart	1997	diesel	On-Airport Mobile Fueler		Yes - Works			
234045	Ground Power Unit	HOBART	1998	DIESEL	On-Airport Mobile Fueler					No
270550	Ground Power Unit	HOBART	1998	DIESEL	On-Airport Mobile Fueler					No
275156	Ground Power Unit	HOBART	1998	DIESEL	On-Airport Mobile Fueler					No
511763	Ground Power Unit	HOBART	1998	DIESEL	On-Airport Mobile Fueler					No
11212	Ground Power Unit	Hobart	1998	diesel	On-Airport Mobile Fueler		Yes - Works			
11214	Ground Power Unit	Hobart	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
11215	Ground Power Unit	Hobart	1999	diesel	On-Airport Mobile Fueler		Yes - Works			
255871	Ground Power Unit	HOBART	2000	DIESEL	On-Airport Mobile Fueler	160	Yes - Works	1,881.0	06/01/06	No
262479	Ground Power Unit	HOBART	2000	DIESEL	On-Airport Mobile Fueler	160	Yes - Works	4,076.0	06/01/06	No
GPU1	Ground Power Unit	HOBART	2001	diesel	On-Airport Mobile Fueler	200	Yes - Works	5,791.0	06/13/2006	No
GPU508	Ground Power Unit	Hobart	2001	Diesel	On-Airport Mobile Fueler	520	Yes - Works	834.0		No
11232	Ground Power Unit	Hobart	2001	diesel	On-Airport Mobile Fueler		Yes - Works			
S/N: 402P506950	Ground Power Unit	Hobart	2003	diesel	On-Airport Mobile Fueler	110	Yes - Works	82.0	06/07/2006	No
GPU2	Ground Power Unit	HOBART	2004	diesel	On-Airport Mobile Fueler	200	Yes - Works	2,704.0	06/13/2006	No
GPU002	Ground Power Unit	Hobart	2004	Diesel	On-Airport Mobile Fueler	520	Yes - Works	3,068.2		No
GPU509QF	Ground Power Unit	Hobart	2004	Diesel	On-Airport Mobile Fueler	520	Yes - Works	4,270.0		No
GPU510QF	Ground Power Unit	Hobart	2004	Diesel	On-Airport Mobile Fueler	520	Yes - Works	5,917.8		No
GPU511	Ground Power Unit	Hobart	2005	Diesel	On-Airport Mobile Fueler	520	Yes - Works	2,457.3		No
GPU	Ground Power Unit	HOBART		gasoline	On-Airport Mobile Fueler		Yes - Works	698.9	06/11/2006	No
414323	Ground Power Unit	HOBRT	1997	DIESEL	On-Airport Mobile Fueler	215	Yes - Works			No
457016	Ground Power Unit	HOBRT	1997	DIESEL	On-Airport Mobile Fueler	215	Yes - Works			No
501949	Ground Power Unit	HOBRT	1997	DIESEL	On-Airport Mobile Fueler	215	Yes - Works			No
335846	Ground Power Unit	HOBRT	1998	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
358120	Ground Power Unit	HOBRT	1998	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
414029	Ground Power Unit	HOBRT	1998	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
529354	Ground Power Unit	HOBRT	1998	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
533169	Ground Power Unit	HOBRT	1998	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
289282	Ground Power Unit	HOBRT	1999	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
324618	Ground Power Unit	HOBRT	1999	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
376110	Ground Power Unit	HOBRT	1999	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
461601	Ground Power Unit	HOBRT	1999	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
464758	Ground Power Unit	HOBRT	1999	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
384328	Ground Power Unit	HOBRT	2001	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
106736	Ground Power Unit	International	1979	diesel	On-Airport Mobile Fueler		Yes - Works			
288946	Ground Power Unit	S AND S	1987	DIESEL		140				No
356181	Ground Power Unit	STEWART & STEVENSON	1996	DIESEL	On-Airport Stationary	194	Yes - Works	150.0	05/15/06	No
540204	Ground Power Unit	STEWART & STEVENSON	1997	DIESEL	On-Airport Stationary	189	Yes - Works	173.0	05/15/06	No

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232281	Ground Power Unit	STWST	1996	DIESEL	On-Airport Mobile Fueler	180	Yes - Works			No
266077	Ground Power Unit	TLD	2005	DIESEL	On-Airport Mobile Fueler	228	Yes - Works	6.0	06/02/06	No
533554	Ground Power Unit	TLD	2006	DIESEL	On-Airport Mobile Fueler	228	Yes - Works	2.7	06/02/06	No
385140	Ground Power Unit	TLD	2006	DIESEL	On-Airport Mobile Fueler	228	Yes - Works	6.7	06/02/06	No
PU9	Ground Power Unit	TLD KVA-140	2003	Diesel	On-Airport Mobile Fueler					No
246449	Ground Power Unit	TRILECTRON	1997	DIESEL	On-Airport Mobile Fueler	194	Yes - Works	2,754.0	06/02/06	No
267449	Ground Power Unit	TRILECTRON	1997	DIESEL		150				No
463680	Ground Power Unit	TRILECTRON	1998	DIESEL	On-Airport Mobile Fueler	152	Yes - Works			No
520730	Ground Power Unit	TRILECTRON	2000	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	4,055.0	05/15/06	No
PU 4130	Ground Power Unit	TRILECTRON	2001	diesel	On-Airport Mobile Fueler	152	Yes - Works	5,665.0	05/22/2006	No
445739	Ground Power Unit	TRILECTRON	2001	DIESEL	On-Airport Mobile Fueler	152	Yes - Works			No
449463	Ground Power Unit	TRILECTRON	2001	DIESEL	On-Airport Mobile Fueler	152	Yes - Works			No
GPU 329	Ground Power Unit	Trilectron		diesel	On-Airport Mobile Fueler		Yes - Works			
GPU 209	Ground Power Unit	Trilectron		diesel	On-Airport Mobile Fueler		Yes - Works			
GPU 330	Ground Power Unit	Trilectron		diesel	On-Airport Mobile Fueler		Yes - Works			
499527	Ground Power Unit	TRILECTRON	1993	DIESEL	On-Airport Stationary	200	Yes - Works	3,496.0	05/15/06	No
305732	Ground Power Unit	TRILECTRON	1993	DIESEL	On-Airport Stationary	200	Yes - Works	5,275.0	05/15/06	No
275569	Ground Power Unit	TRILECTRON	1993	DIESEL	On-Airport Stationary	200	Yes - Works	8,585.0	05/15/06	No
258727	Ground Power Unit		1998	GAS	On-Airport Stationary		Yes - Works	750.0	08/23/01	No
7624	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	850.0	11/01/2006	No
8732	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	1,458.0	11/01/2006	No
8781	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	1,874.0	11/01/2006	No
8730	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	2,354.0	11/01/2006	No
8775	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	2,366.0	11/01/2006	No
8015	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	2,655.0	11/01/2006	No
13193	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	3,828.0	11/01/2006	No
8828	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	4,124.0	11/01/2006	No
8734	ground power unit			Diesel	On-Airport Mobile Fueler		Yes - Works	5,967.0	11/01/2006	No
333200	Ground Power Unit			DIESEL	On-Airport Mobile Fueler					No
471786	Ground Power Unit			DIESEL	On-Airport Mobile Fueler					No
HL3	High Lift/Catering	Ford	1987	Gasoline	On-Airport Mobile Fueler					
HL2	High Lift/Catering	Ford	1988	Diesel	On-Airport Mobile Fueler					
HL1	High Lift/Catering	Ford	1989	Diesel	On-Airport Mobile Fueler					
228998	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
242977	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
263102	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
353017	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
353969	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
361914	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
392854	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
554904	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other
559405	Hydrant Truck	FORD	1997	GASOLINE		95				Yes - Other

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329924	Hydrant Truck	FORD	1993	DIESEL	On-Airport Stationary	131	Yes - Works	3,495.0	05/15/06	Yes - Other
426153	Hydrant Truck	FORD	1993	DIESEL	On-Airport Stationary	131	Yes - Works	4,738.0	05/15/06	Yes - Other
531286	Hydrant Truck	FORD	1993	DIESEL	On-Airport Stationary	131	Yes - Works	12,278.0	05/15/06	Yes - Other
502040	Hydrant Truck	FORD	1995	DIESEL	On-Airport Stationary	131	Yes - Works	10,870.0	05/15/06	Yes - Other
407589	Hydrant Truck	GARSITE	1988	GASOLINE		94				No
441504	Hydrant Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	131	Yes - Works	18,638.0	05/15/06	Yes - Other
243341	Hydrant Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	131	Yes - Works	19,141.0	05/15/06	Yes - Other
523516	Hydrant Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	131	Yes - Works	20,092.0	05/15/06	Yes - Other
532301	Hydrant Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	131	Yes - Works	21,180.0	05/15/06	Yes - Other
249109	Hydrant Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	131	Yes - Works	22,183.0	05/15/06	Yes - Other
482580	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	11,218.0	05/15/06	Yes - Other
254793	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	11,868.0	05/15/06	Yes - Other
476056	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	12,003.0	05/15/06	Yes - Other
524811	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	13,744.0	05/15/06	Yes - Other
222131	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	14,948.0	05/15/06	Yes - Other
524272	Hydrant Truck	NAVISTAR	1999	DIESEL	On-Airport Stationary	131	Yes - Works	15,168.0	05/15/06	Yes - Other
236166	Hydrant Truck	TRI STATE	1987	GASOLINE		175				Yes - Other
553322	Lavatory Truck	ACE-DEVTEC-NORDCO	1999	GASOLINE		97				No
480333	Lavatory Truck	ACE-DEVTEC-NORDCO	2000	GASOLINE		97				No
531587	Lavatory Truck	ACE-DEVTEC-NORDCO	2000	GASOLINE		97				No
483287	Lavatory Truck	FORD	1985	GASOLINE	On-Airport Stationary	120	Yes - Works	7,326.0	05/15/06	Yes - Other
243082	Lavatory Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	393.0	01/09/02	Yes - Other
497924	Lavatory Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	441.0	01/16/02	Yes - Other
284452	Lavatory Truck	FORD	1989	GASOLINE	On-Airport Mobile Fueler					Yes - Other
334684	Lavatory Truck	FORD	1991	GAS	On-Airport Stationary		Yes - Works	1,949.0	10/21/00	Yes - Other
508004	Lavatory Truck	FORD	1991	GAS	On-Airport Stationary		Yes - Works	184.0	08/06/01	Yes - Other
471086	Lavatory Truck	FORD	1993	GASOLINE	On-Airport Mobile Fueler	210	Yes - Works	2,081.0	06/02/06	Yes - Light Duty
LSU722	Lavatory Truck	Ford	1995	Gasoline	On-Airport Mobile Fueler	190	Yes - Works	577.0		No
426272	Lavatory Truck	FORD	1995	GASOLINE		173				Yes - Other
498512	Lavatory Truck	FORD	1996	GASOLINE	On-Airport Mobile Fueler	210	Yes - Works	2,237.0	06/02/06	Yes - Light Duty
509082	Lavatory Truck	FORD	1996	GASOLINE		173				Yes - Other
319676	Lavatory Truck	FORD	1997	GASOLINE		173				Yes - Other
341789	Lavatory Truck	FORD	1997	GASOLINE		173				Yes - Other
LSU720	Lavatory Truck	Ford	1999	Diesel	On-Airport Mobile Fueler	190	Yes - Works	6,550.0		No
475146	Lavatory Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	12,120.0	10/21/00	Yes - Other
432796	Lavatory Truck	FORD	2002	GASOLINE	On-Airport Mobile Fueler	195	Yes - Works	1,179.0	06/02/06	Yes - Light Duty
460656	Lavatory Truck	FORD	2002	GASOLINE	On-Airport Mobile Fueler	195	Yes - Works	1,361.0	06/02/06	Yes - Light Duty
LAV6	Lavatory Truck	Ford F250	1986	Gasoline	On-Airport Mobile Fueler					
LAV2	Lavatory Truck	Ford F600	1988	Gasoline	On-Airport Mobile Fueler					
LAV3	Lavatory Truck	Ford F600	1990	Diesel	On-Airport Mobile Fueler					
LAV1	Lavatory Truck	Ford F600	1992	Gasoline	On-Airport Mobile Fueler					
522207	Lavatory Truck	FORD/STINAR	2000	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty

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556542	Lavatory Truck	FORD/WOLLARD	2000	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
13-024	Lavatory Truck	ISUZU	1997	diesel	On-Airport Stationary	135	Yes - Works	6,011.0	05/19/2006	
518098	Lavatory Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	147	Yes - Works	2,965.0	05/15/06	Yes - Other
311143	Lavatory Truck	NAVISTAR	1996	DIESEL	On-Airport Stationary	147	Yes - Works	8,283.0	05/15/06	Yes - Other
457548	Lavatory Truck	NAVISTAR	1997	DIESEL	On-Airport Stationary	147	Yes - Works	10,111.0	05/15/06	Yes - Other
439957	Lavatory Truck	NAVISTAR	2000	DIESEL	On-Airport Stationary	147	Yes - Works	14,769.0	05/15/06	Yes - Other
330015	Lavatory Truck	NAVISTAR	2000	DIESEL	On-Airport Stationary	147	Yes - Works	15,028.0	05/15/06	Yes - Other
331758	Lavatory Truck	NAVISTAR	2000	DIESEL	On-Airport Stationary	147	Yes - Works	16,748.0	05/15/06	Yes - Other
383670	Lavatory Truck	NORDC	1987	GASOLINE	On-Airport Mobile Fueler	150	Yes - Works			Yes - Other
LAV5	Lavatory Truck	Steiner		Gasoline	On-Airport Mobile Fueler					
LAV4	Lavatory Truck	TLD 1410	1998	Gasoline	On-Airport Mobile Fueler					
25133	Lavatory Truck	Wollard	1992	gasoline	On-Airport Mobile Fueler		Yes - Works			
25144	Lavatory Truck	Wollard	1996	gasoline	On-Airport Mobile Fueler		Yes - Works			
24154	Lavatory Truck	Wollard	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
25153	Lavatory Truck	Wollard	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
25156	Lavatory Truck	Wollard	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
523061	Lavatory Truck		2006		On-Airport Stationary		Yes - Works	2.0	06/07/06	Yes - Other
8483	Lavatory Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,245.0	11/01/2006	
8723	Lavatory Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,271.0	11/01/2006	
2289	Lavatory Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	4,039.0	11/01/2006	
506534	Lift	ACE-DEVTEC-NORDCO	1980	GASOLINE		103				No
452088	Lift	ACE-DEVTEC-NORDCO	1989	GASOLINE		103				No
345079	Lift	ACE-DEVTEC-NORDCO	1993	LPG		170				Yes - Other
MLU002 A/C	Lift	CargoKing	1995	Gasoline	On-Airport Mobile Fueler	120	Yes - Works	29.9		No
MT 174	Lift	Chev.	2000	gasoline	Off Airport	300	Yes - Works	275.0		
470379	Lift	COCHR	1961	GASOLINE	On-Airport Stationary	114	Yes - Works	2,472.0	05/15/06	No
403802	Lift	COCHR	1970	GASOLINE	On-Airport Stationary	114	Yes - Works	2,135.0	05/15/06	No
253988	Lift	ELLIOTT-INTL	2001	DIESEL		175				No
MDL1	Lift	FMC 40	1978	Propane	On-Airport Mobile Fueler					
MDL2	Lift	FMC 40	1979	Propane	On-Airport Mobile Fueler					
MDL4	Lift	FMC 40	1984	Gasoline	On-Airport Mobile Fueler					
MDL3	Lift	FMC 40	1997	Diesel	On-Airport Mobile Fueler					
414246	Lift	FORD	1968	LPG	On-Airport Stationary		Yes - Works	1,153.0	05/15/06	No
268821	Lift	FORD	1969	LPG	On-Airport Stationary	95	Yes - Works	9,532.0	05/15/06	No
464387	Lift	FORD	1981	LPG		170				Yes - Other
558831	Lift	FORD	1984	GASOLINE	On-Airport Mobile Fueler					No
382606	Lift	FORD	1989	LPG		173				Yes - Other
391769	Lift	FORD	1991	LPG		170				Yes - Other
477057	Lift	FORD	1992	GASOLINE		170				Yes - Other
MT 265	Lift	Ford	1993	gasoline	Off Airport	300	Yes - Works	16.0		
MT 216	Lift	Ford	1993	gasoline	Off Airport	300	Yes - Doesn't Work			
MT269	Lift	Ford	1994	gasoline	Off Airport	300	Yes - Doesn't Work			

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246267	Lift	FORD	1996	GASOLINE	On-Airport Mobile Fueler					No
MLU003 A/C	Lift	FORD	1997	Gasoline	On-Airport Mobile Fueler	300	Yes - Works	2,079.3		No
278929	Lift	FORD	1998	LP	On-Airport Stationary		Yes - Works	268.0	01/25/01	Yes - Other
282681	Lift	FORD	2001	DIESEL	On-Airport Mobile Fueler	210		834.0	05/15/06	No
366415	Lift	FORD		GASOLINE	On-Airport Mobile Fueler	140				No
243971	Lift	FORD	1992	DIESEL	On-Airport Stationary	114	Yes - Works	5,102.0	05/15/06	Yes - Other
277144	Lift	FORD	1993	DIESEL	On-Airport Stationary	114	Yes - Works	6,304.0	05/15/06	Yes - Other
503167	Lift	FREIGHTLINER	1996	GASOLINE	On-Airport Stationary	114	Yes - Works	0.0	05/15/06	No
223020	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	3,398.0	05/15/06	Yes - Other
268009	Lift	FREIGHTLINER	2001	DIESEL	On-Airport Stationary	114	Yes - Works	3,035.0	05/15/06	Yes - Other
451633	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	0.0	05/15/06	Yes - Other
468860	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	0.0	05/15/06	Yes - Other
376005	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	1,437.0	05/15/06	Yes - Other
343637	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	2,005.0	05/15/06	Yes - Other
357182	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	2,588.0	05/15/06	Yes - Other
440937	Lift	FREIGHTLINER	1996	DIESEL	On-Airport Stationary	114	Yes - Works	2,756.0	05/15/06	Yes - Other
362642	Lift	FREIGHTLINER	1997	DIESEL	On-Airport Stationary	114	Yes - Works	0.0	05/15/06	Yes - Other
271257	Lift	GENIE	2000	ELECTRIC		101				No
538818	Lift	GENIE	2000	ELECTRIC		101				No
409731	Lift	GENIE	2004	ELECTRIC	On-Airport Stationary		Yes - Works	3.0	06/01/06	No
483658	Lift	GROVE	1988	LPG	On-Airport Stationary	25	Yes - Works	2,834.0	05/15/06	No
346122	Lift	ISCXX	1970	GASOLINE	On-Airport Stationary	114	Yes - Works	2,500.0	05/15/06	No
303261	Lift	JLG	1990	LPG	On-Airport Mobile Fueler	46	Yes - Works	2,804.0	06/02/06	No
427994	Lift	JLG	2000	GASOLINE	On-Airport Mobile Fueler	54	Yes - Works			No
450331	Lift	JLG	2000	GASOLINE	On-Airport Mobile Fueler	54	Yes - Works			No
415191	Lift	JLG	2000	DIESEL		26				No
223391	Lift	JLG	2001	LPG	On-Airport Stationary	89	Yes - Works	1,671.0	05/15/06	No
378518	Lift	JLG	2004	ELECTRIC			Yes - Works	132.0	05/15/06	No
234654	Lift	JLG	2004	ELECTRIC			Yes - Works	140.0	05/15/06	No
446243	Lift	JLG	2005	LPG	On-Airport Mobile Fueler	48	Yes - Works	27.0	06/02/06	No
406721	Lift	JLG	1995	LPG	On-Airport Stationary	114	Yes - Works	1,516.0	05/15/06	No
514283	Lift	JLG	1997	LPG	On-Airport Stationary	114	Yes - Works	1,700.0	05/15/06	No
423815	Lift	JLG	1997	LPG	On-Airport Stationary	114	Yes - Works	1,863.0	05/15/06	No
278019	Lift	JLG	1997	DIESEL	On-Airport Stationary	114	Yes - Works	4,179.0	05/15/06	No
541408	Lift	JLG	1998	GASOLINE	On-Airport Stationary	114	Yes - Works	484.0	05/15/06	No
511973	Lift	JLG	1998	ELECTRIC	On-Airport Stationary	114	Yes - Works	656.0	05/15/06	No
335944	Lift	JLG	1998	ELECTRIC	On-Airport Stationary	114	Yes - Works	659.0	05/15/06	No
S/N: 0300028524	Lift	JLG Industries	1996	electric	On-Airport Stationary	10	Yes - Works	100.6	06/07/2006	No
229432	Lift	JLGIN	2005	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
407050	Lift	JLGIN	2005	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
450926	Lift	KRANEKAR	1963	DIESEL		95				No
330631	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No

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332612	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
358582	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
408527	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
436744	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
494809	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
561120	Lift	LFTAL	1998	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
234311	Lift	LFTAL	1998	GASOLINE	On-Airport Stationary	114	Yes - Works			No
300363	Lift	LFTAL	1998	GASOLINE	On-Airport Stationary	114	Yes - Works			No
217350	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
322833	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
432908	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
438431	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
498848	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
526673	Lift	LFTAL	2000	ELECTRIC	On-Airport Stationary	114	Yes - Works			No
227941	Lift	LFTAL	2001	GASOLINE	On-Airport Mobile Fueler	114	Yes - Works			No
215859	Lift	LIFT-A-LOFT	1985	ELECTRIC		101				No
351897	Lift	LIFT-A-LOFT	1988	ELECTRIC		101				No
330372	Lift	LIFT-A-LOFT	1996	GASOLINE		170				No
275597	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
288008	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
323001	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
363146	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
526372	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
532483	Lift	LIFT-A-LOFT	2000	ELECTRIC		101				No
367339	Lift	LIFT-A-LOFT	2001	ELECTRIC		101				No
381199	Lift	LIFT-A-LOFT	2001	ELECTRIC		101				No
461328	Lift	LIFT-A-LOFT	2001	ELECTRIC		101				No
543480	Lift	LIFT-A-LOFT	2001	ELECTRIC		101				No
218428	Lift	LIFT-A-LOFT	2001	DIESEL		175				No
293314	Lift	LIFT-A-LOFT	2001	DIESEL		175				No
428547	Lift	LIFT-A-LOFT	2001	DIESEL		175				No
489209	Lift	LIFT-A-LOFT	2001	DIESEL		175				No
520177	Lift	LIFT-A-LOFT	2001	DIESEL		175				No
243201	Lift	MARK IND	1987	ELECTRIC	On-Airport Mobile Fueler	110	Yes - Works			No
270739	Lift	MARK IND	1987	ELECTRIC	On-Airport Mobile Fueler	110	Yes - Works			No
351400	Lift	MARK IND	1987	ELECTRIC	On-Airport Mobile Fueler	110	Yes - Works			No
455483	Lift	MOTREC		ELECTRIC	On-Airport Mobile Fueler					No
475391	Lift	NAVISTAR	2000	DIESEL	On-Airport Stationary	114	Yes - Works	1,145.0	05/15/06	Yes - Other
447608	Lift	NAVISTAR	2000	DIESEL	On-Airport Stationary	114	Yes - Works	1,182.0	05/15/06	Yes - Other
406266	Lift	NAVISTAR	2000	DIESEL	On-Airport Stationary	114	Yes - Works	2,500.0	05/15/06	Yes - Other
284424	Lift	NMC-WOLLARD	1999	DIESEL	On-Airport Mobile Fueler	67	Yes - Works			No
360962	Lift	NMC-WOLLARD	2000	DIESEL	On-Airport Mobile Fueler	67	Yes - Works			No

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378224	Lift	NORDCO	1980	ELECTRIC	On-Airport Stationary		No		06/01/06	No
355460	Lift	NORDCO/FORD	1974	GASOLINE	On-Airport Mobile Fueler					No
475489	Lift	NORDCO/FORD	1987	LPG	On-Airport Stationary	95	Yes - Works	4,131.0	05/15/06	No
459270	Lift	SELMA	1974	ELECTRIC	On-Airport Mobile Fueler	113	Yes - Works			No
308021	Lift	SELMA	1974	LPG		76				No
443527	Lift	SELMA	1974	LPG		76				No
357399	Lift	SKY CLIMBER	1981	ELECTRIC		101				No
234878	Lift	SKYCLIMBER	1987	ELECTRIC	On-Airport Mobile Fueler	113	Yes - Works			No
469042	Lift	SNORKEL	1988	ELECTRIC		114				No
486955	Lift	SNORKEL	1990	LPG		65				No
535948	Lift	SNORKEL	1990	LPG		65				No
334824	Lift	SNORKEL LIFT	1991	GASOLINE	On-Airport Stationary	114	Yes - Works	253.0	05/15/06	No
397362	Lift	SNORKEL LIFT	1992	GASOLINE	On-Airport Stationary	114	Yes - Works	5,493.0	05/15/06	No
458521	Lift	SNORKEL LIFT	1997	DIESEL	On-Airport Stationary	114	Yes - Works	2,540.0	05/15/06	No
222803	Lift	STINAR	1990	GASOLINE	On-Airport Mobile Fueler					No
347571	Lift	STINAR	1992	GASOLINE	On-Airport Mobile Fueler					No
297269	Lift	STINAR	2001	GASOLINE	On-Airport Mobile Fueler					No
511406	Lift	TESCO	2000	DIESEL	On-Airport Mobile Fueler	310	Yes - Works	5,531.0	05/15/06	No
SPE001	Lift	Trump	1995	LPG	On-Airport Mobile Fueler	250	Yes - Works	6,837.1		No
359373	Lift	UPRIGHT		DIESEL	On-Airport Mobile Fueler			219.0	06/01/06	No
389207	Lift	WASPX	1989	GASOLINE	On-Airport Stationary	114	Yes - Works	3.0	05/15/06	No
430542	Lift	WOLLARD	1989	GASOLINE	On-Airport Mobile Fueler					No
461237	Lift	WOLLARD	1994	GASOLINE	On-Airport Mobile Fueler					No
367185	Lift	WOLLARD	1995	GASOLINE	On-Airport Mobile Fueler					No
521892	Lift	WOLLARD	1996	GASOLINE	On-Airport Mobile Fueler					No
511063	Lift	WOLLARD	2001	GASOLINE	On-Airport Stationary	98	Yes - Works	3,356.0	05/15/06	No
346689	Lift	WOLLARD	1989	DIESEL	On-Airport Stationary	114	Yes - Works	2,757.0	05/15/06	No
361928	Lift	WOLLARD	1989	DIESEL	On-Airport Stationary	114	Yes - Works	3,019.0	05/15/06	No
386813	Lift	WOLLARD	1989	GASOLINE	On-Airport Stationary	114	Yes - Works	3,152.0	05/15/06	No
466445	Lift		1991	ELEC	On-Airport Stationary		Yes - Works			No
476525	Lift		1991	ELEC	On-Airport Stationary		Yes - Works			No
530425	Lift		2001	ELEC	On-Airport Stationary		Yes - Works	25.0	02/04/06	No
CLD27	Lowerdeck Loaders	FMC Commander 15i WB	1987	Diesel	On-Airport Mobile Fueler					No
CLD22	Lowerdeck Loaders	Lantis 818	1997	Diesel	On-Airport Mobile Fueler					No
CLD20	Lowerdeck Loaders	Lantis 818	1998	Diesel	On-Airport Mobile Fueler					No
CLD4	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD5	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD6	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD11	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD12	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD15	Lowerdeck Loaders	Lantis 818		Diesel	On-Airport Mobile Fueler					No
CLD19	Lowerdeck Loaders	Lantis 818-144-125	1997	Diesel	On-Airport Mobile Fueler					No

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CLD21	Lowerdeck Loaders	Lantis 818-144-125	1998	Diesel	On-Airport Mobile Fueler					No
CLD23	Lowerdeck Loaders	Lantis 828	2001	Diesel	On-Airport Mobile Fueler					No
CLD24	Lowerdeck Loaders	Lantis 828	2001	Diesel	On-Airport Mobile Fueler					No
CLD25	Lowerdeck Loaders	Lantis 828	2002	Diesel	On-Airport Mobile Fueler					No
CLD28	Lowerdeck Loaders	Lantis 828	2005	Diesel	On-Airport Mobile Fueler					No
CLD29	Lowerdeck Loaders	Lantis 828	2005	Diesel	On-Airport Mobile Fueler					No
CLD30	Lowerdeck Loaders	Lantis 828	2005	Diesel	On-Airport Mobile Fueler					No
CLD26	Lowerdeck Loaders	Lantis 828WB	2002	Diesel	On-Airport Mobile Fueler					No
332850	Other	AMERICAN LAB SYSTEMS	1998	ELECTRIC	On-Airport Stationary	6	Yes - Works	137.0	05/15/06	No
S/N: F0009234014	Other	Baldor Elec. Co.	1989	electric	On-Airport Stationary	15	No			No
227500	Other	BMCXX	1996	DIESEL	On-Airport Mobile Fueler	125	Yes - Works			No
243845	Other	BMCXX	1996	DIESEL	On-Airport Mobile Fueler	125	Yes - Works			No
74479	Other	Chevrolet	2000	gasoline	On-Airport Stationary		Yes - Works			
04-035	Other	CHEVY	1991	gasoline	On-Airport Stationary	135	Yes - Works	1,452.0	05/19/2006	
04-038	Other	CHEVY	1991	gasoline	On-Airport Stationary	135	Yes - Works	1,532.0	05/19/2006	
PUT277	Other	Chevy	1995	Diesel	On-Airport Mobile Fueler	550	Yes - Works	#######		No
04-067	Other	CHEVY	1995	gasoline	On-Airport Stationary	125	Yes - Works	104.0	05/19/2006	
259518	Other	COLEMAN	1989	DIESEL		25				No
MOBILE LIGHT	Other	COLEMAN	1991	diesel	On-Airport Mobile Fueler		Yes - Works	5,763.0	06/11/2006	No
370517	Other	DETROIT	1980	DIESEL	On-Airport Stationary		Yes - Works	582.0	02/01/02	No
TRN2	Other	FMC	1981	diesel	On-Airport Mobile Fueler	87	Yes - Works	16,809.0	06/13/2006	No
TRN1	Other	FMC	1981	diesel	On-Airport Stationary	87	Yes - Works	17,943.0	06/13/2006	No
TRN4	Other	FMC	1994	diesel	On-Airport Mobile Fueler	87	Yes - Works	9,527.0	06/13/2006	No
T/P #14	Other	FMC	2005	diesel	On-Airport Mobile Fueler	87	Yes - Works	199.5	06/11/2006	No
T/P #11	Other	FMC	2005	diesel	On-Airport Mobile Fueler	87	Yes - Works	376.4	06/11/2006	No
T/P #12	Other	FMC	2005	diesel	On-Airport Mobile Fueler	87	Yes - Works	646.1	06/11/2006	No
40-624	Other	FORD	1975	LPG	On-Airport Stationary	140	Yes - Works	940.0	05/19/2006	
40-603	Other	FORD	1980	gasoline	On-Airport Stationary	140	Yes - Works	52.0	05/19/2006	
05-045	Other	FORD	1987	diesel	On-Airport Stationary	160	Yes - Works	98.0	05/19/2006	
05-046	Other	FORD	1990	diesel	On-Airport Stationary	160	Yes - Works	39.0	05/19/2006	
04-142	Other	FORD	1990	gasoline	On-Airport Stationary	140	Yes - Works	83.0	05/19/2006	
05-044	Other	FORD	1990	diesel	On-Airport Stationary	160	Yes - Works	195.0	05/19/2006	
520156	Other	FORD	1991	GASOLINE	On-Airport Stationary	138	Yes - Works	755.0	05/15/06	No
2379	Other	FORD	1992	gasoline	Off Airport	185	No	#######	06/02/2006	Yes - Other
810	Other	FORD	1993	gasoline	Off Airport	145	No	#######	06/02/2006	es - Light Duty Tru
2160	Other	FORD	1993	gasoline	Off Airport	145	No	#######	06/02/2006	es - Light Duty Tru
5L46589	Other	Ford	1994	GASOLINE	On-Airport Mobile Fueler		Yes - Works			Yes - Light Duty
VNC007F	Other	Ford	1995	gasoline	On-airport Stationary	210	Yes - Works	65,000.0	04/03/2003	Yes - other
8090	Other	FORD	1998	gasoline	Off Airport	145	No	#######	06/02/2006	es - Light Duty Tru
F-150	Other	Ford	1999	GASOLINE	On-Airport Mobile Fueler		Yes - Works			Yes - Light Duty
74415	Other	Ford	1999	gasoline	On-Airport Stationary		Yes - Works			
74416	Other	Ford	1999	gasoline	On-Airport Stationary		Yes - Works			

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74424	Other	Ford	1999	gasoline	On-Airport Stationary		Yes - Works			
74451	Other	Ford	1999	gasoline	On-Airport Stationary		Yes - Works			
74519	Other	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
74490	Other	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
74503	Other	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
74507	Other	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
74515	Other	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
74546	Other	Ford	2003	gasoline	On-Airport Stationary		Yes - Works			
74540	Other	Ford	2003	gasoline	On-Airport Stationary		Yes - Works			
315784	Other	GARDNER DENVER	1983	GASOLINE		65				No
331660	Other	GEM CARS	2000	ELECTRIC			Yes - Works	727.0	06/02/06	Yes - Passenger
400085	Other	GENERAL ELECTRIC	1971	GASOLINE		75				No
BOOM	Other	GENIE	2004	gasoline	On-Airport Mobile Fueler	70	Yes - Works	195.0	06/13/2006	No
P31042	Other	GMC	2002	GASOLINE	On-Airport Mobile Fueler		Yes - Works			Yes - Light Duty
332647	Other	HONDA	1999	GASOLINE	On-Airport Stationary	138	Yes - Works	11.0	05/15/06	No
S/N: 20253	Other	Hydraulics Int. Inc.	2001	electric	On-Airport Stationary	25	Yes - Works	201.4	06/07/2006	No
70144	Other	International	2001	diesel	On-Airport Stationary		Yes - Works			Yes - Light Duty
48-201	Other	KUBOTA		diesel	On-Airport Mobile Fueler	50	Yes - Works	5,288.0	05/19/2006	
48-202	Other	KUBOTA		diesel	On-Airport Mobile Fueler	50	Yes - Works	6,353.0	05/19/2006	
T/P #8	Other	LANTIC CORP.	1987	diesel	On-Airport Mobile Fueler		Yes - Works	3,620.2	06/11/2006	No
269283	Other	LEGEND	2000	ELECTRIC			Yes - Works	1,011.0	06/02/06	No
8695	Other	light stand		Diesel	On-Airport Mobile Fueler		Yes - Works	5,571.0	11/01/2006	No
8694	Other	Light stand		Diesel	On-Airport Mobile Fueler		Yes - Works	5,897.0	11/01/2006	No
279006	Other	LWLYN	1990	GASOLINE	On-Airport Stationary	25	Yes - Works			No
MOBILE LIGHT	Other	OVER-KOWE	1979	diesel	On-Airport Mobile Fueler		No			No
T/P #9	Other	TLD	2001	diesel	On-Airport Mobile Fueler		Yes - Works	1,783.8	06/11/2006	No
T/P #10	Other	TLD	2001	diesel	On-Airport Mobile Fueler		Yes - Works	1,826.0	06/11/2006	No
TRN5	Other	TLD	2001	diesel	On-Airport Mobile Fueler	78	Yes - Works	5,904.0	06/13/2006	No
TRN6	Other	TLD	2002	diesel	On-Airport Mobile Fueler	78	Yes - Works	4,169.0	06/13/2006	No
14029	Other	TLD	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
14030	Other	TLD	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
14031	Other	TLD	2003	diesel	On-Airport Mobile Fueler		Yes - Works			
4P52491	Other	TOYOTA	1987	GASOLINE	On-Airport Mobile Fueler		Yes - Works			Yes - Light Duty
399336	Other	TOYOTA	2005	ELECTRIC			Yes - Doesn't	1.5	06/02/06	No
T/P #2	Other	TRANSACT	1991	diesel	On-Airport Mobile Fueler		Yes - Works	1,774.7	06/11/2006	No
T/P #1	Other	TRANSACT	1991	diesel	On-Airport Mobile Fueler		Yes - Works	3,400.8	06/11/2006	No
T/P #3	Other	TRANSACT	1996	diesel	On-Airport Mobile Fueler		Yes - Works	6,163.0	06/11/2006	No
T/P #4	Other	TRANSACT	1997	diesel	On-Airport Mobile Fueler		Yes - Works	1,621.0	06/11/2006	No
265097	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
266679	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
299208	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
341355	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No

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417662	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
467796	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
482314	Other	TYLDN	1980	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
544880	Other	TYLDN	1993	ELECTRIC	On-Airport Stationary	25	Yes - Works			No
221116	Other	WASP	1989	GASOLINE		25				No
318262	Other	WASP	1990	GASOLINE		25				No
224259	Other	WASP	1998	DIESEL		25				No
380513	Other	WESLEY PACK MULE	2004	ELECTRIC			Yes - Works	6,807.0	06/02/06	No
VAN913	Other ORE	AeroMate	1991	Gasoline	On-Airport Mobile Fueler	140	Yes - Works	71,917.0		Yes - Other
339108	Other ORE	CHAMPION	1995	GASOLINE	On-Airport Stationary	225	Yes - Works	15,647.0	05/15/06	Yes - Bus
357280	Other ORE	CHAMPION	1995	GASOLINE	On-Airport Stationary	225	Yes - Works	22,679.0	05/15/06	Yes - Bus
MT 128	Other ORE	Chev.	2000	gasoline	Off Airport	200	Yes - Works	1,567.0		Yes - Light Duty Tru
238791	Other ORE	CHEVROLET	1985	GASOLINE	On-Airport Mobile Fueler	86	Yes - Works	1,281.0	06/02/06	Yes - Passenger
444388	Other ORE	CHEVROLET	1989	GASOLINE	On-Airport Mobile Fueler	300	Yes - Works	20,062.0	06/01/06	Yes - Other
542038	Other ORE	CHEVROLET	1991	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	2,084.0	06/02/06	Yes - Light Duty
AM02	Other ORE	Chevrolet	1991	diesel	On-Airport Mobile Fueler		No	########		Yes - Other
446278	Other ORE	CHEVROLET	1994	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	2,794.0	06/02/06	Yes - Light Duty
	Other ORE	Chevrolet	1996	gasoline	Off Airport		No	########		Yes - Passenger
	Other ORE	Chevrolet	1997	gasoline	Off Airport		No	########		Yes - Passenger
AM01	Other ORE	Chevrolet	1998	gasoline	On-Airport Mobile Fueler		No	56,000.0		Yes - Other
455714	Other ORE	CHEVROLET	1999	GASOLINE	On-Airport Mobile Fueler	195	Yes - Works	25,605.0	06/02/06	Yes - Light Duty
PUT275	Other ORE	Chevy	1987	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	92,944.1		Yes - Light Duty Tru
VAN912	Other ORE	Chevy	1987	Gasoline	On-Airport Mobile Fueler	140	Yes - Works	84,541.7		Yes - Other
305942	Other ORE	CHEVY	1990	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
4932307	Other ORE	Chevy	1994	gasoline	Off Airport	200	No	92,096.0	05/31/2006	Yes - Other
4935482	Other ORE	Chevy	1994	gasoline	Off Airport	165	No	########	05/31/2006	es - Passenger Ca
4933049	Other ORE	Chevy	1994	gasoline	Off Airport	165	No	########	05/31/2006	es - Passenger Ca
VAN906	Other ORE	Chevy	1995	Gasoline	On-Airport Mobile Fueler	140	Yes - Works	79,233.5		Yes - Other
8478	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	251.0	11/01/2006	Yes - Other
2293	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	956.0	11/01/2006	Yes - Other
2245	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	2,048.0	11/01/2006	Yes - Other
8481	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	2,366.0	11/01/2006	Yes - Other
2243	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	3,545.0	11/01/2006	Yes - Other
7570	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	5,375.0	11/01/2006	Yes - Other
2290	Other ORE	Chevy		Diesel	On-Airport Mobile Fueler		Yes - Works	5,851.0	11/01/2006	Yes - Other
2247	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	5,967.0	11/01/2006	Yes - Other
2274	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	6,628.0	11/01/2006	Yes - Other
2244	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	7,246.0	11/01/2006	Yes - Other
2269	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,578.0	11/01/2006	Yes - Other
2242	Other ORE	Chevy		Gasoline	On-Airport Mobile Fueler		Yes - Works	10,423.0	11/01/2006	Yes - Other
413301	Other ORE	CHEVY	1970	GASOLINE	On-Airport Stationary	160	Yes - Works	1,096.0	05/15/06	Yes - Other
329217	Other ORE	CHEVY	1980	GASOLINE	On-Airport Stationary	175	Yes - Works	4,266.0	05/15/06	Yes - Other

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	Other ORE	Chrysler	1999	gasoline	Off Airport		No	98,000.0		Yes - Passenger
	Other ORE	Chrysler	1999	gasoline	Off Airport		No	########		Yes - Passenger
	Other ORE	Chrysler	2000	gasoline	Off Airport		No	########		Yes - Passenger
	Other ORE	Chrysler	2003	gasoline	Off Airport		No	43,000.0		Yes - Passenger
Cargo 1	Other ORE	Dodge	1997	gasoline	Off Airport		Yes - Works	70,300.0		Yes - Passenger
3213996	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	11,233.0	05/31/2006	Yes - Other
3216498	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	13,363.0	05/31/2006	Yes - Other
3215721	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	13,534.0	05/31/2006	Yes - Other
3211665	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	13,818.0	05/31/2006	Yes - Other
3216504	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	13,872.0	05/31/2006	Yes - Other
3215731	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	13,964.0	05/31/2006	Yes - Other
3215726	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	15,273.0	05/31/2006	Yes - Other
3213990	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	15,721.0	05/31/2006	Yes - Other
3217145	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	15,820.0	05/31/2006	Yes - Other
3216506	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	16,630.0	05/31/2006	Yes - Other
3215714	Other ORE	Dodge	2003	gasoline	Off Airport	180	No	17,422.0	05/31/2006	Yes - Other
272097	Other ORE	DODGE	1999	GASOLINE	On-Airport Stationary	140	Yes - Works	1,371.0	05/15/06	Yes - Other
218120	Other ORE	DODGE	1999	GASOLINE	On-Airport Stationary	140	Yes - Works	2,718.0	05/15/06	Yes - Other
274351	Other ORE	EZ-GO	1988	ELECTRIC						No
322196	Other ORE	FORD	1975	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	1,301.0	06/02/06	Yes - Light Duty
VAN901	Other ORE	Ford	1978	Gasoline	On-Airport Mobile Fueler	140	Yes - Works	46,078.7		Yes - Other
279559	Other ORE	FORD	1982	GASOLINE	On-Airport Mobile Fueler	325	Yes - Works	95,149.0	06/01/06	Yes - Other
479003	Other ORE	FORD	1983	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
377125	Other ORE	FORD	1983	GASOLINE	On-Airport Stationary		Yes - Works	505.0	05/15/06	Yes - Other
559699	Other ORE	FORD	1985	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
PU01	Other ORE	Ford	1988	gasoline	On-Airport Mobile Fueler		No	59,200.0		Yes - Light Duty
368459	Other ORE	FORD	1988	GASOLINE	On-Airport Stationary		Yes - Works	7,777.0	05/15/06	Yes - Other
328286	Other ORE	FORD	1989	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
360955	Other ORE	FORD	1989	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works	102,191.0	06/01/06	Yes - Other
CAR012	Other ORE	Ford	1989	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	45,823.4		Yes - Passenger Ca
PU03	Other ORE	Ford	1990	gasoline	On-Airport Mobile Fueler		No	72,200.0		Yes - Light Duty
238427	Other ORE	FORD	1990	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
458437	Other ORE	FORD	1990	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
464569	Other ORE	FORD	1990	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
522788	Other ORE	FORD	1990	GASOLINE	On-Airport Stationary		Yes - Works	4,784.0	05/15/06	Yes - Other
406525	Other ORE	FORD	1990	GASOLINE	On-Airport Mobile Fueler	80	Yes - Works	113,075.0	06/01/06	Yes - Other
406196	Other ORE	FORD	1991	GASOLINE	On-Airport Stationary		Yes - Works	5,443.0	05/15/06	Yes - Other
290206	Other ORE	FORD	1992	GASOLINE	On-Airport Mobile Fueler	195	Yes - Works	4,190.0	06/02/06	Yes - Light Duty
VAN914	Other ORE	Ford	1992	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	#######		Yes - Other
S/W #2	Other ORE	FORD	1992	gasoline	On-Airport Mobile Fueler		Yes - Works	#######	06/11/2006	es - Passenger Ca
VN01	Other ORE	Ford	1992	gasoline	On-Airport Mobile Fueler		No	56,000.0		Yes - Passenger
502047	Other ORE	FORD	1993	GASOLINE	On-Airport Stationary		Yes - Works	14,190.0	05/15/06	Yes - Other

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CAR010	Other ORE	Ford	1993	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	85,963.0		Yes - Passenger Ca
555604	Other ORE	FORD	1994	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
PUT274	Other ORE	Ford	1995	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	#######		Yes - Light Duty Tru
247177	Other ORE	FORD	1995	GASOLINE	On-Airport Stationary		Yes - Works	2,879.0	05/15/06	Yes - Other
VAN967	Other ORE	Ford	1995	Gasoline	On-Airport Mobile Fueler	180	Yes - Works	#######		Yes - Other
5C80464	Other ORE	Ford	1995	gasoline			Yes - Works	#######	06/14/2006	
MT 285	Other ORE	Ford	1996	gasoline	Off Airport	300	Yes - Works	2,464.0		Yes - Light Duty Tru
VAN917	Other ORE	Ford	1996	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	54,833.0		Yes - Other
416500	Other ORE	FORD	1996	GAS	On-Airport Stationary		Yes - Works	1,468.0	02/15/06	Yes - Passenger
489139	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary		Yes - Works	9,910.0	05/15/06	Yes - Other
8221030	Other ORE	Ford	1997	gasoline	Off Airport	150	No	40,453.0	05/31/2006	Yes - Other
VAN968	Other ORE	Ford	1997	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	27,184.0		Yes - Other
PU02	Other ORE	Ford	1997	gasoline	On-Airport Mobile Fueler		No	66,000.0		Yes - Other
VAN915	Other ORE	Ford	1997	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	94,348.6		Yes - Other
8221083	Other ORE	Ford	1998	gasoline	Off Airport	150	No	24,068.0	05/31/2006	es - Light Duty Tru
530243	Other ORE	FORD	1998	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	3,125.0	06/02/06	Yes - Light Duty
PUT276	Other ORE	Ford	1998	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	50,405.0		Yes - Light Duty Tru
459074	Other ORE	FORD	1998	GASOLINE	On-Airport Stationary		Yes - Works	4,985.0	05/15/06	Yes - Other
427819	Other ORE	FORD	1998	DIESEL	On-Airport Mobile Fueler		Yes - Works	8,002.0	05/15/06	Yes - Other
8222076	Other ORE	Ford	1998	gasoline	Off Airport	150	No	21,264.0	05/31/2006	Yes - Other
8221070	Other ORE	Ford	1998	gasoline	Off Airport	150	No	24,692.0	05/31/2006	Yes - Other
8222075	Other ORE	Ford	1998	gasoline	Off Airport	150	No	28,243.0	05/31/2006	Yes - Other
8222072	Other ORE	Ford	1998	gasoline	Off Airport	150	No	28,392.0	05/31/2006	Yes - Other
8221068	Other ORE	Ford	1998	gasoline	Off Airport	150	No	36,952.0	05/31/2006	Yes - Other
8221056	Other ORE	Ford	1998	gasoline	Off Airport	150	No	54,048.0	05/31/2006	Yes - Other
8914014	Other ORE	Ford	1998	gasoline	Off Airport	170	No	71,277.0	05/31/2006	es - Passenger Ca
CAR006	Other ORE	Ford	1998	Gasoline	Off Airport	260	Yes - Works	60,000.0		Yes - Passenger Ca
361354	Other ORE	FORD	1999	GAS	On-Airport Stationary		Yes - Works	11,194.0	02/12/02	Yes - Light Duty
PUT273	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	75,648.7		Yes - Light Duty Tru
509656	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary		Yes - Works	565.0	05/15/06	Yes - Other
316827	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary		Yes - Works	4,765.0	05/15/06	Yes - Other
436443	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary		Yes - Works	7,936.0	05/15/06	Yes - Other
364574	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary		Yes - Works	7,979.0	05/15/06	Yes - Other
475132	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary		Yes - Works	8,040.0	05/15/06	Yes - Other
522907	Other ORE	FORD	1999	GASOLINE	On-Airport Mobile Fueler	225	Yes - Works	88,504.0	06/01/06	Yes - Other
238266	Other ORE	FORD	1999	GASOLINE	On-Airport Mobile Fueler	250	Yes - Works	131,533.0	06/01/06	Yes - Other
VAN962	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	60,290.0		Yes - Other
VAN965	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	65,245.0		Yes - Other
VAN964	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	90,962.0		Yes - Other
VAN961	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	#######		Yes - Other
VAN960	Other ORE	Ford	1999	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	#######		Yes - Other
	Other ORE	Ford	1999	gasoline	Off Airport	200	Yes - Works	33,635.0	05/23/2006	es - Passenger Ca

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S/W #1	Other ORE	FORD	1999	gasoline	On-Airport Mobile Fueler		Yes - Works	2,630.0	06/11/2006	Yes - Passenger Ca
PU04	Other ORE	Ford	2000	gasoline	On-Airport Mobile Fueler		No	79,000.0		Yes - Light Duty
297094	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	714.0	05/15/06	Yes - Other
352457	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	2,493.0	05/15/06	Yes - Other
260358	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	2,728.0	05/15/06	Yes - Other
361956	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	3,685.0	05/15/06	Yes - Other
485961	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	3,754.0	05/15/06	Yes - Other
221137	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	4,195.0	05/15/06	Yes - Other
290010	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary		Yes - Works	5,567.0	05/15/06	Yes - Other
509306	Other ORE	FORD	2000	GASOLINE	On-Airport Mobile Fueler	225	Yes - Works	20,397.0	06/01/06	Yes - Other
914569	Other ORE	Ford	2000	gasoline	Off Airport	150	No	42,879.0	05/31/2006	es - Passenger Ca
540281	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	1,574.0	05/15/06	Yes - Bus
PUT272	Other ORE	Ford	2001	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	26,506.6		Yes - Light Duty Tru
428288	Other ORE	FORD	2001	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
237503	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	575.0	05/15/06	Yes - Other
265937	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	1,372.0	05/15/06	Yes - Other
330750	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	1,514.0	05/15/06	Yes - Other
429121	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	1,583.0	05/15/06	Yes - Other
407330	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	2,541.0	05/15/06	Yes - Other
336770	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	3,602.0	05/15/06	Yes - Other
275373	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary		Yes - Works	3,805.0	05/15/06	Yes - Other
381598	Other ORE	FORD	2001	GASOLINE	On-Airport Mobile Fueler	275	Yes - Works	58,277.0	06/01/06	Yes - Other
PT2	Other ORE	FORD	2001	gasoline	On-Airport Mobile Fueler	235	Yes - Works	52,289.0	06/13/2006	Yes - Other
	Other ORE	FORD	2001	gasoline	Off Airport	200	Yes - Works	34,201.0	05/23/2006	es - Passenger Ca
CAR014	Other ORE	Ford	2001	Gasoline	Off Airport	260	Yes - Works	40,836.0		Yes - Passenger Ca
221151	Other ORE	FORD	2002	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	2,801.0	06/02/06	Yes - Light Duty
Admin 1	Other ORE	Ford	2003	gasoline	Off Airport		No	5,000.0		Yes - Passenger
CAR009	Other ORE	Ford	2003	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	86,721.0		Yes - Passenger Ca
	Other ORE	Ford	2004	gasoline	Off Airport		No	30,000.0		Yes - Passenger
	Other ORE	Ford	2004	gasoline	Off Airport		No	31,000.0		Yes - Passenger
PUT278	Other ORE	Ford	2005	Gasoline	On-Airport Mobile Fueler	200	Yes - Works	37,569.5		Yes - Light Duty Tru
513933	Other ORE	FORD	2005	GASOLINE	On-Airport Mobile Fueler	275	Yes - Works	11,313.0	06/01/06	Yes - Other
ford escape #4	Other ORE	FORD	2005	gasoline	On-Airport Mobile Fueler		Yes - Works	7,508.0	06/11/2006	es - Passenger Ca
VAN970	Other ORE	Ford	2006	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	3,522.9		Yes - Other
VAN969	Other ORE	Ford	2006	Gasoline	On-Airport Mobile Fueler	160	Yes - Works	4,433.0		Yes - Other
7567	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	4,403.0	11/01/2006	Yes - Other
2277	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	302.0	11/01/2006	Yes - Other
2298	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	548.0	11/01/2006	Yes - Other
8697	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	684.0	11/01/2006	Yes - Other
8685	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	881.0	11/01/2006	Yes - Other
2321	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	987.0	11/01/2006	Yes - Other
8691	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	1,591.0	11/01/2006	Yes - Other

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7571	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	2,050.0	11/01/2006	Yes - Other
8787	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	2,458.0	11/01/2006	Yes - Other
8709	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	2,823.0	11/01/2006	Yes - Other
2313	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	3,282.0	11/01/2006	Yes - Other
2232	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	3,387.0	11/01/2006	Yes - Other
2322	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	3,405.0	11/01/2006	Yes - Other
7569	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	3,440.0	11/01/2006	Yes - Other
8717	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	4,356.0	11/01/2006	Yes - Other
2235	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	5,093.0	11/01/2006	Yes - Other
2231	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	5,338.0	11/01/2006	Yes - Other
8771	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,072.0	11/01/2006	Yes - Other
2271	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,238.0	11/01/2006	Yes - Other
2272	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,382.0	11/01/2006	Yes - Other
2263	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,565.0	11/01/2006	Yes - Other
2299	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	9,903.0	11/01/2006	Yes - Other
2257	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	10,023.0	11/01/2006	Yes - Other
2248	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	10,053.0	11/01/2006	Yes - Other
2294	Other ORE	Ford		Gasoline	On-Airport Mobile Fueler		Yes - Works	10,187.0	11/01/2006	Yes - Other
503657	Other ORE	FORD	1971	GASOLINE	On-Airport Stationary	130	Yes - Works	1,411.0	05/15/06	Yes - Light Duty
502383	Other ORE	FORD	1984	GASOLINE	On-Airport Stationary	230	Yes - Works	2,287.0	05/15/06	Yes - Bus
221396	Other ORE	FORD	1988	GASOLINE	On-Airport Stationary	100	Yes - Works	2,617.0	05/15/06	Yes - Light Duty
421722	Other ORE	FORD	1988	GASOLINE	On-Airport Stationary	140	Yes - Works	1,089.0	05/15/06	Yes - Other
454321	Other ORE	FORD	1989	GASOLINE	On-Airport Stationary	150	Yes - Works	199.0	05/15/06	Yes - Light Duty
231343	Other ORE	FORD	1989	GASOLINE	On-Airport Stationary	130	Yes - Works	398.0	05/15/06	Yes - Other
406945	Other ORE	FORD	1989	GASOLINE	On-Airport Stationary	130	Yes - Works	9,762.0	05/15/06	Yes - Other
532889	Other ORE	FORD	1992	LPG	On-Airport Stationary	150	Yes - Works	10,147.0	05/15/06	Yes - Light Duty
326368	Other ORE	FORD	1994	GASOLINE	On-Airport Stationary	170	Yes - Works	5,502.0	05/15/06	Yes - Light Duty
268688	Other ORE	FORD	1995	GASOLINE	On-Airport Stationary	100	Yes - Works	3,138.0	05/15/06	Yes - Light Duty
490322	Other ORE	FORD	1995	GASOLINE	On-Airport Stationary	100	Yes - Works	3,864.0	05/15/06	Yes - Light Duty
547099	Other ORE	FORD	1995	GASOLINE	On-Airport Stationary	130	Yes - Works	10,013.0	05/15/06	Yes - Other
548219	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	100	Yes - Works	1,385.0	05/15/06	Yes - Light Duty
551292	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	150	Yes - Works	2,840.0	05/15/06	Yes - Light Duty
348670	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	150	Yes - Works	3,695.0	05/15/06	Yes - Light Duty
378119	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	150	Yes - Works	5,119.0	05/15/06	Yes - Light Duty
501438	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	150	Yes - Works	7,847.0	05/15/06	Yes - Light Duty
346668	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	130	Yes - Works	906.0	05/15/06	Yes - Other
506646	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	130	Yes - Works	5,463.0	05/15/06	Yes - Other
367136	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	200	Yes - Works	13,360.0	05/15/06	Yes - Other
346311	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	200	Yes - Works	13,756.0	05/15/06	Yes - Other
297472	Other ORE	FORD	1996	GASOLINE	On-Airport Stationary	200	Yes - Works	19,810.0	05/15/06	Yes - Other
562541	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	4,770.0	05/15/06	Yes - Light Duty
472521	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	5,056.0	05/15/06	Yes - Light Duty

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521094	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	5,441.0	05/15/06	Yes - Light Duty
395836	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	6,041.0	05/15/06	Yes - Light Duty
523334	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	1,737.0	05/15/06	Yes - Other
354781	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	5,992.0	05/15/06	Yes - Other
356825	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	6,116.0	05/15/06	Yes - Other
216174	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	6,655.0	05/15/06	Yes - Other
218463	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	9,544.0	05/15/06	Yes - Other
366373	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	11,837.0	05/15/06	Yes - Other
254877	Other ORE	FORD	1997	GASOLINE	On-Airport Stationary	200	Yes - Works	15,871.0	05/15/06	Yes - Other
455469	Other ORE	FORD	1998	GASOLINE	On-Airport Stationary	150	Yes - Works	4,121.0	05/15/06	Yes - Other
481138	Other ORE	FORD	1998	GASOLINE	On-Airport Stationary	150	Yes - Works	4,622.0	05/15/06	Yes - Other
553413	Other ORE	FORD	1998	GASOLINE	On-Airport Stationary	150	Yes - Works	5,110.0	05/15/06	Yes - Other
227850	Other ORE	FORD	1998	GASOLINE	On-Airport Stationary	150	Yes - Works	10,261.0	05/15/06	Yes - Other
510895	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	420.0	05/15/06	Yes - Light Duty
469063	Other ORE	FORD	1999	CNG	Off Airport	150	Yes - Works	651.0	05/15/06	Yes - Light Duty
442701	Other ORE	FORD	1999	CNG	Off Airport	150	Yes - Works	894.0	05/15/06	Yes - Light Duty
268387	Other ORE	FORD	1999	CNG	Off Airport	150	Yes - Works	900.0	05/15/06	Yes - Light Duty
477512	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	1,680.0	05/15/06	Yes - Light Duty
297220	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	2,878.0	05/15/06	Yes - Light Duty
320341	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	100	Yes - Works	3,637.0	05/15/06	Yes - Light Duty
220969	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	3,803.0	05/15/06	Yes - Light Duty
388052	Other ORE	FORD	1999	CNG	Off Airport	150	Yes - Works	4,630.0	05/15/06	Yes - Light Duty
334691	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	6,104.0	05/15/06	Yes - Light Duty
396221	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	12,345.0	05/15/06	Yes - Light Duty
408905	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	919.0	05/15/06	Yes - Other
271985	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	1,751.0	05/15/06	Yes - Other
277529	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	200	Yes - Works	1,828.0	05/15/06	Yes - Other
396914	Other ORE	FORD	1999	CNG	Off Airport	200	Yes - Works	2,575.0	05/15/06	Yes - Other
229873	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	200	Yes - Works	3,084.0	05/15/06	Yes - Other
230398	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	200	Yes - Works	4,482.0	05/15/06	Yes - Other
301154	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	4,546.0	05/15/06	Yes - Other
312760	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	200	Yes - Works	5,522.0	05/15/06	Yes - Other
380604	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	6,021.0	05/15/06	Yes - Other
360766	Other ORE	FORD	1999	GASOLINE	On-Airport Stationary	150	Yes - Works	7,613.0	05/15/06	Yes - Other
361431	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary	150	Yes - Works	2,402.0	05/15/06	Yes - Light Duty
233219	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary	150	Yes - Works	2,577.0	05/15/06	Yes - Light Duty
520905	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary	150	Yes - Works	3,989.0	05/15/06	Yes - Light Duty
349657	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary	150	Yes - Works	4,938.0	05/15/06	Yes - Light Duty
328671	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	1,084.0	05/15/06	Yes - Other
322539	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	1,164.0	05/15/06	Yes - Other
477456	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	1,319.0	05/15/06	Yes - Other
375291	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	2,034.0	05/15/06	Yes - Other

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482139	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	2,988.0	05/15/06	Yes - Other
296170	Other ORE	FORD	2000	CNG	Off Airport	200	Yes - Works	5,431.0	05/15/06	Yes - Other
490126	Other ORE	FORD	2000	GASOLINE	On-Airport Stationary	200	Yes - Works	23,155.0	05/15/06	Yes - Other
434616	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary	150	Yes - Works	1,219.0	05/15/06	Yes - Light Duty
514773	Other ORE	FORD	2001	CNG	Off Airport	150	Yes - Works	1,373.0	05/15/06	Yes - Light Duty
245098	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary	150	Yes - Works	2,127.0	05/15/06	Yes - Light Duty
235396	Other ORE	FORD	2001	CNG	Off Airport	150	Yes - Works	2,212.0	05/15/06	Yes - Light Duty
309365	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary	150	Yes - Works	10,431.0	05/15/06	Yes - Light Duty
325556	Other ORE	FORD	2001	GASOLINE	On-Airport Stationary	200	Yes - Works	1,065.0	05/15/06	Yes - Other
474012	Other ORE	FORD VAN	1989	GASOLINE	On-Airport Mobile Fueler	131				Yes - Other
AM04	Other ORE	GMC	1988	gasoline	On-Airport Mobile Fueler		No	64,000.0		Yes - Other
AM03	Other ORE	GMC	1994	gasoline	On-Airport Mobile Fueler		No	55,000.0		Yes - Other
515039	Other ORE	GMC	1996	GASOLINE	On-Airport Stationary	160	Yes - Works	2,642.0	05/15/06	Yes - Other
1510024	Other ORE	GMC	1997	gasoline	Off Airport	185	No	3,601.0	05/31/2006	es - Light Duty Tru
1511089	Other ORE	GMC	1997	gasoline	Off Airport	185	No	6,909.0	05/31/2006	es - Light Duty Tru
6510075	Other ORE	GMC	1997	gasoline	Off Airport	160	No	30,531.0	05/31/2006	es - Light Duty Tru
6510044	Other ORE	GMC	1997	gasoline	Off Airport	160	No	36,480.0	05/31/2006	es - Light Duty Tru
6510046	Other ORE	GMC	1997	gasoline	Off Airport	160	No	37,302.0	05/31/2006	es - Light Duty Tru
6510033	Other ORE	GMC	1997	gasoline	Off Airport	160	No	37,965.0	05/31/2006	es - Light Duty Tru
6510011	Other ORE	GMC	1997	gasoline	Off Airport	160	No	43,683.0	05/31/2006	es - Light Duty Tru
6510073	Other ORE	GMC	1997	gasoline	Off Airport	160	No	44,504.0	05/31/2006	es - Light Duty Tru
6510090	Other ORE	GMC	1997	gasoline	Off Airport	160	No	45,573.0	05/31/2006	es - Light Duty Tru
6510062	Other ORE	GMC	1997	gasoline	Off Airport	160	No	46,581.0	05/31/2006	es - Light Duty Tru
6510005	Other ORE	GMC	1997	gasoline	Off Airport	160	No	39,692.0	05/31/2006	Yes - Other
288428	Other ORE	GMC	1987	GASOLINE	On-Airport Stationary	160	Yes - Works	3,256.0	05/15/06	Yes - Other
493514	Other ORE	GMC	1987	GASOLINE	On-Airport Stationary	160	Yes - Works	7,657.0	05/15/06	Yes - Other
361088	Other ORE	GMC	1988	CNG	Off Airport	160	Yes - Works	366.0	05/15/06	Yes - Other
298032	Other ORE	GMC	1989	GASOLINE	On-Airport Stationary	100	Yes - Works	4,408.0	05/15/06	Yes - Light Duty
237314	Other ORE	GMC	1989	GASOLINE	On-Airport Stationary	100	Yes - Works	4,631.0	05/15/06	Yes - Light Duty
405734	Other ORE	GMC	1989	GASOLINE	On-Airport Stationary	160	Yes - Works	9,564.0	05/15/06	Yes - Other
432789	Other ORE	GMC	1990	GASOLINE	On-Airport Stationary	100	Yes - Works	6,847.0	05/15/06	Yes - Light Duty
437913	Other ORE	GMC	1992	GASOLINE	On-Airport Stationary	160	Yes - Works	3,027.0	05/15/06	Yes - Other
301903	Other ORE	GMC	1992	GASOLINE	On-Airport Stationary	160	Yes - Works	4,801.0	05/15/06	Yes - Other
257621	Other ORE	GMC	1993	GASOLINE	On-Airport Stationary	150	Yes - Works	2,080.0	05/15/06	Yes - Light Duty
557795	Other ORE	GMC	1993	GASOLINE	On-Airport Stationary	160	Yes - Works	6,296.0	05/15/06	Yes - Other
231112	Other ORE	GMC	1993	GASOLINE	On-Airport Stationary	210	Yes - Works	6,333.0	05/15/06	Yes - Other
230251	Other ORE	GMC	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	3,986.0	05/15/06	Yes - Light Duty
341278	Other ORE	GMC	1997	GASOLINE	On-Airport Stationary	150	Yes - Works	5,008.0	05/15/06	Yes - Light Duty
366191	Other ORE	GMC	1997	GASOLINE	On-Airport Stationary	180	Yes - Works	6,038.0	05/15/06	Yes - Other
VAN916	Other ORE	Grumman	1996	Gasoline	On-Airport Mobile Fueler	140	Yes - Works	#######		Yes - Other
305529	Other ORE	INTERNATIONAL	1999	DIESEL	On-Airport Mobile Fueler	210	Yes - Works	349,415.0	06/02/06	Yes - Other
498645	Other ORE	ISUZU	1990	GASOLINE	On-Airport Stationary	170	Yes - Works	497.0	05/15/06	Yes - Other

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449743	Other ORE	NAVISTAR	1995	DIESEL	On-Airport Stationary	124	Yes - Works	3,569.0	05/15/06	Yes - Other
274001	Other ORE	NORDCO	1975	GASOLINE	On-Airport Stationary	130	Yes - Works	4,667.0	05/15/06	Yes - Light Duty
491448	Other ORE	Plymouth	1994	gasoline	Off Airport	120	No	56,049.0	05/31/2006	es - Passenger Ca
362278	Other ORE	SUNSET BUS	1995	GASOLINE	On-Airport Stationary		Yes - Works	17,302.0	05/15/06	Yes - Bus
268520	Other ORE	SUNSET BUS	1995	GASOLINE	On-Airport Stationary		Yes - Works	31,427.0		Yes - Bus
295134	Other ORE	TAYLOR	2000	ELECTRIC						No
478835	Other ORE	TAYLOR	2000	ELECTRIC						No
218057	Other ORE	TAYLOR	2001	ELECTRIC						No
258531	Other ORE	TAYLOR	2001	ELECTRIC						No
339857	Other ORE	TAYLOR	2001	ELECTRIC						No
564235	Other ORE	TAYLOR	2001	ELECTRIC						No
P/U #1	Other ORE	TOYOTA	2004	gasoline	On-Airport Mobile Fueler		Yes - Works	15,189.0	06/11/2006	es - Light Duty Tru
P/U #3	Other ORE	TOYOTA	2004	gasoline	On-Airport Mobile Fueler		Yes - Works	17,704.0	06/11/2006	es - Light Duty Tru
400932	Other ORE	WARD	1978	DIESEL	On-Airport Stationary	230	Yes - Works	1,156.0	05/15/06	Yes - Bus
348635	Other ORE	WARD	1978	DIESEL	On-Airport Stationary	230	Yes - Works	6,081.0	05/15/06	Yes - Bus
3585	Other ORE			Diesel	On-Airport Mobile Fueler		Yes - Works	4,403.0	11/01/2006	Yes - Other
1833	Other ORE			Diesel	On-Airport Mobile Fueler		Yes - Works	5,684.0	11/01/2006	Yes - Other
324758	Passenger Stand	ACE-DEVTEC-NORDCO	1986	ELECTRIC		173				Yes - Other
224721	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
228235	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
232211	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
268002	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
268604	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
271145	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
273469	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
305998	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
374458	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
423276	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
500493	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
524580	Passenger Stand	CHARLATTE	1997	ELECTRIC		43				No
299936	Passenger Stand	FMC	2000	DIESEL	On-Airport Stationary	124	Yes - Works	719.0	05/15/06	No
232064	Passenger Stand	FORD	1976	GAS	On-Airport Stationary		Yes - Works	1,199.0	02/11/01	Yes - Other
PBS 410	Passenger Stand	Ford	1981	Gasoline	On-Airport Mobile Fueler	225	es - Doesn't Work			No
388990	Passenger Stand	FORD	1986	GAS	On-Airport Stationary		Yes - Works	601.0	02/01/02	Yes - Other
424256	Passenger Stand	FORD	1988	GASOLINE		173				Yes - Other
F350XL	Passenger Stand	Ford	1994	GASOLINE	On-Airport Mobile Fueler		Yes - Works			Yes - Light Duty
PBS 414	Passenger Stand	Ford	1995	Gasoline	On-Airport Mobile Fueler	225	es - Doesn't Work			No
PBS 420	Passenger Stand	Ford	1999	Gasoline	On-Airport Mobile Fueler	225	es - Doesn't Work			No
545181	Passenger Stand	FORD	2000	GASOLINE		173				Yes - Other
PBS 413	Passenger Stand	Ford	2004	Gasoline	On-Airport Mobile Fueler	225	es - Doesn't Work			No
278138	Passenger Stand	FORD	1978	GASOLINE	On-Airport Stationary	124	Yes - Works	8,065.0	05/15/06	Yes - Other
PS1	Passenger Stand	Ford F250	1987	Gasoline	On-Airport Mobile Fueler					

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PS2	Passenger Stand	Ford F250	1989	Gasoline	On-Airport Mobile Fueler					
PS4	Passenger Stand	Ford F250	1993	Gasoline	On-Airport Mobile Fueler					
403459	Passenger Stand	FORD/WOLLARD	1988	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
257341	Passenger Stand	MAYVILLE	1990	ELECTRIC		43				No
STT1	Passenger Stand	NORCO	1974	gasoline	On-Airport Mobile Fueler	180	Yes - Works	5,282.0	06/13/2006	No
283430	Passenger Stand	NORDCO	1975	GASOLINE	On-Airport Stationary	124	Yes - Works	3,793.0	05/15/06	Yes - Other
378182	Passenger Stand	NORDCO/FORD	1983	LPG	On-Airport Stationary	120	Yes - Works	929.0	05/15/06	Yes - Other
232519	Passenger Stand	PHOENIX METALS	2002	DIESEL	On-Airport Mobile Fueler	65	Yes - Works	3,008.0	06/02/06	No
282163	Passenger Stand	RAMCI	1994	ELECTRIC		43				No
350168	Passenger Stand	RAMCI	1994	ELECTRIC		43				No
482363	Passenger Stand	RAMCI	1994	ELECTRIC		43				No
558824	Passenger Stand	RAMCI	1994	ELECTRIC		43				No
STT2	Passenger Stand	STINAR	2001	gasoline	On-Airport Mobile Fueler	235	Yes - Works	268.0	06/13/2006	No
23147	Passenger Stand	Wasp	1997	gasoline	On-Airport Mobile Fueler		Yes - Works			
23160	Passenger Stand	Wasp	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
23166	Passenger Stand	Wasp	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
23148	Passenger Stand	Wollard	1997	gasoline	On-Airport Mobile Fueler		Yes - Works			
23162	Passenger Stand	Wollard	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
23163	Passenger Stand	Wollard	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
23167	Passenger Stand	Wollard	1999	gasoline	On-Airport Mobile Fueler		Yes - Works			
463477	Passenger Stand	WOLLARD	2000	GASOLINE	On-Airport Stationary	235	Yes - Works	921.0	05/15/06	Yes - Other
224623	Passenger Stand	WOLLARD	1970	GASOLINE	On-Airport Stationary	110	Yes - Works	2,710.0	05/15/06	Yes - Other
257152	Passenger Stand	WOLLARD	1994	GASOLINE	On-Airport Stationary	124	Yes - Works	1,665.0	05/15/06	Yes - Other
422254	Passenger Stand	WOLLARD	1999	DIESEL	On-Airport Stationary	124	Yes - Works	654.0	05/15/06	No
461034	Passenger Stand	WOLLARD	1999	DIESEL	On-Airport Stationary	124	Yes - Works	724.0	05/15/06	No
330666	Passenger Stand		1984	ELEC	On-Airport Stationary		Yes - Works			Yes - Other
221977	Service Truck	BLUEBIRD	1990	DIESEL		300				Yes - Bus
474677	Service Truck	BLUEBIRD	1990	DIESEL		300				Yes - Bus
489321	Service Truck	BLUEBIRD	1990	DIESEL		300				Yes - Bus
386141	Service Truck	BLUEBIRD	1998	DIESEL		300				Yes - Bus
263340	Service Truck	BLUEBIRD	2000	DIESEL		300				Yes - Bus
275422	Service Truck	BLUEBIRD	2000	DIESEL		300				Yes - Bus
241171	Service Truck	BLUEBIRD	2001	DIESEL		300				Yes - Bus
320411	Service Truck	BLUEBIRD	2001	DIESEL		300				Yes - Bus
395374	Service Truck	BLUEBIRD	2001	DIESEL		300				Yes - Bus
MT 1024	Service Truck	Chev.	1993	gasoline	Off Airport	300	No			
282492	Service Truck	CHEVROLET	1991	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	2,224.0	06/02/06	Yes - Light Duty
74619	Service Truck	Chevrolet	1992	gasoline	On-Airport Stationary		Yes - Works			
72159	Service Truck	Chevrolet	1999	gasoline	On-Airport Stationary		Yes - Works			
72161	Service Truck	Chevrolet	1999	gasoline	On-Airport Stationary		Yes - Works			
516670	Service Truck	CHEVROLET	2002	GASOLINE	On-Airport Mobile Fueler	190	Yes - Works	2,741.0	06/02/06	Yes - Light Duty
468125	Service Truck	CHEVY	1994	GASOLINE		200				Yes - Other

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370202	Service Truck	CHEVY		GASOLINE	On-Airport Mobile Fueler	140				Yes - Light Duty
449351	Service Truck	DEUTZ	1998	DIESEL	On-Airport Stationary	60	Yes - Works	792.0	06/03/06	Yes - Other
221487	Service Truck	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	1,378.0	02/08/02	Yes - Other
398909	Service Truck	DEUTZ	2000	DIESEL	On-Airport Stationary	60	Yes - Works	1,711.0	05/06/06	Yes - Other
02-083	Service Truck	DODGE	1994	gasoline	On-Airport Stationary	125	Yes - Works	220.0	05/19/2006	
371343	Service Truck	DODGE-CHRYSLER-	1998	GASOLINE		97				Yes - Light Duty
430640	Service Truck	DODGE-CHRYSLER-	1998	GASOLINE		97				Yes - Light Duty
340438	Service Truck	DODGE-CHRYSLER-	1999	GASOLINE		97				Yes - Light Duty
453334	Service Truck	DODGE-CHRYSLER-	2000	GASOLINE		97				Yes - Light Duty
255164	Service Truck	ELDORADO	1998	DIESEL		185				Yes - Bus
349153	Service Truck	ELDORADO	1998	DIESEL		185				Yes - Bus
390187	Service Truck	ELDORADO	1998	DIESEL		185				Yes - Bus
494718	Service Truck	ELDORADO	1998	DIESEL		185				Yes - Bus
302666	Service Truck	FORD	1957	GASOLINE		120				Yes - Other
02-225	Service Truck	FORD	1971	LPG	On-Airport Stationary	160	Yes - Works	6,564.0	05/19/2006	
267400	Service Truck	FORD	1978	GASOLINE		173				Yes - Other
260505	Service Truck	FORD	1979	GAS	On-Airport Stationary		Yes - Works	1,809.0	01/22/02	Yes - Other
335125	Service Truck	FORD	1979	GAS	On-Airport Stationary		Yes - Works	5,110.0	02/14/02	Yes - Other
247135	Service Truck	FORD	1980	GAS	On-Airport Stationary		Yes - Works	8,436.0	01/23/02	Yes - Other
270088	Service Truck	FORD	1985	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
450156	Service Truck	FORD	1985	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
226352	Service Truck	FORD	1985	GAS	On-Airport Stationary		Yes - Works	747.0	10/21/00	Yes - Other
478982	Service Truck	FORD	1985	GASOLINE		173				Yes - Other
313131	Service Truck	FORD	1986	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
493157	Service Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	17,214.0	10/21/00	Yes - Other
430577	Service Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	3,232.0	11/15/01	Yes - Other
456638	Service Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	1,251.0	11/28/01	Yes - Other
331030	Service Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	5,261.0	12/26/01	Yes - Other
542073	Service Truck	FORD	1986	GAS	On-Airport Stationary		Yes - Works	1,814.0	01/10/02	Yes - Other
273021	Service Truck	FORD	1987	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
297458	Service Truck	FORD	1987	GAS	On-Airport Stationary		Yes - Works	310.0	01/10/02	Yes - Other
465507	Service Truck	FORD	1987	GAS	On-Airport Stationary		Yes - Works	4,330.0	02/01/02	Yes - Other
497266	Service Truck	FORD	1988	GAS	On-Airport Stationary		Yes - Works	41,812.0	09/24/01	Yes - Other
335601	Service Truck	FORD	1989	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
368648	Service Truck	FORD	1989	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
433020	Service Truck	FORD	1989	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
349041	Service Truck	FORD	1990	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
299775	Service Truck	FORD	1990	GASOLINE		82				Yes - Light Duty
380989	Service Truck	FORD	1990	GASOLINE	On-Airport Mobile Fueler	140				Yes - Light Duty
462819	Service Truck	FORD	1990	DIESEL		250				Yes - Other
307412	Service Truck	FORD	1990	GASOLINE		250				Yes - Other
464688	Service Truck	FORD	1991	GASOLINE		82				Yes - Light Duty

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509628	Service Truck	FORD	1991	GASOLINE		107				Yes - Light Duty
338513	Service Truck	FORD	1991	GASOLINE		110				Yes - Light Duty
490315	Service Truck	FORD	1991	GASOLINE		110				Yes - Light Duty
455322	Service Truck	FORD	1991	GAS	On-Airport Stationary		Yes - Works	24,156.0	10/21/00	Yes - Other
410949	Service Truck	FORD	1991	DIESEL	On-Airport Stationary		Yes - Works	9,524.0	01/25/02	Yes - Other
366947	Service Truck	FORD	1991	DIESEL	On-Airport Stationary	170	Yes - Works	8,531.0	01/30/02	Yes - Other
231336	Service Truck	FORD	1991	GASOLINE	On-Airport Stationary		Yes - Works	505.0	05/15/06	Yes - Other
352296	Service Truck	FORD	1992	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
366856	Service Truck	FORD	1992	GASOLINE		107				Yes - Passenger
290738	Service Truck	FORD	1993	GASOLINE		82				Yes - Light Duty
526120	Service Truck	FORD	1993	GASOLINE		200				Yes - Other
317359	Service Truck	FORD	1994	GASOLINE		161				Yes - Light Duty
74582	Service Truck	Ford	1994	gasoline	On-Airport Stationary		Yes - Works			
224322	Service Truck	FORD	1995	GASOLINE		82				Yes - Light Duty
419643	Service Truck	FORD	1995	GASOLINE		82				Yes - Light Duty
502726	Service Truck	FORD	1995	GASOLINE		82				Yes - Light Duty
452571	Service Truck	FORD	1996	GASOLINE		82				Yes - Light Duty
292698	Service Truck	FORD	1996	GASOLINE		110				Yes - Light Duty
349958	Service Truck	FORD	1996	GASOLINE		110				Yes - Light Duty
497700	Service Truck	FORD	1996	GASOLINE		107				Yes - Passenger
74333	Service Truck	Ford	1996	gasoline	On-Airport Stationary		Yes - Works			
477876	Service Truck	FORD	1997	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
262997	Service Truck	FORD	1997	GASOLINE		107				Yes - Light Duty
222341	Service Truck	FORD	1997	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
380541	Service Truck	FORD	1997	GAS	On-Airport Stationary		Yes - Works	191.0	11/27/01	Yes - Other
244909	Service Truck	FORD	1997	GAS	On-Airport Stationary		Yes - Works	749.0	01/24/02	Yes - Other
480438	Service Truck	FORD	1997	GASOLINE		173				Yes - Other
74367	Service Truck	Ford	1997	gasoline	On-Airport Stationary		Yes - Works			
271362	Service Truck	FORD	1998	GASOLINE		82				Yes - Light Duty
268569	Service Truck	FORD	1998	GASOLINE		150				Yes - Light Duty
216356	Service Truck	FORD	1998	GASOLINE		220				Yes - Light Duty
359583	Service Truck	FORD	1998	GASOLINE		220				Yes - Light Duty
490924	Service Truck	FORD	1998	GAS	On-Airport Stationary		Yes - Works	24,344.0	10/26/01	Yes - Other
536879	Service Truck	FORD	1998	GAS	On-Airport Stationary		Yes - Works	1,993.0	01/29/02	Yes - Other
289394	Service Truck	FORD	1998	GAS	On-Airport Stationary		Yes - Works	27,205.0	02/15/02	Yes - Other
354795	Service Truck	FORD	1998	GAS	On-Airport Stationary		Yes - Works	131,797.0	10/28/05	Yes - Other
241493	Service Truck	FORD	1999	GASOLINE		82				Yes - Light Duty
341250	Service Truck	FORD	1999	GASOLINE		82				Yes - Light Duty
433594	Service Truck	FORD	1999	GASOLINE		82				Yes - Light Duty
462308	Service Truck	FORD	1999	GASOLINE		107				Yes - Light Duty
291984	Service Truck	FORD	1999	GASOLINE		150				Yes - Light Duty
279804	Service Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	199.0	06/17/01	Yes - Other

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460740	Service Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	17,487.0	10/22/01	Yes - Other
506779	Service Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	2,238.0	12/05/01	Yes - Other
278355	Service Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	85.0	02/08/02	Yes - Other
428932	Service Truck	FORD	1999	DIESEL	On-Airport Mobile Fueler		Yes - Works	5,164.0	05/15/06	Yes - Other
462357	Service Truck	FORD	1999	GASOLINE		173				Yes - Other
74399	Service Truck	Ford	1999	gasoline	On-Airport Stationary		Yes - Works			
546189	Service Truck	FORD	2000	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
224189	Service Truck	FORD	2000	GASOLINE		82				Yes - Light Duty
287427	Service Truck	FORD	2000	GASOLINE		82				Yes - Light Duty
541982	Service Truck	FORD	2000	GASOLINE		82				Yes - Light Duty
306516	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
325829	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
369271	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
375956	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
538349	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
555282	Service Truck	FORD	2000	GASOLINE		107				Yes - Light Duty
247814	Service Truck	FORD	2000	GASOLINE		161				Yes - Other
302057	Service Truck	FORD	2000	GASOLINE		161				Yes - Other
409794	Service Truck	FORD	2000	GASOLINE		161				Yes - Other
429709	Service Truck	FORD	2000	GASOLINE		161				Yes - Other
478786	Service Truck	FORD	2000	GASOLINE		161				Yes - Other
313523	Service Truck	FORD	2000	GASOLINE		173				Yes - Other
416087	Service Truck	FORD	2000	GASOLINE		173				Yes - Other
74452	Service Truck	Ford	2000	gasoline	On-Airport Stationary		Yes - Works			
74473	Service Truck	Ford	2000	gasoline	On-Airport Stationary		Yes - Works			
74474	Service Truck	Ford	2000	gasoline	On-Airport Stationary		Yes - Works			
340074	Service Truck	FORD	2001	GASOLINE	On-Airport Mobile Fueler	180	Yes - Works			Yes - Light Duty
264467	Service Truck	FORD	2001	GASOLINE		82				Yes - Light Duty
433867	Service Truck	FORD	2001	GASOLINE		82				Yes - Light Duty
303835	Service Truck	FORD	2001	GASOLINE		107				Yes - Light Duty
320670	Service Truck	FORD	2001	GASOLINE		107				Yes - Light Duty
335727	Service Truck	FORD	2001	GASOLINE		107				Yes - Light Duty
407582	Service Truck	FORD	2001	GASOLINE		107				Yes - Light Duty
509565	Service Truck	FORD	2001	GASOLINE		107				Yes - Light Duty
432131	Service Truck	FORD	2001	GASOLINE		140				Yes - Light Duty
239883	Service Truck	FORD	2001	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
391307	Service Truck	FORD	2001	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
377909	Service Truck	FORD	2001	DIESEL	On-Airport Stationary		Yes - Works	426.0	02/03/06	Yes - Other
279412	Service Truck	FORD	2001	GASOLINE		173				Yes - Other
284998	Service Truck	FORD	2001	GASOLINE		173				Yes - Other
74525	service Truck	Ford	2001	gasoline	On-Airport Stationary		Yes - Works			
305613	Service Truck	FORD	2003	GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty

LAX GSE Inventory
as of
29 April 2007

ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
74702	Service Truck	Ford	2004	gasoline	On-Airport Stationary		Yes - Works			
268394	Service Truck	FORD		GASOLINE	On-Airport Mobile Fueler	140				Yes - Light Duty
317758	Service Truck	FORD		GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
382585	Service Truck	FRGHT	1998	DIESEL	On-Airport Mobile Fueler	150	Yes - Works			Yes - Other
560588	Service Truck	GENERAL MOTORS	1973	GASOLINE		103				Yes - Light Duty
380562	Service Truck	GENERAL MOTORS	1981	GASOLINE		175				Yes - Light Duty
358813	Service Truck	GENERAL MOTORS	1987	GASOLINE		174				Yes - Other
392035	Service Truck	GENERAL MOTORS	1987	GASOLINE		174				Yes - Other
340095	Service Truck	GENERAL MOTORS	1988	GASOLINE		103				Yes - Light Duty
429786	Service Truck	GENERAL MOTORS	1988	GASOLINE		103				Yes - Light Duty
542472	Service Truck	GENERAL MOTORS	1990	GASOLINE		103				Yes - Light Duty
341929	Service Truck	GENERAL MOTORS	1990	GASOLINE		140				Yes - Light Duty
395129	Service Truck	GENERAL MOTORS	1990	GASOLINE		175				Yes - Light Duty
324009	Service Truck	GENERAL MOTORS	1999	GASOLINE		174				Yes - Other
222593	Service Truck	GENERAL MOTORS	1999	DIESEL		250				Yes - Other
02-110	Service Truck	GMC	1982	gasoline	On-Airport Stationary	125	Yes - Works	310.0	05/19/2006	
446915	Service Truck	JLGIN	1997	DIESEL	On-Airport Mobile Fueler	125	Yes - Works			Yes - Other
298550	Service Truck	JLGIN	2002	DIESEL	On-Airport Mobile Fueler	125	Yes - Works			Yes - Other
512715	Service Truck	JLGIN	2002	DIESEL	On-Airport Mobile Fueler	125	Yes - Works			Yes - Other
362446	Service Truck	LFTAL	2004	LQ PRPN	On-Airport Mobile Fueler	150	Yes - Works			No
550263	Service Truck	MAZDA	1979	GAS	On-Airport Stationary		Yes - Works	2,165.0	08/16/01	Yes - Other
294602	Service Truck	NABI	2001	DIESEL		185				Yes - Bus
409010	Service Truck	NABI	2001	DIESEL		185				Yes - Bus
520541	Service Truck	NABI	2001	DIESEL		185				Yes - Bus
553749	Service Truck	NABI	2001	DIESEL		185				Yes - Bus
273273	Service Truck	TAYLOR DUNN	2002	ELECTRIC		254				No
317877	Service Truck	TESCO	1993	GASOLINE	On-Airport Mobile Fueler	180	Yes - Works			Yes - Other
378343	Service Truck	TESCO	1993	GASOLINE	On-Airport Stationary	180	Yes - Works			Yes - Other
544929	Service Truck	TESCO	1994	GASOLINE	On-Airport Stationary	180	Yes - Works			Yes - Other
338982	Service Truck	TOYOTA		GASOLINE	On-Airport Mobile Fueler					Yes - Light Duty
252413	Service Truck		1995	ELEC	On-Airport Stationary		Yes - Works	2,130.0	10/21/00	Yes - Other
229012	Service Truck		1995	ELEC	On-Airport Stationary		Yes - Works	2,194.0	10/21/00	Yes - Other
492891	Service Truck		1995	ELEC	On-Airport Stationary		Yes - Works	2,249.0	10/21/00	Yes - Other
348523	Service Truck		1995	ELEC	On-Airport Stationary		Yes - Works	2,325.0	10/21/00	Yes - Other
529921	Service Truck		1995	ELEC	On-Airport Stationary		Yes - Works	2,405.0	10/21/00	Yes - Other
468146	Service Truck			ELEC	On-Airport Stationary		Yes - Works	0.0	12/20/01	Yes - Other
502159	Service Truck			GAS	On-Airport Stationary		Yes - Works	1,573.0	04/15/06	Yes - Other
455105	Service Truck			ELEC	On-Airport Stationary		Yes - Works			Yes - Other
62101	Sweeper	American	1985		On-Airport Mobile Fueler		Yes - Works			
369355	Sweeper	AMRLN	1989	GASOLINE	On-Airport Mobile Fueler	50	Yes - Works			No
SW 8501	Sweeper	POWER BOSS	1995	gasoline	On-Airport Mobile Fueler	37	Yes - Works	2,903.0	05/22/2006	No
62100	Sweeper	Tennant	1985		On-Airport Mobile Fueler		Yes - Works			

LAX GSE Inventory
as of
29 April 2007

ID Number	GSE Category	Engine Specifications					Hour Meter/Odometer Information			On-Road Equivalent
		Manufacturer	Model Year	Fuel Type	Fueling Method	Power (BHP)	Installed	Hours/ Miles	Date Read	
SWR	Sweeper	TENNANT	1989	LPG	On-Airport Stationary		Yes - Works	6,058.0	06/13/2006	No
S/N: 7200-9897	Sweeper	Tennant	2004	electric	On-Airport Stationary	10	Yes - Works	225.0	06/07/2006	No
308721	Sweeper	TENNANT	1999	ELECTRIC	On-Airport Stationary	15	Yes - Works	119.0	05/15/06	No
298144	Sweeper	TENNANT	1999	GASOLINE	On-Airport Stationary	50	Yes - Works	1,070.0	05/15/06	No
438018	Sweeper	TENNANT	1999	GASOLINE	On-Airport Stationary	50	Yes - Works	1,135.0	05/15/06	No
260652	Sweeper	TYMCO	1989	DIESEL	On-Airport Mobile Fueler	50	Yes - Works			No
WSU003	Water Truck	FORD	1978	Gasoline	On-Airport Mobile Fueler	210	Yes - Works	788.0		No
313719	Water Truck	FORD	1999	GAS	On-Airport Stationary		Yes - Works	16,521.0	10/21/00	Yes - Other
293769	Water Truck	FORD/WOLLARD	2000	GASOLINE	On-Airport Mobile Fueler	120	Yes - Works			Yes - Light Duty
13-034	Water Truck	ISUZU	1997	diesel	On-Airport Stationary	135	Yes - Works	2,577.0	05/19/2006	
PW1	Water Truck	Wasp	1988		On-Airport Mobile Fueler					No
26137	Water Truck	Wollard	1998	gasoline	On-Airport Mobile Fueler		Yes - Works			
26135	Water Truck	Wollard	1998	gasoline	On-Airport Stationary		Yes - Works			
7893	Water Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,236.0	11/01/2006	
2323	Water Truck			Gasoline	On-Airport Mobile Fueler		Yes - Works	1,827.0	11/01/2006	
LTZ #18		TUG		gasoline			Yes - Works	#######	06/14/2006	
							Yes - Works	16,377.0	06/14/2006	es - light duty truc
							Yes - Works	8,327.0	06/14/2006	es - Passenger Ca
							Yes - Works	31,759.0	06/14/2006	es - Passenger Ca
							Yes - Works	33,490.0	06/14/2006	es - Passenger Ca
							Yes - Works	38,392.0	06/14/2006	es - Passenger Ca

APPENDIX C

Independent Third Party Monitor Semi-Annual Reports for 2007

Independent Third Party Monitor
Semi-Annual Report

Los Angeles International Airport
South Airfield Improvement Project (SAIP)

Prepared by:

Clean Fuel Connection, Inc.

April 25, 2007

Los Angeles World Airports

Clean Fuel Connection, Inc.

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APPENDICES

Appendix A: Master SAIP Equipment List

Appendix B: Emissions Reductions Assessment Report

Appendix C: Low Sulfur Diesel Fuel Use Documentation

SECTION 1 EXECUTIVE SUMMARY

Over the past six months, Clean Fuel Connection Inc. (CFCI) has had the privilege of working as the Interim Independent Third Party Monitor (Third Party Monitor) for Los Angeles World Airports (LAWA), monitoring construction activities at the on-going South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX). This report was prepared in compliance with the reporting requirement set forth in the Community Benefits Agreement (CBA).

CFCI has been monitoring implementation of Section X.F. of the CBA since August 2006. As the Third Party Monitor, CFCI's role is to observe, document and report on the operations of the construction-related diesel equipment on the SAIP program. Our role is not enforcement of the provisions of the CBA, but rather independent verification and documentation of compliance.

Since August 2006, CFCI has compiled a database of more than 255 individual pieces of equipment used on the SAIP. We have reviewed the documentation (including exemption requests in some cases) for each of these units, tallied fuel receipts for 170,000 gallons of low sulfur diesel, and documented more than a dozen enforcement actions and public complaints.

A major task has been the evaluation of the available Verified Diesel Emission Control Systems (VDECS) and their applicability to the construction equipment being used on the SAIP. An initial evaluation of available devices was performed in late summer of 2006 and, at that time, several issues were raised and discussed with LAWA.

In the past six months, twelve (12) pieces of construction equipment have been voluntarily retrofitted with VDECS by the SAIP contractor. CFCI has been closely following performance of these devices. Included in this report is a summary of the emissions reductions resulting from the installation of these devices.

Since our initial evaluation in early fall, several new diesel emission control devices have been verified by the California Air Resources Board (CARB) and some manufacturers have been advised that they may face decertification. CFCI has recently performed a reassessment of the devices now available and compatible with the equipment on the SAIP. We recognize that this information will not affect the current contract, but will be important in determining the equipment retrofit requirements for future construction.

An important component of the CBA is the option of outfitting diesel equipment used for construction with new unverified diesel emission control devices as part of a LAWA demonstration program (X.F.2). CFCI has been an active participant in discussions with the CARB and South Coast Air Quality Management District (AQMD) about a potential diesel construction equipment demonstration program. If implemented, such a program could provide an opportunity to field test the devices and would result in additional emissions reductions.

The key conclusions from the first six months of the Third Party Monitor are discussed in Section 6 of the report. To summarize our conclusions:

- The Community Benefits Agreement and Independent Third Party Monitor program represent a new paradigm for implementing large scale public construction projects. CFCI believes that the project has proceeded very smoothly, especially in view of the fact that this is the first time this process has been implemented.

- Implementation of the CBA is making a quantifiable difference in air quality. We have documented the emission reductions as a result of the emission control devices installed on twelve units of construction equipment.

- There are a number of lessons learned from this first time implementation of the CBA and suggestions for future LAWA projects.

- There are some items in the CBA that are unclear or open to differing interpretations and may benefit from clarification for future projects.

Based on the key measure of emissions reductions, we believe that the implementation of the Community Benefits Agreement Section X.F has been a success to date. Results should only improve as new devices are verified and equipment eligibility issues are clarified. In addition, a number of steps can be taken in advance of project implementation to simplify the third party monitoring process and further reduce the impact on airport construction projects.

SECTION 2 INTRODUCTION

The role of Independent Third Party Monitor was established as part of the historic Community Benefits Agreement (CBA) signed by LAWA and the LAX Coalition. Section X.F.8 of the CBA defines the Scope of Work of the Third Party Monitor as follows:

> Compliance with the requirements of this Section X.F shall be monitored by an Independent Third Party Monitor….The Independent Third Party Monitor shall report to LAWA and the Coalition Representative semiannually. Reports shall include, but not be limited to, devices installed on LAX Master Plan Program construction-related diesel equipment, summary of exemptions granted and any reports of violations

In order to expedite the implementation of the Independent Third Party Monitor, LAWA released an RFP for an Interim Third Party Monitor. Clean Fuel Connection was the successful bidder for that contract. We have since been awarded the three year contract as the Independent Third Party Monitor.

Since August 2006, CFCI has been monitoring the implementation of Section X.F of the CBA. Our work to date has included:

- Creation of a database of all known equipment utilized in the South Airfield Improvement Program and the available verified emission control devices
- Field verification of the equipment database and reconciliation to CH2MHill vehicle records
- Evaluation of available diesel emission control devices and applicability to the SAIP
- Examination and verification of requests for exemptions from installation of Best Available Control Technology (BACT)
- Examination of fuel records to verify that low sulfur diesel is being used
- Participation in CARB and AQMD discussions of a heavy duty off-road vehicle emissions device demonstration program
- Evaluation of newly Verified Diesel Emission Control Devices for applicability to SAIP equipment
- Monitoring of installed emission control devices on SAIP construction equipment
- Quantification of emission reductions
- On-airfield equipment verification and monitoring of SAIP construction equipment operations enforcement

This purpose of this report is to document our work on each task in the CBA and our contractual Scope of Work over the past six months and to summarize our findings and conclusions.

SECTION 3 BACKGROUND OF PROJECT TEAM

Clean Fuel Connection, Inc. is pleased to have been selected as the Interim Independent Third Party Monitor and now the Third Party Monitor for the next three years. CFCI is well-qualified to perform in this capacity. The core strength of the CFCI team lies in the combination of technical expertise in diesel emissions reduction and the ability to communicate with a variety of stakeholders. Two of the team members, Lauren Dunlap and Ray Gorski, are highly regarded experts in the area of diesel emissions reduction. Their expertise has been recognized and sought after by the South Coast Air Quality Management District and the Port of Los Angeles, among others.

As an experienced Project Manager, CFCI has completed consulting and design-build construction projects ranging from a few thousand dollars to more than $3 million. CFCI understands that the work of the Independent Third Party Monitor must be conducted in a manner that complies with all airport safety and security requirements. In addition, our efforts must cause as little disruption as possible to ongoing work at the airport and not impact construction schedules. CFCI is also well equipped to work with the LAWA staff and the LAX Coalition for Economic, Environmental and Educational Justice and its member organizations.

The following individuals are part of the CFCI team:

Enid Joffe, founder and co-owner of Clean Fuel Connection, Inc., a licensed contracting and environmental consulting company with extensive experience in providing independent engineering and regulatory compliance assessments to both government agencies and the private sector. Enid brings years of experience in technical project management to this effort and serves in the capacity of prime contractor and Project Manager. She also has over 30 years experience working with community-based organizations as a professional community organizer for United Way, a public affairs manager for Southern California Edison, a volunteer with non-profit and civic organizations and most recently, as an elected official in Sierra Madre. We believe that our team has developed a good working relationship with all parties to the Community Benefits Agreement including the airport contractors and LAWA project personnel.

Ray Gorski, has been an independent consultant with extensive experience in performing Independent Verification and Validation (IV&V) on behalf of government agencies. Ray currently serves as the Technical Advisor to the legislatively enacted Mobile Source Air Pollution Reduction Review Committee (MSRC), as well as principal air quality engineer for the Riverside County Transportation Commission and San Bernardino Associated Governments. Ray is experienced in heavy-duty engine Best Available Control Technologies (BACT) including the verification process for diesel emission control systems, diesel exhaust after-treatment devices, alternative diesel fuels, and construction equipment engine re-powering. He also serves as a member of the Port of LA Air Quality Mitigation Program Technical Advisory Committee. Ray is the lead air quality engineer on the SAIP project and has done the largest share of the data gathering and verification.

Lauren Dunlap, is an independent consultant with substantial expertise in heavy-duty diesel engine pollution control strategies. Lauren currently serves as a principal air

quality consultant on relevant programs including the Port of Los Angeles Air Quality Mitigation Incentive Program and South Coast Air Quality Management District Carl Moyer Air Quality Standards Attainment Program. Lauren is recognized as an authority on U.S. Environmental Protection Agency, California Air Resources Board, and South Coast AQMD Rules and Regulations. Lauren is also an expert on the calculation of diesel emission reductions. Lauren is an Air Quality Engineer on the project and is working with Ray on the database, and verifying the compatibility of emission control devices. She also prepared the calculations of emission reductions for the VDECS installed on equipment at LAWA.

Stefanie Ly, Principal Analyst for CFCI, has demonstrated expertise in project monitoring and tracking, including electronic database proficiency. Stefanie maintains the fuel receipt database as well as the enforcement action and public complaint databases.

SECTION 4 - STATEMENT OF WORK IMPLEMENTATION METHODOLOGY

The function of Third Party Monitor for LAWA's SAIP project requires technical expertise in diesel emissions reductions, as well as good communication skills and an understanding of operations at large scale construction sites. CFCI's mission is to implement a disciplined approach to our Scope of Work that ensures the transparency of our data gathering and maintains our independence as Third Party Monitor.

Our approach to implementing the Third Party Monitor Scope of Work is as follows:

Fully Understand Program Requirements and Customer Expectations – CFCI understands explicitly and unequivocally the requirements and obligations for the independent Third Party Monitor as set forth in CBA Section X.F. In the course of implementing our work scope as the Interim Independent Third Party Monitor, CFCI has coordinated with the Chief Airports Engineer, contracts manager, and project environmental staff relative to program requirements and performance expectations.

Define Roles and Responsibilities - The CFCI Team has clearly defined its role as "monitor, document and report." We have also made it clear that we are an independent third party, not representing any individual stakeholder. The CFCI team members have many years experience working with local governments and community organizations on complex issues and brings these skills to our role as Third Party Monitor.

Establish an Appropriate On-Site Presence – In our role as Interim Third Party Monitor, CFCI is regularly onsite at the CH2M Hill construction trailer reviewing documentation and coordinating with members of the environmental compliance staff. To avoid interfering with SAIP operations, CFCI staff members arrive at the jobsite with all necessary equipment needed to perform the onsite monitoring, documentation, and reporting, including computers with wireless wide area network capability acquired specifically for our role as Third Party Monitor. CFCI also visited the airfield on a regular basis to observe vehicles equipment with installed emission control devices, conduct vehicle compliance monitoring, investigate alleged vehicle compliance violations and coordinate with LAWA personnel. CFCI has been careful to ensure that our work does not interfere with any SAIP construction operations and that CFCI team members follow all required safety and security precautions. It has been noted that the visibility of our presence on the airfield does encourage compliance with CBA requirements.

Ensure Monitoring Processes, Tracking Tools, and Documentation Procedures are In Place – CFCI created independent databases of equipment and exemptions granted, fuel receipts, verified emission control devices and enforcement actions/public complaints and reconciled those to the records of the LAWA SAIP construction manager, CH2M Hill. For example, the equipment database was developed during review and documentation of the 230-plus Exemption Request data packets submitted to LAWA. It provides complete characterization of each vehicle proposed for use on the SAIP. This database was used to review and document the availability and compatibility of existing EPA and/or CARB approved/verified diesel emission control systems. CFCI supplemented the information about each engine provided by the Contractor, utilizing ARB data or industry knowledge to fill in as much of the missing information as possible. Any variations or discrepancies were noted and explained.

Employ Disciplined Project Management Practices and Procedures – CFCI, in their role as prime contractor and Project Manager, strives to ensure that project management functions for this work effort are conducted efficiently and comprehensively using industry best practices and government-accepted accounting procedures. CFCI works closely with LAWA staff and the LAX Coalition members to ensure the prompt resolution of issues and rapid response to technical and managerial direction. Project management has also been kept informed with Weekly Activity Reports.

Update Available Technology Database — CFCI has continued to stay abreast of new developments for diesel emission control technologies including newly verified devices or de-listed devices. CFCI recently updated the matrix of equipment and available devices. CFCI has actively participated in the development of the criteria for a Heavy-Duty Off-Road Emissions Control Device demonstration program. Our analysis of the compatibility of verified on-road devices with off-road equipment brought forward several issues for CARB's consideration in future rulemakings and a number of recommendations for future projects.

SECTION 5 - TASK-BY-TASK STATUS REPORT

The following section documents CFCI's work over the past six months on each of the specific tasks in the Interim Third Party Monitor Scope of Work.

Task 1: Best Available Emissions Control Devices Required

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter on the order of ten microns[1] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors.

Section X.F.1 of the CBA applies the requirement to outfit all diesel equipment to off-road vehicles, such as heavy-duty construction equipment, as well as on-road vehicles such as trucks, street sweepers, etc. The requirement also affects non-mobile diesel sources, such as portable generators, air compressors, and light towers. Thus, the

[1] One micron equals $1x10^{-6}$ meter or 0.000001 meter.

requirement to retrofit diesel equipment used in LAX Master Plan construction projects encompasses every piece of diesel equipment, irrespective of its status as on-road mobile, off-road mobile, or stationary.

Section X.F.1 requires that the diesel emission control systems used to retrofit diesel equipment be verified or certified for use on on-road or off-road vehicles or engines by the California Air Resources Board (CARB), or verified by the U.S. Environmental Protection Agency (EPA) for use on on-road or off-road vehicles or engines. Section X.F.1 further allows CARB and EPA-verified "mobile source" devices to be applied to "stationary sources", such as generator engines, and allows technologies verified for "on-road" engines to be applied to "off-road" equipment. Thus, the overall context of Section X.F.1 is very broad and allows maximum flexibility in matching diesel emission control systems with diesel equipment used in Master Plan construction.

The role and responsibilities of the Interim Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

- Task 1.1 - Contractor shall develop a monitoring process and database to track each piece of diesel equipment used for construction, including documentation procedures and reporting requirements;

- Task 1.2 – Contractor shall monitor, document, and report independently from LAWA, each construction firm's compliance as it relates to outfitting their diesel construction equipment with the best available emissions control devices available.

The following are the results and findings of the Interim Independent Third Party Monitor as it relates to Tasks 1.1 and 1.2.

Task 1.1 – Monitoring Process, Database Development, and Documentation:

CFCI, in our capacity as Interim Independent Third Party Monitor, developed and implemented a structured process for monitoring and documenting diesel equipment both proposed for use and actually operating on the South Airfield Improvement Project (SAIP). The monitoring process employed is as follows:

- *Review of available documentation* – The principal source of technical information for each vehicle proposed for operation on the SAIP are the equipment reports submitted by the construction contractor for review by LAWA project management environmental staff. These reports document key information relevant to each piece of equipment, including the technical specifications from which the Independent Third Party Monitor database information is substantially derived. Most importantly, these reports document whether or not a compatible VDECS is available for a given piece of diesel equipment;
- *Incorporation of all available data into Master Equipment List (Database)* – As more fully described below, all relevant information derived from review of the equipment reports or field inspections is documented in a master equipment database. This database is the principal tool for performing independent verification and validation of the information contained in the equipment reports reviewed and approved by LAWA;

- *Identification and documentation of missing, inconsistent, or inaccurate data* – It is common for the equipment reports to have some pieces of data that are either missing, inconsistent with other information provided, or potentially incorrect. In these cases, the database notes which pieces of information are either missing or whose accuracy is suspect. Approximately 40% of the diesel equipment reviewed by the Independent Third Party Monitor has missing or incomplete Engine Family Designations. Although this is an "essential" data element, secondary evaluation techniques can be applied to work around missing data; please refer to Section 1.2, below;
- *Request for Additional Information and/or Clarification* – Once the missing data or data that requires validation are compiled, a request for clarification is issued by the Independent Third Party Monitor to LAWA project management staff. Most often, the requested information resides with the equipment owner; thus, LAWA project management staff act as an intermediary between the Third Party Monitor and the equipment owner. This "arms length" approach is in keeping with the role of the Third Party Monitor to "monitor, document, and report". From a practical standpoint, having LAWA project management staff act as the official liaison maintains the established organizational reporting structure and eliminates the potential that the construction contractor could interpret a data request as contractual direction;
- *Field Inspection* – In some cases, a specific piece of data is deemed essential for the purpose of determining compatibility with a VDECS device or in the conduct of an emissions analysis. In these cases, the Independent Third Party Monitor will request permission to conduct a field inspection of the specific piece of equipment under scrutiny. In most cases, these field inspections can be conducted during the equipment's down time, the operator's lunch break or before or after the work shift. In limited cases, vehicles have been requested to cease operations momentarily during their workday to allow the Third Party Monitor to record needed information. During the past six months, equipment inspections for data gathering purposes have included verification and recording of engine type and model year and whether or not a VDECS had in fact been installed. Equipment inspections for reasons other than to populate the Third Party Monitor database occur on a regular basis, related primarily to equipment Operational Requirements as discussed in Task 6 of this report;
- *Task 1.2 Independent Verification and Validation* – For each piece of diesel construction equipment included in the database, an independent determination of whether or not a compatible VDECS device is available is conducted. This assessment is performed in accordance with the procedure described in Task 1.2, below;
- *Documentation of Analysis Results* – For each piece of diesel equipment assessed, the availability and compatibility of a VDECS is recorded in the database. In some cases, a specific equipment type has been exempted by LAWA from the requirement to be retrofitted; these relatively few exemptions by LAWA are also recorded in the database;
- *Reporting* – This report is in compliance with the reporting requirements of Section X.F.8 of the CBA.
- *Data Reconciliation* – Periodically, the Independent Third Party Monitor conducts a data reconciliation of information contained in the database with the reports maintained by LAWA project management and the construction manager's staff.

This helps ensure that the Third Party Monitor's records are up to date and that a piece of equipment doesn't "slip through" without being evaluated.

The Database Development element of Task 1.1 was conducted in accordance with a single objective – record as much data and supporting information as possible to fully characterize each piece of equipment proposed for operation on the SAIP. Thus, to ensure completeness, the database incorporates the following data fields:

- *Date of Equipment Report Approval* – Each piece of diesel equipment for potential use on the SAIP is submitted by the construction contractor for review by LAWA project management and the construction manager's staff. An indication that the review process has been completed and the equipment approved for airfield operation is recorded in the database;
- *Equipment ID Number* – Most equipment operating on the SAIP is marked with a unique identifying number by the equipment owner. It has been the practice of the Independent Third Party Monitor and LAWA project management staff to use this unique ID when describing, discussing or documenting a specific piece of equipment. All equipment is tracked and monitored relative to this ID number;
- *Owner* – the owner of the piece of diesel equipment, such as prime contractor Tutor-Saliba;
- *Equipment Category* – A brief description for the type of diesel equipment, such as "articulated dump truck";
- *Equipment Manufacturer* – The manufacturer of the piece of equipment, usually the equipment chassis. In most cases the manufacturer of the chassis is different from the engine manufacturer;
- *Equipment Model Year* – The year of manufacture of the equipment or vehicle, usually referring to the chassis and vehicle body. It should be noted that it is common for the equipment chassis or body and diesel engine to be different model years;
- *Equipment Model Number* – The number or other descriptive terminology used by the equipment manufacturer in marketing the vehicle, oftentimes used to differentiate similar products;
- *Equipment Serial Number* – This differs from the Equipment ID number described above. The equipment serial number is the vehicle chassis or body identification number assigned by the equipment manufacturer;
- *Engine #1 Manufacturer* – The manufacturer of the main diesel engine used in the equipment. In some cases, most notably off-road heavy-duty scrapers and on-road street sweepers, the equipment has two diesel engines. The first and second engines are designated #1 and #2, respectively, in the database;
- *Engine #1 Model* – The number or other descriptive terminology used by the manufacturer in engine marketing, used to differentiate similar products;
- *Engine #1 Model Year* – The year of manufacture of the diesel engine, diesel emission control devices are often verified for a specific engine model year;
- *Engine #1 Serial Number* – A unique identification number or alphanumeric code assigned by the engine manufacturer;

- *Engine #1 Displacement* – The total volumetric size of the engine's combustion cylinders, usually described as "cubic inches" or "liters". Displacement expressed in cubic inches is calculated by multiplying the number of cylinders by the piston area (square inches) and by the length of the piston stroke (inches). The commonly used metric designation of "liters" is the total engine displaced volume measured in cubic centimeters (1 liter = 1,000 cubic centimeters);
- *Engine #1 Horsepower* – The rated horsepower of the engine by the engine manufacturer;
- *Engine #1 Engine Family* – Engine Family is a descriptive designation given by CARB to a diesel engine upon certification. It is a code, similar to an automobile Vehicle Identification Number, that identifies the engine model year, engine manufacturer, the engine's displacement, on-road or off-road applicability, emissions equipment included during certification testing. This piece of data, along with engine manufacturer and engine model year, is essential to determine conclusively if a VDECS is compatible with the engine undergoing assessment. With practice, one can quickly ascertain a substantial amount of information about an engine by deciphering the engine family designation;
- *Engine #2 Data* – Similar to the above for Engine #1, data are documented for the second diesel engine on a piece of equipment. In the case of heavy-duty earth moving scrapers, the two engines are front and rear; in the case of street sweepers, the second engine is an auxiliary engine that operates the vehicle's rotary brooms and vacuum system.

For each piece of diesel equipment, the database also documents:

- Whether that piece of equipment has or is currently operated, on the SAIP. For equipment that has been removed, the date of removal is recorded if known;
- For equipment operating under a 20-day exemption, the date the equipment was placed on the airfield and the date removed. For more discussion on 20-day exemption status, please refer to the Task 4 Section of this report;
- Each piece of equipment's compatibility with both off-road and on-road Verified Diesel Emission Control Systems available at the time the equipment was originally submitted by the owner for review by project management staff. It should be noted that this database also includes devices that have been recently verified by CARB and devices recently granted a conditional verification by CARB. Please refer to the Task 8, "Reassessments" Section of this report for a thorough discussion of equipment compatibility with these additional devices.

To date, 255 pieces of diesel equipment have been assessed and documented in the Equipment Database. The essential elements of the Equipment Database are included in Appendix A of this report. These include the Master Equipment Database, as well as sub-elements that document equipment compatibility with available VDECS devices.

Task 1.2 – Independent Monitoring, Documentation, & Reporting of Compliance with CBA Section X.F.1; Best Available Emission Control Devices Required:

Under this Task, the process described in Task 1.1, above, was applied to each piece of diesel equipment either operating or proposed for operation on the SAIP. The primary objective was to independently verify and validate the findings of LAWA project management and contractor staff as it relates to the availability and compatibility of diesel emission control systems for diesel equipment operating on the SAIP.

Each piece of diesel equipment proposed for operation on the SAIP undergoes an evaluation by LAWA and LAWA contractor staff to determine whether or not a diesel emission control system is required for that equipment. This assessment is contained in an Equipment Report retained by LAWA project management staff. A separate report is prepared for each piece of equipment. An equipment report typically contains the following information:

Equipment Technical Specifications – The report includes a technical description of the piece of diesel equipment. This is the primary source of information used in compiling the Third Party Monitor Equipment Database. As previously stated, it is not uncommon for certain data to be missing from the report; the process described above is then used to fill in the missing information to the maximum extent possible.

Assessment of Equipment Compatibility with a Verified Diesel Emission Control System – Each report includes a section documenting a piece of diesel equipment's compatibility with verified diesel emission control systems. This assessment is performed for each level of CARB verification:

- Level 1: $\geq$ 25% reduction in particulate matter;
- Level 2: $\geq$ 50% reduction in particulate matter;
- Level 3: $\geq$ 85% reduction in particulate matter.

Each report also includes a section documenting compliance with Rules issued by the South Coast Air Quality Management District (AQMD), and a description of equipment maintenance requirements in support of CBA Section X.F.6, Operational Requirements.

Independent Review of Equipment Documentation: The Third Party Monitor reviewed each Equipment Report in an effort to independently verify the information contained therein and validate the report's conclusion relative to applicability of a VDECS system for that piece of equipment. The first order of business in conducting the independent review was to determine if the technical description of each piece of equipment was complete, and if not, request the additional information.

Appendix A, the Equipment Database documents all available information for each piece of diesel equipment. As shown in Appendix A, some data fields have missing information, designated by "TBD" (to be determined). A database segment is reproduced in Table 1.2-1, below:

Table 1.2-1: Example of Missing Data

Equipment Number	Equipment Category	Equipment Manufacturer	Engine 1 Model	Engine 1 Model Year	Engine 1 Horsepower	Engine 1 Family
E00484	Backhoe	Caterpillar	3114 DIT	1995	TBD	TBD

As shown, the engine horsepower for this Caterpillar backhoe was not included in the Equipment Report provided to the Third Party Monitor. More importantly, the engine family designation was not provided. This is significant, since the compatibility of VDECS systems is most often determined by matching the engine family designation to a list of allowable engines published by CARB. While significant, in most cases missing information, including engine family, did not unduly hamper the ability of the Third Party Monitor to perform the independent assessment; this is discussed in more detail below:

To determine the missing information, in this case engine horsepower, the Third Party Monitor researched this equipment and engine on the Caterpillar website. According to the website, the CAT 3114 DIT (direct injection turbocharged) engine used in this model of backhoe has the following specifications:

Engine Model - Cat 3114 DIT

- Gross Power (Caterpillar) 82 kW 110 hp
- SAE J1995 81 kW 109 hp
- Net Power (Caterpillar) 76 kW 102 hp
- SAE J1349 75 kW 101 hp
- ISO 9249 76 kW 102 hp

Thus, it was relatively straightforward, in most cases, for the Independent Third Party Monitor to fill in a substantial amount of data that was missing from the Equipment Reports. This was done to the maximum extent possible for each piece of equipment.

In other cases, data included in the Equipment Reports appeared either inconsistent with that equipment or incorrect. Table 1.2-2 illustrates examples of equipment with inconsistent/incorrect data:

Table 1.2-2: Examples of Inconsistent Data

Equipment ID	Vehicle Type	Issue
E00137	Scraper	Unclear if engine is CAT 3116 or 3208
E00139	Scraper	Specified engine is CAT 3116; Emissions data is for 3208 DIT
E00140	Scraper	Specified engine is CAT 3116; Emissions data is for 3208 DIT
E02486	Forklift	Duplicate entry with E01286
E00341	Dozer	Possible incorrect engine model designation
E05319	Flat Bed Dump	Possible incorrect engine family

E05329	Flat Bed Dump	Possible incorrect engine family
EWD85	Welder	Engine family does not appear to match engine model year
E03002	Air Sweeper	Possible incorrect engine family
E03003	Air Sweeper	Possible incorrect engine family
E02396	Generator Set	Engine model year inconsistent with Engine Family
E01286	Forklift	Duplicate entry with E02486
E03408	Skip Loader	Possible inconsistency between engine model year and family
E03409	Skip Loader	Possible inconsistency between engine model year and family
B20009	Slipform Paver	Same engine serial number as B24106
B24106	Truck Drive-over	Same engine serial number as B20009
B15201	Air Compressor	Duplicate serial number with 15401
E00734	Excavator	Information package is missing from binder in Mitigation Compliance Division's Office
B15401	Reclaimer/Stabilizer	Duplicate serial number with 15201

In the majority of cases in which data were judged to be inconsistent or incorrect, the Third Party Monitor was able to seek clarification and receive corrected data from LAWA project management staff. In many cases, the inconsistent data were "second order", meaning that it makes the vehicle characterization more complete, but is not essential information.

In some cases, resolution of inconsistent or incorrect data is essential; for example, it is critical to obtain correct engine family designations. In cases in which essential data were deemed inconsistent, the Third Party Monitor requested clarification from LAWA project management staff. In a number of cases, clarification or corrected information was provided. In specific cases, the requested data was not available. In these cases, the Third Party Monitor attempted to independently correct the data.

An example of independent data correction is as follows:

Table 1.2-3: Example of Independent Data Correction

Equipment Number	Equipment Category	Equipment Manufacturer	Engine 1 Model	Engine 1 Model Year	Engine 1 Horsepower	Engine 1 Family
E05320	Flat Bed Dump	Freightliner	C10	1999	276	XCPH0629ERK

The engine family designation included in Table 1.2-3 was taken directly from the Equipment Report. Multiple pieces of equipment had this engine family designation recorded. According to the Equipment Report reviewed, this engine family was not found to correspond to an available VDECS device.

However, it is clear upon inspection that this engine family designation is not correct. Model year 1999 on-road Caterpillar diesel engines have 12-digit engine family designations. The designation listed in the above Table is only 11-digits, a strong indicator that the designation is incorrect.

The Third Party Monitor researched 1999 Caterpillar C10 engine families. It strongly appears that the recorded designation, "XCPH0629ERK", should correctly be "XCP(**X**)H0629ERK. This engine family corresponds to a 1999 Caterpillar C10 on-road diesel engine.

Although no VDECS match is recorded in the approved Equipment Report for this piece of equipment, the Third Party Monitor determined that two Level 3 CARB verified VDECS are compatible with this piece of equipment[2]. The **Cleaire Horizon**[3] diesel particulate filter is approved by CARB for use on this engine family and is verified to reduce particulate matter emissions by greater than 85%.

The Best Available Control Technology (BACT) for this vehicle was found to be the **Cleaire Longview**[4] device, which in addition to an 85% particulate matter reduction achieves a 25% reduction in oxides of nitrogen (NO_x) emissions.

In most, but not all cases the Independent Third Party Monitor was able to correct errors in essential data. This was easiest in those cases where a digit was obviously missing from an engine family code; researching that specific engine usually resulted in corrected data. In other cases, however, the Third Party Monitor strongly suspects that the engine family designation is incorrectly reported; however, but cannot be conclusively proven. In these cases, an additional analysis using secondary data was most often successfully performed.

In several cases, engine family information was not available for diesel equipment proposed for operation on the SAIP. In these cases, additional information was requested; however, these data often were not available, primarily due to the age of the piece of equipment or equipment records that were not available. As previously stated, knowledge of the engine family designation is important as most VDECS are only approved for specific engine families.

In cases where no engine family information was available, the Third Party Monitor looked to other known information about the equipment, including engine model year, displacement, and horsepower. These "secondary data" were then used to determine if there was a high probability of a VDECS being compatible with the diesel equipment.

In many cases, the secondary data were used to demonstrate that a VDECS was not compatible. For example, heavy-duty off-road construction equipment were assessed

[2] http://www.arb.ca.gov/diesel/verdev/level3/level3.htm
[3] www.arb.ca.gov/diesel/verdev/level3/eo_de05010_01.pdf
[4] www.arb.ca.gov/diesel/verdev/eode0400402.pdf

for their compatibility with the ECS Combifilter, the only Level 3 off-road verified device available at the time when most of the SAIP equipment was submitted to LAWA for review and approval. The ECS Combifilter is compatible with select off-road diesel engines manufactured from model year 1996 through 2004. Thus, equipment with missing engine family designations, but equipped with engines manufactured prior to model year 1996 or after model year 2004, are not compatible as they fall outside the allowable engine years for this device.

Sometimes, other essential information besides engine family was not provided. The Third Party Monitor was successful in specific cases to determine compatibility with a VDECS by assessing the equipment's particulate matter emission factor. CARB often specifies a horsepower range and maximum allowable particulate matter emission factor when verifying a diesel emission control system. The Third Party Monitor was able to determine the particulate matter emission factor for a less-than-fully-specified piece of diesel equipment, and based on this factor, either eliminate the VDECS as a viable option or determine that the device was a possible match.

Thus, with the exception of only a few pieces of diesel equipment, the Third Party Monitor was able to conclusively determine whether or not a compatible VDECS is available. These techniques were also applied during Task 8, "Reassessments of Emission Control Devices", included in this report.

Up to this point in the performance of Task 1.2, the Independent Third Party Monitor endeavored to:

1. Identify missing data in the equipment technical description and to "fill in the blanks" to the maximum extent possible for each piece of diesel equipment;
2. Identify and correct data that appeared inconsistent or inaccurate.

These preliminary tasks were the precursor to conducting the main objective of Task 1.2, which was to independently verify and validate LAWA's findings as to whether a verified diesel emission control system is or is not compatible for each piece of diesel equipment proposed for use on the SAIP.

After the Third Party Monitor reviewed and assessed the Equipment Reports, they were submitted for LAWA review and approval commencing on March 13, 2006, with the most recently reviewed Report approved on November 1, 2006. As previously stated, each Equipment Report includes an assessment of compatibility with available VDECS devices.

The CBA stipulates in Section X.9.a. *"Reassessments of Emission Control Devices", that "the process of emission control technology review shall include any new relevant requirements or regulations promulgated by CARB or EPA. Results from the reassessments shall not be applied retroactively"*. This has been interpreted to mean that only verified devices available at the time of Equipment Report review and approval by LAWA are to be considered. While this appears quite logical from the perspective that a construction contractor should only be held to retrofitting their equipment with devices commercially available at the time the equipment is put forth for review and approval, it also has the negative effect of "grandfathering" vehicles submitted for review and approval early in the construction phase but not actually intended to be utilized in

construction activities until later in the project. This will be discussed further in this report under Task 8, "Reassessments of Emission Control Devices".

Independent Review of Verified Diesel Emission Control Systems Availability and Compatibility: As stated previously, each Equipment Report reviewed and assessed by the Third Party Monitor includes a detailed assessment of the availability and compatibility of Level 1, 2 and 3 VDECS technologies. To determine whether or not a given piece of diesel equipment has a compatible VDECS, the following information is needed:

- Engine manufacturer;
- Engine model year;
- Engine displacement;
- Engine family designation;
- Knowledge of engine configuration;
- Knowledge of equipment duty-cycle.

This information is then compared to the Executive Orders (EO) issued by CARB or the EPA for verified or certified diesel emission control devices. An EO for a VDECS normally consists of two parts; the Executive Order Letter of Verification, which delineates the specific requirements and conditions for device compatibility, and an Attachment, which include the listing of compatible engines, listed as a function of engine manufacturer, model year, displacement, and engine family designation.

A sample EO, outlining requirements and conditions, is included on the next page. This is for the Engine Control Systems (ECS) Combifilter Off-Road Level 3 VDECS:

Thus, for each piece of diesel equipment proposed for use on the SAIP, the reviewer must first understand the type of equipment proposed, the equipment configuration and duty-cycle, and the specifications of the equipment's engine. The reviewer then reviews EOs for available Level 1, 2, and 3 VDECS to determine if there is a "match".

If a match is found, a secondary evaluation is performed to determine if there are any operational or safety considerations that must be taken into account. "Operational considerations" includes items such as the availability of adequate time, facilities, and/or other logistical accommodations to allow VDECS regeneration. "Safety Considerations" include issues related to driver visibility with an installed device.

State of California
AIR RESOURCES BOARD
EXECUTIVE ORDER DE-04-012

Pursuant to the authority vested in the Air Resources Board (ARB) by Health and Safety Code, Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Section 39515 and 39616 and Executive Order G-02-003;

Relating to Exemptions under Section 27156 of the Vehicle Code, and Verification under Sections 2700 through 2710 of Title 13 of the California Code of Regulations Lubrizol Engine Control Systems (ECS)Unikat Combifilter

ARB has reviewed ECS's request for verification of the Unikat Combifilter (Combifilter). Based on an evaluation of the data provided, and pursuant to the terms and conditions specified below, the Executive Officer of ARB hereby finds that the Combifilter reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to 85 percent reductions) (Title 13 California Code of Regulations ("CCR") Sections 2702 (f) and (g) and Section 2708). Accordingly, the Executive Officer determines that the system merits verification and, subject to the terms and conditions specified below, classifies the Combifilter as a Level 3 system for off-road construction, material handling, and cargo handling applications and engine families listed in Attachment 1.

The aforementioned verification is subject to the following terms and conditions:

- The engines are model years 1996 through 2004 having the engine family names listed in Attachment 1;
- The engine must be in their original certified configuration;
- The engine must not have a pre-existing original equipment manufacturer oxidation catalyst;
- The engine must not have a pre-existing diesel particulate filter;
- The engine must be certified in California for off-road applications;
- The engine must be used for construction, material handling, and cargo handling purposes;
- The engine must be certified at a particulate matter emission level equal to or less than 0.43 grams per brake horsepower-hour (0.58 grams per kilowatt-hour);
- The engine must be able to return to regeneration control panel after operating for 8-10 hours;
- The engine does not employ exhaust gas recirculation;
- The engine must be four-stroke;
- The engine can be turbocharged or naturally-aspirated;
- The engine can be mechanically or electronically controlled;
- The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer;
- Lube oil, or other oil, should not be mixed with the fuel;
- The engine must be operated on diesel fuel (e.g. not biodiesel blends or alternative diesel fuels) with a sulfur content of no more than 500 parts per million by weight.

Each EO/Verification Letter typically includes an Attachment designating compatible engines, an in the following example:

Attachment 1: Combifilter Engine Family List

MY 1996 Manufacturer	Engine Family	Displacement (L)
Case	TX9505R6DTRA	8.3
Case	TX9505R6DTRB	8.3
Case	TX9505R6DTRC	8.3
Caterpillar	TCP10.RZDBRF	10.5
Caterpillar	TCP10.RZDBRD	10.5
Caterpillar	TCP7.2RZDBRK	7.2
Caterpillar	TCP7.2RZDBRB	7.2
Caterpillar	TCP10.RZDBRB	10.4
Caterpillar	TCP10.RZDBRC	10.4
Caterpillar	TCP12.RZDBRM	12

Figure 1.2-1: Example Executive Order/Verification Letter & Attachment Listing Compatible Engine Families – ECS Combifilter

Verified Diesel Emission Control Systems: The following are diesel emission control systems verified in California:

Table 1.2-4: Diesel Emission Control Systems Verified in California as of April 18, 2007

PM Level	Product Name	Technology Type	PM Reduction	NOx Reduction	Applicability
Level 3	EGR Technologies LLC/CleanAIR Systems	EGR/DPF	85%	50%	Stationary prime and emergency standby generator sets and pumps ≤ 600 hp and ≤ 0.4 g/bhp-hr PM.
	Cleaire Horizon	DPF	85%	N/A	Most on-road diesel engines through 2006 model year; 15 ppm sulfur diesel; CARB diesel. Conditionally verified for off-road engines.
	Cleaire Longview	Lean NOx Catalyst and DPF	85%	25%	1993-2003 model year on-road; 15 ppm sulfur diesel.
	CleanAIR Systems PERMIT	DPF	85%	N/A	Stationary emergency and prime generators; 15 ppm sulfur diesel.
	Donaldson DPM	DPF	85%	N/A.	1993-2004 on-road; 15 ppm sulfur diesel.
	HUSS Umwelttechnik FS-MK	DPF	85%	N/A	Most on-road and off-road diesel engines through 2006 model year.
	International Truck and Engine Corporation DPX	DPF	85%	N/A.	1994-2003 on-road Navistar (International); 15 ppm sulfur diesel.
	Johnson Matthey CRT	DPF	85%	N/A.	Stationary emergency and prime generators. Conditionally verified for stationary pumps.
	Johnson Matthey EGRT	EGR/DPF	85%	40%	2000 International DT-466, 2000 Cummins ISM 2001 Cummins ISB, 1998-2002 Cummins ISC, 2001 Cummins ISL, 2001 MY DDC - 50, and 2001 DDC - 60. on-road; 15 ppm sulfur diesel.
	Engine Control System Purifilter	DPF	85%	N/A	1994-2003 on-road; 15 ppm sulfur diesel.
	Engine Control System Combifilter	DPF	85%	N/A	1996-2004 off-road; 15 ppm sulfur diesel; CARB diesel.
	MIRATECH Corporation combiKat	DPF	85%	N/A	Stationary emergency and prime generators with a PM emission rate of 0.2 g/bhp-hr or less.
	Süd-Chemie Inc EnviCat-DPF TM	DPF	85%	N/A	Stationary prime and emergency standby generators and pumps; 15 ppm sulfur diesel.
Level 2	Donaldson	Flow Through Filter	50%	N/A	1991-2002 on-road; 15 ppm sulfur diesel.
	Lubrizol PuriNOx	Emulsified Fuel	50%	15%	1988-2003 on-road.
	Engine Control System AZ	DOC + Alt Fuel	50%	20%	1996-2002 off-road; PuriNOx

	Purimuffler/Purifier				
	Rypos ADPF	DPF	50%	N/A	1996-2002 stationary engines; CARB diesel.
	Thermo King PDPF TM	FTF	50%	N/A	1985-1998 Isuzu D201 transport refrigeration unit engines; 15 ppm sulfur diesel.
Level 1	Donaldson DCM 6000	DOC	25%	N/A	1988-1990 on-road; 15 ppm sulfur diesel; CARB diesel.
	Donaldson 6000 + Spiracle	DOC + crankcase filter	25%	N/A	1988-2002 on-road; 15 ppm sulfur diesel; CARB diesel.
	Donaldson DCM 6100 + Spiracle	DOC + crankcase filter	25%	N/A	1991-2002; CARB diesel.
	Donaldson DCM 6100	DOC	25%	N/A	1994-2002; 15 ppm sulfur diesel.
	Donaldson 6000 + Spiracle (off-road)	DOC + crankcase filter	25%	N/A	Off-road port equipment; 15 ppm sulfur diesel; CARB diesel.
	Extengine	DOC + SCR	25%	80%	1991-1995 Cummins 5.9 liter off-road; 15 ppm sulfur diesel or CARB diesel.
	Engine Control System AZ Purifier & Purifmuffler	DOC	25%	N/A	1991-2003 Cummins and Navistar on-road; 15 ppm sulfur diesel. 1973-1993 DDC 2 stroke; CARB diesel.1991-2002 HHD certain model Cummins and DDC; 15 ppm sulfur.
	Engine Control System AZ Purifier & Purifmuffler	DOC	25%	N/A	1996-2002 off-road; 15 ppm sulfur diesel.
	Paceco Corporation	DPF	25%	N/A	Pre-1996 model year or Tier 1, 2, or 3 certified off-road diesel engines on rubber-tired gantry cranes.

It is important to note that not all systems included in the above Table were available at the time a piece of diesel equipment was submitted to LAWA for review and approval. The date a given Equipment Report was submitted must be compared with the date the Executive Order.

In addition to CARB verified devices, one device has earned verification from the U.S. EPA. This is the Caterpillar Diesel Particulate Filter, a passive regeneration device compatible with select 1996 through 2005 Caterpillar off-road diesel engines:

Table 1.2-5: Caterpillar U.S. EPA Verified Device

Technology	Engine Model/Application	Retrofit Fuel, Max Sulfur (ppm)	Reductions (%) †			
			PM	CO	NO_x	HC
Diesel Particulate Filter	Non-road, 4-cycle, non-EGR equipped, model year 1996-2005, turbocharged engines with power ratings 130 ≤ Kilowatts < 225 (174.2 ≤ Horsepower < 301.5)	30 ppm	89	90	n/a	93

† - Baseline assumes an unmodified engine running on 15 ppm sulfur fuel

The following operating criteria must be met in order for appropriately retrofitted engines to achieve the above emissions reductions:

1. The engine must be operated with a fuel that contains a sulfur content of no more than 30 ppm;
2. The DPF requires an exhaust temperature of 260 degrees C for 40% of the cycle for NO_x:PM ratios of less than or equal to 20:1 and for NO_x:PM ratios equal to or greater than 25:1, only 200 degrees C for 40% of the cycle is required. (As there may be significant variations from application to application, Caterpillar will review actual vehicle operating conditions and perform temperature data-logging prior to retrofitting a vehicle with their PM filter system to ensure compatibility);
3. Caterpillar will install a backpressure monitor and high pressure indicator light on all vehicles equipped with this DPF;
4. The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer. Crankcase oil burning systems may not be used with this product.

As listed in the above Table, EPA gives credit for hydrocarbon and carbon monoxide emissions in addition to PM and NO_x; CARB verification only lists PM and NO_x emission reductions. CARB also "caps" PM reductions at an 85% maximum level (Level 3).

Findings of the Interim Independent Third Party Monitor: The Independent Third Party Monitor reviewed 255 pieces of diesel equipment for which Equipment Reports exist. These Reports were assessed to determine equipment compatibility with the CARB and U.S. EPA devices listed in the above Tables.

In the majority of cases, the Third Party Monitor results agree with those submitted to and reviewed by LAWA staff. The following paragraphs will address those cases in which the results of the Third Party Monitor are different as compared to the results documented by LAWA.

On-Road Water Trucks: Two on-road water trucks were identified by the Third Party Monitor as being compatible with VDECS that were not identified during the LAWA review and approval process. Water truck E001138 (shaded data) is currently operating on the SAIP; the second vehicle E01139 has been submitted for potential operation on the SAIP but has not yet been deployed on the airfield.

Table 1.2-6: Equipment Identified to be Compatible with On-Road VDECS

Equipment Number	Equipment Category	Equipment Manufacturer	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine 1 Family
E01138	Water Truck	Ford/Cummins	Cummins	N14	1997	VCE855EJDARB
E01139	Water Truck	Ford/Cummins	Cummins	N14	1997	VCE855EJDARB

These vehicles are designated as "on-road" vehicles, as they are licensed through the California Department of Motor Vehicles and are legal for operation on public roadways. The vehicles shown above appear to be compatible with the following Level 3 CARB-verified VDECS:

Table 1.2-7: Compatible On-Road VDECS

Cleaire Horizon	DPF	85%	N/A	1994-2005 on-road; 15 ppm sulfur diesel; CARB diesel. Conditionally verified for off-road engines.
Cleaire Longview	Lean NOx Catalyst and DPF	85%	25%	1993-2003 model year on-road; 15 ppm sulfur diesel.
Engine Control System Purifilter[5]	DPF	85%	N/A	1994-2003 on-road; 15 ppm sulfur diesel.

Based upon an independent review of the Equipment Reports associated with these vehicles, it appears on-road VDECS were not considered by LAWA a viable option for these vehicles. Only "off-road" verified devices were apparently reviewed for compatibility.

The difference in assessment results between LAWA and the Third Party Monitor highlights the issue of "on-road vehicles operating in an off-road environment". As previously discussed, CARB typically verifies VDECS for either "on-road" or "off-road" applications. "Off-road" verifications require that the VDECS system be demonstrated under a rigorous duty-cycle to simulate the stresses placed on the device in a construction site environment. It is important to reiterate that CBA Section X.F.1 "*allows technologies verified for "on-road" engines to be applied to "off-road" equipment*". Thus, there is no prohibition in the CBA from using CARB verified on-road devices in an off-road application.

The issue of on-road vehicles operating in an off-road environment was posed to CARB staff. The stated position of CARB is that in most cases, it is allowable to use an on-road VDECS in a licensed on-road vehicle, even if the vehicle spends a portion of its operation in an off-road environment. LAWA has taken a more conservative approach, however, and granted exemptions to on-road equipment that is equipped with engines not compatible with a verified off-road VDECS.

The following cases are similar to the above, that is, on-road vehicles operating in an off-road application for a portion of their duty cycle. As in the case cited above, it appears that only off-road verified devices were researched by LAWA:

Table 1.2-8: Vehicles for which On-Road VDECS are Available

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Level 3 On-Road VDECS
E01137	Water Truck	DDC	Series 60 11.1L	1999	Cleaire Longview & Horizon
B04018	Flat Bed Dump	Cummins	B5.9-190	1997	Cleaire Longview & Horizon
E05317	Lube Truck	Caterpillar	3126	1998	Cleaire Longview & Horizon

[5] www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04002.pdf

E05319	Flat Bed Dump	Caterpillar	C10	1999	Cleaire Longview & Horizon
E05320	Flat Bed Dump	Caterpillar	C10	1999	Cleaire Longview & Horizon
E03000	Air Sweeper	Isuzu	4HK1TC	2005	Cleaire Horizon
E03002	Air Sweeper	Cummins	ISB 200	2005	Cleaire Horizon
E01143	Water Truck	Cummins	N14	1997	Cleaire Longview & Horizon; ECS Purifilter
E01144	Water Truck	Cummins	N14	1997	Cleaire Longview & Horizon; ECS Purifilter
E03003	Air Sweeper	Cummins	ISB 200	2005	Cleaire Horizon
E02135	Boom Truck	IHC	BH210	1997	International DPX Catalyzed Soot Filter[6]
B06017	Mechanic's Truck	Cummins	ISB185	2000	Cleaire Longview & Horizon

The equipment in the shaded areas of the above Table is currently operating on the SAIP.

Another area in which the original findings of the Third Party Monitor were different from LAWA was with regard to motor graders. Subsequent discussions with LAWA construction manager staff revealed that this class of equipment was granted an exemption from the retrofit requirement due to safety concerns. Driver visibility would potentially be impacted due to the size and location of the VDECS device.

Figure 1.2-2: Caterpillar Motor Grader

The effected pieces of off-road construction equipment are listed in Table 1.2-9. The shaded Table rows indicate equipment that currently operates or previously operated on the SAIP:

[6] www.arb.ca.gov/diesel/verdev/level3/eode05005.pdf

Table 1.2-9: Motor Graders Proposed for SAIP

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Horsepower	Compatible with ESC Combifilter
E00514	Motor Grader	Caterpillar	3306	1996	225	YES
E00518	Motor Grader	Caterpillar	3306	2001	225	YES
E00520	Motor Grader	Caterpillar	3306	1996	225	YES
E00521	Motor Grader	Caterpillar	3306	2000	225	YES

An additional piece of off-road construction equipment was found to be compatible with a Level 1 (≥ 25% particulate matter reduction) off-road VDECS, as follows:

Table 1.2-10: Equipment Compatible with Level 1 VDECS

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Horsepower	Compatible Level 1 VDECS
E03411	Rubber Tire Loader	Caterpillar	3406	2002	270	Donaldson DCM 6000[7]

It should be noted, however, that the Level 1 device fails to meet the particulate matter reduction standard as required in CBA Section X.F.3, "Emission Reduction Standards". This Section states *"Any emission control device used pursuant to Section X.F.1 shall achieve emission reduction no less than what could be achieved by a Level 2 diesel emission control strategy…"* Level 2 verification is a 50% or greater reduction in diesel exhaust particulate matter.

It is noteworthy that the above CBA citation appears to contradict CBA Section X.F.4, which states that the requirement to retrofit equipment with a verified diesel emission control system is inapplicable to construction-related diesel equipment *"for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emission of pollutants as required by CBA Sections X.F.1-3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for that vehicle".*

In any case, this specific piece of off-road construction equipment was also exempted by LAWA due to safety concerns related to impairment of operator visibility.

Twelve pieces of off-road construction equipment were independently determined to be compatible with the Engine Control Systems (ECS) Combifilter. This actively regenerated device is verified by CARB at Level 3 and is compatible with off-road equipment. The twelve pieces of equipment are listed in Table 1.2-11, below:

[7] www.arb.ca.gov/diesel/verdev/ltrs/donaldsonoffroad050203.pdf

Table 1.2-11: Equipment Compatible with Level 3 Off-Road VDECS

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00233	Articulated Dump	Volvo	TD122KFE	1997	398
E00234	Articulated Dump	Volvo	TD122KFE	1998	398
E00235	Articulated Dump	Volvo	TD122KFE	1998	398
E00236	Articulated Dump	Volvo	TD122KFE	1999	398
E00237	Articulated Dump	Volvo	TD122KFE	1999	398
E00238	Articulated Dump	Volvo	TBD	TBD	398
E00138	Scraper	Caterpillar	3116	1996	175
E03412	Rubber Tire Loader	Caterpillar	3306	1997	362
E00651	Compactor	Caterpillar	3176	2004	225
E00732	Backhoe/Excavator	Caterpillar	3176	1997	362
E00733	Backhoe/Excavator	Caterpillar	3306	1996	362
E00736	Excavator	Caterpillar	C9	2001	257

However, as described in the ECS Combifilter Executive Order, Figure 1.2-1, above, verification of this device is contingent upon the device undergoing regeneration approximately every eight hours. "Regeneration" is a process in which diesel particulate (soot) is filtered from the exhaust stream and collected in the device. The soot-loaded filter center body is then heated to temperatures necessary to burn the collected particulate into trace amounts of inert ash, thereby renewing or regenerating the filter center body.

For the ECS Combifilter, regeneration entails plugging the device into a control panel and electrically heating the filter, raising the device's internal temperature to a level where particulate is vaporized:

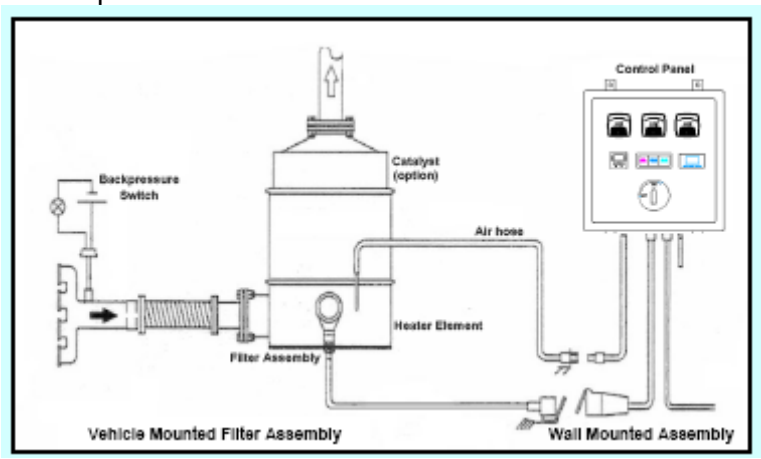

Figure 1.2-3: ECS Combifilter On-Board Regeneration System

The amount of time necessary to allow regeneration for this system is a function of the engine displacement and power rating and the particulate levels emitted. The ECS Combifilter Model "V" and "K" typically require an eight (8) hour regeneration period. The Model "S" system requires approximately 60 to 90 minutes for regeneration.

The South Airfield Improvement Project/Runway 25L reconstruction was not deemed practical by LAWA to electrically regenerate a large number of off-road equipment. Issues of power requirements, etc. made the use of the Combifilter impractical at this time.

In lieu of granting an exemption, however, LAWA required the construction contractor Tutor-Saliba to demonstrate the ECS Purifilter VDECS. This is a passively-regenerated device verified at Level 3 for on-road applications. CBA Section X.F.1, however, allows "on-road" VDECS to be used in "off-road" applications. As this system continuously regenerates, there is no requirement to plug the system in for extended periods.

Therefore, the twelve pieces of off-road construction equipment listed in Table 1.2-11 were retrofitted with the ECS Purifilter Level 3 on-road device instead of the ECS Combifilter off-road device. Installations of this device in various configurations are shown below:

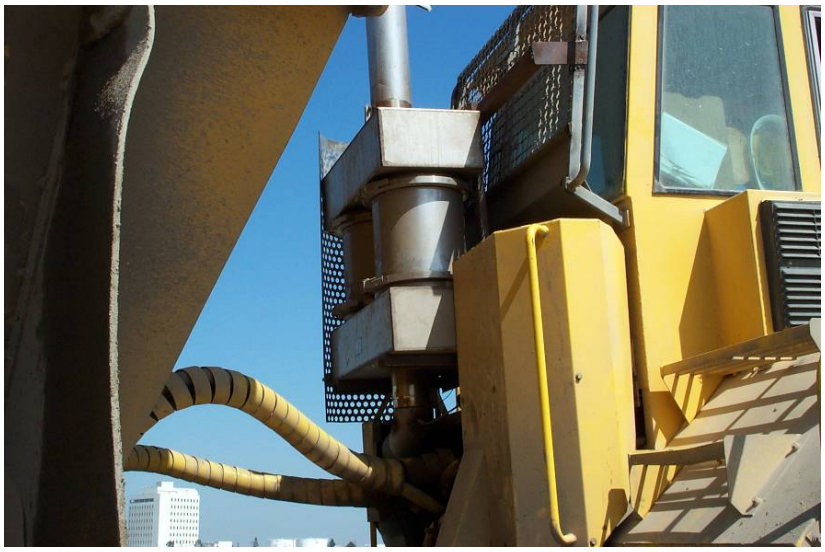

Figure 1.2-4: Volvo Articulated Dump Truck E00234 Outfitted with ECS Purifilter

Figure 1.2-5: Caterpillar Scraper E00138 Outfitted with ECS Purifilter

Figure 1.2-6: Caterpillar Loader E03412 Outfitted with ECS Purifilter VDECS

Additional discussion of the demonstration of ECS Purifilters on equipment operating on the SAIP is included in Task 2, "Demonstration Projects', and Task 6, "Operational Requirements", included in this report.

The Third Party Monitor also independently evaluated diesel equipment that can be characterized as stationary diesel engines. This includes equipment such as light towers, portable generators, and air compressors. In accordance with CBA Section X.F.1, specifically that *"Devices certified or verified for mobile engines may be effective for stationary engines…"*, each piece of stationary equipment was reviewed with respect to compatibility with both on and off-road VDECS as well as VDECS verified by CARB

for stationary engine applications[8]. However, an independent review of each piece of equipment either operating or proposed for operation on the SAIP yielded no compatible matches. This was also the conclusion reached by LAWA.

Task 2: Demonstration Projects

Section X.F.2 of the CBA states that LAWA may allow construction-related diesel equipment to be outfitted with new emission control systems that are not CARB verified or EPA certified for use for on-road or off-road vehicles or engines. Such projects will be designated by LAWA as "Demonstration Projects".

The roles and responsibilities of the Independent Third Party Monitor as it relates to Demonstration Projects is set forth in Task 2 of the contract and includes the following two primary subtasks:

Task 2.1 – The Third Party Monitor shall perform a technical evaluation of the proposed demonstration technology and provide written findings to the Coalition Representative and LAWA. The Third Party Monitor shall also assist with the implementation of a Demonstration Project, including identifying suitable emission control devices and Demonstration Project funding sources;

Task 2.2 – Upon acceptance by LAWA, the Third Party Monitor shall monitor, document, and report independently from LAWA, compliance of the demonstration equipment with all defined Demonstration Project requirements, including but not limited to the pollution reduction requirements specified in Section X.F.3 of the CBA.

There are three (3) areas to report progress relative to Task 2:

- The on-going demonstration of the Engine Control Systems (ECS) Purifilter Level 3 on-road VDECS;
- The CARB "Showcase" Program, which will demonstrate unverified diesel emission control devices on off-road construction equipment, resulting in the possible verification of new VDECS for off-road construction equipment diesel engines;
- Preparation of a draft Project Description for a LAWA demonstration project.

ECS Purifilter

As discussed in Tasks 1 and 3, twelve (12) pieces of off-road diesel construction equipment currently operating on the SAIP are equipped with the ECS Purifilter Level 3 diesel particulate filter[9]. While this is not a formal demonstration project in the context of CBA Section X.F.2, it is an important effort that is reducing emissions on site and is being tracked by the Third Party Monitor in order to appropriately keep the Coalition Representative informed of all emissions reduction efforts for the SAIP.

[8] www.arb.ca.gov/diesel/verdev/vt/stationary.htm
[9] www.enginecontrolsystems.com/products.htm

The ECS Purifilter is verified by CARB for certain on-road vehicle applications, but is being demonstrated in off-road applications on the SAIP. The twelve pieces of equipment outfitted with the Purifilter include:

Table 2-1: SAIP Equipment Participating in ECS Purifilter Demonstration

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00233	Articulated Dump	Volvo	TD122KFE	1997	398
E00234	Articulated Dump	Volvo	TD122KFE	1998	398
E00235	Articulated Dump	Volvo	TD122KFE	1998	398
E00236	Articulated Dump	Volvo	TD122KFE	1999	398
E00237	Articulated Dump	Volvo	TD122KFE	1999	398
E00238	Articulated Dump	Volvo	TBD	TBD	398
E00138	Scraper	Caterpillar	3116	1996	175
E03412	Rubber Tire Loader	Caterpillar	3306	1997	362
E00651	Compactor	Caterpillar	3176	2004	225
E00732	Backhoe/Excavator	Caterpillar	3176	1997	362
E00733	Backhoe/Excavator	Caterpillar	3306	1996	362
E00736	Excavator	Caterpillar	C9	2001	257

The equipment listed in Table 2-1, above, is already compatible with the ECS Combifilter, a Level 3 device verified for *off-road* applications. The Combifilter, however, requires active regeneration after approximately eight (8) hours of use. This regeneration requirement ranges from one to eight hours in length and is further discussed in Task 1 of this report.

The ECS *Purifilter* is a passive regeneration device, meaning that the accumulated soot is vaporized continuously during equipment operation and does not require additional regeneration using an external device or power source. Passive regeneration is much more conducive to equipment that is potentially required to operate two ten-hour shifts in a 24-hour period as there may not be sufficient time between shifts for the active generation cycle to operate

The primary differences between a VDECS verified for “off-road” use as compared to “on-road” are twofold:

- Off-Road VDECS are typically designed to accommodate higher exhaust particulate levels, as off-road engines are typically certified at less stringent particulate matter emission levels. The higher particulate matter emission levels of off-road engines result in faster accumulation of soot inside the VDECS; thus, off-road VDECS usually employ active regeneration as a means to clean the device at regular intervals, typically daily;
- Off-Road VDECS are designed for more demanding environments, and incorporate more robust materials and construction. An off-road verified device is warranted to withstand the rigors of daily exposure to higher levels of vibration and shock.

ECS, the manufacturer of the Purifilter device, conducts periodic onsite inspections of the devices installed on SAIP equipment. The most recent inspection occurred on January 15, 2007. The findings as reported by ECS include the following:

- Most devices are in good working order with the exception of some required minor repairs. Caterpillar excavator E00736 is undergoing evaluation to determine if its device needs replacement;
- Some backpressure monitoring sensors are experiencing cracking of the copper tubing and softening of the brass fittings due to high heat loads – replacement with stainless steel tubing and fittings is being considered by ECS *(This issue is discussed further in Task 6 of this report)*;
- ECS recommended that the devices undergo cleaning a minimum of every six months or when the back pressure monitoring light indicates a cleaning is required;
- ECS records engine hours of operation for each piece of equipment – this information may be used by ECS to seek CARB verification of the Purifilter for off-road use.

The Third Party Monitor also conducts independent assessments of the equipment retrofitted with VDECS operating on the SAIP. This is not performed under Task 2, as the Purifilter demonstration is not formal in the context of CBA Section X.F.2. The Third Party Monitor, however, monitors, documents, and reports on the VDECS operating on the airfield as an element of Task 6, "Operational Requirements". Please see Task 6 of this report for a summary of findings to date.

Potential Demonstration Project Opportunity – the California Air Resources Board "Showcase" Program

The California Air Resources Board, in partnership with local funding agencies, is developing a statewide demonstration of currently unverified diesel emission control systems in off-road construction applications. Entitled the "Showcase" Off-Road Diesel Emission Control System Demonstration Program, (or "Showcase" for short), the program has as a primary objective the near term verification of additional VDECS compatible with a broad range of off-road construction equipment. Thus, a goal of Showcase is to demonstrate emission control devices on a wide variety of equipment types and engine models/years. All engine Tiers will be eligible to participate (i.e., unregulated Tier 0 engines through current model year Tier 3 engines).

The types of off-road construction equipment targeted for demonstration in the Showcase Program are illustrated below:

CFCI has been actively participating in discussions with ARB on the Showcase Program.

Table 2-2: Equipment Types Targeted for Inclusion in the Showcase Demonstration Project

Equipment \ HP	25-174	175-499	500+	Total
Bore/Drill Rigs	2			**2**
Cranes	2	1		**3**
Crawler Tractors	5	4	1	**10**
Crushing/Proc. Equipment	2			**2**
Excavators	4	7	1	**12**
Graders	1	3		**4**
Off-Highway Tractors	1	3	1	**5**
Off-Highway Trucks		2	1	**3**
Pavers	2			**2**
Rollers	3	2		**5**
Rough Terrain Forklifts	4			**4**
Rubber Tired Dozers	1	1		**2**
Rubber Tired Loaders	5	6	1	**12**
Scrapers		2	1	**3**
Skid Steer Loaders	10	1		**11**
Tractors/Loaders/Backhoes	10	4	1	**15**
Trenchers	5			**5**
	57	**36**	**7**	**100**

The General Requirements for Showcase include:

- The diesel emission control system to be demonstrated must be manufactured by a company with existing diesel retrofit verifications from either CARB, the U.S. EPA, or,VERT (*Verminderung der Emissionen von Real-Dieselmotoren im Tunnelbau*;
- Qualifying devices must reduce emissions of diesel particulate matter (PM) by at least 85% or to a level less than 0.01 grams per brake-horsepower hour (g/bhp-hr). This corresponds to “Level 3” PM reductions;
- Devices that include use of a fuel borne catalyst (FBC) must commit to multimedia testing. This requires the device manufacturer to demonstrate that each element of the system, when tested independently, will not adversely impact exhaust emissions;
- All devices must comply with CARB’s 2009 nitrogen dioxide (NO_2) emission limits. Some VDECS currently available for on-road applications alter the relative amounts of NO and NO_2 in the vehicle’s exhaust, even though total oxides of nitrogen (NO_x) emissions remain essentially unchanged. However, since NO_2 is more reactive from an ozone formation standpoint and is a criteria pollutant, CARB will no longer allow devices to be verified that alter NO_x speciation by an amount greater than 20 percent;
- All devices must be tested in accordance with requirements set forth in the CARB Verification Regulation;
- Devices must include a backpressure monitoring system and driver notification system;

- Devices must include a warranty consistent with Section 2707 of the Verification Regulation.

Also, the Showcase Program will place greater priority on devices that reduce oxides of nitrogen in addition to particulate matter.

The current planned funding amount for the South Coast region for the Showcase Program is greater than $1 million. Funding will be made available to owners of qualifying heavy-duty off-road construction equipment that will be demonstrated in the geographical jurisdiction of the South Coast Air Quality Management District. A "per fleet" funding cap has been initially set at $200,000 to ensure broad based participation.

The Showcase implementation process involves two (2) primary event paths. The first is a Request for Qualifications (RFQ) process soliciting applications from qualified diesel emission control system manufacturers. Manufacturers interested in participating in Showcase will submit technical specifications for their DECS products, as well as other programmatic information including device cost(s), warranty provisions, etc. These vendor qualification applications will be evaluated by a Showcase Advisory Committee and result in a pool of eligible retrofit devices and vendors. In parallel, a Program Announcement has been released seeking participation by interested owners of off-road construction equipment. Fleet owners will submit technical specifications of equipment available for retrofit. The Advisory Committee will also evaluate responses to the Program Announcement to identify qualified fleets/equipment to participate in Showcase. Fleet participants will be evaluated on a first-come, first-served basis. Proposed equipment will be screened for compatibility with candidate devices. It is envisioned that CARB will assume a major role in identifying compatible devices and vehicles and make a recommendation to the Advisory Committee.

Once equipment and devices have been successfully paired, the device manufacturer will submit a Verification Plan to CARB; this will initiate the actual verification process. The funding organizations will develop and execute contracts with the fleet operators, who are the recipients of the public funding.

Showcase Implementation Timeline: The following dates are the Showcase Program's milestones:

- Release of Manufacturer Request for Qualifications: March 2, 2007
- Earliest Date for Manufacturers to Submit an Application: March 2, 2007
- Latest Date for Manufacturers to Submit an Application: May 31, 2007
- Release of Fleet Owner's Participation Program Announcement: March 2, 2007
- Earliest Date for Equipment Owners to Submit an Application: April 3, 2007
- Latest Date for Equipment Owners to Submit an Application: June 29, 2007
- First Program Awards: May 2007

CFCI is continuing to monitor the development of the Showcase Program and report to LAWA.

Draft Project Description for Potential LAWA Demonstration Project

Regardless of the final outcome of the planned ARB Showcase Program, LAWA may choose to go forward with its own Demonstration Project. Task 2.1 of the CBA specifies that LAWA may allow a demonstration project using unverified diesel emission control devices. As part of our work, the CFCI team has prepared a draft Project Description for conducting a demonstration of diesel emission control systems on off-road diesel construction equipment operating on the SAIP. The approach described herein is generic, in that it could be proposed to the California Air Resources Board as an element of the statewide Showcase Demonstration Program, or conceivably implemented by LAWA in fulfillment of Section X.F.2 of the LAX Master Plan Community Benefits Agreement.

The Project Description timelines, types of off-road diesel construction equipment available, etc. are presumed to be those associated with the SAIP runway 25L relocation and center taxiway reconstruction project. While it is important to stress that this draft Project Description represents but one approach to implementing a diesel emission control strategy demonstration project, the discussion attempts to focus on the "essential" project elements inherent in any demonstration, irrespective of project size or sponsor. There is also a relatively high degree of scalability in this draft plan; i.e. the ability to increase or reduce project scope with a proportional increase or decrease in overall project cost. Project elements that are not proportionately scaleable, but may in fact benefit from "economies of scale", such as the costs of monitoring and reporting, are also noted if applicable.

There are several types of diesel emission control technologies currently available or under development. Some strategies are internal to the engine and its combustion process, such as exhaust gas regeneration and recirculation (EGR) or the use of alternative diesel fuels, such as diesel-water emulsions or synthetic diesel. The most prevalent strategy today, however, and the one that holds the greatest promise for reducing the emissions of existing off-road equipment, is the use of diesel exhaust after-treatment.

Diesel-exhaust after-treatment devices, including diesel oxidation catalysts and particulate filters/traps, physically resemble large mufflers, in that they are fitted inline with the exhaust stream and "filter" the exhaust gases. Particulate filters, sometimes referred to as particulate "traps", have the primary function of removing both visible and "fine" particulate from the engine's exhaust. Fine diesel particulate is categorized as a carcinogenic toxic air contaminant by CARB; thus, the demonstration of a candidate device's ability to reduce diesel particulate from equipment operating on the SAIP would be the principal objective of the Demonstration Project.

Diesel exhaust particulate filters are most often characterized as to their method of regenerating. "Regeneration" in the context of particulate filters refers to the process by which accumulated particulate is removed from the device. If an exhaust after-treatment device is not capable of being regenerated, accumulated exhaust soot will in time clog the device, rendering both the device and vehicle inoperable.

There are two primary methods in which a device renders itself clean of accumulated particulate matter; "active" regeneration, and "passive" regeneration, which can be defined as follows:

- Active Regeneration – the accumulated exhaust soot is vaporized using *external* heat, commonly supplied by means of electric heating or a diesel burner. Some active regeneration systems allow for on-board device cleaning during vehicle operation; other systems require that the device be removed from the vehicle for cleaning;
- Passive Regeneration – the accumulated exhaust soot is vaporized using heat supplied by the exhaust stream, typically reacting with a catalytic surface to create temperatures that cause accumulated particulate matter to ignite. Passive devices sometimes require the use of an additive fuel to raise the internal temperature of the device.

The potential benefits and drawbacks of each device for use in the SAIP Demonstration Project include the following:

Passive Regeneration - Pros

- Require the least amount of scheduled maintenance;
- Least disruptive to a vehicle's operations and duty cycle;
- Lower cost as compared to active systems;
- Fewer parts – easier installation (if it fits).

Passive Regeneration - Cons

- Typically larger in size – may obstruct driver field of vision (or simply not fit);
- Sensitive to equipment duty-cycle and load factor – require higher exhaust temperatures;
- May be incompatible with older, dirtier engines (Tier 0).

Active Regeneration - Pros

- Devices are typically smaller – less chance of obstructing driver visibility;
- Generates its own heat – tolerant of less demanding duty cycles/lower exhaust temperatures;
- Less prone to soot accumulation, lower backpressure improves engine performance;
- May be more effective on older, dirtier engines as compared to passive devices.

Active Regeneration - Cons

- May require removal from vehicle to regenerate;
- May require additional regeneration equipment (at additional cost);
- More complex as compared to passive systems;
- May negatively impact fuel economy (~15%);
- May disrupt equipment operation or duty cycle due to regeneration requirements.

Thus, each regeneration technique has its benefits and detriments when viewed in the context of off-road diesel construction equipment. *It is recommended that any SAIP demonstration project include both passive and active devices.*

In addition to their method of regeneration, devices are most often categorized, at least in the United States, as to whether their intended application is “on-road” vehicles or “off-road” equipment. Several on-road verified diesel emission control devices are commercially available in California; however, very few systems are verified for use on off-road equipment, hence CARB’s impetus to conduct the Demonstration Project.

The difference between an on-road device and an off-road device lies in the duty cycle the device was subjected to during its verification testing. Off-road devices are subjected to a demanding environment, and thus are required to be more robust in order to survive the rigors of off-road use.

As noted in the report, there are a number of devices approved for on-road use that may be compatible with off-road vehicles. It has been proposed that the Demonstration Project include a project element to demonstrate existing verified on-road diesel emission control devices in off-road applications. The initial consensus is that these devices may require additional bracing or other structural improvements to allow them to withstand the additional stresses of the off-road environment. From a diesel emission reduction perspective, however, there is a high level of optimism that on-road devices will operate with the same level of effectiveness in an off-road application.

A second strategy proposed for the Demonstration Project is the demonstration of devices currently available for use in off-road applications in Europe. These devices have undergone a certification process by an organization named VERT (*Verminderung der Emissionen von Real-Dieselmotoren im Tunnelbau*, which consists of Swiss, German, and Austrian occupational health authorities that developed methods to evaluate and verify exhaust gas after-treatment systems) and have successfully demonstrated their effectiveness and durability in over 10,000 installations. These devices, however, are not verified by CARB or certified by EPA for use in the United States, and are therefore not commercially available. Given their demonstrated success in Europe, however, these devices are excellent candidates for demonstration in the Project.

Thirdly, devices are characterized with respect to their effectiveness in removing particulate matter from an engine’s exhaust. In California, diesel emission reduction systems are verified at one of three “Levels”, each level corresponding to the minimum percentage of particulate matter removed, as follows:

- Level 1 - minimum particulate matter reduction of 25%;
- Level 2 - minimum particulate matter reduction of 50%;
- Level 3 – minimum particulate matter reduction of 85%.

It is the goal of the Demonstration Project to demonstrate technologies that offer the highest level of effectiveness with high confidence of achieving a successful outcome. Initial indications are that most actively-regenerated devices will be capable of achieving Level 3 reductions; whereas passive flow-through filters are promising for off-road applications, but may only achieve Level 2 verification due to their perceived regeneration limitations as compared to active systems.

Thus, the following is recommended for any demonstration project conducted in partnership with an LAX Master Plan Project:

- Demonstrate both passive and active regeneration strategies if possible;
- Include the demonstration of on-road devices in off-road application(s);

- Include currently available European devices that have achieved VERT certification;
- Target Level 2 emission reduction levels, at a minimum, for passive devices; Level 3 for actively-regenerated devices.

Diesel Emission Control System Manufacturers: The following list includes diesel emission control system manufacturers that may offer products for inclusion in the Demonstration:

▪ Engine Control Systems (ECS)	www.enginecontrolsystems.com	Canada & US
▪ Johnson-Matthey	www.jmcatalysts.com	US & Europe
▪ Huss	www.huss-umwelt.com	Germany
▪ Engelhard (BASF Catalysts)	www.engelhard.com	US & Europe
▪ Donaldson	www.donaldson.com	US & Europe
▪ HJS	www.HJS.com	Germany
▪ Cleaire	www.cleaire.com	United States
▪ Environmental Solutions Worldwide	www.cleanerfuture.com	Canada & US
▪ Extengine Transport Systems	www.extengine.com	United States

The hotlinks connect the reader with each manufacturer's website. Please note that several of the companies listed above have both US and European operations, often supplying different products for the US marketplace as compared to the European markets. For example, Johnson-Matthey, Engine Control Systems, and Engelhard (recently acquired by BASF) are producers of catalysts for the domestic automobile industry, but also operate European operating divisions that produce products solely for the European marketplace.

Quantity of Devices Recommended for Demonstration -The quantity of devices to be demonstrated is bound by practical considerations on both the upper and lower ends. The maximum number of devices that can reasonably be demonstrated is constrained by:

- The cost of conducting the demonstration and available funding;
- The acceptable level of potential schedule slippage resulting from vehicle downtime necessary to perform the retrofit;
- The acceptable level of risk that will be assumed by participating construction firms.

It should be noted that any successful demonstration will result in quantifiable emission reductions and the potential verification of a new system for off-road equipment.

For the purpose of the SAIP, it is recommended that the targeted number of devices demonstrated fall in a range of six (6) to ten (10). This quantity can be substantiated on the basis of available funding, as discussed below, and represents approximately 10% of the off-road construction equipment currently operating on the SAIP. The retrofit, monitoring, documentation, and subsequent testing of six to ten devices should not pose an undue risk to the overall SAIP construction schedule nor overburden LAWA and contractor staff.

Off-Road Construction Equipment Targeted for Participation - CARB has previously identified the specific types of diesel off-road construction equipment targeted for participation in their Showcase Demonstration Project. This list was compared to the equipment currently operating or proposed for operation on the SAIP. In each case, there is a direct correlation between CARB's desired equipment list and that associated with the SAIP construction project. The targeted equipment, horsepower range, and the number of pieces to be demonstrated statewide are shown on the preceding Table 2-2.

It is important to recognize, however, that, based on the progress of construction, not all equipment types are scheduled to operate continuously on the SAIP. Thus, windows of opportunity are currently available for specific pieces of equipment that may close over the next several months.

Overall, however, opportunities for equipment demonstration are anticipated to extend beyond Runway 25L relocation, with similar types of equipment used during center taxiway reconstruction.

Demonstration Project Duration - The duration of the demonstration project will be bound by the earliest feasible start date and limited by the duration of Runway 25L relocation and center taxiway reconstruction activities. At this time, however, it is anticipated that sufficient time will exist to conduct a meaningful demonstration project of adequate duration.

Project Start Date - The project can commence once the following mandatory events have been successfully completed:

- Selection of diesel emission control systems to be demonstrated;
- Selection of specific equipment to be retrofitted;
- Matching of devices to equipment;
- Selection of an installation contractor;
- Development of monitoring and documentation protocols;
- Execution of contracts, memorandum of understanding, purchase orders, etc. between parties.

The above are required for a "bare bones" demonstration. A demonstration that ultimately results in the device earning CARB verified status includes the following additional steps:

- Development of statewide guidance documents and project implementation protocols;
- Verification testing at a CARB certified laboratory.

Accrued Hours of Device Operation – Conditional Verification - To achieve an off-road "conditional" verification, the candidate diesel emission control system must undergo 333 hours of successful operation in a demanding environment. Assuming a piece of diesel equipment operating on the SAIP averages eight (8) hours of engine operation per day, 42 work days would be required. Assuming five work days per week, attainment of a conditional verification would require, on average, a little more than two (2) months.

Accrued Hours of Operation for Full Verification - To achieve an off-road "full" verification, the candidate diesel emission control system must undergo 1,000 hours of successful operation in a demanding environment, plus a laboratory analysis of the

device. Assuming a piece of diesel equipment operating on the SAIP averages eight (8) hours of engine operation per day, 125 work days would be required. Assuming five work days per week, attainment of a full verification would require, on average, approximately six (6) months, not including laboratory testing.

Six months of continuous demonstration will most likely not be feasible for many types of equipment currently operating or proposed for operation on the SAIP. This is because equipment such as bore/drill rigs, pavers, crushing equipment, etc. has a specific period of use on any project, and is not used during the *entire* project.

Thus, it is recommended that should LAWA wish to participate in the statewide Showcase demonstration project, a conditional verification level of participation should be proposed, not full verification. If a specific piece of equipment lends itself to achieving full verification, that can be viewed as value added to the overall program. It is not recommended that LAWA make any commitments beyond what can reasonably be accomplished during the remainder of SAIP construction. Additional demonstration opportunities may present themselves during future LAX Master Plan projects.

Device Installation - It is recommended that diesel emission control devices be installed by qualified vendor representatives. Oftentimes, a temperature profile of the exhaust system is conducted prior to installation to locate the optimal location for device installation. For off-road construction equipment, this is not as significant of a concern, as the complete exhaust system is usually short. More important, however, is correct placement of exhaust gas backpressure and temperature sensors and the installation data logging equipment.

Most device vendors have a list of qualified installers in a given geographic area. However, since some diesel emission control systems targeted for demonstration are not commercially available in the US, installation may have to be performed by a third party.

Local funding programs offered by the South Coast Air Quality Management District (AQMD) have created a market for diesel emission control systems and spawned a dealer and installer network with the reputation for competent work. Thus, proper device installation is not anticipated to present any insurmountable issues. Given the size of the off-road equipment, however, most installations will be performed in the field as opposed to the workshop.

Operational Monitoring - When originally proposed by CARB, it was envisioned that an independent project monitor would be retained to objectively monitor, document, and report on an ongoing basis the status of Showcase demonstration projects on a statewide basis. While CARB no longer appears able to provide this service, the need for this role in any demonstration project conducted by LAWA is no less diminished. Someone will be required to oversee the operational aspects of the demonstration, monitor the functionality of equipment and emission control systems, collect data, and most importantly, be available and responsible if an issue arises.

The best solution, but not necessarily the most cost-effective one, is to retain the services of a competent individual or firm charged with providing operational monitoring services. This entity should be viewed as objective by all stakeholders, with no conflicts of interest with device manufacturers or other participants.

If schedule constraints or budget limitations do not allow for the retention of a dedicated project monitor, existing staff and/or independent third party monitor contractor resources can be utilized to perform this role.

It should be noted that monitoring, documentation, and reporting for the demonstration project is not envisioned to be full time. Initially, data will be collected every couple of days to ensure the device is operating properly and that regeneration procedures, if any, are being followed. Once a comfort level has been obtained with each device/piece of equipment, the actual monitoring will occur on a less frequent basis, on the order of once or twice a week.

Testing - Devices for which full verification is sought must undergo laboratory testing in addition to successfully completing 1,000 hours of operation. The testing must be conducted by a CARB-certified laboratory.

Demonstration Project Costs - The following is a rough order of magnitude cost estimate for implementing a diesel emission control system demonstration project during SAIP construction.

1. Capital Costs: The capital costs associated with the Demonstration Project are primarily those associated with the purchase of the diesel emission control device, plus any ancillary equipment. Depending on the specific device(s) selected, ancillary equipment may include on-vehicle monitoring and data acquisition systems (i.e., data loggers), trap cleaning and regeneration systems, including possible off-board electrical cleaning systems, and additional filters for exchangeable filter systems.

The costs for on-road, passive Level 3 particulate filters have come down in recent years as production increases and the associated economies of scale have taken hold. The cost for a passive on-road device is typically on the order of $7,500 per device. Active devices will also reduce NO_x emissions typically cost on the order of $18,000 per device. Trap cleaning devices for on-road systems typically cost on the order of $8,000. Also, some passive devices benefit from use of an insulation blanket that allows the device to better retain heat, aiding in its ability to regenerate. Insulation blankets typically cost on the order of $250.

As there is only one (1) currently verified off-road Level 3 device verified for use in California (ECS Combifilter), there is less empirical information available regarding the cost of off-road passive and active devices. However, based upon information provided by the California Air Resources Board, the expected average cost of actively-regenerated devices is on the order of $20,000. It is important to note that for high-horsepower applications, two (2) devices are often required, doubling the cost to implement VDECS.

For planning purposes, it is recommended that a conservative estimate be used when calculating capital costs. It is recommended that the average capital cost for procurement of the diesel emission control device, external regeneration system, plus other ancillary components be assumed to be $30,000 per vehicle.

2. Installation Costs: Installation usually entails more than simply bolting the emission control device to the equipment's exhaust pipe. For new vehicle types, thermal mapping of the exhaust system is required to ensure sufficient heat is available for regeneration. Oftentimes the equipment will be instrumented with temperature sensors and monitored using a data logger for a period of time prior to the actual installation of the emission

reduction device. Once installed, additional thermal and exhaust gas backpressure monitoring is required to ensure the device is operating and regenerating properly.

For off-road equipment, it is envisioned that additional structural support will be required, especially for on-road devices being demonstrated in an off-road application. Thus, additional costs will likely be borne due to the need for custom brackets and installation structure.

For the purpose of this Project Description, it is recommended that the cost for device installation be assumed to be $10,000 per vehicle. This is most likely very conservative; however, there are several unknowns relative to the device installation, and because of this there may be some "trial and error" expended before the best solution is arrived upon.

3. Monitoring, Data Collection, & Reporting: The estimated schedule and the costs for monitoring, data collection, and reporting are estimated as follows:

- Estimated Period of Performance: Nine months

This assumes that the initial six to eight weeks is dedicated to the development of data collection protocols, reporting procedures, etc. This also includes one month for development of a final project report. The balance of the period of performance will be the actual monitoring of vehicle's equipped with diesel emission control systems.

- Estimated Staff Resources: 640 total hours

It is assumed that the development of project monitoring protocols, procedures, etc. will require approximately 160 hours over a two-month period. The final report will require approximately 80 to120 hours. The balance of hours expended are associated with on-airfield monitoring and data collection; this is estimated to require approximately 50 to 60 hours per month.

The total estimated level of effort is therefore 640 hours. Assuming a fully burdened rate of $160 per hour, the estimated cost of monitoring and reporting is $102,400.

4. Testing: As stated above, emission control system testing may or may not be required for the Demonstration Project. Testing is expensive, as it requires that a test cell at an emissions testing facility be dedicated to each device undergoing evaluation for multiple days. Thus, in addition to the labor costs of the technicians, the cost of renting the facility must be accounted for, and this cost overwhelms any associated labor costs.

It is recommended that if testing is pursued as an element of the Demonstration Project, the costs associated with verification testing be borne by the device manufacturer, as this entity has a vested interest in gaining CARB verified status.

5. Total Project Costs: The total project cost for conducting an approximately ten vehicles demonstration project can be summed as follows:

Table 2-3 Cost Estimate for a Ten Vehicle Demonstration Project

Cost Element	Number of Units (or hours)	Capital Cost	Labor Costs	Subtotal	Cumulative Costs
Diesel Emission Control Device	10	$30,000		$300,000	$300,000
Installation	10		$10,000	$100,000	$400,000
Monitoring, Data Collection	640		$160	$102,400	$502,400

As stated previously, costs can be reduced by reducing the number of diesel emission control devices included in the Demonstration Project; this reduction in cost should be approximately linear. In the event the same device is demonstrated on multiple, similar vehicles, however, cost reductions should be even greater, as the experience gained in the first installation should result in a "learning curve" that can be applied to subsequent installations. The costs associated with monitoring and data collection, however, tend to be less sensitive to the number of vehicles demonstrated, as the same level of effort is required to develop monitoring and data collection procedures for one vehicle or one hundred. The labor hours expended on the airfield monitoring and collecting data, however, will be reduced.

Table 2-4 Cost Estimate for a Six Vehicle Demonstration Project

Cost Element	Number of Units (or hours)	Capital Cost	Labor Costs	Subtotal	Cumulative Costs
Diesel Emission Control Device	6	$30,000		$180,000	$180,000
Installation	6		$10,000	$60,000	$240,000
Monitoring, Data Collection	540		$160	$86,400	$326,400

Task 3: Emission Reduction Standard

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter which is on the order of 10 microns[10] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors. This section also states that under no circumstance shall an emission reduction device or strategy used on the LAX Master Plan Program construction site increase the emission of any pollutant above that which is the standard for that engine.

The role and responsibilities of the Interim Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

- Task 3.1 - Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1. as it relates to meeting or exceeding Level 2 diesel emission reductions for a similar sized engine.;

- Task 3.2 – Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1 to ensure its emission reduction device or strategy does not result in an increase of any pollutant above that which is standard for that engine.

- Task 3.3 – Contractor shall monitor, document and report on emission reductions of NOx, ROG, PM and CO achieved through the use of best available control technology.

[10] One micron equals $1x10^{-6}$ meter or 0.000001 meter.

The following are the results and findings of the Interim Independent Third Party Monitor as it relates to Tasks 3.1, 3.2 and 3.3:

Task 3.1 - Monitor, document, and report equipment compliance with Level 2 requirement.

As summarized above in Task 1, the Third Party Monitor compiled a database inventory of SAIP equipment (Appendix A). This database was continually updated with new information collected from the construction contractor (Tutor-Saliba) or visual inspection by CFCI. As part of this inventory, the Task 1 effort included an equipment-by-equipment review for applicability of approved BACT. Specifically, the equipment listed in this master database was compared against all available VDECS, with first priority given to Level 3 diesel emission reductions.

Twelve units were determined to be eligible for VDECS retrofit. These units are all equipped with the same VDECS, the Lubrizol Engine Control Systems (ECS) Purifilter. This is an ARB-approved level 3 device[11] providing a minimum 85 percent PM emission reduction per the ARB verification protocol. Further, the U.S. EPA issued a verification[12] letter on November 5, 2003 that confirms that the Purifilter provides the following emission reduction efficiencies:

- 90 percent PM reductions;
- 85 percent ROG reductions;
- 75 percent CO reductions;
- There are no NOx reductions from this device.

Additional information relating to this task is provided in much greater detail in the status report updates for Task 1.

Task 3.2 – Ensure emission reduction devices/strategy does not result in an increase of any pollutant above that which is standard for that engine.

The U.S. EPA and ARB verification procedures are designed to ensure that no measurable increase on other pollutant emissions results from installation of the approved VDECS. Furthermore, the verification letters for the ECS Purifilter provide no indication that the use of this device increases any emissions in an amount to exceed that which is standard for that engine. One issue that should be noted is that the ARB verification procedures include a NO2 limit requirement. Specifically, NO2 may not increase more than 20 percent as a result of the installation and operation of the device[13]. The verification letter available as of February 13, 2007 from CARB's VDECS verification database indicates that the "ARB staff evaluation of the ECS Purifilter, found that "Lubrizol Engine Control Systems was unable to demonstrate the low load Purifilter™ system compliance with the 20 percent NO2 limit …" The Third Party Monitor contacted CARB staff who indicated that this information is old, and that any systems that remain on the website as of early February 2007 do indeed comply with the NO2 increase limit.

[11] http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04001.pdf or http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04002.pdf
[12] http://enginecontrolsystems.com/pdf/verif_letter-ecs1.pdf
[13] Title 13 CCR section 2706(a)

For quick reference, CARB's requirement regarding the increase in other pollutants from the use of a VDECS are shown below:

[Excerpted from:
http://www.arb.ca.gov/diesel/verdev/proceduredec04.pdf]

(b) Limits on Other Pollutants.

(1) Limits on non-methane hydrocarbon (NMHC) and NOx. In order for a diesel emission control strategy to be verified, the applicant must comply with one of the following:

(A) The diesel emission control strategy must not increase the emissions of either NMHC or NOx by more than ten percent of the baseline emissions level as reported under section 2708 (a), or

(B) For strategies verified prior to July 1, 2006, the applicant must provide sufficient evidence to demonstrate that the sum of NMHC and NOx emissions with the strategy implemented does not exceed the baseline emission level sum of NMHC and NOx as reported under Section 2708 (a); or

(C) For strategies verified on or after July 1, 2006, the applicant must provide atmospheric modeling data which indicates that widespread use of the strategy will not result in an increase in exposure of the public to ozone. The atmospheric model employed must be approved in advance by the Executive Officer.

(2) Limit on CO.

(A) On-road and Off-road (including portable) Engines. In order for a diesel emission control strategy to be verified, the diesel emission control strategy must not increase the emissions of CO greater than the current CO emission standards for new diesel engines adopted by the Air Resources Board and in effect at the time of verification.

(B) Stationary Engines. In order for a diesel emission control strategy to be verified, the diesel emission control strategy must either:

1. Meet the applicable CO standard for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the stationary diesel-fueled CI engine, then the stationary diesel-fueled CI engine shall meet the Tier 1 standard in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the stationary diesel-fueled CI engine's model; Or

2. Not increase the emissions of CO by more than 10 percent of the baseline emissions level as reported under Section 2708(a).

(3) Limit on Ammonia (NH3). In order for a diesel emission control strategy to be verified, the diesel emission control strategy must not increase the emissions of ammonia to a level greater than 25 parts per million by volume on average over any test cycle used to support emission reduction claims.

(A) Emissions of ammonia are to be quantified with a method subject to approval by the Executive Officer which employs Fourier Transform Infrared (FTIR) spectroscopy. The applicant may request the Executive Officer to approve an alternative method in place of the required method. In reviewing this request, the Executive Officer may consider all relevant information including, but not limited to, consistency with the method required by U.S. EPA and the body of existing data generated using the alternative method.

(B) If an applicant does not expect its diesel emission control strategy to increase emissions of ammonia, the applicant may request that the Executive Officer waive the requirement to conduct testing for ammonia emissions. In reviewing the request, the Executive Officer may consider all relevant information including, but not limited to, the principles of operation of the diesel emission control strategy, the existence of a mechanism for ammonia formation, and published emissions data from similar technologies.

(C) The strategy must be in compliance with applicable federal, state, and local government requirements relating to ammonia emissions, which may be more stringent than the limit presented here.

(4) Other Pollutants. In order for a diesel emission control strategy to be verified, the diesel emission control strategy must not increase the emissions of other pollutants by more than ten percent of the baseline emission level as reported under Section 2708(a).

Task 3.3 –Contractor shall monitor, document and report on emission reductions of NOx, ROG, PM and CO achieved through the use of best available control technology.

The emission reduction efficiencies listed in Task 3.1 were used to determine the emission reductions for the twelve units during their estimated length of operation at the airfield. For approximately 24 to 26 weeks, depending on equipment type, the VDECS-equipped units provided the emission reductions summarized below in Table 3.3-1:

Table 3.3-1: Emission Reduction Estimates (through 1/26/07)

Equipment Number	Equipment Category	PM10 (lbs)	NOx (lbs)	ROG (lbs)	CO (lbs)
E00138	Scraper	17.97	0.00	10.21	93.61
E00233	Articulated Dump	36.60	0.00	83.16	254.20
E00234	Articulated Dump	36.60	0.00	83.16	254.20
E00235	Articulated Dump	36.60	0.00	83.16	254.20
E00236	Articulated Dump	35.20	0.00	79.97	244.42
E00237	Articulated Dump	35.20	0.00	79.97	244.42
E00238	Articulated Dump	35.20	0.00	79.97	244.42
E00651	Compactor	6.45	0.00	58.64	90.98
E00732	Backhoe/Excavator	15.30	0.00	156.47	389.70
E00733	Backhoe/Excavator	45.91	0.00	52.16	318.84
E03412	Rubber Tire Loader	29.00	0.00	49.41	268.50
E00736	Excavator	11.95	0.00	24.41	112.62
	Total:	**342.00**	**0.00**	**1004.71**	**2770.12**

Note: Emission reductions were determined using a rough estimate of activity data (i.e., hours of use); estimates should be re-run if actual activity data are received.

PM10 = Particulate Matter greater than 10 microns
NOx = Oxides of Nitrogen
ROG = Reactive Organic Gases
CO = Carbon Monoxide

The emission reductions estimated above in Table 3.3-1 are compared below to other on-road vehicles to better illustrate the positive benefit of the VDECS retrofits.

Compared to the Pollution from Light-Duty Passenger Cars

- The toxic PM reduced from the 12 retrofitted units is the equivalent of eliminating over 4.5 million passenger car miles traveled. This is the equivalent of over 9 round trips to the moon[14].
- The toxic PM reduced from the 12 retrofitted units is the equivalent of eliminating over 825,000 average passenger car trips.
- The TOG[15] reduced from the 12 retrofitted units is the equivalent of eliminating over 625,000 passenger car miles traveled, or over 114,000 average passenger car trips.
- The CO reduced from the 12 retrofitted units is the equivalent of eliminating over 194,000 passenger car miles traveled, or over 35,500 average passenger car trips.

Compared to the Pollution from Heavy-Duty Trucks

- The toxic PM reduced from the 12 retrofitted units is the equivalent of eliminating over 435,900 heavy-duty truck miles traveled, or almost 37,000 average heavy-duty truck trips.
- The TOG reduced from the 12 retrofitted units is the equivalent of eliminating over 323,900 heavy-duty truck miles traveled, or over 27,000 average heavy-duty truck trips.
- The CO reduced from the 12 retrofitted units is the equivalent of eliminating over 120,000 heavy-duty truck miles traveled, or over 10,000 average heavy-duty truck trips.

The Third Party Monitor submitted a detailed report to LAWA on January 22, 2007 entitled "South Airfield Improvement Project Emission Reduction Estimates and Calculation Methodology". This report has been updated and is provided in Appendix B. A section at the end of Appendix B is called "For Further Consideration". Item 3 of that section, suggested that it might be worthwhile to compare the composition of the SAIP construction fleet to that of CARB's statewide fleet used in their emissions inventory model, which is titled "OFFROAD", to determine if the Contractor may have assigned newer equipment models to the SAIP, thereby providing additional emission reductions to the project beyond those from the twelve units equipped with VDECS. In our January 8th project review meeting, LAWA directed CFCI to pursue this analysis, the results of which are provided below:

[14] The distance between Earth and the Moon is 238,854 miles.
[15] TOG = Total Organic Gases. TOG = RG * 1.1951

The fleet analysis was conducted for both the master list of equipment submitted by Tutor-Saliba of all potential project equipment, as well as the CFCI list that tracks all equipment actually used on the SAIP (which is a smaller subset of the master list). The analysis compared both of the equipment groups to CARB's Off-Road emissions inventory model assumptions regarding the average horsepower (hp) and engine model year for all off-road engines above 25 hp.

Preliminary results indicate that the average age of the overall fleet for both the master and SAIP subset fleets is MY 1996, which is also the average MY for CARB's "OFFROAD" model. These results indicate that the Tutor-Saliba fleet generally reflects the average construction equipment fleet statewide, and no effort was likely made, either way, to guide the selection of vehicles for the SAIP based on emissions.

It should be noted that the CFCI database used for this analysis is missing the horsepower for some of the equipment. It would be worthwhile to re-run this analysis should a complete database be achieved for horsepower and model year.

Task 4: Exemptions

Task 1 of the Third Party Monitor Scope of Work focuses in part on determining if a verified diesel emission control system was available and compatible with a piece of diesel equipment proposed for use on the SAIP. CBA Section X.F.4 states that the requirement to retrofit equipment with a verified diesel emission control system is not applicable to construction-related diesel equipment *"for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emission of pollutants as required by CBA Sections X.F.1-3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for that vehicle".*

CBA Section X.F.4 also relieves the equipment operator from the requirements of CBA Sections X.F.1 through X.F.3 for *"construction-related diesel equipment used on LAX Master Plan Program construction sites for fewer than twenty (20) days per calendar year"*.

The role and responsibilities of the Independent Third Party Monitor as it pertains to CBA Section X.F.4 include the following Tasks:

- Verify that application for an exemption under CBA Section X.F.4. is justified on the basis of a) physical incompatibility of the best available emission control device with the piece of construction-related equipment seeking an exemption; b) unavailability of the best available emission control device with the piece of construction-related equipment seeking an exemption;
- Verify that construction-related diesel equipment granted an exemption pursuant to CBA Section X.F.4. (ii) do not exceed twenty (20) days of use on LAX Master Plan Program construction sites per calendar year.

The Third Party Monitor has identified five areas in which construction-related diesel equipment has been granted exempt status by LAWA. These include the following:

- Exemptions granted on the basis of unavailability of a best available VDECS in accordance with CBA Section X.F.4 (i);
- Exemptions granted on the basis of physical incompatibility (even though a VDECS is available for that piece of construction-related diesel equipment);
- "20-day" exemptions granted in accordance with CBA Section X.F.4 (ii);
- "Time critical" exemptions;
- "On-Road" vehicle exemptions.

Exemptions Granted Due to Unavailability of a VDECS

The "Task 1" Section of this report discusses in detail the process and findings of the Independent Third Party Monitor as they relate to the availability of VDECS for each piece of construction-related equipment proposed for use on the SAIP. As described in that Section, there is general agreement between LAWA and the Third Party Monitor as it relates to the availability and compatibility of VDECS with off-road construction equipment operating on, or proposed for operation on, the SAIP. Task 1 discusses areas in which the findings of the Third Party Monitor differ from LAWA, as in the case of "on-road" vehicles operating in an "off-road" application (see Tables 1.2-6 – 1.2-8). However, this is a "gray" area that requires further regulatory guidance by CARB as to when an on-road VDECS is appropriate to be used on an-road vehicle operating in an off-road environment. Please refer to Task 1 of this report for a thorough discussion of exemptions granted by LAWA due to the unavailability of a VDECS.

Incompatibility Exemptions

Task 1 of this report also documents vehicles granted exemption by LAWA for which a VDECS is available but deemed physically incompatible with the type of equipment. For example, all motor graders were exempted due to safety concerns. Due to the mounting location of the VDECS, it was determined that the device may obscure the equipment operator's field of vision. Equipment granted an exemption by LAWA due to safety concerns is listed in Table 4-1, below:

Table 4-1: Motor Graders Granted Exempt Status

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Horsepower	Compatible with ESC Combifilter
E00514	Motor Grader	Caterpillar	3306	1996	225	YES
E00518	Motor Grader	Caterpillar	3306	2001	225	YES
E00520	Motor Grader	Caterpillar	3306	1996	225	YES
E00521	Motor Grader	Caterpillar	3306	2000	225	YES

"20-Day" Exemptions

In accordance with CBA Section X.F.4 (ii), construction-related diesel equipment used on a LAX Master Plan construction site fewer than 20 calendar days per calendar year can be exempted from the requirement to install a best available diesel emission control system. Section X.F.4 further requires that all exemptions granted under this provision be approved by LAWA and reported to the Coalition Representative as they occur.

Table 4-2: Equipment Granted "20-Day" Exemptions

EQUIPMENT ID	EQUIPMENT TYPE	MAKE	DATE IN	DATE OUT
TSC	DOUBLE ROLLER COMPACTOR		6/15/2006	7/3/2006
BR-832	DUMP TRUCK O/O	KENWORTH	7/18/2006	OK to stay
	DUMP TRUCK O/O	PETERBILT	8/22/2006	OK to stay
BR-194	LOADER	CAT	8/22/2006	9/8/2006
n/a	DOZER D4G	CAT	9/12/2006	
	EXCAVATOR	LA LONDE	8/20/2006	9/6/2006
	MOTOR GRADER	LA LONDE	8/20/2006	9/6/2006
218031			9/12/2006	
13-101			9/12/2006	
14-409			9/12/2006	
17-110			9/12/2006	
17-745			9/12/2006	
24-104			9/12/2006	
39-201			9/12/2006	
49-010			9/12/2006	
8-101			9/12/2006	
BMU WATER TRUCK	WATER TRUCK		9/12/2006	
CORE CUT	CONCRETE SAW		9/12/2006	
CORE CUT	CONCRETE SAW		9/12/2006	
DEERE 310 SG			9/12/2006	
E00956	LINK BELT CRANE		9/12/2006	
E01146			9/12/2006	
E01147	WATER TRUCK		9/12/2006	
E02310			9/12/2006	
E04437			9/12/2006	
EA 1304			9/12/2006	
n/a	SCREEN	EXTEC S3	9/12/2006	
n/a	SCREEN	EXTEC	9/12/2006	

The Third Party Monitor is also aware of three (3) Penhall pavement grooving machines currently operating on the newly constructed runway. These machines use saws to cut the concrete with parallel grooves to increase traction for aircraft tires. This work is not expected to require more than 20 days. Each grooving machine is accompanied by its transport 18-wheel semi-tractor trailer, licensed for on-road use, and an 18-wheel water supply truck with vacuum tank, also licensed for on-highway operation.

"Time Critical" Exemptions

In specific cases, equipment has been moved onto the airfield to perform construction operations that were either "unplanned" or deemed "time critical" by LAWA project management. Specific examples include the following:

- Additional equipment was brought onsite for a short period of time, less than 20 days, when a hidden condition was discovered. A section of an older, previous unknown runway was uncovered and its removal was necessary prior to continuation of new runway reconstruction;
- During runway construction, one or more unidentified pieces of equipment suffered mechanical failures that rendered them inoperable. In the ensuing period between equipment repair and return to service, substitute equipment was brought onsite to perform critical construction tasks. The repairs required less than 20 days; following

return to service of the primary equipment, the substitute equipment was removed from the SAIP;

- LAWA also approved a concrete pumping truck to enter the SAIP construction site during the week of February 5, 2007. The vehicle is manufactured by Putzmeister and is a specialized concrete truck used in support of related construction on the Sepulveda tunnel . The vehicle was onsite one (1) day.

In the cases cited above, the normal review and approval process was deemed unworkable due to time constraints and an expedited approval was granted by LAWA project management. This was deemed appropriate by LAWA since in no case did the additional equipment operate on the airfield for a period greater than 20 days.

On-Road Vehicle Exemptions

A number of on-road vehicles owned and operated by independent truck drivers or small transport companies service the SAIP, working under subcontract to the prime construction contractor or one of its major subcontractors. These vehicles are primarily used in dirt hauling operations. It appears that these on-road vehicles have not gone through the process of seeking an exemption to the requirements of CBA Section X.F.1. It is also the observation of the Third Party Monitor that not all of these vehicles are operating under a formal 20-day exemption.

Based on discussions with LAWA project management, the rationale given for allowing on-road vehicles to operate in an exempt mode is that which was used to exempt other on-road vehicles such as street sweepers and water trucks that operate in an off-road application. It has been the practice of LAWA in these cases to not require an on-road VDECS be installed on vehicles that work on the airfield construction site, whether or not the vehicle is licensed to operate on the highway. As discussed in Task 1, this issue has been posed to the California Air Resources Board; CARB's opinion is that each vehicle or equipment should be viewed as unique and evaluated on a case-by-case basis.

Thus, independent observation by the Third Party Monitor of SAIP construction activities resulted in the identification of on-road vehicles, operating primarily in dirt and debris hauling, for which a formal review by LAWA has apparently not been performed, nor has a formal 20-day exemption granted. LAWA project management believes these vehicles are categorically exempted due to their operation in an off-road environment.

Task 5: Ultra Low Sulfur Diesel and Other Fuels

Section X.F.5 of the Community Benefits Agreement requires that all equipment used for construction-related to the LAX Master Plan use only Ultra Low Sulfur Diesel (ULSD) fuel (15 ppm of sulfur or less) as long as adequate supplies are available in the Southern California region.

There are three tasks in the Scope of Work for the Third Party Monitor related Ultra Low Sulfur Diesel.

Task 5.1 - Contractor shall monitor, document, and independently report on construction equipment related to LAX Master Plan Program construction as it relates to the use of

ultra-low sulfur diesel fuel. Contractor will be provided all available fuel procurement records for construction equipment related to the LAX Master Plan Program.

Task 5.2 – Contractor shall independently verify and report to LAWA and the Coalition Representative that adequate supplies of ULSD are or are not available in Southern California. For the purpose of this Task, "Southern California" is defined as the geographic region comprising Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties.

Task 5.3 – Contactor shall independently verify and report to LAWA and the Coalition Representative that fuels substituted in lieu of ULSD do not result in greater emissions of fine PM or NO_x than that which would be produced by the use of ULSD at 15ppm or lower. Our verification will be based on ARB certification or equivalent.

The contractor's original plan was to locate a 10,000 gallon ULSD storage tank at the airfield. This plan was ultimately deemed to be infeasible due to concerns raised by the Fire Department. Currently, some vehicles fuel with ULSD on-site but others are fueled off-site. Verification that the vehicles fueled on-site use ULSD was possible through direct inspection. Verification that the vehicles that fuel off-site are using ULSD was accomplished in two ways. First CFCI contacted CARB and confirmed that ULSD is the only fuel available for vehicles in Southern California. In addition, CFCI requested and obtained fuel purchase records from the contractor and has examined the fuel receipts to ensure that only ULSD is being used. In addition, CFCI has tabulated the total number of gallons purchased.

Table 5.1 Summary of ULSD Purchase for SAIP Project

Period	Gallons	Low Sulfur Diesel
5/1/06 to 12/30/06	170056.1	Yes

A complete tabulation of fuel receipts provided by the contractor is provided in Appendix C. Based on the information provided to the Third Party Monitor and independently verified, it appears that LAWA is in full compliance with the ULSD requirement.

Task 6: Operational Requirements

Section X.F.6 of the CBA requires that Operational requirements be issued and enforced by LAWA as it pertains to: a) limitations of equipment engine idling; and b) maintenance of equipment engines.

The environmental requirements mandated by LAWA and incorporated as an element of the construction contract[16] amplify and provide additional specificity as it relates to engine idling restrictions and required engine maintenance. Specifically, Section 21-5.4-B of the referenced provisions states that *"Contractor shall prohibit construction diesel vehicles or equipment from idling in excess of the idling restrictions as defined in the CARB Vehicle Idling Rule. The contractor shall advise drivers and operators of these requirements at the pre-construction orientation meeting, remind them on a daily basis,*

[16] LAX Runway 25L and Center Taxiway Improvements, Special Provisions Conformed Set, August 23, 2005

and post signs in appropriate places indicating the CARB Vehicle Idling Rule. Exemptions may be granted for safety and operational reasons, as defined in CARB or as approved by the Engineer. The contractor and subcontractors shall have policies and procedures in place for compliance with the Vehicle Idling Rule and a copy of such shall be submitted within 30 days of Notice to Proceed to the Engineer for approval".

With respect to engine maintenance requirements, Section 21-5.5-D states that *"Contractor shall require that all construction equipment be properly maintained in accordance with the manufacturer's specifications and schedules. All maintenance and repair records shall be made available upon request by the Engineer".*

In CFCI's capacity as Interim Independent Third Party Monitor, monitoring, documentation, and reporting of operational requirements was conducted in accordance with the following two Tasks:

- Task 6.1 – The Independent Third Party Monitor shall establish processes and procedures for determining whether a construction firm is complying with the operational requirements specified by LAWA. For the purpose of this Task, Operational Requirements include, but are not limited to, engine idling and engine maintenance requirements;
- Task 6.2 – The Independent Third Party Monitor shall monitor, document, and independently report to LAWA and the Coalition Representative on operational requirements issued and enforced by LAWA as they relate to limitations on idling and engine maintenance, at a minimum. Idling and engine maintenance records for construction equipment related to the LAX Master Plan Program will be provided to the Contractor by LAWA.

The following sections describe the process developed and implemented to track adherence to the operational requirements delineated in the CBA, as well as the independent findings of the Interim Third Party Monitor.

Process for Determining Compliance with Operational Requirements

The process to determine construction contractor compliance with the Operational Requirements set forth in the CBA has two distinct components:

1. Review by the Independent Third Party Monitor of applicable written procedures, monthly logs, and records documenting construction contractor compliance with Operational Requirements;
2. Onsite inspections conducted independently by the Third Party Monitor to confirm Operational Requirements are being implemented in accordance with CBA requirements.

In conducting reviews of construction contractor records, logs, and written procedures, requests for specific information and/or documents were submitted by the Third Party Monitor to LAWA's construction manager's staff. Requests for documentation were in turn submitted to the construction contractor by LAWA. This protocol was established and adhered to by all parties to ensure the reporting relationships between LAWA project management and the construction contractor were maintained and to prevent

requests from the Third Party Monitor being construed by the construction contractor as contractual direction.

Once obtained by LAWA construction manager staff, the requested records, logs, and written procedures are provided to the Third Party Monitor for review. In most cases, photocopies are provided. In certain cases, such as equipment maintenance records, however, documents are retained at a location other than the on-site construction trailers; this requires that the documents be inspected at the offsite location. This is discussed further under Task 6.2, below.

The Third Party Monitor also reviews records and reports published by LAWA relevant to their enforcement of operational requirements, including documentation of violations issued. These enforcement actions are discussed further in the Task 7 of this report, "Enforcement by LAWA".

On a regular but unannounced basis, typically weekly or biweekly, the Third Party Monitor conducts an on airfield inspection to monitor and document compliance with Operational Requirements. Potential issues are documented both in written and photographic form and submitted to LAWA construction manager staff. These findings are also included as an element of the Weekly Activity Report.

Task 6.1 defines Operational Requirements to include vehicle and equipment idling and maintenance, at a minimum. The Third Party Monitor has expanded this definition to include the following additional elements:

- Monitoring, documentation, and reporting as it relates to maintenance of Verified Diesel Emission Control Systems (VDECS) installed on equipment operating on the SAIP (Section 21-5.1);
- Monitoring, documentation, and reporting as it relates to Fugitive Dust Mitigation and Suppression (Section 21-5.2).

These additional operational requirements are deemed relevant to the role of the Independent Third Party Monitor, as maintenance of the VDECS installed on SAIP equipment is necessary to ensure proper operation of the equipment's diesel engine. Therefore, the Third Party Monitor reviews relevant VDECS maintenance records and performs physical inspections of the retrofit devices operating in on the airfield.

Also, in the course of monitoring emissions of diesel soot from equipment exhaust, the Third Party Monitor has the opportunity to monitor, document, and report particulate matter emissions created by fugitive dust. While not a product of the equipment's diesel engine per se, members of the public may confuse equipment-generated dust clouds with equipment exhaust soot. Thus, any highly visible emissions from construction activities, whether they are tailpipe or tire, are monitored, documented, and reported by the Third Party Monitor.

Monitoring, Documentation, and Reporting of Operational Requirements

Task 6.2 is the monitoring, documentation, and reporting of Operational Requirements using the processes and procedures developed under Task 6.1 and described in the

preceding paragraphs. The following sections discuss the Independent Third Party Monitor's findings to date as it relates to operational requirements:

Vehicle and Equipment Idling – The Environmental Requirements for the Runway 25L and center taxiway project prohibit construction vehicles and equipment from excessive idling in accordance with the restrictions defined in the CARB Vehicle Idling Rule[17]. This Rule, more formally referred to as the *Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling*, is codified in Title 13 Section 2485 of the California Code of Regulations and took affect on February 1, 2005.

The law states that operators of diesel fueled commercial vehicles with a gross vehicle weight rating (GVWR) of 10,000 pounds or greater shall not idle their vehicle's primary diesel engine for greater than five (5) minutes at any location. The law only applies to commercial vehicles that are or must be licensed for operation on the highway.

The "five minute rule" is waived under the following circumstances:

- Idling when the vehicle must remain motionless due to traffic conditions;
- Idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area (i.e., homes and schools);
- Idling to verify safe operating condition;
- Idling mandatory for testing, servicing, repairing, or diagnostic purposes (cleaning of commercial vehicles is not considered servicing);
- Idling when positioning or providing power for equipment that is performing work;
- Idling when operating defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency.

While the CARB Rule pertains only to "on-road" vehicles, it is important to note that the language in the Section 21 Environmental Requirements, specifically Section 25-5.4, extends the CARB idling restrictions to off-road vehicles and equipment operating in conjunction with runway 25L reconstruction. In practice, LAWA's enforcement of idling restrictions exceeds those mandated under the CARB Rule for both on-road and off-road vehicles and equipment.

The Third Party Monitor has reviewed and independently verified the following documentation pertaining to notice of idling restriction requirements:

- Posted Signs – large signs are posted at the construction site entrance in clear view of trucks entering the air operations area. These signs clearly state the restrictions on vehicle idling;
- Written Policies – LAWA construction manager staff have provided the Third Party Monitor with copies of the written idle restriction policies and procedures provided to the construction contractor;
- Notes from construction contractor/LAWA Project Management Status Meetings – in which reiteration of LAWA idling restrictions were reviewed.

[17] www.arb.ca.gov/toxics/idling/regtext.htm

Thus, information regarding idling restriction policies and procedures appears visible to the vehicle drivers and broadly disseminated from LAWA project management staff to the construction contractor and its subcontractors.

While it is clear that adequate "notice" is provided regarding idling restrictions, the important issue is whether or not excessive idling is curtailed and violations enforced. Two methods are used by the Third Party Monitor in this regard; firstly, documentation of idling violations enforced by LAWA are reviewed bi-monthly; secondly, the Third Party Monitor conducts independent site inspections and literally listens for idling trucks that are not engaged in work activities. This "eyes and ears" approach is performed in cooperation with LAWA project management staff. It is not uncommon to have an idling vehicle identified and within minutes an appropriate LAWA project management representative instruct the driver to turn off their vehicle and then inform the driver as to the idling restrictions imposed on the SAIP.

It is important to state that as the construction activities have progressed, the vast majority of drivers and equipment operators understand and abide by the idling restrictions imposed on the SAIP. Due to the nature of this construction project, however, subcontractors are utilized on a frequent basis, especially in the area of dirt hauling operations. On several occasions, a new double dirt hauler driver has been found idling in the staging queue. On these occasions, the driver is asked to turn off their engine. Upon compliance, the driver is informed of the idling restrictions by a LAWA representative. In most cases, the driver is not formally cited and no formal violation is recorded for a "first offense". If the driver continued to violate idling restriction, the driver would be formally cited for violating this operational requirement and would be fined.

To date, no fines have been levied for idling violations. The preferred practice implemented by LAWA project management is to remedy the infraction immediately upon observation and issue a warning. To date there have been no documented "repeat offenders".

The necessity for tight airport security does increase vehicle idling. Vehicles entering the airfield operations area (AOA) are required to form a queue and undergo airport security screening. These vehicles in the primary queue are not required to shut down their engines, as they are moving forward at regular intervals. Upon reaching the security check point, the drivers are required to exit the cab and raise their engine hoods. While the driver's credentials are being scrutinized, the vehicle is also undergoing a visual inspection. This added inspection creates a delay for each vehicle entering the airfield operations area; at times more than a dozen vehicles are in this primary queue. Figure 6.2-1 shows vehicles idling in queue; Figure 6.2-2 shows a vehicle undergoing a visual inspection prior to entering the AOA:

Figure 6.2-1: Vehicles Queuing Prior to Entering the Airfield Construction Site

Figure 6.2-2: Vehicles Undergoing Security Inspection Prior to Entering Airfield

Vehicles that are in the staging area, but are not in the primary queue to enter the airfield, are required to turn off their engines. This location is adjacent to the security gate between the main construction trailer parking area and the entrance. Most idling restriction enforcement occurs in this area, where LAWA construction manager staff and the Third Party Monitor check for vehicles with their engines running.

Equipment Maintenance Records – The Environmental Requirements Section 25-5.5-D requires that the construction contractor properly maintain all equipment in accordance with the manufacturers' specifications and schedules. Further, that all maintenance and repair records shall be made available upon request.

The Third Party Monitor has requested access to the construction contractor's (Tutor-Saliba) equipment maintenance records. These records are maintained at the firm's Sylmar, California facility and are not available for inspection onsite at their construction trailer. The Third Party Monitor has not yet had the opportunity to review the records. As this is an ongoing Task, the Third Party Monitor will report the results of the maintenance record inspection in subsequent reporting.

An effective method to determine if equipment utilized on the SAIP is being maintained is to conduct onsite visual inspections of equipment in operation. Excessive exhaust smoke is a strong indication the machine is in need of maintenance or more extensive repairs.

As an example, during a routine onsite inspection on October 26, 2006, a piece of equipment was seen emitting higher than normal exhaust smoke. The equipment ID was recorded and the equipment photographed.

Figure 6.2-3: Caterpillar Loader E00492 Emitting High Levels of Exhaust Soot

Figure 6.2-3, above, shows the offending equipment in operation. The equipment, a Caterpillar loader with equipment ID E0042 owned by the prime construction contractor, Tutor-Saliba, was subsequently reported to LAWA project management, who in turn contacted Tutor-Saliba with the request that the vehicle be removed from service and repaired. This request was complied with that day.

Figure 6.2-4: Same CAT Loader E00492 After Engine Repair

Figure 6.2-4 shows the same piece of equipment following engine repair. This vehicle was observed in operation for several minutes under full load operation – no excessive levels of exhaust soot were subsequently observed.

Figure 6.2-5: Caterpillar D9N – Equipment Number E00349 – January 26, 2007

A recent similar case was encountered on January 26, 2007. During an onsite inspection to document maintenance of VDECS devices, a piece of equipment was noticed from a distance to be emitting excessive exhaust soot. Figure 6.2-5, above, captured the event. The photograph in 6.2-6, below, shows a closer view of the equipment:

Figure 6.2-6: CAT Dozer E00349 – Vehicle Reported as Emitting Excessive Soot

This equipment has been reported to LAWA project management. A follow-up inspection will be conducted by the Third Party Monitor to ensure the equipment has been adequately repaired.

Monitoring and Documentation of Verified Diesel Emission Control Systems - In addition to engine maintenance, the Third Party Monitor has conducted independent monitoring of the verified diesel emission control devices installed on SAIP equipment. These devices are documented in Tasks 1 and 3 of this report.

The Third Party Monitor has been provided copies of Visit Reports prepared by the device manufacturer, Engine Control Systems (ECS), and submitted to the equipment owner (Tutor-Saliba). These reports document the onsite inspections of the installed VDECS conducted jointly by the manufacturer and equipment owner.

The Third Party Monitor also conducts independent inspections of equipment retrofitted with VDECS to ensure the devices are in good working order. The following are findings resulting from the VDECS inspections:

Figure 6.2-7: Caterpillar Excavator E00732 Equipped with ECS Purifilter VDECS

The excavator shown in Figure 6.2-7, above, was inspected early in the runway reconstruction phase. As shown in the photograph, the equipment exhaust is retrofitted with an ECS Purifilter diesel emission control device. Upon inspection, however, it was readily apparent that the device was not hooked up and had been operating for some period in that condition. This can be seen from the soot residue on the device, shown in Figure 6.2-8:

Figure 6.2-8: E00732 Was Found to have VDECS Not Hooked Up

The Third Party Monitor notified LAWA project management, who contacted the equipment owner requesting an explanation as to why the VDECS was not in working order. Apparently, the device had suffered a clamp failure that went unnoticed by the equipment operator. The device was subsequently repaired and put back into service.

Another aspect of onsite VDECS inspections is to ensure the onboard monitoring systems are functional. These systems monitor exhaust backpressure and temperature. Increasing exhaust backpressure is an indication that the device is accumulating soot internally. This is expected after extended periods of operation; the ECS Purifilter typically accumulates sufficient amounts of "white ash" in about six months to necessitate cleaning. Rising backpressure can also be an indication that the device is not properly regenerating.

Excessive soot or ash accumulation restricts the engine's exhaust flow and reduces the engine's operating efficiency. High backpressure also places additional stress on the engine's turbocharger and can result in premature component failure. Thus, monitoring of exhaust backpressure is important to not only ensure the device is regenerating properly, but to also ensure the VDECS isn't damaging the equipment's diesel engine.

Figures 6.2-9 and 6.2-10, below, show Caterpillar compactor E00651 equipped with the ECS Purifilter emission control device. This photograph was taken during an inspection on November 20, 2006 conducted specifically to monitor and document the status of each VDECS' sensors and onboard monitoring system.

Figure 6.2-9: Caterpillar Compactor E00651 Undergoing Third Party Monitor Inspection

Figure 6.2-10: CAT Compactor E00651 is Equipped with an ESC Purifilter VDECS

Upon inspection, it was immediately noted that the backpressure monitoring sensor was not hooked up. This is shown below in Figure 6.2-11, below. The Third Party Monitor notified LAWA project management staff, who in turn notified the equipment owner, Tutor-Saliba.

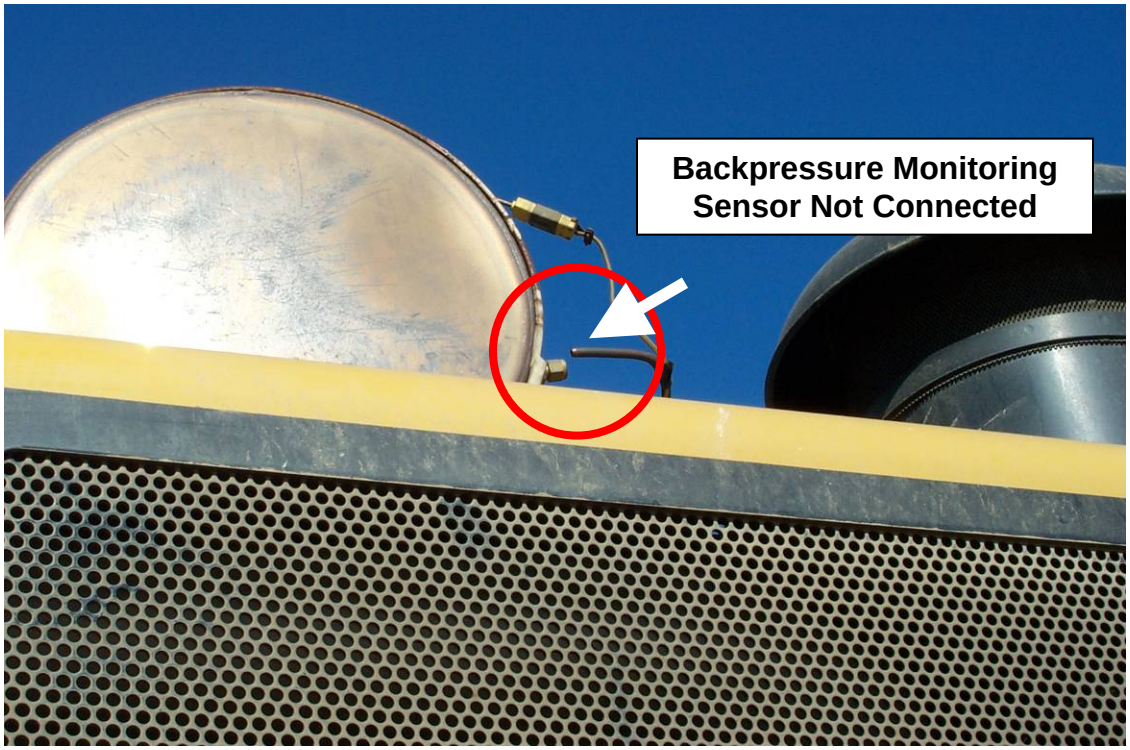

Figure 6.2-11: CAT E00651 - Backpressure Monitoring Sensor Disconnected

A follow-up inspection was scheduled for exactly one month later to give the construction contract sufficient time to implement repairs. However, during the second inspection conducted on December 20, 2006, it was documented that the repair had not been made. This prompted additional dialog between LAWA project management staff and Tutor-Saliba.

Tutor-Saliba contacted ECS, the device manufacturer, regarding the failure of the backpressure monitoring sensor. Tutor-Saliba met with ECS on January 15, 2007. During the discussion, Tutor-Saliba discussed the possibility of replacing the existing copper backpressure sensor tubing with stainless steel tubing. It appears that the copper tubing is experiencing heat hardening as a result of frequent heating and cooling, leading to eventual cracking and failure. The use of stainless steel fittings on the device in place of the current brass fittings was also discussed, as the brass fittings were softening due to the high heat. ECS agreed to take these issues to their engineering department for consideration.

During a third inspection conducted on January 26, 2007, it was documented that the device had been repaired and appeared to be in good working order.

Monitoring and Documentation of Fugitive Dust Emissions – Although not directly associated with CBA Section X.F., the Third Party Monitor has been asked to independently monitor the broader scope of environmental requirements specified in the Environmental Requirements contract provisions. This added monitoring does not impose any additional workload per se, as it is conducted while onsite performing Tasks in accordance with CBA Section X.F.

The primary method of fugitive dust suppression is by frequent watering of haul roads and loose dirt associated with earth moving operations. The construction haul roads are to be wetted in accordance with Environmental Requirements Section 21-5.2. Water is specified as the preferred wetting agent for haul roads.

During onsite inspections, the Third Party Monitor has observed frequent wetting of haul roads. This significantly suppresses dust emission from vehicles and equipment using these roads. Figure 6.2-12 shows a double dirt hauler on a construction haul road that has undergone frequent watering:

Figure 6.2-12: Haul Roads are Kept Wet to Reduce Fugitive Dust Emissions

Areas that are potential sources of fugitive dust other than haul roads are treated with an environmentally-friendly soil stabilizer. The soil stabilizer used on the SAIP is called TerraLOC, which is sprayed on the disturbed soil surface and dries to form a crust. This crust prevents fine soil particles from becoming airborne in windy conditions or if driven on occasionally by vehicles or equipment. Figure 6.2-13 shows the manufacturer's label

for the TerraLOC soil stabilizer. Figure 6.2-14 shows the onsite inventory at the airfield construction site.

Figure 6.2-13: Soil Stabilizer is used to Reduce Fugitive Dust Emissions

Figure 6.2-1: Soil Stabilizer Storage Onsite at LAX

Task 7: Enforcement by LAWA

Section 7 of the Independent Third Party Monitor Scope of Work states that: "The Contractor shall monitor, document and independently report to the Coalition Representative on enforcement actions by LAWA.

CFCI has requested and received from LAWA staff information on all enforcement actions initiated by LAWA. In addition, several violations were identified by CFCI and referred to LAWA for action. Table 7.1 lists each of the actions and its resolution. In general as noted in Section 6, as everyone has gotten used to working with the requirements of the CBA, there seems to be greater compliance.

Table 7-1: LAWA Actions Related to Enforcement of Community Benefits Agreement

DATE	COMPANY	ISSUE
05/11/06	R&L Brosamer	R&L Brosamer brought an unauthorized loader onto the AOA. This piece of equipment had not gone through the mandatory review process to ascertain whether or not it was a candidate for installation of a Verified Diesel Emission Control System (VDECS) device. R&L Brosamer removed this piece of equipment and replaced it with a new Volvo loader.
05/12/06	Tutor-Saliba	Tutor-Saliba was notified that seven (7) pieces of construction equipment proposed for use on the SAIP required installation of a Level 3 off-road VDECS device. In lieu of retrofitting the proposed equipment, Tutor-Saliba elected to substitute Volvo articulated dump trucks; two (2) of these vehicles were subsequently retrofitted with the Engine Control Systems (ECS) Level 3 Purifilter VDECS device. This device is verified for on-road vehicles and is being demonstrated in an off-road application.
05/12/06	R&L Brosamer	R&L Brosamer was notified that eight (8) pieces of diesel equipment proposed for use on the SAIP required installation of a VDECS. R&L Brosamer elected to withdraw this equipment.
05/26/06	Tutor-Saliba	Tutor Saliba was notified that eleven (11) pieces of diesel construction equipment were compatible with the Engine Control Systems (ECS) Level 3 Combifilter VDECS. Due to logistics issues, LAWA authorized the installation of the ECS Level 3 Purifilter; this is an on-road VDECS system being demonstrated in an off-road application. The vehicles included: two (2) backhoe excavators; four (4) articulated dump trucks, one (1) compactor; two (2) motor graders; one (1) rubber tire loader; and one (1) Caterpillar scraper.
06/15/06	Tutor-Saliba	Tutor-Saliba was notified that the deadline for retrofitting vehicles proposed for use on the SAIP had been reached. Tutor-Saliba removed these vehicles for retrofit with a VDECS system.
06/15/06	Pavement Recycling Systems	Pavement Recycling Systems (PRS) was notified that Lime Slaker 3026 required a VDECS; in lieu of retrofitting this vehicle, PRS performed an engine swap from vehicle number 3027 into 3026. An exempt engine was subsequently installed into vehicle number 3027.
06/30/06	Tutor-Saliba	Tutor-Saliba was notified on May 26th that excavator E00732 required a VDECS installed. This piece of equipment was removed from the SAIP and retrofitted with an ECS Level 3 Purifilter system as of June 30th.

07/18/06	Independent Owner-Operator	An unauthorized subcontracted dump truck was found working on the SAIP. In lieu of removal, the vehicle was granted a 20-day exemption.
08/02/06	Tutor-Saliba	Tutor-Saliba was notified on May 26th that excavator E00736 required a VDECS installed. This piece of equipment was removed from the SAIP and retrofitted with an ECS Level 3 Purifilter system as of August 2nd.
09/06/06		Violation of traffic "blackout" period resulted in a monetary fine.
09/19/06	La Londe	Two (2) pieces of diesel off-road construction equipment completed their 20-day exemption period. This included one (1) motor grader and one (1) excavator. The contractor did not seek any further exemptions; thus, this equipment was removed from the SAIP and is not eligible to be utilized on the SAIP for the balance of a one year period.
09/25/06	Tutor-Saliba	CFCI staff notified CH2M Hill staff that an excavator equipped with a level 3 ECS Purifilter had experience a failure of the exhaust pipe that connects to the VDECS. Tutor-Saliba was notified that the vehicle required repair on September 25th.
09/25/06	Tutor-Saliba	A Komatsu 1100LC excavator was observed omitting excessive black smoke. Tutor-Saliba was notified and the vehicle was removed from service for approximately one week during which time the engine underwent maintenance. The vehicle has subsequently been returned to service and observed by LAWA staff during operation. The vehicle no longer emits visible smoke.
09/28/06	Tutor-Saliba	The excavator cited for repair to its VDECS was repaired and returned to operational status as of September 28th.
10/03/06	Tutor-Saliba	Three (3) pieces of diesel equipment were removed from the SAIP at the expiration of their 20-day exemption. This includes one Caterpillar DG4 dozer (small dozer); one skip loader, and one backhoe.
10/16/06		Dust complaint by Swiss Port cargo. It was determined that a saw cutting machine had a leaking vacuum bag house. This was corrected by repairing the vacuum system.
10/25/06		Loader E00492 was observed emitting excessive smoke. This loader was repaired, but was undergoing additional maintenance as of November 10th.
11/01/06		Complaint lodged regarding aggregate trucks dropping gravel in the Pershing Drive bicycle lane. A street sweeper was deployed to clean up the gravel.
11/07/06		China Air complained of dirt apparently resulting from vehicle track-out. "Track out" occurs when dirt stuck in the tires of a vehicle is deposited on the road surface when the vehicle transitions from the construction site to the paved surface. Most of the dirt usually falls off within the first several hundred feet. The track out dirt was mitigated with more frequent street sweeping.

Task 8: Reassessments of Emission Control Devices

The Community Benefits Agreement Section X.F.9 requires that a reassessment of best available emission control devices be conducted on an annual basis, or more frequently if warranted. The purpose is to ensure that bid documents take into account advances in emission control devices prior to bidding new construction phases of the LAX Master Plan Program.

Section X.F.9 further requires that the emission control technology review process include any new and relevant requirements or regulations promulgated by CARB or the U.S. EPA, with the understanding that the results from any reassessment of diesel emission control systems cannot be applied retroactively. Specifically, Section X.F.9.b. states that *"any new designations of emission control devices as best available shall apply only to projects that start after the devices are verified or certified for use by CARB or the EPA…"*

While only a relatively short time has passed since the start of construction activities on the South Airfield Improvement Program Runway 25L reconstruction, during the past six months a substantial amount of activity has occurred in the field of diesel emission controls. In the time since equipment reports were originally submitted for LAWA review and approval, one new Level 3 VDECS has been introduced into the California marketplace; this device has broad applicability and compatibility with both on and off-road diesel equipment. Additionally, one off-road Level 3 device has been granted "conditional verification" status.

As noted under the Task 1 discussion, the most recent piece of off-road construction equipment was submitted for LAWA review and approval on November 1, 2006. Thus, these newly verified devices were not commercially available at the time the diesel equipment was submitted for review and approval. Given the CBA prohibition against retroactively applying best available control technology requirements, the use of these or other newly verified devices will be required on the next LAX Master Plan project.

In light of the recent full verification of one new device suitable for both on-road and off-road applications, and the conditional verification of a new off-road device, the Third Party Monitor evaluated the current Master Equipment Database with respect to the requirements and conditions of each new device as stipulated in their respective Executive Orders. This was performed for the 255 pieces of diesel equipment currently in the database.

Recently Verified Diesel Emission Control System – HUSS MK-System

The HUSS Umwelttechnik FS-MK diesel particulate filter[18] is a Level 3 diesel emission control system verified for use with all on-road and off-road diesel engines through the 2006 model year, except those equipped with either diesel oxidation catalysts or exhaust gas recirculation systems. The FS-MK series of filters use a silicon carbide wall-flow filter with a fuel burner for regeneration to achieve a greater than 85 percent reduction in particulate matter emissions. The specific conditions for which the FS-MK has been approved is included in the two (2) Executive Orders issued by CARB for on-road and off-road engines, respectively. This system was verified on November 13, 2006. The following are links to the CARB Executive Orders:

- On-Road Engine Executive Order: www.arb.ca.gov/diesel/verdev/level3/eo_de06006.pdf;
- Off-Road Engine Executive Order: www.arb.ca.gov/diesel/verdev/level3/eo_de06007.pdf.

[18] www.huss-umwelt.com/en/index.html

CARB typically publishes a list of engine families that are compatible with a VDECS device. The compatibility of this system to both on-road and off-road diesel engines is so broad that for the HUSS system, CARB instead published a list of engine families that are *excluded* from using this device.

The HUSS MK-System diesel exhaust particulate filter is equipped with a "fuel burner" regeneration system. The device is constructed of a stainless steel cylindrical shock-proof casing enclosing the silicon carbide monolith particulate filter. During engine operation, the exhaust gases are fed through the filter medium. There, more than 99% of particulate matter (based on particle mass) is retained in the filter core.

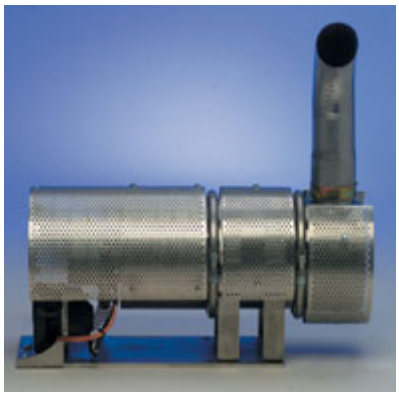

Figure 8-1: HUSS MK-System Level 3 Diesel Particulate Filter

Over a period of several hours of engine operation, particulate matter accumulates inside the filter housing. As the filter becomes loaded with particulate, the exhaust back pressure increases. If allowed to continue, the increasing exhaust back pressure would negatively impact the efficient operation of the diesel engine. Therefore, the trapped particulate must be regenerated. The HUSS MK particulate filter is regenerated by means of the fuel burner. The oxygen required is supplied via an integral blower. A small quantity of diesel fuel from the vehicle's fuel tank, typically on the order of 0.02 to 0.2 gallon, is used as the fuel for the regeneration system. The ensuing combustion vaporizes diesel soot particles, converting the toxic air contaminant into carbon monoxide (CO)[19], carbon dioxide (CO_2) and water vapor.

The regeneration process typically requires approximately 20 to 30 minutes, at which time the particulate filter is free from accumulated soot and ready for continued operation. Monitoring of exhaust system backpressure is performed using a graphic display mounted in the equipment cab and visible to the equipment operator. As the VDECS accumulates trapped particulate, the graphic display indicates when regeneration will be required. Regeneration is then initiated by pressing a button located in the operator cab. Activation of the regeneration system requires the equipment to be turned off, although the operator may remain inside the equipment cab.

[19] CARB verification ensures that the increase in CO does not exceed engine CO emission standards.

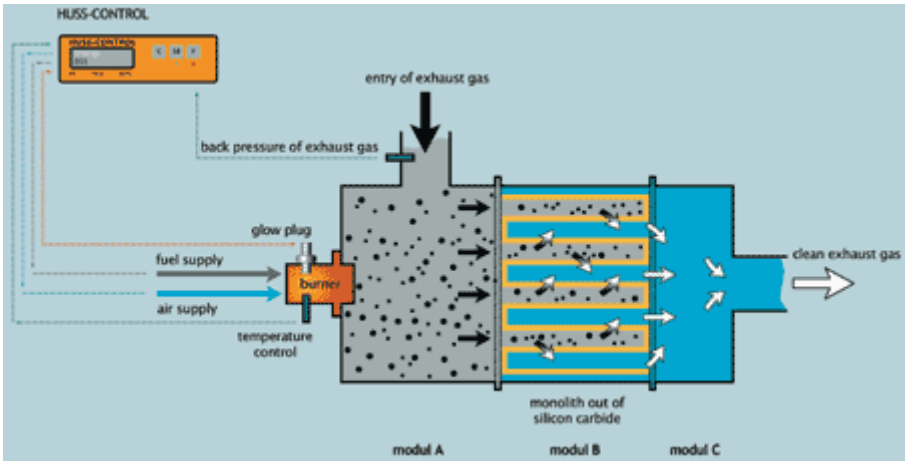

Figure 8-2: HUSS MK-System Schematic

Compatibility of the HUSS MK with Equipment Operating on the SAIP:

The operational requirements and conditions, as well as specific engine exclusions, were compared to each piece of diesel equipment contained in the Third Party Monitor Master Equipment List. As anticipated, this device has extensive applicability and compatibility with the types of diesel equipment used on the SAIP. Appendix A of this report documents the preliminary compatibility results for each piece of diesel equipment.

Out of the 255 pieces of diesel equipment assessed, eight (8) are specifically not compatible with the HUSS MK-System, as follows:

Table 8-1: Diesel Equipment NOT Compatible with HUSS MK-System VDECS

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Family
B04018	Flat Bed Dump	Cummins	B5.9-190	1997	VCE359D6DABW
E03000	Air Sweeper	Isuzu	4HK1TC	2005	5SZXH05.23AB
E03002	Air Sweeper	Cummins	ISB 200	2005	5CE10359BAG
E03001	Air Sweeper	Isuzu	4HK1TC	2005	5KBXL02.0FAD
E03003	Air Sweeper	Cummins	ISB 200	2005	5CE10359BAG
B13601	Front Wheel Loader	Komatsu	SAA6D140E-5	2006	6KLXL15.2ED6
PR01036	Reclaimer/Stabilizer	Caterpillar	3412E DITA	2005	TBD[20]
B13609	Wheel Loader	Volvo	D12DLBE3	2005	6VSXL12.1CE3

[20] Equipment ID PR01036 is not compatible as the engine horsepower exceeds the maximum recommended by the device manufacturer.

It should be noted that the equipment in the shaded rows of Table 8-1 are operating on the SAIP. These pieces of equipment are not retrofitted with a VDECS; however, they are compatible with on-road verified devices as discussed in Task 1 of this report.

In addition, seven (7) pieces of equipment have missing engine family designations. Thus, compatibility cannot be conclusively determined at this time:

Table 8-2: Equipment with Indeterminable Compatibility with HUSS MK-System

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Family
E01145	Water Truck	Caterpillar	C7	2006	TBD
B17301	Generator Set	Caterpillar	3412	2002	TBD
E00225	Articulated Dump	Volvo	TD73KCE	2005	TBD
11902	Screening Plant	Deutz	BF4M1013C	2006	TBD
TD012	Transfer Truck	Cummins	L10	1993	TBD
TD013	Transfer Truck	Cummins	L10	1993	TBD
TD011	Transfer Truck	Cummins	L10	1993	TBD

Equipment in the shaded rows is currently or has recently operated on the SAIP.

An attractive element of the HUSS MK-System is that it offers flexibility with respect to mounting location along the equipment's exhaust stream. This is due to the device using active regeneration as opposed to passive regeneration. A passive regeneration device relies solely on the heat of the exhaust gas to initiate an internal catalytic reaction that raises the internal temperature of the device to a point at which the accumulated particulate matter vaporizes. This typically requires that the equipment's exhaust system be characterized through pre-installation data-logging to determine appropriate device mounting locations; i.e. the location where the exhaust system is hottest.

An actively regenerated device creates its own heat, so mounting location is less sensitive. Flexibility in device mounting will help alleviate issues relative to the device obscuring the operator's field of view, a safety concern that was raised relative to motor graders operating on the SAIP.

Conditionally Verified Diesel Emission Control System – Cleaire Horizon

The Air Resources Board conditionally verified the Cleaire Horizon™ Electric Particulate Filter[21] for use with all off-road diesel engines through the 2007 model year certified to a particulate matter emission level equal to or less than 0.4 grams per brake horsepower-hour having displacements up to 15 liters, except those equipped with either diesel oxidation catalysts or exhaust gas recirculation systems. The Horizon uses a silicon carbide wall-flow filter with an electric heater for regeneration to achieve greater than 85 percent reduction in emissions of diesel particulate matter. The specific conditions for which the Horizon has been approved are included in the conditional verification letter[22] dated January 26, 2007; key requirements are pasted below:

[21] www.cleaire.com/web/index.shtml
[22] http://www.arb.ca.gov/diesel/verdev/level3/cleairehorizon_condverifletter.pdf

CARB hereby finds that the Horizon reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to an 85 percent reduction). ARB also finds that the Horizon satisfactorily completed at least 33 percent of the durability demonstration period for off-road diesel engines.

CARB hereby finds that the Horizon reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to an 85 percent reduction). ARB also finds that the Horizon satisfactorily completed at least 33 percent of the durability demonstration period for off-road diesel engines. Accordingly, ARB determines that the system merits conditional verification and, subject to the terms and conditions specified below, classifies the Horizon as a Level 3 system for off-road applications that use diesel engines.

The Horizon is compliant with the 2009 nitrogen dioxide emissions limit and as such is designated as a "Plus" system per section 2702(f) of the Procedure. The aforementioned conditional verification is subject to the following terms and conditions:

- The Horizon is conditionally verified for a period **not to exceed three years from the date of this letter**. For the Horizon to be considered for full verification, Cleaire must complete all remaining requirements as specified in the letter RAS-07-01 within three years of the date of this letter;
- Conditional verification is equivalent to verification for the purposes of satisfying the requirements of in-use emission control regulations;
- The engine must be certified to a PM emission level equal to or less than 0.4 grams per brake horsepower-hour;
- The engine must be model year 2007 or older;
- The engine must not have a displacement greater than 15 liters;
- The engine must not employ exhaust gas recirculation;
- The engine must not have a pre-existing diesel oxidation catalyst from the original equipment manufacturer;
- The engine must not have a pre-existing diesel particulate filter from the original equipment manufacturer;
- The engine can be mechanically or electronically controlled;
- The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer;
- Lubricating oil, or other oil, should not be mixed with the fuel;
- The product must not be used with any other systems or engine modifications without ARB and manufacturer approval.

The Cleaire Horizon™ is designed to provide diesel particulate (PM) reductions for in-use diesel engines in challenging applications and duty cycles associated with off-road use. This device incorporates an active on-board regeneration system that uses electricity, through an integrated heating element, to "cook off" the captured diesel particulate while the vehicle or equipment is parked overnight. The Horizon utilizes a controller that monitors system parameters and controls the automatic electric regeneration process. The controller also stores monitored parameters in memory for later data retrieval and analysis.

The device is constructed of stainless steel and uses a silicon carbide diesel filter. A photograph of the Cleaire Horizon™ is shown below:

Figure 8-3: Cleaire Horizon™ Conditionally Verified Level 3 Particulate Filter with On-Board Electric Regeneration

Compatibility of the Cleaire Horizon™ Off-Road System with Equipment Operating on the SAIP

The Third Party Monitor conducted a reassessment of all equipment included in the Master Equipment Database as it relates to compatibility with the Cleaire Horizon™ off-road diesel emission control system. The complete listing of equipment compatibility is included in Appendix A of this report.

It should be reiterated that the Cleaire Horizon™ is available in two (2) configurations; an on-road system and an off-road. The available on-road system is fully verified and the SAIP Equipment Database was assessed with respect to compatibility with the on-road device as an element of Task 1. Please refer to Task 1 of this report for a discussion of the Cleaire Horizon™ on-road device.

The reassessment of the equipment database was concerned only with the new "off-road" device, as this device received conditional verification subsequent to the most recent equipment review and approval conducted by LAWA. While compatibility with this device cannot be applied retroactively, it may be applicable to future LAX Master Plan projects.

The Third Party Monitor reviewed each piece of diesel equipment included in the database relative to its engine model year, engine displacement, and nominal particulate matter emission factor expressed in grams per brake-horsepower-hour. The latter was derived from the 2005 revision of the CARB Carl Moyer Program Guidelines[23].

Out of the 255 pieces of diesel equipment assessed, ten (10) are specifically not compatible with the Cleaire Horizon™, as follows:

[23] www.arb.ca.gov/msprog/moyer/guidelines/2005_Carl_Moyer_Guidelines_Part4.pdf

Table 8-3: Equipment NOT Compatible with Cleaire Horizon™ Conditionally Verified Device

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Family
15605	Air Compressor	Cummins	4BT3.9C	1993	TBD
E01350	Generator Set	Isuzu	QD-60	1997	TBD
E01422	Air Compressor	John Deere	4039D366184	1985	TBD
E01437	Compressor	Deutz	F4L912	1990	TBD
E01457	Air Compressor	John Deere	4045DF150	1998	WJDXL06.8016
E02323	Light Tower	Kubota	D850-B	1995	TBD
E01361	Light Tower	Kubota	D850-B	1995	TBD
E01384	Light Tower	Kubota	D850-B	1998	TBD
E01388	Light Tower	Kubota	D850-B	1993	TBD
P-N/A	15 Ton Grove Crane	DDC	125032	1970	TBD

The equipment listed in Table 8-3 utilizes diesel engines that most likely exceed the 0.4 gram per brake horsepower-hour maximum allowable for the Cleaire Horizon off-road system.

The following equipment is also not compatible with the Cleaire Horizon off-road system, but is compatible with the Cleaire Horizon on-road system, as reported in Task 1:

Table 8-4: Equipment Compatible with On-Road Cleaire Horizon

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Family
E01138	Water Truck	Cummins	N14	1997	VCE855EJDARB
E01139	Water Truck	Cummins	N14	1997	VCE855EJDARB
E01137	Water Truck	DDC	Series 60	1999	XDDXH11.1EHL
B04018	Flat Bed Dump	Cummins	B5.9-190	1997	VCE359D6DABW
E05317	Lube Truck	Caterpillar	3126	1998	WCPXH0442HRK
E05319	Flat Bed Dump	Caterpillar	C10	1999	XCPH0629ERK
E05320	Flat Bed Dump	Caterpillar	C10	1999	XCPH0629ERK
E03000	Air Sweeper	Isuzu	4HK1TC	2005	5SZXH05.23AB
E03002	Air Sweeper	Cummins	ISB 200	2005	5CE10359BAG
E01143	Water Truck	Cummins	N14	1997	VCE855EJDARB
E01144	Water Truck	Cummins	N14	1997	VCE855EJDARB
E03003	Air Sweeper	Cummins	ISB 200	2005	5CE10359BAG
B06017	Mechanic's Truck	Cummins	ISB185	2000	YCEXH0359BOP
Water Truck	Water Truck	Caterpillar	3126	1999	XCPXH0442HRK

The equipment in the shaded rows currently or has recently operated on the SAIP. None of the equipment listed in Table 8-4 is outfitted with a retrofit device.

Also, it should be noted that approximately twenty (20) pieces of equipment could not be assessed; this was due to incomplete information or uncertainty in the specific engine configuration or particulate matter emission factor. In these cases, the device manufacturer would be required to work with the equipment owner to determine whether or not this equipment is compatible with the Cleaire Horizon off-road device.

Finally, it should be understood that the Horizon, similar to the Engine Control Systems Combifilter device, does require electric power for regeneration. The availability of electric outlets in proximity to the construction project will in large part determine whether this system is ultimately compatible with LAX construction activities.

The broad applicability of recently verified VDECS will dramatically impact future LAX Master Plan projects. Of the 255 pieces of equipment reviewed, all but four (4) have a high probability of being compatible with a Level 3 diesel emission control system. The four pieces in question are shown below in Table 8-5:

Table 8-5: Equipment with Indeterminable Compatibility with an Existing VDECS

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Model Year	Engine Family
E01145	Water Truck	Caterpillar	C7	2006	TBD
TD012	Transfer Truck	Cummins	L10	1993	TBD
TD013	Transfer Truck	Cummins	L10	1993	TBD
TD011	Transfer Truck	Cummins	L10	1993	TBD

The equipment in Table 8-5 may be compatible with the HUSS device; however, this cannot be confirmed until such time as engine family designations are provided.

Task 9: Development and Implementation of Public Complaint Registration Process

Task 9 of the Third Party Monitor Scope of Work requires the contractor to develop and implement a public complaint registration process. The components of the task are:

Task 9.1 – Contractor shall develop and implement a process allowing any member of the public to register a complaint alleging any entity's noncompliance with the requirements of CBA Section X.F.

Task 9.2 – Contractor shall investigate all complaints registered by a member of the public and determine if, when, and where a violation occurred. Contractor shall notify LAWA and the LAX Coalition Representative each time a complaint is registered.

Task 9.3 – Contractor shall provide records or summaries of public complaints registered with Contractor, including actions, findings, and determinations, to the public upon request. Contractor shall provide LAWA and the LAX Coalition Representative copies of all actions, finding, and determinations requested by the public.

As LAWA already has a widely publicized hotline for complaints, it was decided to utilize the existing number instead of establishing a new one. In fact, there have been remarkably few complaints. Several of the ones received, were, upon investigation, found to be unrelated to SAIP construction. Table 9-1 lists each of the complaints and its resolution.

Table 9-1: Public Complaints

DATE	COMPANY	ISSUE
08/29/06	Public Complaint	Excessive noise reported at 6:30am. Complaint valid since prelim noise abatement recommendation is to not conduct breaking operations prior to 7am on weekdays.
08/30/06	Public Complaint	Same report w/in 12 hr period.
11/08/06	Public Complaint	An anonymous caller to the South Coast Air Quality Management District (AQMD) called regarding excessive dust from the rock crusher stock pile. The AQMD did not make an onsite inspection, but did call a LAWA environmental engineer. CH2M Hill staff followed up.
12/05/06	Public Complaint	Trucks were attempting deliveries during the 7:00 am and 9:00 am no-delivery period. Prior warnings were issued. No additional calls were placed to the Complaint Hotline.
12/06/06	Public Complaint	Trucks were attempting deliveries during the 7:00 am and 9:00 am no-delivery period. Prior warnings were issued. No additional calls were placed to the Complaint Hotline
01/11/07	Public Complaint	Noise Complaint – A member of the public complained of loud music emanating from the airfield. The origin point of the noise was the private jet fixed base operation and not SAIP construction activity.
01/12/07	Public Complaint	Noise Complaint – A member of the public complained of vehicle "backup beeper" noise between the hours of midnight and 5:00 am. These vehicles were found to be operating at a cargo terminal and were not related to SAIP construction.

Task 10: Development of Monitoring, Documentation, and Reporting Processes and Procedures

Task 10 of the Interim Third Party Monitor Scope of Work states:

> The Contractor is responsible to monitor, document, and independently report to LAWA and the Coalition compliance with the requirements of CBA Section X.F. To facilitate reporting, Contractor shall develop all necessary tools, including but not limited to Microsoft™ Excel and/or Access spreadsheet and database programs, to facilitate tracking of devices installed on LAX Master Plan Program construction-related diesel equipment and the tracking of exemptions granted. Contractor will provide semi-annual updates of diesel construction equipment in use on LAX Master Plan Program projects.

Over the past six months, CFCI has developed an excel database that includes every piece of equipment encountered during the process of implementing the Third Party Monitor Program of the SAIP. The database is used to characterize each piece of

equipment used in the SAIP project by model number, engine family year and horsepower and to track exemptions, 20-day exemptions, installed VDECS and compatibility of equipment with available VDECS. Other Excel spreadsheets have been developed to track fuel receipts, enforcement actions and public complaints. CFCI continues to update and maintain the master database of equipment.

Task 11: Semiannual Reporting

The six month report is prepared in conformity with Task 11.

> Contractor shall report on a semiannual basis to LAWA and the Coalition compliance with the requirements of CBA Section X.F. This shall include, but not be limited to, devices installed on LAX Master Plan Program construction-related diesel equipment, summary of exemptions granted, and a summary of violation reports.

SECTION 6: KEY RESULTS AND CONCLUSIONS

Key Results

As the Interim Independent Third Party Monitor required by the Community Benefits Agreement, the CFCI team has been working for the past six months implementing the provisions of Section X.F of the CBA. The following is a summary of our key accomplishments:

- Created a database of more than 255 construction-related vehicles or pieces of equipment either working on the SAIP or for which paperwork was submitted by the Contractor.
- Actively worked with CARB on the development of the Showcase off-road diesel equipment control device demonstration program.
- Verified use of ultra low sulfur diesel in all vehicles and reviewed fuel purchase receipts.
- Developed a Draft Project Description for a LAWA Off-Road Diesel Emission Control Device Demonstration Project.
- Compiled an inventory of verified on-road and off-road Diesel Emission Devices and evaluated the compatibility with SAIP construction equipment.
- Reviewed all requests for exemption from compliance with Best Available Control Technology and reported observations and comments on the policy regarding exemptions to LAWA.
- Reviewed all 20 day exemptions and checked on-site equipment against exemption list.
- Calculated emissions reductions from the installation of VDECS on 12 pieces of SAIP equipment.
- Compared age of fleet with CARB OFFROAD inventory to see if SAIP vehicles fit the state average or well older (dirtier) or newer.
- Compiled SAIP enforcement actions and a list of public complaints and their resolution.
- Physically monitored the SAIP at least bi-weekly to check for any reportable actions and photograph equipment on site.

- Reconciled CFCI database with LAWA equipment database.
- Monitored equipped modified with VDECS and reviewed reports from manufacturer of the device.
- Requested review of maintenance records for SAIP equipment.

Conclusions

The following are some of our conclusions based on the past six months of work as your Third Party Monitor.

- In general, the program has operated very smoothly, which is a real accomplishment. We believe that CFCI has established a positive working relationship with LAWA staff and contractors. We have made every effort to do our work with minimal interference to SAIP operations. The new environmental requirements, procedures and additional monitoring required as part on implementation of the first LAX Master Plan project has added to the workload of all parties, but there has generally been a sincere effort to comply, provide requested information and resolve differences. We expect that in the future, as the equipment evaluation and exemption procedures are fine tuned, the quality of the documentation will improve. Along that line, we strongly recommend upfront communication with future contractors to assist them in preparing complete equipment request submissions that will save time and effort for all parties.

- The new construction-related environmental requirements mandated by the CBA and other mitigation documents have clearly resulted in emission reductions on the SAIP project. For example, LAWA required the construction contractor to install ECS Purifilter VDECS on 12 pieces of equipment. This device is verified for on-road use, but as permitted in the CBA Section X.F.1 is being used and demonstrated in an off-road application.

- CFCI's work has revealed a need for clarification of some of the new requirements. For example, Section X.F.1 of the CBA for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices. Section X.F.3 states that *"Any emission control device used pursuant to Section X.F.1 shall achieve emission reduction no less than what could be achieved by a Level 2 diesel emission control strategy…"* Level 2 verification is a 50% or greater reduction in diesel exhaust particulate matter. It is not clear from these two citations whether a Level 1 device should be required if it is the Best Available Control Technology.

- Another area requiring clarification is the applicability of BACT to on-road vehicles. A number of the vehicles that come onto the construction site are licensed as on-road vehicles and do have BACT devices available. While at the construction site, they are operating in an off-road application. To date, these vehicles have been exempted from compliance with BACT. Hence, LAWA and the Coalition may wish to clarify this interpretation.

- A third “grey” area is the availability of on-road BACT for installation on off-road equipment. Several on-road BACT devices are compatible for use with certain off-road engines. CFCI consulted CARB on this issue and their stated position is that in most cases, it is allowable to use an on-road VDECS in a licensed on-road vehicle, even if the vehicle spends a portion of its operation in an off-road environment. LAWA has taken a more conservative approach, however, and granted exemptions to on-road equipment that is equipped with engines not compatible with a verified off-road VDECS.

- The availability of Verified Diesel Emission Control Devices has changed considerably over the past six months. When CFCI began as Third Party Monitor in August 2006, there were only two available VDECS and they required lengthy periods for regeneration. In November 2006, the new HUSS device received CARB verification. This device regenerates in 20 to 30 minutes and is compatible with most off-road equipment. Another device, the Cleaire which was already verified for on-road use has now received provisional verification for off-road use. As a result of these changes, there are be more BACT options for equipment and we expect fewer exemptions to be issued in the future. In addition, there should be more emissions reductions compared to the current baseline.

In conclusion, Clean Fuel Connection, Inc. appreciates the opportunity to be the Interim Independent Third Party Monitor for the South Airfield Improvement Program. We are pleased to be part of this pioneering public-private partnership that is initiating a new cooperative effort between the LAWA and its surrounding communities.

Independent Third Party Monitor Semiannual Report

Los Angeles International Airport
South Airfield Improvement Project (SAIP)

Prepared by:
Clean Fuel Connection, Inc.
December 31, 2007

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APPENDICES

SECTION 1 EXECUTIVE SUMMARY

This Semiannual Report was prepared by Clean Fuel Connection Inc. (CFCI), Independent Third Party Monitor for LAX Master Plan Projects, and is submitted in accordance with Section X.F.8 of the Community Benefits Agreement (CBA). This is the second Semiannual Report for the South Airfield Improvement Project (SAIP), the first having been submitted in April 2007.

CFCI has been monitoring implementation of Section X.F. of the CBA, as well as the broader environmental requirements stipulated in Section 21 of the Special Provisions conformed Set[1]. As the Third Party Monitor, CFCI's role is to observe, document and report on the operations of the construction-related diesel equipment on the SAIP program. Our role is not enforcement of the provisions of the CBA, but rather independent verification and documentation of compliance.

Tasks Accomplished – Since submittal of the April 2007 Semiannual Report, CFCI's efforts in monitoring, documenting, and reporting on the status of CBA Section X.F implementation progress included:

- Physical inventories of diesel equipment operating on the SAIP or located in contractor equipment maintenance and staging areas. These inventories were conducted bimonthly;
- Expansion of the database to include all known equipment utilized in the SAIP, including equipment operating under a 20-day exemption and equipment granted immediate short term airfield access for reasons of expediency;
- Field verification of the equipment database and reconciliation to LAWA project management vehicle records;
- Annual reassessment of available emission control devices in accordance with CBA Section X.F.9, and evaluation of available diesel emission control devices applicable diesel equipment operating on the SAIP;
- Examination and verification of requests for exemptions from installation of Best Available Control Technology (BACT);
- Examination of fuel purchase records to verify that low sulfur diesel is being used;
- Monitoring of installed emission control devices on SAIP construction equipment, including teleconferences with the device manufacturer relative to device durability and contractor maintenance procedures;
- Quantification of emission reductions attributable to the use of diesel emission control devices;
- Quantification of emissions avoidance by using onsite concrete aggregate production in lieu of runway debris export and concrete import;

[1] Special Provisions Conformed Set, LAX Runway 25L and Center Taxiway Improvements, August 23, 2005.

- On-airfield monitoring of SAIP construction equipment operations enforcement, including equipment idling restrictions, fugitive dust emissions, and equipment in an apparent state of disrepair.

Findings of the Third Party Monitor – The following are significant findings of the Third Party Monitor for the reporting period commencing May 1, 2007 and ending December 31, 2007:

- Construction of Runway 25L was completed as of April 2007. Construction activity continues on the Center Taxiway located between runways 25L and 25R;

- Physical inventories of diesel equipment located on the SAIP were conducted over the past six months, the most recent as of October 26, 2007. The number of pieces of diesel equipment is steadily being reduced as construction of the center taxiway nears completion. At this time, there are approximately 123 pieces of equipment located on the SAIP; however, approximately one-half of this equipment is being stored by the construction contractors and is not currently in use on SAIP construction. The actual number of pieces of equipment used on SAIP construction activities is approximately 40 -60 pieces daily. Table 1-1 documents the results of the diesel equipment inventory conducted on 10-26-07:

Table 1-1: Diesel Equipment Recorded on SAIP on 10-26-07

Equipment Number	Equipment Owner	Equipment Category	Engine Compatible with ESC Combifilter	VDECS Status
E00484	Tutor Saliba	Backhoe	NO	
E00492	Tutor Saliba	Rubber Tire Loader	NO	
E00139	Tutor Saliba	Scraper	NO	
E00140	Tutor Saliba	Scraper	NO	
E00499	Tutor Saliba	Rubber Tire Loader	NO	
E00519	Tutor Saliba	Motor Grader	NO	
E01137	Tutor Saliba	Water Truck	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E00647	Tutor Saliba	Compactor	NO	
E00648	Tutor Saliba	Compactor	NO	
E00343	Tutor Saliba	Dozer	NO	
E05319	Tutor Saliba	Flat Bed Dump	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E03000	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with level 3 On-Road VDECS
E03002	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E01144	Tutor Saliba	Water Truck	NO	Exempted, but

				Compatible with level 3 On-Road VDECS
E01240	Tutor Saliba	School Bus	NO	
E01145	Tutor Saliba	Water Truck	NO	
E03001	Tutor Saliba	Air Sweeper	NO	
E03003	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with level 3 On-Road VDECS
E00629	Tutor Saliba	Compactor	NO	
E01286	Tutor Saliba	Forklift	NO	
E02315	Tutor Saliba	Light Plant	NO	
E02305	Tutor Saliba	Light Plant	NO	
E02314	Tutor Saliba	Light Plant	NO	
E02303	Tutor Saliba	Light Plant	NO	
E00483	Tutor Saliba	Rubber Tire Loader	NO	
B14103	RL Brosamer	Backhoe Loader	NO	
B14105	RL Brosamer	Backhoe Loader	NO	
B22102	RL Brosamer	Texture Cure	NO	
B13110	RL Brosamer	Forklift	NO	
B20014	RL Brosamer	Slipform Paver	NO	
B17481	RL Brosamer	Light Plant	NO	
B17483	RL Brosamer	Light Plant	NO	
B17482	RL Brosamer	Light Plant	NO	
B13608	RL Brosamer	Wheel Loader	NO	
E00233	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00234	Tutor Saliba	Articulated Dump	YES	ECS Purifilter installed
E00235	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00236	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00237	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00238	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00514	Tutor Saliba	Motor Grader	YES	Safety Exemption
E00518	Tutor Saliba	Motor Grader	YES	Safety Exemption
E00733	Tutor Saliba	Backhoe/Excavator	YES	ECS Purifilter Installed
E01361	Tutor Saliba	Light Tower	NO	
E01384	Tutor Saliba	Light Tower	NO	
E01388	Tutor Saliba	Light Tower	NO	

P204	PRS	Paving Machine	NO	
R303	PRS	Roller	NO	
13203	RL Brosamer	Wheel Loader	YES	No VDECS Installed
B20007	RL Brosamer	Slipform Paver	NO	
E05296	Tutor Saliba	Passenger Bus	NO	
MLHB-105		Dump Truck	NO	
E00720	Tutor Saliba	Excavator	NO	
R306	PRS	Pneumatic Compactor	NO	
E00726	Tutor Saliba	Backhoe	NO	
E03410	Tutor Saliba	Skip Loader	NO	
E03416	Tutor Saliba	Backhoe Loader	NO	
E00351	Tutor Saliba	Dozer	NO	
E01437	Tutor Saliba	Compressor	NO	
E01422	Tutor Saliba	Air Compressor	NO	
15603	RL Brosamer	Air Compressor	YES	No VDECS Installed
17204	RL Brosamer	Generator Set	YES	No VDECS installed

While conducting the physical equipment inventories, the Third Party Monitor documented equipment that was not included in the Master Equipment Database, shown below in Table 1-2:

Table 1-2: Equipment Recorded During 10-26-07 Inventory that was Not in Database

Equipment Number	Equipment Owner	Equipment Category
17-106	RL Brosamer	60 KW Genset
13-610	RL Brosamer	Wheel Loader
58-101	RL Brosamer	Sweeper
B06018	RL Brosamer	Lube Truck
17-459	RL Brosamer	Light Tower
17-475	RL Brosamer	Light Tower
17-472	RL Brosamer	Light Tower
17-430	RL Brosamer	Light Tower
17-485	RL Brosamer	Light Tower
17-486	RL Brosamer	Light Tower
13-807	RL Brosamer	Bobcat
4-038	RL Brosamer	Roll-Off
4-019	RL Brosamer	Roll-Off

14-012	RL Brosamer	Wheel Loader
5-109	RL Brosamer	Water Truck
17-303	RL Brosamer	Caterpillar Genset
xx-235	RL Brosamer	Manlift
17-464	RL Brosamer	Light Tower
17-436	RL Brosamer	Light Tower
17-416	RL Brosamer	Light Tower
17-494	RL Brosamer	Light Tower
17-477	RL Brosamer	Light Tower
E03364	Tutor Saliba	Light Tower
6-011	RL Brosamer	Mechanic's Truck
2-041	RL Brosamer	Mechanic's Truck
E03417	Tutor Saliba	Loader
E01140	Tutor Saliba	Water Truck
E05101	Tutor Saliba	Mechanic's Truck
E01915	Tutor Saliba	Extec Screen Plant
E02477	Tutor Saliba	Manlift
EWD92		Welder
E02804	Tutor Saliba	Case Bobcat
E01339	Tutor Saliba	Light Tower
E01292	Tutor Saliba	Forklift
8-101	RL Brosamer	Water Truck
15-611	RL Brosamer	Air Compressor
13-019	RL Brosamer	Case Bobcat
14-009	RL Brosamer	Loader
17-441	RL Brosamer	Light Tower
261797		Ditch Witch Cutter
E00649	Tutor Saliba	Compactor
E00735	Tutor Saliba	Excavator
E02310	Tutor Saliba	Light Tower
E03368	Tutor Saliba	Light Tower
14-303	RL Brosamer	Excavator
E03425	Tutor Saliba	Loader
14-006	RL Brosamer	Loader
24-104	RL Brosamer	Belt Paver

9-103	RL Brosamer	Crane
E03370	Tutor Saliba	Light Tower
E01369	Tutor Saliba	Light Tower
E03365	Tutor Saliba	Light Tower
EA1305		Light Tower
13-101	RL Brosamer	Forklift
17-496	RL Brosamer	Light Tower
Rental	TBD	Bobcat
Rental	TBD	Bobcat
E02308	Tutor Saliba	Light Tower
E03363	Tutor Saliba	Light Tower
R307	Pavement Recycling	Compactor

Subsequent discussions with LAWA project management resulted in the following findings and actions:

- The construction contractor was notified by LAWA project management that diesel equipment stored on the SAIP but lacking proper documentation must be immediately removed from the airfield. LAWA project management has subsequently notified the Third Party Monitor that the contractor has partially complied with this order and has initiated removal of undocumented equipment from the airfield;
- Specific classes of diesel equipment, notably portable light towers, were granted a Categorical Exemption by LAWA project management, as it has been conclusively shown that this equipment type is not compatible with any verified diesel emission control system. This equipment is documented in Table 1.2-9 herein;
- The Third Party Monitor notified LAWA project management of additional equipment currently in operation or stored on the SAIP for which documentation was not available. This equipment is documented in Tables 1.2-11 and 1.2-12. It is the opinion of the Third Party Monitor that Equipment included in Table 1.2-11 is most likely not compatible with a verified diesel emission control system. The equipment listed in Table 1.2-12 has a reasonable probability of being compatible with a VDECS; however, this cannot be conclusively determined due to the unavailability of supporting documentation.

During the height of major runway construction, twelve (12) pieces of off-road construction equipment were retrofitted with the Engine Control Systems (ECS) Purifilter Level 3 particulate matter control device. Currently, seven (7) pieces of this retrofitted equipment remain in operation on the SAIP, as shown below in Table 1-3:

Table 1-3: Equipment Operating on SAIP as of 10-26-07 with ECS Purifilter Installed

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00233	Articulated Dump	Volvo	TD122KFE	1997	398
E00234	Articulated Dump	Volvo	TD122KFE	1998	398
E00235	Articulated Dump	Volvo	TD122KFE	1998	398
E00236	Articulated Dump	Volvo	TD122KFE	1999	398
E00237	Articulated Dump	Volvo	TD122KFE	1999	398
E00238	Articulated Dump	Volvo	TBD	TBD	398
E00733	Backhoe/Excavator	Caterpillar	3306	1996	362

Five (5) Purifilter-equipped vehicles have been reassigned to other construction projects by the equipment owner Tutor-Saliba. Table 1-4 illustrates the equipment originally retrofitted with a Verified Diesel Emission Control System (VDECS) that is no longer operating on the SAIP:

Table 1-4: Retrofitted Equipment No Longer Operating on SAIP

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00138	Scraper	Caterpillar	3116	1996	175
E03412	Rubber Tire Loader	Caterpillar	3306	1997	362
E00651	Compactor	Caterpillar	3176	2004	225
E00732	Excavator	Caterpillar	3176	1997	362
E00736	Excavator	Caterpillar	C9	2001	257

As reported in the previous Semiannual Report, the California Air Resource Board (CARB) had previously suggested that the SAIP could potentially serve as a venue for the "Showcase Program", the demonstration of unverified off-road diesel emission control devices in off-road construction equipment. Participation in Showcase would fall under Section X.F.2, Demonstration Projects, of the CBA. It was subsequently determined, however, that the SAIP would not meet the vehicle monitoring requirements deemed necessary by CARB due to the heightened level of airport security recently implemented at LAX.

Additional Findings:

- The use of VDECS on off-road construction equipment, onsite material recycling, and enforcement of vehicle idling and engine maintenance yielded substantial emission reductions for both criteria air pollutants as well as greenhouse gas emissions. Section 3, Task 3 included herein provides documentation and quantification of emission reductions attributable to air pollution mitigation strategies implemented on the SAIP;

- In conformance with the CBA and, more recently State law, only ultra-low sulfur diesel fuel (ULSD) was used on the SAIP construction activities commenced in May 2006. To date, over 422,570 gallons of fuel have been dispensed onsite using mobile equipment refueling. As Third Party Monitor, CFCI has requested and reviewed fuel purchase records maintained by the construction contractor;

- Enforcement actions taken by LAWA have been minimal given the magnitude of SAIP construction. Enforcement actions taken by LAWA are shown below in Table 1-5:

Table 1-5: Community Benefits Agreement Enforcement Actions Taken by LAWA

DATE	COMPANY	ISSUE
01/31/07	Tutor-Saliba	The South Coast Air Quality Management District issued a Notice of Violation under AQMD Rule 403, "Fugitive Dust", on January 31, 2007. The contractor was found to have allowed an accumulation of dirt from construction vehicles to accumulate on World Way West. Contractor failed to remove dirt using street sweeping. Follow up inspections determined that contactor was in compliance with Rule 403.
07/10/07	Independent Trucking Company	An unidentified independent trucking company was cited by LAWA for violating the 7:00 am – 9:00 am delivery blackout period. This company had received a previous warning regarding allowable delivery times. LAWA levied a fine in the amount of $1,000.
07/13/07	Tutor-Saliba	Tutor-Saliba was notified of excess dust emissions emanating from the construction vehicle queuing area. A water truck was dispatched to suppress the excess dust emissions. No fine was levied.
09/24/07	Tutor-Saliba	The Third Party Monitor informed LAWA project management of excessive dust emissions. Tutor-Saliba was then notified by LAWA project management of the excessive dust emissions on the center taxiway haul road. A water truck was dispatched to suppress the excess dust emissions. No additional formal action was taken or fine levied.
10/5/07	Tutor-Saliba	LAWA received complaints from community residents of excessive dust emanating from the construction site. The construction site was experiencing higher than normal wind velocities. Tutor-Saliba was notified of the dust complaints and dispatched one (1) water truck to suppress the dust.
10/5/07	Tutor-Saliba	LAWA received a second dust complaint from a member of the community. LAWA informed Tutor-Saliba of the complaint. One (1) water truck was dispatched by Tutor-Saliba to suppress the excessive dust emissions. LAWA deemed this response inadequate and notified Tutor-Saliba that additional water suppression was needed. No additional enforcement action was taken by LAWA.

10/8/07	Tutor-Saliba	LAWA Project Management notified the construction contractor that a piece of construction equipment operating on the SAIP was emitting visible smoke. The equipment number for this vehicle is TBD. The contractor was told to repair the equipment or remove if from the SAIP. The vehicle was subsequently repaired and returned to service. A follow up inspection by LAWA determined that the piece of equipment was emitting less smoke; however, that additional observations were warranted to ensure the equipment had been adequately repaired.
10/15/07	Tutor-Saliba	LAWA project management observed a Caterpillar D10 bulldozer operating on the SAIP; it was determined that this equipment had not submitted documentation seeking a BACT exemption. It was determined by LAWA that the equipment would be granted a 20-day exemption. No fine was levied.
10/26/07	Tutor-Saliba	LAWA Project Management, on behalf of the Third Party Monitor, notified contractor of excessive dust emissions emanating from construction operations. A front loader was loading loose soil into a dump truck, creating dust emissions. A water truck was dispatched to suppress the dust – no further action was taken by LAWA and no fine was levied.

Finally, In accordance with Section X.F.9 of the CBA, the Third Party Monitor conducted an assessment of emission control devices verified by CARB subsequent to the start of SAIP construction. As discussed in Section 3, Task 8 of this report, the vast majority of diesel equipment currently operating on the SAIP is compatible with one or more of these newly verified devices. These devices will be available as Best Available Control Technologies (BACT) on the next LAX Master Plan Project.

SECTION 2 INTRODUCTION

Over the past year, Clean Fuel Connection Inc. (CFCI) performed in the capacity of Independent Third Party Monitor (Third Party Monitor) for Los Angeles World Airports (LAWA), monitoring construction activities at the on-going South Airfield Improvement Project (SAIP) at Los Angeles International Airport (LAX).

This report was prepared in compliance with the reporting requirements set forth in Section X.F.8 of the Community Benefits Agreement (CBA). This is the second Semiannual Report for the SAIP, the first having been submitted in April 2007.

CFCI has been monitoring implementation of Section X.F. of the CBA, as well as the broader environmental requirements stipulated in Section 21 of the Special Provisions conformed Set[2]. As the Third Party Monitor, CFCI's role is to observe, document and report on the operations of the construction-related diesel equipment on the SAIP program. Our role is not enforcement of the provisions of the CBA, but rather independent verification and documentation of compliance.

In the ensuing six months since the first Semiannual Report, major construction on Runway 25L was completed, and work has commenced on reconfiguring the center taxiway between runways 25L and 25R. As a result of this shift in construction focus, the number of pieces of diesel construction equipment operating on the SAIP was reduced by a factor of approximately 25% as compared to the levels sustained during major runway construction.

Since submittal of the April 2007 Report, CFCI's efforts in monitoring, documenting, and reporting on the status of CBA Section X.F implementation progress included:

- Physical inventories of diesel equipment operating on the SAIP or located in contractor equipment maintenance and staging areas. These inventories were conducted bimonthly;
- Expansion of the database to include all known equipment utilized in the SAIP, including equipment operating under a 20-day exemption and equipment granted immediate short term airfield access for reasons of expediency;
- Field verification of the equipment database and reconciliation to LAWA project management vehicle records;
- Annual reassessment of available emission control devices in accordance with CBA Section X.F.9, and evaluation of available diesel emission control devices applicable diesel equipment operating on the SAIP;
- Examination and verification of requests for exemptions from installation of Best Available Control Technology (BACT);
- Examination of fuel purchase records to verify that low sulfur diesel is being used;
- Monitoring of installed emission control devices on SAIP construction equipment, including teleconferences with the device manufacturer relative to device durability and contractor maintenance procedures;

[2] Special Provisions Conformed Set, LAX Runway 25L and Center Taxiway Improvements, August 23, 2005.

- Quantification of emission reductions attributable to the use of diesel emission control devices;

- Quantification of emissions avoidance by using onsite concrete aggregate production in lieu of runway debris export and concrete import;

- On-airfield monitoring of SAIP construction equipment operations enforcement, including equipment idling restrictions, fugitive dust emissions, and equipment in an apparent state of disrepair.

The purpose, therefore, of this second Semiannual Report is to document CFCI's efforts as they relate to the accomplishments described above, as well as enumerate the degree to which SAIP construction activities conform to all requirements incorporated in CBA Section X.F.

It should be noted that no changes in project personnel were made by CFCI since the last Semiannual Report. The primary project staff is comprised of the following individuals:

- *Enid Joffe*, founder and co-owner of Clean Fuel Connection, Inc., a licensed contracting and environmental consulting company providing independent engineering and regulatory compliance assessments to both government agencies and the private sector;

- *Ray Gorski*, lead air quality engineer on the SAIP project and principal field engineer;

- *Lauren Dunlap*, air quality engineer and principal analyst in determining compatibility of emission control devices and calculations of emission reductions for VDECS installed on SAIP equipment;

- *Stefanie Ly*, administrative analyst for CFCI responsible for project monitoring and electronic database development and maintenance.

Also, the implementation methodology employed during the initial reporting period was retained and utilized for conducting Third Party Monitor tasks during the second period. This methodology can be briefly summarized as follows:

- *Fully Understand Program Requirements and Customer Expectations* – In the course of implementing our work scope as the Independent Third Party Monitor, CFCI coordinated with the Chief Airports Engineer, contracts manager, and project environmental staff relative to program requirements and performance expectations;

- *Define Roles and Responsibilities* - The CFCI Team has clearly defined its role as "monitor, document and report" as an independent third party, not representing any individual stakeholder. The CFCI team members have many years experience working with local governments and community organizations on complex issues and brings these skills to our role as Third Party Monitor;

- *Establish an Appropriate On-Site Presence* – CFCI is regularly onsite at the SAIP to coordinate with members of the environmental compliance staff and monitor equipment with installed emission control devices, while ensuring that our work does not interfere with any SAIP construction operations and that CFCI team members follow all required safety and security precautions;

- *Ensure Monitoring Processes, Tracking Tools, and Documentation Procedures are In Place* – CFCI created independent databases of equipment and exemptions granted fuel receipts, verified emission control devices and enforcement actions/public complaints and reconciled those to the records of the LAWA SAIP construction manager;

- *Employ Disciplined Project Management Practices and Procedures* – CFCI, in their role as prime contractor and Project Manager, strives to ensure that project management functions for this work effort are conducted efficiently and comprehensively using industry best practices and government-accepted accounting procedures;

- *Update Available Technology Database* — CFCI continues to stay abreast of new developments in diesel emission control technologies including newly verified devices or de-listed devices. In conformance with CBA Section X.F.9.a., CFCI conducted a reassessment of available diesel emission control devices.

Finally, CFCI continues to compile a list of "lessons learned" as it relates to the responsibilities of the Third Party Monitor. A summary is included at the conclusion of this Semiannual Report.

SECTION 3 TASK-BY-TASK STATUS REPORT

The following section documents CFCI's work over the past six months on each of the specific tasks in the Third Party Monitor Scope of Work.

Task 1: Best Available Emissions Control Devices Required

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter on the order of 10 microns[3] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors. Section X.F.1 of the CBA applies the requirement to outfit all diesel equipment, including off-road vehicles such as heavy-duty construction equipment, as well as on-road vehicles such as trucks, street sweepers, etc. The requirement also affects non-mobile diesel sources, such as portable generators, air compressors, and light towers. Thus, the requirement to retrofit diesel equipment used in LAX Master Plan construction projects encompasses every piece of diesel equipment, irrespective of its status as on-road mobile, off-road mobile, or stationary.

Section X.F.1 requires that the diesel emission control systems used to retrofit diesel equipment be verified or certified for use on on-road or off-road vehicles or engines by the California Air Resources Board (CARB), or verified by the U.S. Environmental Protection Agency (EPA) for use on on-road or off-road vehicles or engines. Section X.F.1 further allows CARB and EPA-verified "mobile source" devices to be applied to "stationary sources", such as generator engines, and allows technologies verified for "on-road" engines to be applied to "off-road" equipment. Thus, the overall context of Section X.F.1 is very broad and allows maximum flexibility in matching diesel emission control systems with diesel equipment used in Master Plan construction.

The role and responsibilities of the Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

- Task 1.1 - Contractor shall develop a monitoring process and database to track each piece of diesel equipment used for construction, including documentation procedures and reporting requirements;

- Task 1.2 – Contractor shall monitor, document, and report independently from LAWA, each construction firm's compliance as it relates to outfitting their diesel construction equipment with the best available emissions control devices available.

The following are the results and findings of the Third Party Monitor as they relate to Tasks 1.1 and 1.2 for the period commencing in May 1, 2007 through December 31, 2007.

Task 1.1 – Monitoring Process, Database Development, and Documentation:

CFCI continued using the equipment monitoring and documentation process initially developed for the SAIP. This process was described in detail in the previous Semiannual Report. To briefly summarize, key elements of the monitoring process include:

[3] One micron equals $1x10^{-6}$ meter or 0.000001 meter.

- *Review of available documentation* – The principal source of technical information for each vehicle proposed for operation on the SAIP are the equipment reports submitted by the construction contractor for review by LAWA project management environmental staff. These reports document whether or not a compatible verified diesel emission control system (VDECS) is available for a given piece of diesel equipment;

- *Incorporation of all available data into Master Equipment List (Database)* – All relevant information derived from review of the equipment reports or field inspections is documented in the master equipment database. This database is the principal tool for performing independent verification and validation of the information contained in the equipment reports reviewed and approved by LAWA;

- *Identification and documentation of missing, inconsistent, or inaccurate data* – The database notes which pieces of information are either missing or whose accuracy is suspect;

- *Request for Additional Information and/or Clarification* – Missing data or data that require validation are compiled, and a request for clarification is issued by the Independent Third Party Monitor to LAWA project management staff;

- *Field Inspections* – In specific cases, the Independent Third Party Monitor will request permission to conduct a field inspection of the specific piece of equipment under scrutiny. In most cases, these field inspections can be conducted during the equipment's down time, the operator's lunch break or before or after the work shift. In limited cases, vehicles have been requested to cease operations momentarily during their workday to allow the Third Party Monitor to record needed information;

- *Task 1.2 Independent Verification and Validation* – For each piece of diesel construction equipment included in the database, an independent determination of whether or not a compatible VDECS device is available is conducted;

- *Documentation of Analysis Results* – For each piece of diesel equipment assessed, the availability and compatibility of a VDECS is recorded in the database;

- *Data Reconciliation* – The Third Party Monitor reconciles information contained in the database with the reports maintained by LAWA project management and the construction manager's staff.

<u>Task 1.2 – Independent Monitoring, Documentation, & Reporting of Compliance with CBA Section X.F.1; Best Available Emission Control Devices Required</u>:

The primary objective of this Task was to independently verify and validate the findings of LAWA project management and contractor staff as it relates to the availability and compatibility of diesel emission control systems for diesel equipment operating on the SAIP. Using the methodology described under Task 1.1, CFCI staff regularly coordinated with LAWA project management, requesting and receiving access to files and records for diesel equipment operating or proposed for operation on the SAIP.

Following completion of major construction on runway 25L, the construction focus shifted to the demolition and reconstruction of the center taxiway. While the types of equipment used in

construction of the center taxiway is for the most part similar to that of the runway, observations indicated that the number of pieces of equipment involved in day to day construction was reduced. To independently determine what equipment was being used on the SAIP and note previously used equipment that had been removed subsequent to runway completion, CFCI continued to conduct physical inventories of all diesel equipment on the airfield.

Physical Equipment Inventories were conducted on an approximately bimonthly basis. Each inventory was conducted using the following procedure:

- CFCI staff records equipment numbers or other designation for equipment operating in construction activity on the SAIP. CFCI also inventoried equipment located in contractor storage, maintenance, and repair areas on the airfield;
- CFCI would compile the list of equipment resulting from the physical inventory. This was then formally documented, recording the date the inventory was completed, etc.;
- The equipment list compiled during inventory was compared to the master database maintained by CFCI. The database was annotated to record equipment that was operating as of the date of inventory;
- Discrepancies between the inventory results and master database were noted; i.e., equipment that was operating on the airfield but not previously recorded in the database;
- The list of discrepancies was reconciled against the equipment files maintained by LAWA project management;
- Equipment operating or located on the airfield that did not have a corresponding file was brought to the attention of LAWA project management. This information was also documented in activity reports submitted by CFCI to LAWA;
- CFCI further discussed the status of the errant diesel equipment with LAWA project management to discern whether the equipment had been granted a 20-day exemption, categorical exemption, of allowed airfield access on a critical need basis;
- The final status of each piece of equipment was documented.

Prior to discussing the results of the physical inventory, it is beneficial to review the requirements and rules that dictate whether or not a piece of diesel equipment is or is not in compliance with the CBA.

The CBA stipulates in Section X.F.9.a. "Reassessments of Emission Control Devices", that *"the process of emission control technology review shall include any new relevant requirements or regulations promulgated by CARB or EPA. Results from the reassessments shall not be applied retroactively"*.

CBA Section X.F.9.b. further states under "Application of New Requirements", that *"any new designations of emission control devices as best available shall apply only to projects that start after the devices are verified or certified for use by CARB or EPA, or approved for use as part of a Demonstration Project"*.

These provisions are interpreted to mean that *only CARB-verified devices available at the commencement of SAIP construction activities are to be considered when assessing compliance with CBA Section X.F.1.*

At the time of commencement of SAIP construction activities, one (1) diesel emission control device was verified by CARB for off-road use. This device is the Engine Control systems (ECS) Combifilter, an actively regenerated device verified by CARB at Level 3, which equates to a reduction in particulate matter of greater than 85%. For a typical construction equipment duty cycle, the device requires regeneration approximately every eight hours. "Regeneration" is a process in which diesel particulate (soot) is filtered from the exhaust stream and collected in the device. The soot-loaded filter center body is then heated to temperatures necessary to burn the collected particulate into trace amounts of inert ash, thereby renewing or regenerating the filter center body.

For the ECS Combifilter, regeneration entails plugging the device into a control panel and electrically heating the filter, raising the device's internal temperature to a level where particulate is vaporized:

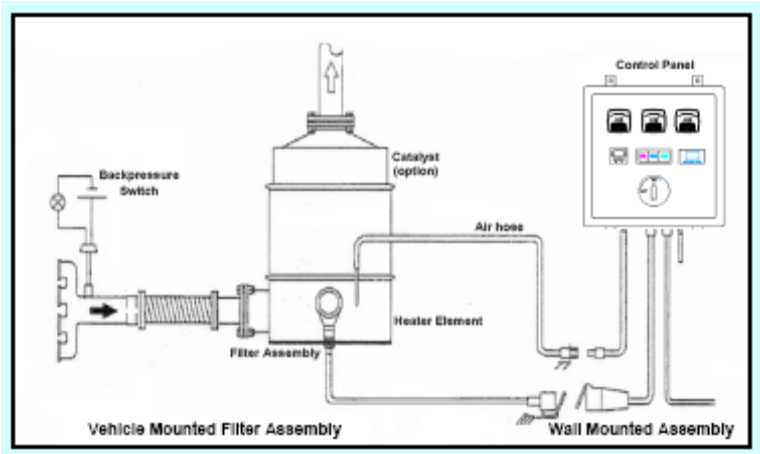

Figure 1.2-1 ECS Combifilter On-Board Regeneration System

The amount of time necessary to allow regeneration for this system is a function of the engine displacement and power rating and the particulate levels emitted. The ECS Combifilter Model "V" and "K" typically require an eight (8) hour regeneration period. The Model "S" system requires approximately 60 to 90 minutes for regeneration.

Thus, for the purpose of assessing BACT device compatibility for off-road equipment operating on the SAIP, the ECS Combifilter is the only device that construction contractors can be compelled to install, as it was the only off-road device verified by CARB at the commencement of SAIP construction.

As discussed in the previous Semiannual Report, LAWA determined that use of the ECS Combifilter on specific pieces of off-road construction equipment would be impractical due to the need to electrically regenerate the filter approximately every eight hours. In these cases, LAWA allowed the contractor to substitute an on-road Level 3 VDECS in lieu of the ECS Combifilter. A discussion of this on-road device's performance in an off-road application is further discussed in Section 4 of this Semiannual Report.

In addition, CBA Section X.F.1 also applies the requirement to outfit on-road vehicles and diesel stationary equipment with BACT devices. As previously reported, however, "on-road" CARB-verified diesel emission control systems were not considered a viable option by LAWA for any construction-related equipment, including on-road vehicles. It should be noted that the CBA explicitly does allow the use of on-road VDECS under Section X.F.1: *"The emission control devices utilized for the equipment at the LAX Master Plan Program construction shall be (i) verified or certified for use by CARB for on-road or off-road vehicles or engines…"* and that *"technology from EPA/CARB on-road verification lists may be used in the off-road context".* Thus, LAWA has adopted a highly conservative approach in granting exemptions to on-road equipment and vehicles equipped with engines not compatible with a verified off-road VDECS.

With this review as background, the results of the diesel equipment physical inventories will be discussed.

Inventory Conducted October 26, 2007: The October 2007 physical inventory is the most current as of the date of publication of this report. The next inventory is scheduled to be conducted in January 2008.

The diesel equipment shown in Table 1.2-1was recorded as operating on the SAIP or located on the airfield in contractor storage and maintenance yards. This equipment is included in the existing Master Database:

Table 1.2-1: Diesel Equipment Recorded on SAIP on 10-26-07

Equipment Number	Equipment Owner	Equipment Category	Engine Compatible with ESC Combifilter	VDECS Status
E00484	Tutor Saliba	Backhoe	NO	
E00492	Tutor Saliba	Rubber Tire Loader	NO	
E00139	Tutor Saliba	Scraper	NO	
E00140	Tutor Saliba	Scraper	NO	
E00499	Tutor Saliba	Rubber Tire Loader	NO	
E00519	Tutor Saliba	Motor Grader	NO	
E01137	Tutor Saliba	Water Truck	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E00647	Tutor Saliba	Compactor	NO	
E00648	Tutor Saliba	Compactor	NO	
E00343	Tutor Saliba	Dozer	NO	
E05319	Tutor Saliba	Flat Bed Dump	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E03000	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with level 3 On-Road VDECS

E03002	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with Level 3 On-Road VDECS
E01144	Tutor Saliba	Water Truck	NO	Exempted, but Compatible with level 3 On-Road VDECS
E01240	Tutor Saliba	School Bus	NO	
E01145	Tutor Saliba	Water Truck	NO	
E03001	Tutor Saliba	Air Sweeper	NO	
E03003	Tutor Saliba	Air Sweeper	NO	Exempted, but Compatible with level 3 On-Road VDECS
E00629	Tutor Saliba	Compactor	NO	
E01286	Tutor Saliba	Forklift	NO	
E02315	Tutor Saliba	Light Plant	NO	
E02305	Tutor Saliba	Light Plant	NO	
E02314	Tutor Saliba	Light Plant	NO	
E02303	Tutor Saliba	Light Plant	NO	
E00483	Tutor Saliba	Rubber Tire Loader	NO	
B14103	RL Brosamer	Backhoe Loader	NO	
B14105	RL Brosamer	Backhoe Loader	NO	
B22102	RL Brosamer	Texture Cure	NO	
B13110	RL Brosamer	Forklift	NO	
B20014	RL Brosamer	Slipform Paver	NO	
B17481	RL Brosamer	Light Plant	NO	
B17483	RL Brosamer	Light Plant	NO	
B17482	RL Brosamer	Light Plant	NO	
B13608	RL Brosamer	Wheel Loader	NO	
E00233	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00234	Tutor Saliba	Articulated Dump	YES	ECS Purifilter installed
E00235	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00236	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00237	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00238	Tutor Saliba	Articulated Dump	YES	ECS Purifilter Installed
E00514	Tutor Saliba	Motor Grader	YES	Safety Exemption
E00518	Tutor Saliba	Motor Grader	YES	Safety Exemption
E00733	Tutor Saliba	Backhoe/Excavator	YES	ECS Purifilter Installed
E01361	Tutor Saliba	Light Tower	NO	

E01384	Tutor Saliba	Light Tower	NO	
E01388	Tutor Saliba	Light Tower	NO	
P204	PRS	Paving Machine	NO	
R303	PRS	Roller	NO	
13203	RL Brosamer	Wheel Loader	YES	No VDECS Installed
B20007	RL Brosamer	Slipform Paver	NO	
E05296	Tutor Saliba	Passenger Bus	NO	
MLHB-105		Dump Truck	NO	
E00720	Tutor Saliba	Excavator	NO	
R306	PRS	Pneumatic Compactor	NO	
E00726	Tutor Saliba	Backhoe	NO	
E03410	Tutor Saliba	Skip Loader	NO	
E03416	Tutor Saliba	Backhoe Loader	NO	
E00351	Tutor Saliba	Dozer	NO	
E01437	Tutor Saliba	Compressor	NO	
E01422	Tutor Saliba	Air Compressor	NO	
15603	RL Brosamer	Air Compressor	YES	No VDECS Installed
17204	RL Brosamer	Generator Set	YES	No VDECS installed

The following additional equipment was identified on the airfield during the 10-26-07 inventory – this equipment was not in the Master Equipment Database as of that date:

Table 1.2-2: Equipment Recorded During 10-26-07 Inventory that was Not in Database

Equipment Number	Equipment Owner	Equipment Category
17-106	RL Brosamer	60 KW Genset
13-610	RL Brosamer	Wheel Loader
58-101	RL Brosamer	Sweeper
B06018	RL Brosamer	Lube Truck
17-459	RL Brosamer	Light Tower
17-475	RL Brosamer	Light Tower
17-472	RL Brosamer	Light Tower
17-430	RL Brosamer	Light Tower
17-485	RL Brosamer	Light Tower
17-486	RL Brosamer	Light Tower

13-807	RL Brosamer	Bobcat
4-038	RL Brosamer	Roll-Off
4-019	RL Brosamer	Roll-Off
14-012	RL Brosamer	Wheel Loader
5-109	RL Brosamer	Water Truck
17-303	RL Brosamer	Caterpillar Genset
xx-235	RL Brosamer	Manlift
17-464	RL Brosamer	Light Tower
17-436	RL Brosamer	Light Tower
17-416	RL Brosamer	Light Tower
17-494	RL Brosamer	Light Tower
17-477	RL Brosamer	Light Tower
E03364	Tutor Saliba	Light Tower
6-011	RL Brosamer	Mechanic's Truck
2-041	RL Brosamer	Mechanic's Truck
E03417	Tutor Saliba	Loader
E01140	Tutor Saliba	Water Truck
E05101	Tutor Saliba	Mechanic's Truck
E01915	Tutor Saliba	Extec Screen Plant
E02477	Tutor Saliba	Manlift
EWD92		Welder
E02804	Tutor Saliba	Case Bobcat
E01339	Tutor Saliba	Light Tower
E01292	Tutor Saliba	Forklift
8-101	RL Brosamer	Water Truck
15-611	RL Brosamer	Air Compressor
13-019	RL Brosamer	Case Bobcat
14-009	RL Brosamer	Loader
17-441	RL Brosamer	Light Tower
261797		Ditch Witch Cutter
E00649	Tutor Saliba	Compactor
E00735	Tutor Saliba	Excavator
E02310	Tutor Saliba	Light Tower
E03368	Tutor Saliba	Light Tower
14-303	RL Brosamer	Excavator

E03425	Tutor Saliba	Loader
14-006	RL Brosamer	Loader
24-104	RL Brosamer	Belt Paver
9-103	RL Brosamer	Crane
E03370	Tutor Saliba	Light Tower
E01369	Tutor Saliba	Light Tower
E03365	Tutor Saliba	Light Tower
EA1305		Light Tower
13-101	RL Brosamer	Forklift
17-496	RL Brosamer	Light Tower
Rental	TBD	Bobcat
Rental	TBD	Bobcat
E02308	Tutor Saliba	Light Tower
E03363	Tutor Saliba	Light Tower
R307	Pavement Recycling	Compactor

Discussion of 10-26-07 Inventory Results: The diesel equipment included in Table 1.2-1 has undergone an independent assessment of compatibility with verified diesel emission control devices in accordance with the procedure described in the preceding paragraphs.

As discussed in the prior Semiannual Report, a subset of the equipment operating on the SAIP are on-road vehicles compatible with Level 3 on-road verified devices, as shown below in Table 1.2-3:

Table 1.2-3: Vehicles Operating on SAIP as of 10-26-07 Compatible with On-Road VDECS

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Level 3 On-Road VDECS
E01137	Water Truck	DDC	Series 60 11.1L	1999	Cleaire Longview & Horizon
E05319	Flat Bed Dump	Caterpillar	C10	1999	Cleaire Longview & Horizon
E03000	Air Sweeper	Isuzu	4HK1TC	2005	Cleaire Horizon
E03002	Air Sweeper	Cummins	ISB 200	2005	Cleaire Horizon
E01144	Water Truck	Cummins	N14	1997	Cleaire Longview & Horizon; ECS Purifilter
E03003	Air Sweeper	Cummins	ISB 200	2005	Cleaire Horizon

A description of the on-road VDECS is included in Table 1.2-4:

Table 1.2-4: Compatible On-Road VDECS

Cleaire Horizon	DPF	85%	N/A	1994-2005 on-road; 15 ppm sulfur diesel; CARB diesel. Conditionally verified for off-road engines.
Cleaire Longview	Lean NOx Catalyst and DPF	85%	25%	1993-2003 model year on-road; 15 ppm sulfur diesel.

While compatible with the VDECS shown above, on-road vehicles operating in an off-road application have been granted an exemption by LAWA on the basis of potential insufficient durability when subjected to the rigors of an off-road environment.

As discussed in the previous Semiannual Report, LAWA also granted a categorical exemption to motor graders on the basis of safety concerns. Driver visibility would potentially be impacted due to the size and location of the VDECS device.

Figure 1.2-2: Caterpillar Motor Grade Exempted Due to Driver Visibility Concerns

The exempted motor graders operating on the SAIP as of October 26, 2007 are listed in Table 1.2-5:

Table 1.2-5: Motor Graders Currently Operating on SAIP

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Horsepower	Compatible w/Combifilter
E00514	Motor Grader	Caterpillar	3306	1996	225	YES
E00518	Motor Grader	Caterpillar	3306	2001	225	YES

Table 1.2-6 shows equipment currently operating on the SAIP equipped with Level 3 emission control systems. As previously noted, this equipment was determined to be compatible with the ECS Combifilter, the only off-road verified device available at the start of SAIP construction. However, due to perceived logistics issues related to off-vehicle electric regeneration, the decision was made to allow substitution of the Level 3-verified ECS Purifilter in lieu of the ECS Combifilter:

Table 1.2-6: Equipment Operating on SAIP as of 10-26-07 with ECS Purifilter Installed

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00233	Articulated Dump	Volvo	TD122KFE	1997	398
E00234	Articulated Dump	Volvo	TD122KFE	1998	398
E00235	Articulated Dump	Volvo	TD122KFE	1998	398
E00236	Articulated Dump	Volvo	TD122KFE	1999	398
E00237	Articulated Dump	Volvo	TD122KFE	1999	398
E00238	Articulated Dump	Volvo	TBD	TBD	398
E00733	Backhoe/Excavator	Caterpillar	3306	1996	362

E00234

E00733

As shown in Table 1.2-5, there were seven (7) pieces of diesel construction equipment retrofitted with Level 3 emission control devices operating on the SAIP as of October 26, 2007. This reflects a reduction of five (5) pieces as compared to the period of major runway construction, when a total of twelve (12) pieces of equipment were retrofitted. The retrofitted equipment no longer operating on the SAIP is described in Table 1.2-7, below:

Table 1.2-7: Retrofitted Equipment No Longer Operating on SAIP

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00138	Scraper	Caterpillar	3116	1996	175
E03412	Rubber Tire Loader	Caterpillar	3306	1997	362
E00651	Compactor	Caterpillar	3176	2004	225
E00732	Excavator	Caterpillar	3176	1997	362
E00736	Excavator	Caterpillar	C9	2001	257

E00651

E03412

E00732

E00138

The emission reductions resulting from the use of retrofitted diesel equipment over the past six-month period was quantified and is included in the Task 3 discussion section of this Semiannual Report.

Table 1.2-1 also lists diesel equipment that was independently determined to be incompatible with the ECS Combifilter. As stated, the ESC Combifilter was the only off-road VDECS available at the commencement of SAIP construction, and in accordance with the provisions of the CBA, the only device that a contractor can be compelled to use. The equipment listed in

Table 1.2-1 that is not compatible with the ECS Combifilter was granted an exemption by LAWA.

As will be discussed under Task 8 of this Report, new Level 3 off-road VDECS have subsequently received CARB verification. Per the terms of the CBA, however, these devices cannot be applied to SAIP construction-related vehicles retroactively. *It is significant, however, that each piece of equipment listed in Table 1.2-1 is now compatible with a Level 3 VDECS*.

Table 1.2-1 also identifies four (4) pieces of off-road construction equipment compatible with the ECS Combifilter but not retrofitted with this or any other diesel emission control device. The specific pieces of equipment are listed in Table 1.2-8:

Table 1.2-8: Equipment Compatible with ECS Combifilter but Not Retrofitted

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
13203	RL Brosamer	Wheel Loader	Linkbelt	2002
B20007	RL Brosamer	Slipform Paver	Gunnert/Zimmermen	1999
15603	RL Brosamer	Air Compressor	LeRoi	1997
17204	RL Brosamer	Generator Set	Caterpillar	1999

CFCI notified LAWA project management of the results of the physical equipment inventory and the findings as it pertained to the equipment listed in Table 1.2-8, above. The following information was provided by LAWA staff:

- The slipform paver, equipment number B20007, underwent an engine replacement. The original 1999 Caterpillar 3306B engine was replaced with a model year 2005 Caterpillar C9 diesel engine. It has been independently verified that the new engine is not compatible with the ECS Combifilter VDECS. Also, the master database has been updated to reflect the engine re-power;
- Equipment numbers 13203, 15603, and 17204 were subsequently removed from the SAIP. The Third Party Monitor was notified of this enforcement action on December 5, 2007.

The diesel equipment listed in Table 1.2-2 was recorded during the October 26, 2007 inventory; however, there was no record of this equipment in the Master Database maintained by CFCI. Subsequent discussions with LAWA project management yielded the additional information regarding the status of this equipment.

Light Towers – Based upon LAWA project management knowledge of what diesel engine families are and are not compatible with the ECS Combifilter, LAWA granted a Categorical Exemption for light towers:

Table 1.2-9 – Light Towers have Been Categorically Exempted

Equipment Number	Equipment Owner	Equipment Category
17-459	RL Brosamer	Light Tower
17-475	RL Brosamer	Light Tower
17-472	RL Brosamer	Light Tower
17-430	RL Brosamer	Light Tower
17-485	RL Brosamer	Light Tower
17-486	RL Brosamer	Light Tower
17-464	RL Brosamer	Light Tower
17-436	RL Brosamer	Light Tower
17-416	RL Brosamer	Light Tower
17-494	RL Brosamer	Light Tower
17-477	RL Brosamer	Light Tower
E03364	Tutor Saliba	Light Tower
E01339	Tutor Saliba	Light Tower
17-441	RL Brosamer	Light Tower
E02310	Tutor Saliba	Light Tower
E03368	Tutor Saliba	Light Tower
E03370	Tutor Saliba	Light Tower
E01369	Tutor Saliba	Light Tower
E03365	Tutor Saliba	Light Tower
E01305	Tutor Saliba	Light Tower
17-496	RL Brosamer	Light Tower
E02308	Tutor Saliba	Light Tower
E03363	Tutor Saliba	Light Tower

On-Road Vehicles - As discussed in preceding paragraphs, LAWA made a decision that on-road VDECS were not appropriate for off-road applications, even if the equipment is an on-road vehicle operating in a limited off-road capacity. Thus, LAWA granted a Categorical Exemption to on-road trucks operating on the SAIP. This includes the following vehicles (Table 1.2-10)

Table 1.2-10 – On-Road Vehicles have Been Categorically Exempted

Equipment Number	Equipment Owner	Equipment Category
E01140	Tutor Saliba	Water Truck
E05101	Tutor Saliba	Mechanic's Truck
58-101	RL Brosamer	Sweeper
B06018	RL Brosamer	Lube Truck
4-038	RL Brosamer	Roll-Off
4-019	RL Brosamer	Roll-Off
5-109	RL Brosamer	Water Truck
6-011	RL Brosamer	Mechanic's Truck
2-041	RL Brosamer	Mechanic's Truck
8-101	RL Brosamer	Water Truck
9-103	RL Brosamer	Crane

The Third Party Monitor was notified by LAWA project management that RL Brosamer has or is in the process of submitting an exemption request for equipment ID 9-103, a crane, as shown in Table 1.2-10. This will be independently reviewed by the Third Party Monitor once LAWA project management completes their BACT assessment.

Some diesel equipment included in Table 1.2-2 is undocumented, but in the opinion of the Third party monitor is unlikely to be compatible with the ECS Combifilter. This preliminary determination is based on prior assessments of similar equipment operating on the SAIP for which engine family data are available. These equipment include: (Table 1.2-11)

Table 1.2-11 – Undocumented Equipment Most Likely Not Compatible with VDECS

Equipment Number	Equipment Owner	Equipment Category
xx-235	RL Brosamer	Man-lift
13-807	RL Brosamer	Bobcat
E01915	Tutor Saliba	Extec Screen Plant
E02477	Tutor Saliba	Man-lift
E02804	Tutor Saliba	Case Bobcat
E01292	Tutor Saliba	Forklift
13-019	RL Brosamer	Case Bobcat
261797	TBD	Ditch Witch Cutter
13-101	RL Brosamer	Forklift

24-104	RL Brosamer	Belt Paver
Rental	TBD	Bobcat
Rental	TBD	Bobcat

Finally, there exists a subset of undocumented equipment residing on the airfield that has a moderate to high potential of being compatible with the ECS Combifilter, as shown in Table 1.2-12 below:

Table 1.2-12 – Undocumented Equipment that May be Compatible with ECS Combifilter

Equipment Number	Equipment Owner	Equipment Category
14-012	RL Brosamer	Wheel Loader
13-610	RL Brosamer	Wheel Loader
E03417	Tutor Saliba	Loader
14-009	RL Brosamer	Loader
E00649	Tutor Saliba	Compactor
E00735	Tutor Saliba	Excavator
14-303	RL Brosamer	Excavator
E03425	Tutor Saliba	Loader
14-006	RL Brosamer	Loader
R307	Pavement Recycling	Compactor
17-106	RL Brosamer	60 KW Genset
EWD92	TBD	Welder
15-611	RL Brosamer	Air Compressor
17-303	RL Brosamer	Caterpillar Genset

LAWA project management is aware of the undocumented equipment located on the SAIP. It is important to note that a majority of the undocumented equipment was located in contractor storage and maintenance yards on the airfield and not operating on the SAIP per se. The Third Party Monitor has been informed that discussions between LAWA project management and the SAIP construction contractors indicate that the contractors are using their SAIP equipment storage and maintenance facilities as holding or staging sites for future LAWA and non-LAWA construction projects. However, LAWA requires that documentation for all equipment operating or proposed for operation be submitted for independent BACT assessment prior to being moved onto the airfield. LAWA project management anticipates that a significant number of this equipment will be moved offsite immediately – the Third Party Monitor will continue to document the inventory of equipment on the airfield.

Task 2: Demonstration Projects

Section X.F.2 of the CBA states that LAWA may allow construction-related diesel equipment to be outfitted with new emission control systems that are not CARB verified or EPA certified for use for on-road or off-road vehicles or engines. Such projects will be designated by LAWA as "Demonstration Projects". The roles and responsibilities of the Independent Third Party Monitor as they relate to Demonstration Projects is set forth in Task 2 of the contract and includes the following two primary subtasks:

- Task 2.1 – The Third Party Monitor shall perform a technical evaluation of the proposed demonstration technology and provide written findings to the Coalition Representative and LAWA. The Third Party Monitor shall also assist with the implementation of a Demonstration Project, including identifying suitable emission control devices and Demonstration Project funding sources;

- Task 2.2 – Upon acceptance by LAWA, the Third Party Monitor shall monitor, document, and report independently from LAWA, compliance of the demonstration equipment with all defined Demonstration Project requirements, including but not limited to the pollution reduction requirements specified in Section X.F.3 of the CBA.

There is currently one (1) Demonstration Project on the SAIP, the on-going demonstration of the Engine Control Systems (ECS) Purifilter Level 3 on-road VDECS in an off-road construction application. As discussed in Task 1 above, twelve (12) pieces of off-road diesel construction equipment were initially retrofitted with the ECS Purifilter Level 3 diesel particulate filter[4]. At the completion of major construction on Runway 25L, several pieces of retrofitted equipment were removed from the airfield and deployed by the contractor on other jobsites. It is not known if the VDECS remain installed on the relocated equipment. At this time, seven (7) pieces of off-road VDECS-equipped construction equipment remain operating on the SAIP:

Table 2-1: Equipment Operating on SAIP as of 10-26-07 with ECS Purifilter Installed

Equipment Number	Equipment Category	Engine 1 Manufacturer	Engine Model	Engine Model Year	Engine Horsepower
E00233	Articulated Dump	Volvo	TD122KFE	1997	398
E00234	Articulated Dump	Volvo	TD122KFE	1998	398
E00235	Articulated Dump	Volvo	TD122KFE	1998	398
E00236	Articulated Dump	Volvo	TD122KFE	1999	398
E00237	Articulated Dump	Volvo	TD122KFE	1999	398
E00238	Articulated Dump	Volvo	TBD	TBD	398
E00733	Backhoe/Excavator	Caterpillar	3306	1996	362

The equipment listed in Table 2-1, above, is already compatible with the ECS Combifilter, a Level 3 device verified for *off-road* applications. The Combifilter, however, requires active

[4] www.enginecontrolsystems.com/products.htm

regeneration after approximately eight (8) hours of use. This regeneration requirement ranges from one to eight hours in length and is further discussed in Task 1 of this report.

The ECS *Purifilter* is a passive regeneration device, meaning that the accumulated soot is vaporized continuously during equipment operation and does not require additional regeneration using an external device or power source. Passive regeneration is much more conducive to equipment that is potentially required to operate two ten-hour shifts in a 24-hour period as there may not be sufficient time between shifts for the active regeneration cycle to operate

ECS, the manufacturer of the Purifilter device, conducts periodic onsite inspections of the devices installed on SAIP equipment. The Third Party Monitor held teleconferences with representatives of ECS to discuss device maintenance practices implemented by the construction contractor, issues with device operation, and other "lessons learned" from this demonstration project:

- ECS noted that strict LAX security procedures at times limited their ability to conduct regular maintenance inspections of the devices. In the most extreme case, security checkpoint access took in excess of four (4) hours for the onsite ECS representative;
- ECS expressed reservations as to the device maintenance schedule implemented by Tutor-Saliba. ESC records indicate that the devices did not receive cleaning as often as ESC would have expected them to; however, no failures due to lack of maintenance have occurred to date. Devices have been replaced, however, due to damage incurred during removal and replacement. The internal silicon carbide structure of the device is capable of withstanding construction related vibration and shock; however, the devices cannot withstand being dropped, as this fractures the internal structure and constricts exhaust flow through the device. Figure 2-1 shows Volvo articulated dump truck E00246 undergoing diesel particulate filter maintenance. The ECS Purifilter device has been removed and will be replaced with cleaned units:

Figure 2-1: ECS Purifilter VDECS Removed for Maintenance

- ECS indicated that Tutor-Saliba made a unilateral decision to weld the ECS Purifilter devices into the equipment exhaust stack; this proved to be a maintenance issue as the welds suffered recurring cracks. Tutor-Saliba subsequently abandoned this installation method and adopted a stainless steel clamp system for device installation. No additional cracking has been observed since the implementation of the new installation procedure. All devices was retrofitted with the stainless steel clamps, as shown in the following photo:

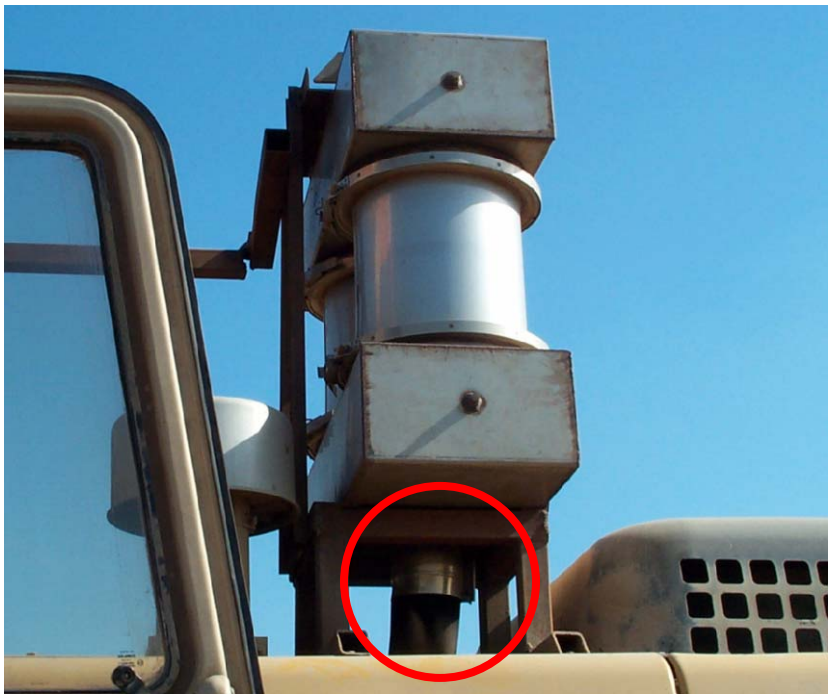

Figure 2-2: Stainless Steel Clamps Replace Welded Exhaust Installation Method

- As preliminarily addressed in the prior Semiannual Report, backpressure monitoring sensors experienced cracking of the copper tubing and softening of the brass fittings due to high heat loads and were subsequently replaced with stainless steel tubing and fittings;
- ECS recommended that the devices undergo cleaning a minimum of every six months or when the back pressure monitoring light indicates a cleaning is required. Based upon observations of the Third Party Monitor, it appears that backpressure monitoring systems were removed from some equipment. This is further discussed in Section 6, Operational Requirements;
- ECS provided device monitoring and data logging systems for the Purifilter which were not installed;
- ECS recorded engine hours of operation for each piece of equipment and intended to use this information to seek CARB verification of the Purifilter for off-road use. ESC made the decision to not use data from this demonstration, as data logging devices were not installed and there where inconsistencies in device monitoring and maintenance procedures;
- ECS does believe that the demonstration yielded significant beneficial information, especially as it pertains to the installation procedures, mounting, and required level of robustness for their on-road system operating in an off-road environment.

California Air Resources Board "Showcase" Program – As discussed in the previous Semiannual Report, the California Air Resources Board is implementing a demonstration of unverified diesel emission control systems in off-road construction equipment applications. Entitled the "Showcase" Program, the program has as its primary objective the near term verification of additional VDECS compatible with a broad range of off-road construction equipment.

The SAIP was originally considered by CARB as a potential demonstration site for Showcase, as the diverse types of diesel construction equipment used on the SAIP matched the types of equipment sought in Showcase.

CARB subsequently expressed reservations in having SAIP equipment participate in Showcase, citing their concerns that airfield security requirements could potentially hamper efforts to adequately monitor equipment participating in the demonstration. Also, the implementation timeframe for Showcase commences in early 2008 and requires approximately six to eight months of emission control device demonstration in order to accrue 1,000 hours of operation. Given the schedule for center taxiway construction, the project will most likely be complete before the desired number of hours could be accrued. Finally, Tutor-Saliba did not submit an application in response to the Program Announcement seeking participation in the Showcase Program.

Task 3: Emission Reduction Standard

Section X.F.1 of the Community Benefits Agreement (CBA) for the LAX Master Plan Program requires that all diesel equipment used for construction be outfitted with the best available emission control devices, primarily to reduce diesel particulate matter which is on the order of 10 microns[5] in diameter (PM_{10}), and fine particulate, which is on the order of 2.5 microns in diameter ($PM_{2.5}$). A secondary objective of this requirement is to reduce oxides of nitrogen emissions (NO_x), which are ozone precursors. This section also states that under no circumstance shall an emission reduction device or strategy used on the LAX Master Plan Program construction site increase the emission of any pollutant above that which is the standard for that engine.

The role and responsibilities of the Independent Third Party Monitor as it relates to Section X.F.1 of the CBA is delineated in the following contract Task statements:

- Task 3.1 - Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1. as it relates to meeting or exceeding Level 2 diesel emission reductions for a similar sized engine.;
- Task 3.2 – Contractor shall monitor, document, and report independently from LAWA, compliance of each piece of diesel construction equipment used pursuant to CBA X.F.1 to ensure its emission reduction device or strategy does not result in an increase of any pollutant above that which is standard for that engine;
- Task 3.3 – Contractor shall monitor, document and report on emission reductions of NO_x, ROG, PM and CO achieved through the use of best available control technology.

The following are the results and findings of the Third Party Monitor as it relates to Tasks 3.1, 3.2 and 3.3:

Task 3.1 - Monitor, document, and report equipment compliance with Level 2 requirement.

As summarized above in Task 1, the Third Party Monitor compiled a database inventory of SAIP equipment (Appendix A). This database was continually updated with new information collected from the construction contractor (Tutor-Saliba) or visual inspection by CFCI. As part of this inventory, the Task 1 effort included an equipment-by-equipment review for applicability of approved BACT. Specifically, the equipment listed in this master database was compared against all available VDECS, with first priority given to Level 3 diesel emission reductions.

Twelve (12) units were determined to be eligible for VDECS retrofit. As of this Semiannual Report, seven (7) of the 12 units continue to operate on the SAIP. These units are all equipped with the same VDECS, the Engine Control Systems (ECS) Purifilter. This is an ARB-approved level 3 device[6] providing a minimum 85 percent PM emission reduction per the ARB verification protocol. Further, the U.S. EPA issued a verification[7] letter on November 5, 2003 that confirms that the Purifilter provides the following emission reduction efficiencies:

- 90 percent PM reductions;

[5] One micron equals $1x10^{-6}$ meter or 0.000001 meter.
[6] http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04001.pdf or http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04002.pdf
[7] http://enginecontrolsystems.com/pdf/verif_letter-ecs1.pdf

- 85 percent ROG reductions;
- 75 percent CO reductions;
- There are no NOx reductions from this device.

Task 3.2 – Ensure emission reduction devices/strategy does not result in an increase of any pollutant above that which is standard for that engine.

The U.S. EPA and ARB verification procedures are designed to ensure that no measurable increase on other pollutant emissions results from installation of the approved VDECS. Furthermore, the verification letters for the ECS Purifilter provide no indication that the use of this device increases any emissions in an amount to exceed that which is standard for that engine. One issue that should be noted is that the ARB verification procedures include a NO2 limit requirement. Specifically, NO_2 may not increase more than 20 percent as a result of the installation and operation of the device[8]. The verification letter available as of February 13, 2007 from CARB's VDECS verification database indicates that the "ARB staff evaluation of the ECS Purifilter, found that "Engine Control Systems was unable to demonstrate the low load Purifilter^{TM} system compliance with the 20 percent NO_2 limit …" The Third Party Monitor contacted CARB staff who indicated that this information is old, and that any systems that remain on the website as of early February 2007 do indeed comply with the NO_2 increase limit.

Task 3.3 –Contractor shall monitor, document and report on emission reductions of NO_x, ROG, PM and CO achieved through the use of best available control technology.

In its capacity as Interim Third Party Monitor, CFCI evaluated the emission reduction benefits of the following efforts implemented at the South Airfield Improvement Project:

- The use of ultra low-sulfur diesel fuel;
- The application of best available control technology (BACT) on eligible SAIP equipment;
- On-site concrete recycling, which eliminated the need to truck the original runway material to the landfill 40 miles away;
- On-site clean soil storage, which eliminates the need to truck excavated soil to a landfill or other disposal site 40 miles away. This practice also eliminates truck trips to transport new landscaping soil to LAX, as this stored soil will be used onsite for a future project;
- The implementation and enforcement of idle limits for both on- and off-road vehicles operating on the SAIP;
- Avoided emissions from prompt repair of malfunctioning equipment (i.e., equipment with visible smoke).

Consideration of Fine Particulate ($PM_{2.5}$)

According to the California Air Resources Board (ARB), 98 percent of the particles emitted from diesel engines are PM_{10} (particles that are less than or equal to 10 microns in diameter) and 94

[8] Title 13 CCR section 2706(a)

percent are fine particles (less than 2.5 microns), or $PM_{2.5}$[9]. The product of these is the percent of PM_{10} that is $PM_{2.5}$, or 92 percent. Throughout this report, application of this factor allows estimation of the $PM_{2.5}$ reductions as a percentage of the PM_{10} reductions, i.e., 92 percent of PM_{10} reductions are also $PM_{2.5}$ reductions.

Ultra Low-Sulfur Fuel Use

South Coast Air Quality Management District (AQMD) Rule 431.2 – Sulfur Content of Liquid Fuels requires all diesel fuel sold in the South Coast Air Basin after June 1, 2006 to contain no more than 15 ppm sulfur by weight. As supported by review of fuel purchase receipts as well as analytic derivations performed by CFCI, greater than 422,570 gallons of ULSD were consumed during SAIP construction activities for the period commencing May 2006 through December 2007. According to ARB, the use of ULSD reduces NO_x, PM and HC emissions from diesel engines. Correction factors that were developed for use in the CARB's Carl Moyer Program (CMP)[10] are presented below, and provide an excellent indication of the emission reduction benefits of pre-2007 MY equipment that operates using ULSD.

Table 3-1: (Table B-24 from 2005 Carl Moyer Program Guidelines)
Fuel Correction Factors for On-Road Diesel Engines

Model Year	NO_x	PM_{10}	HC
Pre- 2007	0.93	0.72	0.72
2007+	0.93	0.80	0.72

Table 3-2: (Table B-25 from 2005 Carl Moyer Program Guidelines)
Fuel Correction Factors for Off-Road Diesel Engines

Model Year	NO_x	PM_{10}
Pre-Tier 1	0.930	0.720
Tier 1+	0.948	0.800

The above correction factors are simple multipliers. For example, if an on-road diesel engine is known to emit 10 grams of NO_x on a previous diesel fuel formulation, then that same engine would emit 9.3 grams on ULSD. In addition, the AQMD-published control factors[11] for use in its emissions inventory indicate that Rule 431.2 provides a 92 percent reduction in sulfur oxides (SO_x). Table 3-3 summarizes the percent emission reductions that result from the use of ULSD:

[9] "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant", Appendix III, Part A, Exposure Assessment, as approved by the Scientific Review Panel on April 22, 1998. http://www.arb.ca.gov/toxics/id/summary/diesel_a.pdf

[10] http://www.arb.ca.gov/msprog/moyer/moyer.htm

[11] http://www.aqmd.gov/aqmp/07aqmp/modified/Appendix_III.pdf (Table 2-1)

Table 3-3: Percent Reduction for ULSD

Model Year	PM_{10}	$PM_{2.5}$	NO_x	HC	SO_x	CO	CO_2
Pre-2007On-Road	28	25.7	7	28	92	n/a	n/a
2007+ On-Road	20	18.4	7	28	92	n/a	n/a
Pre-Tier 1	28	26	7	n/a	92	n/a	n/a
Tier 1+	20	18.4	5.2	n/a	92	n/a	n/a

All $PM_{2.5}$ estimates are based on applying the $PM_{2.5}$ fraction to the known PM_{10} baseline. The $PM_{2.5}$ emissions are a subset of the PM_{10} emissions. "n/a" = Not Applicable.

The construction contractor used ULSD for the entire term of the project, including the month of May, which was one month in advance of regulation enactment. During the month of May 2006, approximately 4,925 gallons of ULSD were purchased for use in SAIP equipment. For all equipment operating during this time, the emissions were reduced by the percent reductions show above in Table 3-3.

Verified Diesel Emission Control System (VDECS) Emissions Benefits

Twelve (12) pieces of equipment used on the SAIP were determined to be eligible and were retrofit with the Engine Control Systems (ECS) Purifilter verified diesel emission control system (VDECS). The total cost of the 12 VDECS, including spare filter sets was $246,767.50. This is an ARB-approved Level 3 device[12] providing a minimum 85 percent PM emission reduction per the ARB verification protocol. Further, the U.S. EPA issued a verification[13] letter on November 5, 2003 that confirms that the Purifilter provides the following emission reduction efficiencies:

- 90 percent PM reductions;
- 85 percent ROG reductions;
- 75 percent CO reductions;
- There are no NO_x reductions from this device.

The estimated emission reductions for this equipment are provided below in Table 3-4. Please note that these reductions are based on available equipment data to date, and also rely on assumptions that were necessary in cases where requested data were not available. A key parameter where logical assumptions were made is "hours of operation". Instead of using actual hour-meter data from the equipment, CFCI is applying the typical work schedule of each unit since project commencement to determine activity (hours of operation).

[12] http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04001.pdf or http://www.arb.ca.gov/diesel/verdev/ltrs/executiveorderde04002.pdf

[13] http://enginecontrolsystems.com/pdf/verif_letter-ecs1.pdf

Table 3-4: Emission Reduction Estimates from VDECS Equipment (total pounds) (From July 28, 2006 through November 30, 2007[14])

Equipment Number	Equipment Category	PM_{10}	$PM_{2.5}$	NO_x	ROG	SO_x	CO	CO_2
E00138	Scraper	72.00	66.24	0.00	40.90	0.00	375.00	0.00
E00233	Articulated Dump	140.86	129.60	0.00	320.04	0.00	978.23	0.00
E00234	Articulated Dump	140.86	129.60	0.00	320.04	0.00	978.23	0.00
E00235	Articulated Dump	140.86	129.60	0.00	320.04	0.00	978.23	0.00
E00236	Articulated Dump	139.45	128.30	0.00	316.83	0.00	968.44	0.00
E00237	Articulated Dump	139.45	128.30	0.00	316.83	0.00	968.44	0.00
E00238	Articulated Dump	139.45	128.30	0.00	316.83	0.00	968.44	0.00
E00651	Compactor	9.96	9.17	0.00	90.55	0.00	140.48	0.00
E00732	Backhoe/ Excavator	59.54	54.78	0.00	608.76	0.00	1516.16	0.00
E00733	Backhoe/ Excavator	229.57	211.20	0.00	260.78	0.00	1594.22	0.00
E03412	Rubber Tire Loader	96.73	89.00	0.00	164.83	0.00	895.69	0.00
E00736	Excavator	17.03	15.67	0.00	34.79	0.00	160.51	0.00
	Total:	**1,326**	**1,220**	**0.00**	**3,111**	**0.00**	**10,522**	**0.00**

Note: $PM_{2.5}$ is a subset of PM_{10}; these reductions are not intended to be summed.

On-Site Material Recycling

The construction contractor set up a concrete crushing/recycling system on-site at the SAIP to facilitate disposal of the old runway material, which was crushed and recycled and used in construction of the new runway. The alternative to this approach would have been to haul the old runway material to a landfill. Emission reductions were estimated by comparing the material-hauling truck emissions to the emissions of the on-site generator used to power the crushing equipment. The key parameters used to determine the emissions and fuel consumption benefits of the on-site material recycling are summarized below:

[14] Not all equipment was operational throughout this time period; some units were removed from service at earlier dates.

- 193,000 cubic yards of material was recycled on-site;
- Each truck that would have been used to haul the material to a landfill holds 12 cubic yards;
- Each round trip to the landfill would have been 80 miles;
- Truck emissions for landfill hauling were calculated based on a 1999 MY heavy heavy-duty truck; emission factors selected from CARB's 2005 CMP Guidelines, Table B-5;
- A 1982 MY, 475 horsepower genset, with CARB's default load factor (CMP Table B-13) and emission factors (CMP Table B-12) was used to power the on-site crushing equipment. Genset emissions were calculated as an offset to the truck trip reduction emissions savings; The on-site crusher operated 10 hours per day, six days per week, for 30 weeks;
- In addition to exhaust PM emissions avoided by not making trips to the landfill, there is also a significant amount of re-entrained road dust (dirt already on a paved road/shoulder that is sent airborne by passing vehicles). The default re-entrained road dust factor is 0.184 grams per mile for a heavy-duty truck on a paved road surface[15].

It is noteworthy that the California Environmental Quality Act (CEQA) provides emission factors for truck loading and dumping. Since the material is moved to the recycling equipment from the old runway location anyway, CFCI believes that there is roughly a similar amount of fugitive dust from the movement of the raw material to the recycler as there would have been had the material been loaded at the site, and later dumped at the landfill. An exception to this is the re-entrained road dust emissions that would have been generated from the 80-mile truck trips. This re-entrained road dust was included in CFCI's assessment of avoided emissions. Table 3-5 provides emission reduction estimates from on-site concrete recycling, as compared to hauling the raw material to a landfill that is located 40 miles away:

Table 3-5: Emission Reduction Estimates from On-Site Material Recycling (From September 1, 2006 through March 30, 2007)

Pollutant	Emissions Reduced (pounds)	Emissions Reduced (tons)
Oxides of Nitrogen (NO_x)	41,575	20.79
Reactive Organic Gases (ROG)	571	0.29
Sulfur Oxides (SO_x)	51	0.03
PM_{10} from Exhaust	834	0.42
PM_{10} from Tire Wear	102	0.05
PM_{10} from Brake Wear	80	0.04
$PM_{2.5}$ from Exhaust (92% of the PM_{10} above is $PM_{2.5}$)	767[16]	0.38
Re-Entrained Road Dust	522	0.26

[15] "Methods for Determining the Cost-Effectiveness of Air Quality Projects", Table B-1, California Air Resources Board, May 2005.

[16] This value is a subset of Exhaust PM_{10}, and is not intended to be summed.

Onsite Soil Stockpiling

LAWA has established an area to store excavated soil that would otherwise be trucked off-site to a landfill or other use. LAWA's intention is to use this clean soil in a future onsite project. To estimate the emissions saved from the truck trips that would have been needed to transport this soil, it was assumed that the soil would otherwise travel to the same landfill discussed above (40 miles each way). The key parameters used to determine the emissions and fuel consumption benefits of the on-site soil storage are summarized below:

- 150,000 cubic yards of soil was stored on-site;
- Each truck that would have been used to haul the soil to a landfill holds 12 cubic yards;
- Each round trip to the soil disposal site would have been 80 miles;
- Truck emissions for landfill hauling were calculated based on a 1999 MY heavy heavy-duty truck; emission factors selected from CARB's 2005 CMP Guidelines, Table B-5;
- In addition to exhaust PM emissions avoided by not making trips to the soil storage site, there is also a significant amount of re-entrained road dust (dirt already on a paved road/shoulder that is sent airborne by passing vehicles). The default re-entrained road dust factor is 0.184 grams per mile for a heavy-duty truck on a paved road surface[17].

Table 3-6 provides emission reduction estimates from on-site soil storage, as compared to hauling the soil to an off-site disposal site that is located 40 miles away.

Table 3-6: Emission Reduction Estimates from On-Site Soil Storage

Pollutant	Emissions Reduced (pounds)	Emissions Reduced (tons)
Greenhouse Gases (CO_2)	4,185,853	2,093
Oxides of Nitrogen (NO_x)	38,757	19.38
Carbon Monoxide (CO)	11,220	5.61
Reactive Organic Gases (ROG)	1,124	0.56
Sulfur Oxides	40	0.02
PM_{10} from Exhaust	888	0.44
PM_{10} from Tire Wear	79	0.04
PM_{10} from Brake Wear	63	0.03
$PM_{2.5}$ from Exhaust (92% of the PM_{10} above is $PM_{2.5}$)	817	0.41
Re-Entrained Road Dust	406	0.20

[17] "Methods for Determining the Cost-Effectiveness of Air Quality Projects", Table B-1, California Air Resources Board, May 2005.

Emission Reductions Attributable to Idling Reductions

There are two major equipment categories that were subject to LAWA's idle reduction requirements: (1) "On-road"[18] and off-road diesel construction equipment operating on the airfield, and (2) delivery truck (i.e., dirt hauler, etc.) staging and queuing. Since detailed minute-by-minute operational data are not available for the SAIP, a conservative estimate for the emission reductions and fuel savings is presented below based on the following discussion and assumptions.

As background, CFCI field staff did not observe any instances of excessive airfield construction equipment idling, in fact, the equipment is working practically nonstop. The one time period where idle reduction requirements did have a measurable affect on emissions reductions was during lunch breaks. Common practice at other job sites is to leave equipment running during the 30-minute lunch break, but at the SAIP job site, CFCI conducted inspections confirming that equipment on the airfield really was turned off during lunch breaks. As such, CFCI concluded it is a reasonable assumption that a limited number of off-road construction equipment did avoid emissions by turning off their engines during breaks.

Idle reduction emission factors used for this analysis are based on Table B-9 from the 2005 CMP Guidelines for on-road heavy-duty vehicles, and CARB's Technical Support Document for its Proposed Regulation for In-use Off-Road Diesel Vehicles. Specifically, CFCI used the following factors:

- For an assumed 2003 MY on-road truck (operating in on- or off-road applications): CO_2 = 9,140 g/hr; NO_x = 187 g/hr; ROG = 27.24 g/hr and PM_{10} =1.65 g/hr[19]. Gallons per hour consumption assumed[20] to be 1.0;
- Off-Road engines emit 9,960 g/hr CO_2 and consume 0.5 gallons per hour[21].

<u>On-Airfield Equipment Idle Reduction</u>

To estimate the emissions benefit of this idle reduction, CFCI estimates that six pieces of "on-road diesel equipment operating in an off-road environment" were not allowed sitting idling an additional 30 minutes each workday. This takes into account the water trucks and street sweepers, mechanics' trucks, lube trucks, etc. This equates to three hours of on-road vehicle idle reduction each day, or at 15 hours per week, 525 hours for an average of 35 weeks.

CFCI also estimates that a minimum of 20 pieces of heavy-duty off-road equipment were not allowed to idle an additional 30 minutes each day – this accounts for the articulated dump trucks, dozers, loaders, etc. This equates to ten hours of idle reduction each day, or at 50 hours per week, 1,000 hours for an average of 35 weeks.

Delivery Truck Idle Reduction

[18] This is on-road equipment that is operating in the off-road applications at the SAIP.
[19] 2005 Carl Moyer Program Guidelines, Table B-9.
[20] Known assumption that is also used by ARB in their sleeper truck idle reduction ATCM.
[21] This estimate based on CARB's proposed In-Use Off-Road Diesel Engine Regulation: http://www.arb.ca.gov/regact/2007/ordiesl07/TSD.pdf

Significant idle enforcement also occurred with dirt haulers and delivery trucks. Due to construction requirements and heightened security, long queues of double dirt haulers, dump trucks, etc. existed most days. These vehicles would often form queues greater than a dozen trucks in length – sometimes 20 or more would be lined up. For the purpose of this assessment, CFCI isolated the portion of all delivery trucks that did not get immediate access to the airfield and were required to wait with their engines off. Two values are needed – the average number of trucks staged to the "waiting area" each day and the average time waiting with their engine "off", which would have been "on" if the idle reduction regulation was not enforced. The following assumptions were made for this estimate:

- Average number of truck deliveries each day diverted to holding area: 20
- Average wait in queue: 15 minutes

This equates to 5 hours per day of on-road class 8 truck idle reduction each day, or 25 hours per week. During the 35-week period of primary project activity, this equals 875 on-road truck idling that was avoided. Table 3-6 provides a summary of estimated emissions reductions associated with the five-minute idling limit.

Table 3-6: Idle Reduction Estimates for SAIP (pounds)

Application	Avoided Idling (hrs)	PM_{10}	NO_x	ROG	SO_2	CO	CO_2	Gallons Reduced
On-Airfield Equipment (On-Road)	525	1.91	216.44	31.53	n/a	n/a	10,579	525
On-Airfield Equipment (Off-Road)	1000	n/a	n/a	n/a	n/a	n/a	21,958	500
Delivery Trucks, etc. (On-Road)	875	3.18	360.73	52.55	n/a	n/a	17,631	875

"n/a" = Not Applicable

Task 4: Exemptions

Task 1 of the Third Party Monitor Scope of Work focuses in part on determining if a verified diesel emission control system was available and compatible with a piece of diesel equipment proposed for use on the SAIP. CBA Section X.F.4 states that the requirement to retrofit equipment with a verified diesel emission control system is not applicable to construction-related diesel equipment *"for which the operator provides a written finding, based upon appropriate market research and approved by LAWA, that the best available emission control device for reducing the emission of pollutants as required by CBA Sections X.F.1-3 is unavailable for that equipment, in which case the contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for that vehicle".*

CBA Section X.F.4 also relieves the equipment operator from the requirements of CBA Sections X.F.1 through X.F.3 for *"construction-related diesel equipment used on LAX Master Plan Program construction sites for fewer than twenty (20) days per calendar year"*.

The role and responsibilities of the Independent Third Party Monitor as it pertains to CBA Section X.F.4 include the following Tasks:

- Verify that application for an exemption under CBA Section X.F.4. is justified on the basis of a) physical incompatibility of the best available emission control device with the piece of construction-related equipment seeking an exemption; b) unavailability of the best available emission control device with the piece of construction-related equipment seeking an exemption;
- Verify that construction-related diesel equipment granted an exemption pursuant to CBA Section X.F.4. (ii) does not exceed twenty (20) days of use on LAX Master Plan Program construction sites per calendar year.

The Third Party Monitor identified six areas in which construction-related diesel equipment was granted exempt status by LAWA. These include the following:

1. Exemptions granted on the basis of unavailability of a best available VDECS in accordance with CBA Section X.F.4 (i) for a specific piece of diesel equipment;
2. Exemptions granted on the basis of physical incompatibility of a VDECS with a specific piece of diesel construction equipment, even though a VDECS is available for and compatible with that equipment's diesel engine;
3. "20-day" exemptions granted in accordance with CBA Section X.F.4 (ii);
4. "Time critical" exemptions;
5. Categorical exemptions granted to classes of diesel equipment based on LAWA's knowledge that at the commencement of construction activities no off-road VDECS was available compatible with that class of equipment;
6. "On-Road" vehicle exemptions.

Exemptions Granted Due to Unavailability of a Compatible VDECS

The "Task 1" Section of this report discusses the process and findings of the Independent Third Party Monitor as they relate to the availability of VDECS for each piece of construction-related equipment proposed for use on the SAIP. The provisions of the CBA have been interpreted to only require VDECS commercially available at the time of commencement of SAIP construction,

which limits the "off-road verified devices to a single unit, the ECS Combifilter. Equipment operating on the SAIP as of October 26, 2007 was assessed for their compatibility with this device. The results are shown in Table 4-1, below. Equipment in shaded cells is equipped with a diesel engine compatible with the ECS Combifilter:

Table 4-1: Compatibility with ECS Combifilter

Equipment ID	Equipment Owner	Equipment Category	Compatible with ESC Combifilter
E00484	Tutor Saliba	Backhoe	NO
E00492	Tutor Saliba	Rubber Tire Loader	NO
E00139	Tutor Saliba	Scraper	NO
E00140	Tutor Saliba	Scraper	NO
E00499	Tutor Saliba	Rubber Tire Loader	NO
E00519	Tutor Saliba	Motor Grader	NO
E01137	Tutor Saliba	Water Truck	NO
E00647	Tutor Saliba	Compactor	NO
E00648	Tutor Saliba	Compactor	NO
E00343	Tutor Saliba	Dozer	NO
E05319	Tutor Saliba	Flat Bed Dump	NO
E03000	Tutor Saliba	Air Sweeper	NO
E03002	Tutor Saliba	Air Sweeper	NO
E01144	Tutor Saliba	Water Truck	NO
E01240	Tutor Saliba	School Bus	NO
E01145	Tutor Saliba	Water Truck	NO
E03001	Tutor Saliba	Air Sweeper	NO
E03003	Tutor Saliba	Air Sweeper	NO
E00629	Tutor Saliba	Compactor	NO
E01286	Tutor Saliba	Forklift	NO
E02315	Tutor Saliba	Light Plant	NO
E02305	Tutor Saliba	Light Plant	NO
E02314	Tutor Saliba	Light Plant	NO
E02303	Tutor Saliba	Light Plant	NO
E00483	Tutor Saliba	Rubber Tire Loader	NO
B14103	RL Brosamer	Backhoe Loader	NO
B14105	RL Brosamer	Backhoe Loader	NO
B22102	RL Brosamer	Texture Cure	NO

B13110	RL Brosamer	Forklift	NO
B20014	RL Brosamer	Slipform Paver	NO
B17481	RL Brosamer	Light Plant	NO
B17483	RL Brosamer	Light Plant	NO
B17482	RL Brosamer	Light Plant	NO
B13608	RL Brosamer	Wheel Loader	NO
E00233	Tutor Saliba	Articulated Dump	YES
E00234	Tutor Saliba	Articulated Dump	YES
E00235	Tutor Saliba	Articulated Dump	YES
E00236	Tutor Saliba	Articulated Dump	YES
E00237	Tutor Saliba	Articulated Dump	YES
E00238	Tutor Saliba	Articulated Dump	YES
E00514	Tutor Saliba	Motor Grader	YES
E00518	Tutor Saliba	Motor Grader	YES
E00733	Tutor Saliba	Backhoe/Excavator	YES
E01361	Tutor Saliba	Light Tower	NO
E01384	Tutor Saliba	Light Tower	NO
E01388	Tutor Saliba	Light Tower	NO
P204	Pavement Recycling	Paving Machine	NO
R303	Pavement Recycling	Roller	NO
13203	RL Brosamer	Wheel Loader	YES
B20007	RL Brosamer	Slipform Paver	NO
E05296	Tutor Saliba	Passenger Bus	NO
MLHB-105		Dump Truck	NO
E00720	Tutor Saliba	Excavator	NO
R306	Pavement Recycling	Pneumatic Compactor	NO
E00726	Tutor Saliba	Backhoe	NO
E03410	Tutor Saliba	Skip Loader	NO
E03416	Tutor Saliba	Backhoe Loader	NO
E00351	Tutor Saliba	Dozer	NO
E01437	Tutor Saliba	Compressor	NO
E01422	Tutor Saliba	Air Compressor	NO
15603	RL Brosamer	Air Compressor	YES
17204	RL Brosamer	Generator Set	YES

Incompatibility Exemptions

Task 1 of this report also documents vehicles granted exemption by LAWA for which a VDECS is available but deemed physically incompatible with the type of equipment. For example, all motor graders were exempted due to safety concerns. Due to the mounting location of the VDECS, it was determined that the device may obscure the equipment operator's field of vision. Equipment granted an exemption by LAWA due to safety concerns is listed in Table 4-2, below:

Table 4-2: Motor Graders Granted Exempt Status

Equipment Number	Equipment Category	Engine Manufacturer	Engine Model	Model Year	Engine Horsepower
E00514	Motor Grader	Caterpillar	3306	1996	225
E00518	Motor Grader	Caterpillar	3306	2001	225

"20-Day" Exemptions

In accordance with CBA Section X.F.4 (ii), construction-related diesel equipment used on a LAX Master Plan construction site fewer than 20 calendar days per calendar year can be exempted from the requirement to install a best available diesel emission control system. Section X.F.4 further requires that all exemptions granted under this provision be approved by LAWA and reported to the Coalition Representative as they occur.

The following equipment has or is currently operating on the SAIP under a 20-day exemption:

Table 4-3: Equipment Operating Under 20-Day Exemption

Equipment ID/Type	Date In	Date Out
Concrete Pumping Truck	July 1, 2007	July 13, 2007
Caterpillar D10 Dozer	October 20, 2007	TBD

On-Road Vehicle Exemptions

A number of on-road vehicles owned and operated by independent truck drivers or small transport companies service the SAIP, working under subcontract to the prime construction contractor or one of its major subcontractors. These vehicles are primarily used in dirt hauling operations. These on-road vehicles have not gone through the process of seeking an exemption to the requirements of CBA Section X.F.1., nor are they operating under a formal 20-day exemption.

It has been LAWA's practice in these cases to not require an on-road VDECS be installed on vehicles that work on the airfield construction site, whether or not the vehicle is licensed to operate on the highway.

Categorical Exemptions

Similar to on-road vehicle exemptions, LAWA also granted the construction contractors "categorical exemptions" for certain types of off-road construction equipment. Categorical exemptions are specific to those classes of diesel construction equipment that have been repeatedly shown to be incompatible with the ECS Combifilter emission control device. By granting a categorical exemption, LAWA has removed the burden on the contractor to document the system incompatibility.

The class of diesel off-road construction equipment currently granted a categorical exemption include light towers that use a stationary diesel generator to provide electricity for the high intensity lights. The ECS Combifilter has been repeatedly shown to be incompatible with this type of diesel engine.

Figure 4-1: Typical Ingersoll-Rand Light Tower Used on SAIP

Additional classes of off-road equipment are being considered by LAWA for categorical exemptions, as the ESC Combifilter has been repeatedly shown to be incompatible with these vehicle types. These classes of equipment include man-lifts, small "bobcat' type dozers, and forklifts.

Task 5: Ultra Low Sulfur Diesel and Other Fuels

Section X.F.5 of the Community Benefits Agreement requires that all diesel equipment used for construction on LAX Master Plan Projects use only Ultra-Low Sulfur Diesel (ULSD) fuel containing 15 parts per million (ppm) of sulfur by weight or less. This requirement is in effect as long as adequate supplies are available in the Southern California region.

There are three tasks in the Scope of Work for the Third Party Monitor related Ultra Low Sulfur Diesel.

- Task 5.1 - Contractor shall monitor, document, and independently report on construction equipment related to LAX Master Plan Program construction as it relates to the use of ultra-low sulfur diesel fuel. Contractor will be provided all available fuel procurement records for construction equipment related to the LAX Master Plan Program;
- Task 5.2 – Contractor shall independently verify and report to LAWA and the Coalition Representative that adequate supplies of ULSD are or are not available in Southern California. For the purpose of this Task, "Southern California" is defined as the geographic region comprising Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties;
- Task 5.3 – Contactor shall independently verify and report to LAWA and the Coalition Representative that fuels substituted in lieu of ULSD do not result in greater emissions of fine PM or NO_x than that which would be produced by the use of ULSD at 15ppm or lower. Verification will be based on CARB certification or equivalent.

As discussed in the prior Semiannual Report, the construction prime contractor Tutor-Saliba Corporation originally planned to install a 10,000 gallon ULSD storage tank on the airfield. This plan was ultimately deemed infeasible due to concerns raised by the Airport Fire Department. Therefore, heavy diesel construction equipment is currently fueled onsite using mobile refueling vehicles. On-road diesel equipment is either fueled onsite using the mobile refueling trucks or refuels offsite at commercial fuel stations.

South Coast AQMD Rule 431.2, which took effect on June 1, 2006, requires diesel fuel refined and sold for on-road and off-road use within the jurisdiction of the AQMD to contain no more than 15 ppm sulfur by weight. This requirement was subsequently adopted on a statewide basis by the California Air Resources Board, effective September 1, 2006. Thus, ULSD is the only diesel fuel legally available for purchase within California.

To independently verify the sulfur content of the diesel fuel used by equipment operating on the SAIP, CFCI has requested and obtained fuel purchase records from the contractor and has examined the fuel receipts to ensure that only ULSD is being used. Fuel purchase records are clearly marked "ULSD"; thus, there is no ambiguity as to whether or not the fuel has the ultra-low sulfur content.

In addition to maintaining a copy of available fuel purchase receipts, coupled with usage projections for missing documentation, CFCI tabulated the total number of gallons purchased for SAIP construction equipment to date. This is included in Table 5-1, below:

Table 5-1 Summary of ULSD Purchased for SAIP Project

Period	Gallons	Ultra-Low Sulfur Diesel
5/1/06 to 12/31/07	422,570	Yes

Based on the information provided, and given the statewide restriction on diesel fuel sulfur content, no issues have been identified by the Third Party Monitor as it pertains to compliance with the ULSD requirement.

Task 6: Operational Requirements

Section X.F.6 of the CBA requires that Operational requirements be issued and enforced by LAWA as it pertains to: a) limitations of equipment engine idling; and b) maintenance of equipment engines.

The environmental requirements mandated by LAWA and incorporated as an element of the construction contract[22] amplify and provide additional specificity as it relates to engine idling restrictions and required engine maintenance. Specifically, Section 21-5.4-B of the referenced provisions states that *"Contractor shall prohibit construction diesel vehicles or equipment from idling in excess of the idling restrictions as defined in the CARB Vehicle Idling Rule. The contractor shall advise drivers and operators of these requirements at the pre-construction orientation meeting, remind them on a daily basis, and post signs in appropriate places indicating the CARB Vehicle Idling Rule. Exemptions may be granted for safety and operational reasons, as defined in CARB or as approved by the Engineer. The contractor and subcontractors shall have policies and procedures in place for compliance with the Vehicle Idling Rule and a copy of such shall be submitted within 30 days of Notice to Proceed to the Engineer for approval"*.

With respect to engine maintenance requirements, Section 21-5.5-D states that *"Contractor shall require that all construction equipment be properly maintained in accordance with the manufacturer's specifications and schedules. All maintenance and repair records shall be made available upon request by the Engineer".*

In CFCI's capacity as Third Party Monitor, monitoring, documentation, and reporting of operational requirements was conducted in accordance with the following two Tasks:

- Task 6.1 – The Independent Third Party Monitor shall establish processes and procedures for determining whether a construction firm is complying with the operational requirements specified by LAWA. For the purpose of this Task, Operational Requirements include, but are not limited to, engine idling and engine maintenance requirements;
- Task 6.2 – The Independent Third Party Monitor shall monitor, document, and independently report to LAWA and the Coalition Representative on operational requirements issued and enforced by LAWA as they relate to limitations on idling and engine maintenance, at a minimum. Idling and engine maintenance records for construction equipment related to the LAX Master Plan Program will be provided to the Contractor by LAWA.

With respect to Task 6.1, a detailed discussion of processes and procedures for determining operational requirements compliance was included in the prior Semiannual Report.[23] The following paragraphs describe the results of the independent monitoring of Operational Requirements by the Third Party Monitor.

Vehicle and Equipment Idling – The Environmental Requirements for the Runway 25L and center taxiway project prohibit construction vehicles and equipment from excessive idling in

[22] LAX Runway 25L and Center Taxiway Improvements, Special Provisions Conformed Set, August 23, 2005

[23] Independent Third Party Monitor Semiannual Report, Los Angeles International Airport South Airfield Improvement Project, Clean Fuel Connection, April 25, 2007.

accordance with the restrictions defined in the CARB Vehicle Idling Rule[24]. This Rule, more formally referred to as the *Airborne Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling*, is codified in Title 13 Section 2485 of the California Code of Regulations and took affect on February 1, 2005.

The law states that operators of diesel fueled commercial vehicles with a gross vehicle weight rating (GVWR) of 10,000 pounds or greater shall not idle their vehicle's primary diesel engine for greater than five (5) minutes at any location. The law only applies to commercial vehicles that are or must be licensed for operation on the highway.

The "five minute rule" is waived under the following circumstances:

- Idling when the vehicle must remain motionless due to traffic conditions;
- Idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area (i.e., homes and schools);
- Idling to verify safe operating condition;
- Idling mandatory for testing, servicing, repairing, or diagnostic purposes (cleaning of commercial vehicles is not considered servicing);
- Idling when positioning or providing power for equipment that is performing work;
- Idling when operating defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency.

While the CARB Rule pertains only to "on-road" vehicles, it is important to note that the language in the Section 21 Environmental Requirements, specifically Section 25-5.4, extends the CARB idling restrictions to off-road vehicles and equipment operating in conjunction with runway 25L reconstruction. In practice, LAWA's enforcement of idling restrictions exceeds those mandated under the CARB Rule for both on-road and off-road vehicles and equipment.

The Third Party Monitor reviewed and independently verified the following documentation pertaining to notice of idling restriction requirements:

- Posted Signs – large signs are posted at the construction site entrance in clear view of trucks entering the air operations area. These signs clearly state the restrictions on vehicle idling, as shown in Figure 6-1;
- Written Policies – LAWA construction manager staff provided the Third Party Monitor with copies of the written idle restriction policies and procedures provided to the construction contractor;
- Notes from construction contractor/LAWA Project Management Status Meetings – in which reiteration of LAWA idling restrictions were reviewed.

[24] www.arb.ca.gov/toxics/idling/regtext.htm

Figure 6-1: Diesel Vehicle Idling Regulations are Posted at Construction Site Entrances

It is the observation of the Third Party Monitor that excessive idling continues to be an issue on the SAIP, although completion of major runway construction has reduced the number of trucks accessing the SAIP. Enforcement of excessive idling continues to be performed on a "catch and release" basis; the LAWA project management staff detect an idling vehicle and inform the driver of the idling restrictions and ask them to turn their engine off. LAWA does not cite or fine the driver for a first offense. The Third Party Monitor was unable to identify any case in which a driver was fined for excessive idling. In discussion with LAWA project management, the policy of issuing a warning has worked successfully and there have been no documented repeat offenders. However, a high percentage of the deliveries to the air field are independent owner/operators who are unfamiliar with SAIP regulations; these are the drivers who most often need enforcement.

Airfield side idling of diesel construction equipment is also monitored. On multiple occasions, the Third Party Monitor has asked LAWA project management to investigate equipment that appeared to be idling in excess of the ten-minute time limit. In each case, the operator claimed the idling was essential to the task at hand; in some cases, maintenance was being performed on the equipment that required the engine to continue running. In another case, the vehicle engine was driving an auxiliary system and thus required the engine to remain running.

The most significant contributor to excessive engine idling, but one that cannot be enforced, is the new South Airfield security checkpoint that began operation in July 2007. This security checkpoint requires vehicles to queue with their engines running. When they reach the checkpoint, the driver must wait for the gate to open, enter the middle "dead man zone", at which time the gate closes. Vehicle inspections then commence, which can take on the order of several minutes. When the inspection has been completed, the second gate opens and the vehicle can enter the airfield construction area. Relative to the previous security procedures,

which themselves resulted in long vehicle queues, the new airfield access post procedures have added several additional idling minutes for each vehicle accessing the air field.

Equipment Maintenance Records – The Environmental Requirements Section 25-5.5-D requires that the construction contractor properly maintain all equipment in accordance with the manufacturers' specifications and schedules. Further, that all maintenance and repair records shall be made available upon request. The Third party Monitor has made this request and has been provided a partial dataset of the information requested.

LAWA project management and the Third Party Monitor also conduct regular visual inspections of diesel equipment operating on the SAIP, looking for excessive exhaust soot or other indications that the equipment is in a state of disrepair. This has proven very successful, as documented in the previous Semiannual Report. Over the recent six month period, one (1) vehicle was determined by LAWA to be emitting excessive smoke. The equipment owner was instructed to remove the vehicle for repair or remove the vehicle from the airfield. The vehicle, whose Equipment ID number is pending, was removed, repaired, and returned to service approximately one week later. Third Party Monitor discussions with LAWA project management staff indicate the vehicle is emitting less exhaust soot; however, LAWA stated they will continue to monitor the vehicle and in the event exhaust soot increases an enforcement action will be taken.

Monitoring and Documentation of Verified Diesel Emission Control Systems - In addition to engine maintenance, the Third Party Monitor conducted independent monitoring of the verified diesel emission control devices installed on SAIP equipment. These devices are documented in Tasks 1 and 3 of this report.

Figure 6 -3: Caterpillar Excavator E00733 Equipped with ECS Purifilter VDECS

An important aspect of onsite VDECS inspections is to ensure the onboard monitoring systems are functional. These systems monitor exhaust backpressure and temperature. Increasing exhaust backpressure is an indication that the device is accumulating soot internally. This is expected after extended periods of operation; the ECS Purifilter typically accumulates sufficient amounts of "white ash" in about six months to necessitate cleaning. Rising backpressure can also be an indication that the device is not properly regenerating.

Excessive soot or ash accumulation restricts the engine's exhaust flow and reduces the engine's operating efficiency. High backpressure also places additional stress on the engine's turbocharger and can result in premature component failure. Thus, monitoring of exhaust backpressure is important to not only ensure the device is regenerating properly, but to also ensure the VDECS isn't damaging the equipment's diesel engine.

The excavator shown in Figure 6-4, below, was inspected multiple times over the period from July through October 2007. While operating properly, the temperature and backpressure sensors are not installed on this unit. The Third Party Monitor has notified LAWA project management.

Figure 6-4: E00733 Was Found to have VDECS Sensors Not Hooked Up

Figure 6.-5: Caterpillar Excavator with Functioning VDECS

As shown in Figure 6-5, however, the absence of backpressure and temperature sensors does not necessarily indicate the diesel emission control device is not functioning properly. As shown in the above photograph, no visible soot is emitted from the vehicle.

Monitoring and Documentation of Fugitive Dust Emissions – Although not directly associated with CBA Section X.F., the Third Party Monitor has been asked to independently monitor the broader scope of environmental requirements specified in the Environmental Requirements contract provisions. This added monitoring does not impose any additional workload per se, as it is conducted while onsite performing Tasks in accordance with CBA Section X.F. The primary method of fugitive dust suppression is by frequent watering of haul roads and loose dirt associated with earth moving operations. The construction haul roads are to be wetted in accordance with Environmental Requirements Section 21-5.2. Water is specified as the preferred wetting agent for haul roads.

During onsite inspections, the Third Party Monitor observed frequent wetting of haul roads. This significantly suppresses dust emission from vehicles and equipment using these roads. Figure 6-6 shows an articulated dump truck on the center taxiway construction haul road that has undergone frequent watering:

Figure 6-6: Haul Roads are Kept Wet to Reduce Fugitive Dust Emissions

On occasion, however, the third Party Monitor observed visible dust emissions of the level that would trigger a Notice of Violation by the South Coast Air Quality Management District (AQMD). On these occasions, the Third Party Monitor notified LAWA project management, who in turn notified the construction contractor to apply additional water to the soil. Figure 6-7, below, shows excessive dust being generated during a dirt loading operation. It is difficult to see the excess dust in the photograph due to the lighting conditions at the time the picture was taken:

Figure 6.-7 Excessive Dust Emissions Created During Loading Operations

Figure 6.-8 Excessive Dust Emissions Created During Loading Operations

Task 7: Enforcement by LAWA

Section 7 of the Independent Third Party Monitor Scope of Work states that: "The Contractor shall monitor, document and independently report to the Coalition Representative on enforcement actions by LAWA".

CFCI requested and received from LAWA staff information on enforcement actions initiated by LAWA. In addition, apparent violations of the CBA and Section 21 Environmental Requirements were identified by CFCI and referred to LAWA for further investigation and enforcement as warranted.

One (1) enforcement action has been taken by the South Coast AQMD from commencement of SAIP construction activities to date. Although this enforcement action took place on January 31, 2007, which falls within the timeframe of the first Semiannual Report, the details were not available from the South Coast AQMD until after the Report was submitted.

The South Coast AQMD cited Tutor-Saliba Corporation, SAIP prime construction contractor, under AQMD Rule 403, "Fugitive Dust". The construction contractor had not properly maintained the construction site entrance/exit, and allowed excess dirt to accumulate on the road surface at the exit onto World Way West. Under AQMD Rule 403, "track out" is defined as "any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions". The Notice of Violation (NOV) issued by the South Coast AQMD is shown in Figure 7-1, below:

Notice Number	**P45937**	Violation Date	**1/31/2007**	Issue Date	**1/31/2007**	Notice Type	**NOV**

Facility ID	104913
Company Name	TUTOR-SALIBA CORPORATION
Address	7800 WORLD WAY WEST LOS ANGELES, CA 90045
Violation Description	ALLOWING TRACK OUT TO EXTEND GREATER THAN 25 FT. FROM AN ACTIVE OPERATION LOCATED AT 7800 WORLD WAY IN L.A.
Equipment Description	
Follow Up Status	In Compliance
Disposition	
Disposition Date	

Rule No.	Rule Description
403	Fugitive Dust

Figure 7-1: Notice of Violation by the South Coast AQMD against Tutor-Saliba Corporation

According to the South Coast AQMD, follow-up visitations by AQMD Inspectors determined that the construction contractor was now in compliance with the provisions of Rule 403. Subsequent to this NOV, Tutor-Saliba paved the construction site lot and entrance and exit roads; this will significantly reduce the amount of track out onto public roadways.

Overall, the number of enforcement actions taken by LAWA is lower compared to the period during major runway construction. Table 7-1 lists enforcement actions taken over the past six months along with each action's resolution. With the exception of idling rule violations, which continue on a consistent level, violations and corresponding enforcement by LAWA is minimal.

Table 7-1: Community Benefits Agreement Enforcement Actions Taken by LAWA

DATE	COMPANY	ISSUE
01/31/07	Tutor-Saliba	The South Coast Air Quality Management District issued a Notice of Violation under AQMD Rule 403, "Fugitive Dust", on January 31, 2007. The contractor was found to have allowed an accumulation of dirt from construction vehicles to accumulate on World Way West. Contractor failed to remove dirt using street sweeping. Follow up inspections determined that contactor was in compliance with Rule 403.
07/10/07	Independent Trucking Company	An unidentified independent trucking company was cited by LAWA for violating the 7:00 am – 9:00 am delivery blackout period. This company had received a previous warning regarding allowable delivery times. LAWA levied a fine in the amount of $1,000.
07/13/07	Tutor-Saliba	Tutor-Saliba was notified of excess dust emissions emanating from the construction vehicle queuing area. A water truck was dispatched to suppress the excess dust emissions. No fine was levied.
09/24/07	Tutor-Saliba	The Third Party Monitor informed LAWA project management of excessive dust emissions. Tutor-Saliba was then notified by LAWA project management of the excessive dust emissions on the center taxiway haul road. A water truck was dispatched to suppress the excess dust emissions. No additional formal action was taken or fine levied.
10/5/07	Tutor-Saliba	LAWA received complaints from community residents of excessive dust emanating from the construction site. The construction site was experiencing higher than normal wind velocities. Tutor-Saliba was notified of the dust complaints and dispatched one (1) water truck to suppress the dust.
10/5/07	Tutor-Saliba	LAWA received a second dust complaint from a member of the community. LAWA informed Tutor-Saliba of the complaint. One (1) water truck was dispatched by Tutor-Saliba to suppress the excessive dust emissions. LAWA deemed this response inadequate and notified Tutor-Saliba that additional water suppression was needed. No additional enforcement action was taken by LAWA.

10/8/07	Tutor-Saliba	LAWA Project Management notified the construction contractor that a piece of construction equipment operating on the SAIP was emitting visible smoke. The equipment number for this vehicle is TBD. The contractor was told to repair the equipment or remove if from the SAIP. The vehicle was subsequently repaired and returned to service. A follow up inspection by LAWA determined that the piece of equipment was emitting less smoke; however, that additional observations were warranted to ensure the equipment had been adequately repaired.
10/15/07	Tutor-Saliba	LAWA project management observed a Caterpillar D10 bulldozer operating on the SAIP; it was determined that this equipment had not submitted documentation seeking a BACT exemption. It was determined by LAWA that the equipment would be granted a 20-day exemption. No fine was levied.
10/26/07	Tutor-Saliba	LAWA Project Management, on behalf of the Third Party Monitor, notified contractor of excessive dust emissions emanating from construction operations. A front loader was loading loose soil into a dump truck, creating dust emissions. A water truck was dispatched to suppress the dust – no further action was taken by LAWA and no fine was levied.

As discussed in Task 6, above, vehicle idling violations are the most common, and pervasive, violation of CBA and LAWA Environmental Requirements. This is due to primarily to drivers who do not frequent the SAIP on a regular basis and are thus unfamiliar with the idling rules. These rules are prominently posted at all construction site entrances.

LAWA project management personnel have noted that completion of major construction on Runway 25L resulted in fewer trucks accessing the airfield, with a commensurate reduction in vehicle idling violations overall. Idling enforcement continues on a local basis; enforcement is conducted primarily by LAWA environmental staff. In all cases during the past six months, enforcement has been by verbal admonishment only – no monetary fines or additional action has been deemed appropriate. According to LAWA project management, most drivers quickly comply with verbal instructions to turn off their vehicle engine, and to date no documented "repeat offenders" have been identified.

With respect to noise complaints, none have been received during the past six-month period. This is due primarily to the construction being focused on the center taxiway portion of the South Airfield. As major construction activities have moved away from Imperial Highway and borderline with the City of El Segundo, construction noise has been significantly mitigated. It was noted that due to construction schedule requirements, some taxiway concrete breaking activities were initiated as early as 2:00 am; however, no noise complaints were lodged. Also, at the public meeting held on October 25, 2007, the only noise issues raised by community members were related to aircraft departures. No issues or objections regarding SAIP construction activities were raised.

Task 8: Reassessments of Emission Control Devices

The Community Benefits Agreement Section X.F.9 requires that a reassessment of best available emission control devices be conducted on an annual basis, or more frequently if warranted. The purpose is to ensure that bid documents take into account advances in emission control devices prior to bidding new construction phases of the LAX Master Plan Program.

Section X.F.9 further requires that the emission control technology review process include any new and relevant requirements or regulations promulgated by CARB or the U.S. EPA, with the understanding that the results from any reassessment of diesel emission control systems cannot be applied retroactively. Specifically, Section X.F.9.b. states that *"any new designations of emission control devices as best available shall apply only to projects that start after the devices are verified or certified for use by CARB or the EPA…"*

Since the start of construction activities on the South Airfield Improvement Program, significant activity has occurred in the field of diesel emission controls. In the time since equipment reports were originally submitted for LAWA review and approval, one new diesel emission control system has earned CARB Level 3 verification for both on and off-road diesel vehicles and equipment, and one system has earned Level 3 on-road verification and conditional off-road verification. These devices have significant levels of compatibility with both on and off-road diesel equipment operating on the SAIP.

Compatibility of the HUSS MK with Equipment Operating on the SAIP:

The HUSS Umwelttechnik FS-MK diesel particulate filter[25] is a Level 3 diesel emission control system verified for use with all on-road and off-road diesel engines through the 2006 model year, except those equipped with either diesel oxidation catalysts or exhaust gas recirculation systems. The FS-MK series of filters use a silicon carbide wall-flow filter with a fuel burner for regeneration to achieve a greater than 85 percent reduction in particulate matter emissions. The specific conditions for which the FS-MK has been approved is included in the two (2) Executive Orders issued by CARB for on-road and off-road engines, respectively. This system was verified on November 13, 2006. The following are links to the CARB Executive Orders:

- On-Road Engine Executive Order: www.arb.ca.gov/diesel/verdev/level3/eo_de06006.pdf;
- Off-Road Engine Executive Order: www.arb.ca.gov/diesel/verdev/level3/eo_de06007.pdf.

CARB typically publishes a list of engine families that are compatible with a VDECS device. The compatibility of this system to both on-road and off-road diesel engines is so broad that for the HUSS system, CARB instead published a list of engine families that are *excluded* from using this device.

The HUSS MK-System diesel exhaust particulate filter is equipped with a "fuel burner" regeneration system. The device is constructed of a stainless steel cylindrical shock-proof casing enclosing the silicon carbide monolith particulate filter. During engine operation, the exhaust gases are fed through the filter medium. There, more than 99% of particulate matter (based on particle mass) is retained in the filter core.

[25] www.huss-umwelt.com/en/index.html

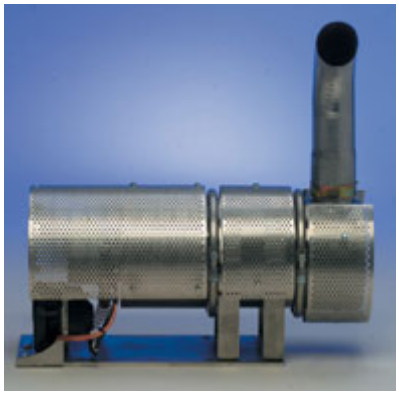

Figure 8-1: HUSS MK-System Level 3 Diesel Particulate Filter

Over a period of several hours of engine operation, particulate matter accumulates inside the filter housing. As the filter becomes loaded with particulate, the exhaust back pressure increases. If allowed to continue, the increasing exhaust back pressure would negatively impact the efficient operation of the diesel engine. Therefore, the trapped particulate must be regenerated. The HUSS MK particulate filter is regenerated by means of the fuel burner. The oxygen required is supplied via an integral blower. A small quantity of diesel fuel from the vehicle's fuel tank, typically on the order of 0.02 to 0.2 gallon, is used as the fuel for the regeneration system. The ensuing combustion vaporizes diesel soot particles, converting the toxic air contaminant into carbon monoxide (CO)[26], carbon dioxide (CO_2) and water vapor.

The regeneration process typically requires approximately 20 to 30 minutes, at which time the particulate filter is free from accumulated soot and ready for continued operation. Monitoring of exhaust system backpressure is performed using a graphic display mounted in the equipment cab and visible to the equipment operator. As the VDECS accumulates trapped particulate, the graphic display indicates when regeneration will be required. Regeneration is then initiated by pressing a button located in the operator cab. Activation of the regeneration system requires the equipment to be turned off, although the operator may remain inside the equipment cab.

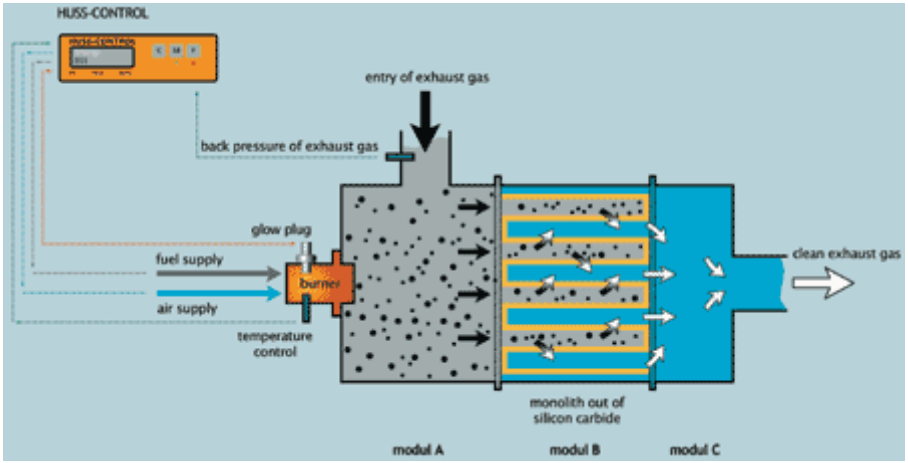

Figure 8-2: HUSS MK-System Schematic

[26] CARB verification ensures that the increase in CO does not exceed engine CO emission standards.

The operational requirements and conditions, as well as specific engine exclusions, were compared to each piece of diesel equipment contained in the most current Third Party Monitor vehicle inventory. As anticipated, this device has extensive applicability and compatibility with the types of diesel equipment used on the SAIP. Table 8-1 compares the ECS Combifilter and HUSS MK-System as it relates to compatibility with equipment currently operating on the SAIP:

Table 8-1: Compatibility of Equipment Operating on SAIP with Commercially-Available VDECS

Equipment Number	Equipment Category	Equipment Model Year	Engine Compatible with ESC Combifilter	Engine Compatible with HUSS FS-MK
E00484	Backhoe	1995	NO	YES
E00492	Rubber Tire Loader	1994	NO	YES
E00139	Scraper	1995	NO	YES
E00140	Scraper	1994	NO	YES
E00499	Rubber Tire Loader	1986	NO	YES
E00519	Motor Grader	2005	NO	YES
E01137	Water Truck	1999	NO	YES
E00647	Compactor	2005	NO	YES
E00648	Compactor	2006	NO	YES
E00343	Dozer	1996	NO	YES
E05319	Flat Bed Dump	1999	NO	YES
E03000	Air Sweeper	2006	NO	NO
E03002	Air Sweeper	2006	NO	NO
E01144	Water Truck	1998	NO	YES
E01240	School Bus	1982	NO	YES
E01145	Water Truck	2006	NO	TBD
E03001	Air Sweeper	2006	NO	NO
E03003	Air Sweeper	2006	NO	NO
E00629	Compactor	1993	NO	YES
E01286	Forklift	1996	NO	YES
E02315	Light Plant	1994	NO	YES
E02305	Light Plant	1996	NO	TBD
E02314	Light Plant	1996	NO	TBD
E02303	Light Plant	1997	NO	TBD
E00483	Rubber Tire Loader	1994	NO	YES
B14103	Backhoe Loader	1995	NO	YES
B14105	Backhoe Loader	1995	NO	YES
B22102	Texture Cure	1993	NO	YES

B13110	Forklift	2000	NO	YES
B20014	Slipform Paver	1986	NO	YES
B17481	Light Plant	2000	NO	TBD
B17483	Light Plant	2000	NO	TBD
B17482	Light Plant	2000	NO	TBD
B13608	Wheel Loader	2005	NO	YES
E00233	Articulated Dump	1997	YES	YES
E00234	Articulated Dump	1998	YES	YES
E00235	Articulated Dump	1998	YES	YES
E00236	Articulated Dump	1999	YES	YES
E00237	Articulated Dump	1999	YES	YES
E00238	Articulated Dump		YES	YES
E00514	Motor Grader	1996	YES	YES
E00518	Motor Grader	2001	YES	YES
E00733	Backhoe/Excavator	1996	YES	YES
E01361	Light Tower	1995	NO	TBD
E01384	Light Tower	1998	NO	TBD
E01388	Light Tower	1993	NO	TBD
P204	Paving Machine	2005	NO	YES
R303	Roller	2000	NO	YES
13203	Wheel Loader	2002	YES	YES
B20007	Slipform Paver	1999	YES	YES
E05296	Passenger Bus	1984	NO	YES
MLHB-105	Dump Truck	1993	NO	YES
E00720	Excavator	1998	NO	YES
R306	Pneumatic Compactor	2004	NO	YES
E00726	Backhoe	1996	NO	YES
E03410	Skip Loader	1998	NO	YES
E03416	Backhoe Loader	2004	NO	YES
E00351	Dozer	2000	NO	YES
E01437	Compressor	1990	NO	YES
E01422	Air Compressor	1985	NO	TBD
15603	Air Compressor	1997	YES	TBD
17204	Generator Set	1999	YES	TBD

Of the diesel equipment assessed, the HUSS MK-System is compatible with the majority of the equipment, with the exception of model year 2006 or newer on-road diesel trucks. Also, it is indeterminate if smaller, stationary diesel equipment such as light towers and air compressors is

compatible with the HUSS System; the equipment that is incompatible or has indeterminable compatibility is shown in the shaded rows of Table 8-1.

Compatibility of the Cleaire Horizon™ Off-Road System with Equipment Operating on the SAIP

The model year 2006 on-road vehicles listed in Table 8-1 are compatible, however, with the Level 3 verified Cleaire Horizon diesel emission control system.

The Cleaire Horizon™ is designed to provide diesel particulate (PM) reductions for in-use diesel engines in challenging applications and duty cycles associated with off-road use. This device incorporates an active on-board regeneration system that uses electricity, through an integrated heating element, to "cook off" the captured diesel particulate while the vehicle or equipment is parked overnight. The Horizon utilizes a controller that monitors system parameters and controls the automatic electric regeneration process. The controller also stores monitored parameters in memory for later data retrieval and analysis.

The device is constructed of stainless steel and uses a silicon carbide diesel filter. A photograph of the Cleaire Horizon™ is shown below:

Figure 8-3: Cleaire Horizon™ Conditionally Verified Level 3 Particulate Filter with On-Board Electric Regeneration

The Third Party Monitor also conducted a reassessment of all equipment currently operating on the SAIP as it relates to compatibility with the Cleaire Horizon™ conditionally verified off-road diesel emission control system. The complete listing of equipment compatibility is included in Appendix A of this report.

Task 9: Development and Implementation of Public Complaint Registration Process

Task 9 of the Third Party Monitor Scope of Work requires the contractor to develop and implement a public complaint registration process. The components of the task are:

- Task 9.1 – Contractor shall develop and implement a process allowing any member of the public to register a complaint alleging any entity's noncompliance with the requirements of CBA Section X.F.
- Task 9.2 – Contractor shall investigate all complaints registered by a member of the public and determine if, when, and where a violation occurred. Contractor shall notify LAWA and the LAX Coalition Representative each time a complaint is registered.
- Task 9.3 – Contractor shall provide records or summaries of public complaints registered with Contractor, including actions, findings, and determinations, to the public upon request. Contractor shall provide LAWA and the LAX Coalition Representative copies of all actions, finding, and determinations requested by the public.

As LAWA already has a widely publicized hotline for complaints, it was decided to utilize the existing number instead of establishing a new one in order to avoid duplication and potential confusion in the community.

The SAIP, objectively, has had very few public complaints. During the period from May, 2006 through November, 2007, approximately nine (9) total public complaints were received and acted upon by LAWA project management. Of these, at least two (2) complaints were for excessive noise that was ultimately determined not to emanate from the SAIP. The SAIP complaint history is shown in Table 9-1, below:

Table 9-1: Public Complaints Received by LAWA

DATE	COMPANY	ISSUE
08/29/06	Public Complaint	Excessive noise reported at 6:30 am. Complaint deemed valid as noise abatement protocol is to not conduct breaking operations prior to 7:00 am on weekdays.
08/30/06	Public Complaint	Same report within 12 hour period.
11/08/06	Public Complaint	An anonymous caller to the South Coast Air Quality Management District (AQMD) called regarding excessive dust from the rock crusher stock pile. The AQMD did not make an onsite inspection, but did call a LAWA environmental engineer. A follow up investigation was conducted by LAWA project management.
12/05/06	Public Complaint	Trucks were attempting deliveries during the 7:00 am and 9:00 am no-delivery period. Prior warnings were issued. No additional calls were placed to the Complaint Hotline.

12/06/06	Public Complaint	Trucks were attempting deliveries during the 7:00 am and 9:00 am no-delivery period. Prior warnings were issued. No additional calls were placed to the Complaint Hotline
01/11/07	Public Complaint	Noise Complaint – A member of the public complained of loud music emanating from the airfield. The origin point of the noise was the private jet fixed base operation and not SAIP construction activity.
01/12/07	Public Complaint	Noise Complaint – A member of the public complained of vehicle "backup beeper" noise between the hours of midnight and 5:00 am. These vehicles were found to be operating at a cargo terminal and were not related to SAIP construction.
10/5/07	Tutor-Saliba	LAWA received complaints from community residents of excessive dust emanating from the construction site. The construction site was experiencing higher than normal wind velocities. Tutor-Saliba was notified of the dust complaints and dispatched one (1) water truck to suppress the dust.
10/5/07	Tutor-Saliba	LAWA received a second dust complaint from a member of the community. LAWA informed Tutor-Saliba of the complaint. One (1) water truck was dispatched by Tutor-Saliba to suppress the excessive dust emissions. LAWA deemed this response inadequate and notified Tutor-Saliba that additional water suppression was needed. No additional enforcement action was taken by LAWA.

SECTION 4 RESULTS AND CONCLUSIONS

The following is a summary of Third Party Monitor results and findings based on the past six months of independent monitoring and documentation:

- As construction of the center taxiway nears completion, diesel construction equipment is being removed from the SAIP at an accelerating pace. Of the original twelve pieces of diesel construction equipment retrofitted with VDECS, five have been relocated to construction projects outside of the SAIP. The seven pieces of diesel construction equipment that remain on the SAIP include six articulated dump trucks and one excavator. While the number of equipment outfitted with VDECS has been reduced, the overall percentage of diesel equipment retrofitted with BACT devices remains relatively the same as during the height of runway 25L construction activity;
- The Third Party Monitor recorded and documented diesel equipment located on the SAIP during physical equipment inventories conducted at approximately two-month intervals during the past six months. The most recent inventory was conduced on October 26, 2007. At that time, approximately 123 pieces of diesel equipment was located on the airfield. It was noted, however, that approximately one-half of this equipment was located in storage areas maintained by the construction contractors. Approximately 61 pieces of diesel equipment inventoried did not have supporting paperwork. Discussions with LAWA project management personnel resulted in several actions:
  - LAWA project management ordered the construction contractor to submit supporting documentation for equipment stored on the airfield without paperwork, or remove the equipment from the airfield. Three pieces of equipment were removed from the SAIP by the construction contractor on or about December 5, 2007;
  - On-Road vehicles and light towers were granted categorically-exempt status by LAWA, as these types of equipment have been shown to be incompatible with the ECS Combifilter diesel emission control device. This accounts for approximately 34 vehicles and equipment;
  - A subset of approximately 14 pieces of equipment may be compatible with a BACT device; the Third Party Monitor has requested that documentation for this equipment be provided at the earliest possible date.
- CFCI verified the use of ultra low sulfur diesel in all vehicles and conducted reviews of fuel purchase receipts. CFCI has also requested copies of fuel purchase receipts corresponding to the period commencing September 2007 through December 31, 2007. These will be reviewed upon receipt. In the interim, CFCI has performed a calculation to estimate the total amount of ULSD dispensed using mobile refueling trucks to date; this amount is estimated to exceed 422,570 gallons. It is important to reiterate that only ULSD fuel is legal for sale in California for both on-road and off-road vehicle applications;
- Monitoring of diesel emission control devices installed on construction equipment continued during the past six months. As documented in the above Sections of this report, all devices currently in use on the SAIP appear functional. The Third Party Monitor did record specific cases in which a device was not properly instrumented; in each case this information was conveyed to LAWA project management;
- All enforcement actions taken by LAWA were reviewed by the Third Party Monitor. All public complaints received were also reviewed. To date, the number of enforcement actions taken

and complaints received is extremely low. On one occasion, the SAIP construction contractor Tutor-Saliba was cited by the South Coast Air Quality Management District for a fugitive dust violation related to vehicle dirt track-out. Subsequent inspections determined that the contractor was in compliance with AQMD Rule 403 requirements.

Overall, the SAIP runway relocation and center taxiway construction project continues toward completion with relatively few issues and a high degree of emphasis on environmental impact mitigation. CFCI continues to have a good working relationship with the LAWA project management and environmental management staff, and no access barriers or limitations have been encountered while conducting third party monitoring.

The next Semiannual Report will cover the period commencing January 1, 2008 and ending June 30, 2008.

APPENDIX A: MASTER SAIP EQUIPMENT LIST

Equipment Number	Equipment Category	Equipment Manufacturer	Equipment Model Year	Equipment Serial Number	Equipment Model Number	Engine 1 Manufacturer	Engine 1 Model	Engine 1 Model Year	Engine 1 Serial Number	Engine 1 Horsepower	Engine 1 Family	Engine Compatible with ESC Combifilter	Engine 1 VDECS Installed
E00484	Backhoe	Caterpillar	1995	5BL00668	446B	Caterpillar	3114 DIT	1995	97Z02126	110	TBD	NO	
E01138	Water Truck	Ford/Cummins	1998	1FTYA96Y7WVA08061	Aerostar	Cummins	N14	1997	11842755	410	VCE855EJDARB	NO	
E01139	Water Truck	Ford/Cummins	1998	1FTYA96Y6WVA08066	Aerostar	Cummins	N14	1997	11842764	410	VCE855EJDARB	NO	
E00337	Dozer	Caterpillar	1995	6FC05638	D6H	Caterpillar	3306 DIT	1995	08Z82166	179	TBD	NO	
E00492	Rubber Tire Loader	Caterpillar	1994	5XJ00692	980F	Caterpillar	3406	1994	11N12004	296	TBD	NO	
E00497	Rubber Tire Loader	Caterpillar	1993	99J00200	966F	Caterpillar	3306	1993	13Z28520	235	TBD	NO	
E00137	Scraper	Caterpillar	1995	8LJ01060	613C	Caterpillar	3208 DIT	1995	98Z08913	187	TBD	NO	
E00138	Scraper	Caterpillar	1997	8LJ1461	613C	Caterpillar	3116	1996	98Z19842	175	TCP6.6RZDBRB	YES	ESC Purifilter installed
E00139	Scraper	Caterpillar	1995	8LJ1165	613C	Caterpillar	3116	1995	TBD	187	TBD	NO	
E00140	Scraper	Caterpillar	1994	8LJ1026	613C	Caterpillar	3116	1994	TBD	187	TBD	NO	
E00331	Dozer	Caterpillar	1990	1RJ1125X	D4C	Caterpillar	3204 DINA	1990	45V88586	64	TBD	NO	
E00349	Dozer	Caterpillar	1993	IJD03762	D9N	Caterpillar	3408	1993	48W45507	401	TBD	NO	
E00499	Rubber Tire Loader	Caterpillar	1986	8YG386	988F	Caterpillar	3408	1986	46W36260	458	TBD	NO	
E00519	Motor Grader	Caterpillar	2005	TASE0168	14H	Caterpillar	3176	2005	3PD16097	260	5CPXL10.3ESK	NO	
E00944	RT Crane	Caterpillar	1990	53I0340	HSP8050	Cummins	CT8.3	1990	4442827	TBD	TBD	NO	
E01137	Water Truck	Sterling	1999	2FWWJCXAXXAF19095	A95	DDC	Series 60 11.1L	1999	6R0483664	350	XDDXH11.1EHL	NO	
E00647	Compactor	Caterpillar	2005	OCNG01340	CS 563E	Perkins	3056	2005	CPT17733	TBD	5PKXL06.0VK1	NO	
E00648	Compactor	Caterpillar	2006	OCNG01538	CS 563E	Perkins	3056	2005	CPT20165	TBD	5PKXL06.0VK1	NO	
B04018	Flat Bed Dump	Ford/Cummins	1997	1FDNFBOC3WVA29643	F800	Cummins	B5.9-190	1997	56384724	190	VCE359D6DABW	NO	
E02485	Forklift	Caterpillar	1997	3PN00511	TH103	Caterpillar	3054	1997	TBD	75	PK3.9R6DARE	NO	
E02486	Forklift	Caterpillar	1998	3PN00427	TH103	Caterpillar	3054	1997	5HK33816	75	PK3.9R6DARE	NO	
E00475	Track Loader	Caterpillar	1982	58X531	983B	Caterpillar	3406	1982	70V11040	TBD	TBD	NO	
E00341	Dozer	Caterpillar	1994	6SL00413	D3C	Caterpillar	3064	1994	5XK01100	73	TBD	NO	
E00343	Dozer	Caterpillar	1996	7XM534	D8R	Caterpillar	3406	1995	8YX00873	TBD	TBD	NO	
E00639	Compactor	BOMAG	1997	101400190130	BW212PD-2	Deutz	BF4L913C	1997	8428525	TBD	TBD	TBD	
E00640	Compactor	BOMAG	1997	101400190129	BW212PD-2	Deutz	BF4L913C	1997	8834191	TBD	TBD	TBD	
E05317	Lube Truck	Sterling	1999	2FXNRJCBXXAB40723	L7501	Caterpillar	3126	1998	7AS28466	350	WCPXH0442HRK	NO	
E05319	Flat Bed Dump	Freightliner	1999	1FVX6ECB6XLA35762	FLD11264ST	Caterpillar	C10	1999	3CS01366	276	XCPH0629ERK	NO	
E05320	Flat Bed Dump	Freightliner	1999	1FVX6ECB6XLA35763	FLD11264ST	Caterpillar	C10	1999	3CS01344	276	XCPH0629ERK	NO	
EWD85	Welder	Lincoln	2004	U1030900314	VANTAGE 500	Cummins	B3.3	2004	68015372	56	3CEXL03.3AAA	NO	
E03000	Air Sweeper	Tymco	2006	TBD	435	Isuzu	4HK1TC	2005	TBD	TBD	5SZXH05.23AB	NO	
E03002	Air Sweeper	Tymco	2006	TBD	600	Cummins	ISB 200	2005	TBD	TBD	5CE10359BAG	NO	
E01143	Water Truck	Ford/Cummins	1998	1FTYA96Y7WVA08058	9522	Cummins	N14	1997	11842628	410	VCE855EJDARB	NO	
E01144	Water Truck	Ford/Cummins	1998	1FTYA96YXWVA08068	9522	Cummins	N14	1997	11842760	410	VCE855EJDARB	NO	

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E03412	Rubber Tire Loader	Caterpillar	1997	1SL02633	966F II	Caterpillar	3306	1997	6NG00155	362	VCP10.RZDARG	YES	ECS Purifilter Installed
E03413	Rubber Tire Loader	Caterpillar	1997	1SL02284	966F II	Caterpillar	3306	1997	08Z96401	362	VCP10.RZDARG	YES	
E00522	Motor Grader	Caterpillar	1996	2ZK01274	140H	Caterpillar	3306	1995	08Z94691	150	TBD	NO	
E01240	School Bus	Ford/DDC	1982	N/A	F-700	DDC	4087-7100	1982	N/A	165	TBD	NO	
E01145	Water Truck	Freightliner	2006	1FVKCYDC26HW37666	M2106	Caterpillar	C7	2006	WAX17419	175	TBD	NO	
E03001	Air Sweeper	Tymco	2006	TBD	435	Isuzu	4HK1TC	2005	TBD	56	5KBXL02.0FAD	NO	
E03003	Air Sweeper	Tymco	2006	TBD	600	Cummins	ISB 200	2005	TBD	99	5CE10359BAG	NO	
E01372	Generator Set	MQ/Isuzu	1999	5191900	TLG-125PX	Isuzu	3LB1	1999	251304	26.7	XSZXL01.1DNA	NO	
E01374	Generator Set	MQ/Isuzu	1999	53002353	TLG-125PX	Isuzu	3LB1	1999	252683	26.7	XSZXL01.1DNA	NO	
E01376	Generator Set	MQ/Isuzu	1999	53002361	TLG-125PX	Isuzu	3LB1	1999	252601	26.7	XSZXL01.1DNA	NO	
E01377	Generator Set	MQ/Isuzu	1999	53002359	TLG-125PX	Isuzu	3LB1	1999	252522	26.7	XSZXL01.1DNA	NO	
E02396	Generator Set	MQ/Isuzu	2004	8100286	DCA-25USI	Isuzu	3LB1	2004	265926	31.9	XSZXL01.1DNA	YES	
E00348	Dozer	Caterpillar	1996	9ZM00341	D6MXL	Caterpillar	3116	1995	4TF30235	TBD	TBD	NO	
E00486	Backhoe	Caterpillar	1996	5BL01099	446B	Caterpillar	3114	1995	4RR01171	96	TBD	NO	
E00629	Compactor	Caterpillar	1993	6LF776	CP214B	Hatz	2M40L	1993	TBD	33	TBD	NO	
E00636	Compactor	Caterpillar	1994	1MG00605	CP433B	Perkins	Type S T4.236	1994	U536093W	TBD	TBD	NO	
E01286	Forklift	Caterpillar	1996	3LN489	TH62	Caterpillar	3054	1995	5HK33816	TBD	TBD	NO	
E02315	Light Plant	Ingersoll-Rand	1994	250205	L6-4MH	Kubota	D950BG-1	1994	900738	TBD	TBD	NO	
E02488	Compactor	John Deere	1988	4850PO13141	4850MFWD	John Deere	4850	1988	RG6466A338879	TBD	TBD	NO	
E05258	Flat Bed Dump	IHC/Navistar	1992	1HSSCNLNXNH409580	4700	Navistar	C170C	1992	362TM2U106415	170	TBD	NO	
E05259	Flat Bed Dump	IHC/Navistar	1992	1HSSCNIN6NH409561	4700	Navistar	C170C	1992	3620M3U101656	170	TBD	NO	
E02135	Boom Truck	IHC/Terex	1998	1HTSCABP6WH474001	4700/TC2863	IHC	BH210	1997	T444E-HT	210	VNV444C8DA32	NO	
E03408	Skip Loader	Case	1996	JJG0223087	570LXT	Cummins	4-390	1998	45166903	TBD	YX9XL0239ABA	NO	
E03409	Skip Loader	Case	1996	JJG0225695	570LXT	Cummins	4-390	1996	45347812	TBD	YX9XL0239ABA	NO	
E03411	Rubber Tire Loader	Caterpillar	2002	0AWH00586	980G II	Caterpillar	3406	2002	TBD	TBD	2CPXL14.6ESK	NO	
H534D	Forklift	Gradeall	1999	3662437	534D10-45	Cummins	B3.9C-116	1999	8834191	TBD	XCEXL0239ACA	NO	
E01436	Air Compressor	Ingersoll-Rand	1992	194550	P250WJD	John Deere	4039DF	1991	CD4039D103112	80	TBD	NO	
E02305	Light Plant	Ingersoll-Rand	1996	265811UEG828	L8-4MH	Kubota	D1105 BG-2	1995	725344	25	TBD	NO	
E02314	Light Plant	Ingersoll-Rand	1996	265808UEG828	L8-4MH	Kubota	D1105 BG-2	1995	785350	25	TBD	NO	
E01467	Air Compressor	Ingersoll-Rand	1999	307642UAK231	P185WJD	John Deere	4045DF	1999	PE4045D066616	49	XJDXL06.8016	NO	
E01468	Air Compressor	Ingersoll-Rand	1999	307644UAK231	P185WJD	John Deere	4045DF	1999	PE4045D066617	49	XJDXL06.8016	NO	
E02303	Light Plant	Ingersoll-Rand	1997	269581U1H828	L8-4MH	Kubota	D1105 BG-2	1997	23562	25	TBD	NO	
P-N/A	Truck Crane	P&H	1981	N/A	T-250	DDC	6A398703	1981	1067-8040	190	TBD	NO	
P-N/A	Boring Machine	American Auger	1995	N/A	48-500	Deutz	F5L912	1995	8324314	83	TBD	NO	
P-N/A	Boring Machine	American Auger	1995	N/A	48-750	Deutz	BF4M1013C	1995	114437	140	TBD	NO	
P-N/A	Boring Machine	Akkerman	2006	N/A	240-A	John Deere	4045	2005	PE4045T522286	100	5JDXL04.5083	NO	
P-N/A	Air Compressor	Sullair	2000	N/A	185DPQJD	John Deere	N/A	2000	PE4045D101811	85	YJDXL06.8016	NO	
E00483	Rubber Tire Loader	Caterpillar	1994	8TK01497	950F	Caterpillar	3116	1994	4TF8000	170	TBD	NO	
B13601	Front Wheel Loader	Komatsu	2006	55060	WA-500-6	Komatsu	SAA6D140E-5	2006	530584	TBD	6KLXL15.2ED6	NO	
B14102	Backhoe Loader	Case	1991	JJG0205272	590	Case	T-390	1991	44567224	TBD	TBD	NO	
B14103	Backhoe Loader	John Deere	1995	TO710DJ820696	710D	John Deere	6059TT002	1995	TO6059T5413333	TBD	TBD	NO	
B14105	Backhoe Loader	John Deere	1995	TO710DJ819579	710D	John Deere	6059TT002	1995	TO6059T536083	TBD	TBD	NO	
B15011	Air Compressor	Sullair	1994	13655A	D210Q5	John Deere	4039DF	1994	CD4039D176078	TBD	TBD	NO	
B15605	Air Compressor	Leroi	1993	152907	P357WD	Cummins	4BT3.9C	1993	45451291	78	TBD	NO	
B22102	Texture Cure	Gomaco	1993	MC13765-45R	TC400	Cummins	4BT3.9C	1993	44941623	78	TBD	NO	
B13110	Forklift	Gradeall	2000	366197	534A-45	Cummins	4BTA-116-2500	2000	45827787	TBD	XCEXL0236ACA	NO	
B20009	Slipform Paver	Terex	1987	5PD47	CM1 RS550	Caterpillar	3406	1987	6TB3484	TBD	TBD	NO	
B20014	Slipform Paver	Gomaco	1986	TBD	GT6300	DDC	6V71	1986	6V-132865	TBD	TBD	NO	
B22101	Texture Cure	Gomaco	1992	MC19681-45T	TC600	Deutz	F3L912	1992	7079768	TBD	B62700884-09	NO	
B24106	Truck Driveover	Rahco	1984	84285	TU76	Caterpillar	3406	1984	6TB3484	TBD	TBD	NO	
B13111	Forklift	Gradeall	1999	366444	534D-45	Cummins	4BTA-116-2500	1999	TBD	TBD	XCEXL0236ACA	NO	
B15021	Air Compressor	Leroi	1999	3515X352	Q185DJE	John Deere	4045DF150	1999	PE4045D054579	78	XJDXL06.8016	NO	
B15023	Air Compressor	Sullair	1999	1817/OA	R210Q	John Deere	4045DF150	1999	PE4045D028342	78	WJDXL06.8016	NO	
B17481	Light Plant	Ingersoll-Rand	2000	304036UHJ789	Light Source	Kubota	V1305-EBG	2000	D905-YJ7970	TBD	YKBXL-01.3BCC	NO	

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Equipment Number	Equipment Category	Equipment Manufacturer	Equipment Model Year	Equipment Serial Number	Equipment Model Number	Engine 1 Manufacturer	Engine 1 Model	Engine 1 Model Year	Engine 1 Serial Number	Engine 1 Horsepower	Engine 1 Family	Engine Compatible with ESC Combifilter	Engine 1 VDECS Installed
B17483	Light Plant	Coleman	2000	RL5219	NH4000RL	Kubota	V1305-EBG	2000	D905-YJ1398	TBD	YKBXL-01.3BCC	NO	
PR01118	Reclaimer/Stabilizer	Caterpillar	2003	AXW258	RM-350B	Caterpillar	3406	2002	41Z21510	500	1CPXL14.6MRJ	NO	
PR07004	Compactor	Caterpillar	2003	9MW375	CS-563D	Caterpillar	3116	2000	98Z34484	153	XCPXL06.6MRA	NO	
B17482	Light Plant	Coleman	2000	RL5212	NH4000RL	Kubota	V1305-EBG	2000	D905-YJ1400	TBD	YKBXL.01.3BCC	NO	
PR02201	Dry Spreader	Mack	1973	10334221	RL767ST1282	Cummins	NTCC-350	1973	10624105	350	TBD	NO	
PR02203	Dry Spreader	Mack	1980	DMM6857S3075	DMM68566	Mack	TBD	1980	239GB5358D-P2	330	TBD	NO	
PR02204	Dry Spreader	International	1986	TBD	P-5070	Cummins	LTA10	1986	34544791	240	TBD	NO	
PR02209	Slurry Truck	Paystar	1980	1HTD32159BGB12603	PAYSTAR	International	DT466	1980	467TM3U101315	190	TBD	NO	
E01296	Lube Truck	Navistar	1986	1HS2ALTN86HA48199	S2200	Cummins	NTC-300	1984	11224756	300	TBD	NO	
EB1301	Generator Set	Caterpillar	1982	TBD	TBD	Caterpillar	3412T	1982	038S08707	475	TBD	NO	
PR02205	Slurry Truck	Autocar	1990	SGBDLU504685	472	Cummins	LTA10	1990	34609271	350	TBD	NO	
PR02206	Slurry Truck	Kenworth	1988	M510596	C520	Cummins	88NT350BC4	1988	21798275	350	TBD	NO	
PR02210	Slurry Truck	Autocar	1989	905501	502858	Cummins	LTA10	1989	34594548	240	TBD	NO	
PR01022	Reclaimer/Stabilizer	Terex	1998	543-197	RS-650	Caterpillar	3412	1995	38S19328	650	TBD	NO	
PR01027	Reclaimer/Stabilizer	Caterpillar	1995	543-112	RS-650	Caterpillar	3412	1995	38S17644	650	TBD	NO	
PR01028	Reclaimer/Stabilizer	Terex	1995	543-118	RS-650	Caterpillar	3412	1995	38S17677	650	TBD	NO	
PR01036	Reclaimer/Stabilizer	Terex	2005	553-138	RS-800	Caterpillar	3412E DITA	2005	2041972	800	TBD	NO	
PR04401	Water Truck	International	1989	1HSHADBNN3LH264472	7100X	International	DTA466	1989	772673	215	TBD	NO	
PR07002	Compactor	Rex	1978	HTR-629	3-50	DDC	8083-7000	1978	8VF	320	TBD	NO	
PR07003	Compactor	Rex	1987	HF-329-T	3-70	DDC	8083-7000	1987	8VF-117060	320	TBD	NO	
PR07005	Compactor	Rex	1980	HER-157	3-70	DDC	8387-7000	1980	TBD	320	TBD	NO	
B13608	Wheel Loader	Caterpillar	2005	5 CY IT	950G II	Caterpillar	3126	2005	5GG09800	350	TBD	NO	
B17301	Generator Set	Caterpillar	2002	81Z24187	XQ600	Caterpillar	3412	2002	TBD	TBD	TBD	NO	
B06017	Mechanic's Truck	Freightliner	2000	1FVG6FAC3YHG52164	FL 60	Cummins	ISB185	2000	45952662	TBD	YCEXH0359BOP	NO	
B06014	Lube Truck	Chevrolet	1993	1GBM7H1J3PJ105529	LUBE	Caterpillar	3116	1993	1BK28887	TBD	TBD	NO	
P-N/A	15 Ton Grove Crane	Grove	1970	TBD	TM-150	DDC	125032	1970	5033-7098	122	TBD	NO	
B15012	Air Compressor	LeRoi	2000	3515X647	Q185DJE	John Deere	4045DF150B	2000	PE4045D097009	78	XJDXL06.8016	NO	
A-001	Tractor Loader	New Holland	2004	LLV001233	LV-80	New Holland	439T	2004	46384428	85	TBD	NO	
A-002	Backhoe Loader	New Holland	2000	31020470	675-E	New Holland	BSD 4444	2000	PD-855101	100	TBD	TBD	
A-003	Compact Excavator	Kubota	2005	10209	KX71-3	Kubota	V1505-E2-BH10	2005	TBD	27.5	TBD	NO	
B17901	Generator Set	Caterpillar	2005	05FL00200	600KW	Caterpillar	3412	2005	BPG02516	TBD	189-8854	NO	
B17902	Generator Set	Caterpillar	2006	X3R00214	300KW	Caterpillar	C9	2006	S9L00269	TBD	259-1809	NO	
B20007	Slipform Paver	Gunnert/Zimmermen	1999	TB S850QUHV0699	S850	Caterpillar	C9	2005	JSC00615	TBD	5CPXL08.8EK	NO	
B15014	Air Compressor	Sullair	1994	13055A	D210Q5	John Deere	4039DF	1994	CD4039D161734	TBD	TBD	NO	
B15018	Air Compressor	Sullair	1996	16012A	185 CFM	John Deere	4239DF	1995	CD4239D876012	TBD	TBD	NO	
B15201	Air Compressor	Atlas Copco	2006	XAR356CD	300 KW	Caterpillar	C6.6	2006	8972422307	TBD	CAT ACERT TS3	NO	
B13609	Wheel Loader	Volvo	2005	V4182	L220E	Volvo	D12DLBE3	2005	574284	TBD	6VSXL12.1CE3	NO	
B13601	Wheel Loader	Komatsu	1997	WA-500-3	L220E	Cummins	N14C	1997	11889607	TBD	WCEXL0855AAA	NO	
B13026	Integrated Tool Carrier	Caterpillar	1993	3CL00085	IT-28	Caterpillar	3116	1993	98Z01467	TBD	TBD	NO	
B09102	Hydro Crane	Linkbelt	2001	F7J1-4315	RTC-8040	Cummins	BT 5.9C	2000	4593384	TBD	YCEXL0359AAA	NO	
E00734	Excavator	Komatsu	2000	TBD	PC750	TBD	TBD	2000	27789	473	YKLXL15.2ED1	NO	
PR3027	Lime Slaker	Joe White	1998	JW718	140 TON	Deutz	BF6L913	1998	TBD	141	WDZXL06.1008	NO	
PR3023	Portable Storage Bin	Troxell	2005	1T9SS5315B719155	140 TON	Deutz	4BL914	2005	8729098	97	5DZXL06.5043	NO	
PR02212	Dry Spreader	Kenworth	1991	J568907	T-450	Cummins	L10	1991	346447378	280	TBD	NO	
PR01119	Reclaimer/Stabilizer	Caterpillar	2002	7FS230	RM-350B	Caterpillar	3406	2002	41Z10343	500	TBD	NO	
PR01114	Reclaimer/Stabilizer	Caterpillar	2002	AXW242	RM-350B	Caterpillar	3406	2002	41Z21511	500	TBD	NO	

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B15401	Reclaimer/Stabilizer	Atlas Copco	2006	XAR356CD	300 KW	Caterpillar	C6.6	2006	8972422307	TBD	6PKXL06.6PJ1	NO	
E00225	Articulated Dump	Volvo	1995	5350V60672	A25C	Volvo	TD73KCE	2005	125-78010	251	TBD	NO	
E00226	Articulated Dump	Volvo	1995	5350V60671	A25C	Volvo	TD73KCE	1995	125-77999	251	TBD	NO	
E00227	Articulated Dump	Volvo	1995	5350V60688	A25C	Volvo	TD73KCE	1995	125-79064	251	TBD	NO	
E00233	Articulated Dump	Volvo	1997	A40V1411	A40	Volvo	TD122KFE	1997	TBD	398	VVS12.R6DARA	YES	ECS Purifilter Installed
E00234	Articulated Dump	Volvo	1998	A40V1374	A40	Volvo	TD122KFE	1998	TBD	398	WVSXL12.0CE1	YES	ECS Purifilter Installed
E00235	Articulated Dump	Volvo	1998	A40V60368	A40	Volvo	TD122KFE	1998	TBD	398	WVSXL12.0CE1	YES	ECS Purifilter Installed
E00236	Articulated Dump	Volvo	1999	A40V60414	A40	Volvo	TD122KFE	1999	TBD	398	XVSXL12.0CE1	YES	ECS Purifilter Installed
E00237	Articulated Dump	Volvo	1999	A40v60413	A40	Volvo	TD122KFE	1999	TBD	398	XVSXL12.0CE1	YES	ECS Purifilter Installed
E00238	Articulated Dump	Volvo	TBD	TBD	TBD	Volvo	TBD	TBD		TBD	TBD	YES	ECS Purifilter Installed
E00495	Track Loader	Caterpillar	1997	86G03284	973	Caterpillar	3306	1997	13Z9941	362	VCP10.RZDARG	YES	
E00514	Motor Grader	Caterpillar	1996	1AL00157	143H	Caterpillar	3306	1996	08Z91856	225	TCP10.RZDBRF	YES	EXEMPTED
E00518	Motor Grader	Caterpillar	2001	7WJ02106	14H	Caterpillar	3306	2001	61VC28943	TBD	1CPXL10.5MRG	YES	EXEMPTED
E00520	Motor Grader	Caterpillar	1996	9EJ00281	160H	Caterpillar	3306	1996	82091203	TBD	TCP10.RZDBRG	YES	
E00521	Motor Grader	Caterpillar	2000	2ZK05508	140H	Caterpillar	3306	2000	6NC22501	TBD	YCPXL10.5MRF	YES	
E00651	Compactor	Caterpillar	2004	TBD	815F	Caterpillar	3176	2004	8834191	TBD	4CPXL10.3ESK	YES	ECS Purifilter Installed
E00732	Backhoe/Excavator	Caterpillar	1998	4SS00499	345BL	Caterpillar	3176	1997	7CR01014	362	VCP10.RZDARK	YES	ECS Purifilter Installed
E00733	Backhoe/Excavator	Caterpillar	1996	6DR00634	330BL	Caterpillar	3306	1996	08Z95822	362	TCP10.RZDBRG	YES	ECS Purifilter Installed
E00941	RT Crane	Terex	1998	57805	RT190	Cummins	C8.3-C	1997	45564679	260	VCE505R6DTRB	YES	
E00952	RT Crane	Grove	1984	68079	RT990	Caterpillar	3306	1984	TBD	250	TBD	NO	
E01125	Water Truck	International	1987	952514826	TBD	Cummins	D505T83	1987	442524741	202	TBD	NO	
E01361	Light Tower	Coleman	1995	7321	MH4000	Kubota	D850-B	1995	TBD	15.5	TBD	NO	
E01384	Light Tower	Coleman	1998	7514	MH4000RDK	Kubota	D850-B	1998	TBD	15.5	TBD	NO	
E01388	Light Tower	Coleman	1993	RD5957	MH4000RDK	Kubota	D850-B	1993	TBD	15.5	TBD	NO	
E02399	Generator Set	Multiquip	2004	8100426	DCA-25USI	Isuzu	4LE2	2003	166572	31.9	3SZXL02.2DNB	YES	
E02397	Generator Set	Multiquip	2004	8100295	DCA-25USI	Isuzu	4LE2	2003	162661	31.9	3SZXL02.2DNB	YES	
E02323	Light Tower	Coleman	1995	7871	MH4000	Kubota	D850-B	1995	TBD	15.5	TBD	NO	
E03404	Rubber Tire Loader	Caterpillar	1998	5WF515	950G	Caterpillar	3126	1998	6JK01482	260	WCPXL07.2MRB	YES	
EWD79	Welder	Lincoln Electric	2002	U1020342825	Commander 500	Deutz	F3L912	2001	8636559	TBD	1DZXL03.8016	YES	
EWD82	Welder	Lincoln Electric	2002	U1020624416	Commander 500	Deutz	F3L912	2002	8651543	TBD	2DZXL03.8016	YES	
EWD84	Welder	Lincoln Electric	2004	U1030908334	VANTAGE 500	Deutz	F3L912	2003	8683014	TBD	3DZXL03.8016	YES	
P202	Paving Machine	Cedar Rapids	2000	49232	CR 551	Cummins	6BTA5.9-C	1997	45577920	169	VCE359R6DTRB	YES	
P204	Paving Machine	Cedar Rapids	2005	60254	CR 552	Cummins	QSB5.9-44	2005	46476834	TBD	5CEXL0359PBE	NO	
R302	Roller	DYNAPAC	1997	62910525	CC 522	Cummins	4BTA3.9C	1997	21251642	TBD	VCE239R6DTRB	NO	
R303	Roller	HYPAC	2000	109B21501810	C778B	Cummins	4BTA3.9C	2000	45991663	TBD	YCEXL0239ACA	NO	
R305	Roller	Ingersoll-Rand	2001	168426	DD110	Cummins	4BTA3.9	2002	60113065	125	2CEXL0239ACA	YES	

APPENDIX A: MASTER SAIP EQUIPMENT LIST

Equipment Number	Equipment Category	Equipment Manufacturer	Equipment Model Year	Equipment Serial Number	Equipment Model Number	Engine 1 Manufacturer	Engine 1 Model	Engine 1 Model Year	Engine 1 Serial Number	Engine 1 Horsepower	Engine 1 Family	Engine Compatible with ESC Combifilter	Engine 1 VDECS Installed
T0210LE881243	skip Loader	John Deere	2001	T0210LE881243	210 LE	John Deere	4045DT050	2001	PE4045D155666	TBD	1JDXL04.5025	NO	
Rental Forklift 1	Forklift	JLG	2006	00292DZG	Y02-2644H024JT/2570	Perkins	1104C-44T	2006	U289370N	TBD	6PKXL04.4RG1	NO	
Arizona 2	Pick Up Broom	Mobile	1999	1807349C4	M8	Isuzu	TBD	1999	ZEXEL897190-3780	TBD	XSZXL02.4CNA	NO	
CB014	Chip Spreader	Bearcat	2000	TBD	BC2002	Cummins	BC2002	1998	45689454	TBD	WCEXL0505ABA	YES	
CB016	Chip Spreader	Bearcat	2002	160191	BC2002	Cummins	BC2002	2002	TBD	TBD	2CEXL0505ABB	YES	
CB017	Chip Spreader	Bearcat	2002	1B9BC16241A173005	BC2002	Cummins	5058.3C	1995	TBD	250	TBD	NO	
D001	Spreader Truck	Bearcat	2001	1FVXOWE81PH44375	501	Caterpillar	C12	2001	TBD	TBD	YCPX80729ERK	NO	
D011	Spreader Truck	Bobcat	1978	1638775	78 Spreader	Cummins	NCT-855	1978	10740638	TBD	TBD	NO	
KB013	Kick Broom	Laymor	2002	28299011	8C	Cummins	TBD	2002	46071044	TBD	1CEXL0239AAC	TBD	
PB08	Pick Up Broom	Mobile	1986	08G0126024	M8	John Deere	4219D	1986	1Z6708	TBD	TBD	NO	
R020	Pneumatic Roller	Caterpillar	1989	7PD00059	PS-180	Perkins	LD33609	1989	U146563P	TBD	TBD	NO	
TD010	Transfer Truck	Peterbilt	1996	1XP5LRPX1TN411981	378	DDC	Series 60	1996	06R0276961	TBD	TDD12.TJCAR	NO	
Rental Water Truck	Water Truck	Sterling	1999	2FZNRJBB5XAA81775	7501	Caterpillar	3126	1999	7AS59884	275	XCPXH0442HRK	NO	
PR3024	Portable Storage Bin	Troxell	2005	1T9SS53105B719162	140 TON	Deutz	4BL914	2004	8722503	97	4DZXL06.5043	YES	
PR3026	Lime Slaker	Joe White	2001	JW749	140 TON	Deutz	BF6L913	1998	TBD	141	WDZXL06.1008	NO	
13203	Wheel Loader	Linkbelt	2002	LAAJ3-6832	L130	Cummins	359/5.9	2002	21517605	TBD	2CEXL0359ABA	YES	
13204	Wheel Loader	Linkbelt	2002	LAAJ3-7228	L120	Cummins	239/3.9	2002	21538007	TBD	2CEXL0239ACA	YES	
B13605	Wheel Loader	Kawasaki	2000	90C3-5820	5CY	Cummins	M11-C	2000	35023771	TBD	YCEXL0661AAA	YES	
B13607	Wheel Loader	Liebherr	2003	458-8883	L-580	TBD	D926-TI-E	2003	2003-02-0858	TBD	3LHAL9.96ARA	YES	
AAH-100	Dump Truck	Peterbilt	1990	1XP5DB9X8LD285936	379	Caterpillar	3406	1990	4MG72092	TBD	7E2277	NO	
AF-108	Dump Truck	Peterbilt	1996	1XPFD68X4TN3981889	379	Cummins	N14	1996	16789289	TBD	86585JDARW	NO	
AS-124	Dump Truck	Peterbilt	1997	1XPCDR9X3VNYY0065	377	DDC	Series 60	1997	06R0342424	TBD	VDD12.EJDARA	NO	
CM-119	Dump Truck	Kenworth	1990	1XKBD59XLJ549669	T-450	Cummins	L10	1990	34556874	TBD	502616C91	NO	
EV-118	Dump Truck	Peterbilt	1995	1XPS5DB9X7SD348278	379	Caterpillar	3406	1995	5EK11078	TBD	RCP893ZDARA	NO	
GSK-101	Dump Truck	Peterbilt	1998	1XPCDU9X2WD424532	377	Caterpillar	C12	1998	9S02074	TBD	E1011B01050109002	TBD	
JBM-113	Dump Truck	Mack	1985	1MZAY23CAFM00100	RD686	Cummins	400 Big Cam	1985	11204234	TBD	TBD	NO	
JD-127	Dump Truck	Peterbilt	1993	1XPBD59X2PD337572	375	Cummins	E10	1993	346807560	TBD	051233F4550	NO	
JRA-104	Dump Truck	International	1994	2HSFBAMR6RC093171	INTL	DDC	Series 60	1994	60676K60	TBD	06RO161671	NO	
E05296	Passenger Bus	Gillig	1984	15GCD0817E1081071	Phantom	DDC	6V92TAC	1984	6VF122171	340	TBD	NO	
E01457	Air Compressor	Ingersoll-Rand	1999	294720	P185WJD	John Deere	4045DF150	1998	PE4045D023963	80	WJDXL06.8016	NO	
LA-129	Dump Truck	Kenworth	1994	1XKAD99X1RR627826	T600	Cummins	M11	1994	34729270	TBD	RLE6611ETDARW	NO	
LD-102	Dump Truck	Peterbilt	1978	100878	359	Cummins	400 Big Cam	1978	100878	TBD	TBD	NO	
MLHB-105	Dump Truck	Freightliner	1993	1FYDPYBXPH449177	FLD120	DDC	Series 60	1993	06R0124961	TBD	PDD11.1FZAX	NO	
MMDO-120	Dump Truck	Peterbilt	1996	1XPCDB8XOTN401262	377	Caterpillar	3406	1996	53769	TBD	5EK58193	NO	
NLC-106	Dump Truck	Volvo	1989	4VIWDBTF2KN620711	WIA64	Cummins	NTC365	1989	11524902	TBD	KCE0855FABA	NO	
OA-116	Dump Truck	Peterbilt	1993	1XP5DB9X6PN32927	379	Caterpillar	3406	1993	3ZJ257192	TBD	NTC0893FPB9	NO	
PMR-123	Dump Truck	Kenworth	1994	1XKAD99X7RR629829	T600	Cummins	M11	1994	34729267	TBD	RCE661EJDAR	NO	
RBU-107	Dump Truck	Peterbilt	2004	2NPLLDOX65M852185	335	Caterpillar	C7	2004	KAL-60420	TBD	E1D68SE87JP901	NO	
SK-109	Dump Truck	Peterbilt	2000	1XPGDU9W6YD500600	385	Caterpillar	C12	2000	2K517646	TBD	1759286	TBD	
TA-117	Dump Truck	Peterbilt	1992	1XPBDA9X0ND321800	375	Cummins	350Big Cam	1992	11558296	TBD	093J	NO	
HJM-103	Dump Truck	Peterbilt	1996	1XP5DB9XXTD394267	379	Caterpillar	3406	1996	5EK52037	TBD	SCP893EZDARK	NO	
ER-110	Dump Truck	Peterbilt	1996	1XPFDR8X8TN421717	378	DDC	Series 60	1996	06R0288103	TBD	TDD12.EJDARA	NO	
11902	Screening Plant	Metso	2006	R2221118	Lokotrack ST356	Deutz	BF4M1013C	2006	10050728	TBD	TBD	NO	
KB808	Kick Broom	Laymor	2002	402129	RJ-350	John Deere	TBD	2002	T04045D900003	TBD	1JDXL06.8016	NO	
TD08	Transfer Truck	Peterbilt	1987	191060KP	379	Caterpillar	3406B	1987	7XC06174	TBD	TBD	NO	
OMAR-115	Dump Truck	Kenworth	1996	1XKDA28X5TJ732946	T600	Cummins	N14	1996	1180-5997	TBD	TCF855FJDARB	NO	
13018	Man Lift	Condor	1986	P273005118	80	International	4-cyln	1986	P262005062	TBD	TBD	NO	
E01329	Generator Set	Beloit Power Systems	1979	5043C4R1	TBGZJ/8C08	DDC	9163-7301	1979	16E5453	TBD	TBD	NO	
E00720	Excavator	Komatsu	1998	10040	PC1100LC	Komatsu	SAA6D170E-2	1998	190669	641	WKLXL23.2FD1	NO	
CB-1	Concrete Breaker	Badger State Hwy	2004	T8613	T8600 Badger Breaker	Deutz	BF6L913	2002	8547136	150	2DZXL06.1009	NO	
CB-2	Concrete Breaker	Badger State Hwy	2003	T8610	T8600 Badger Breaker	Cummins	6BTA5.9-C	2005	60235396	135	D402038CX02	NO	

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CB-3	Concrete Breaker	Badger State Hwy	1997	T8606	T8600 Badger Breaker	Deutz	BF6L913	1992	7880887	139	TBD	NO	
CB-4	Concrete Breaker	Badger State Hwy	2000	T8608	T8600 Badger Breaker	Deutz	BF6L913C	1988	7488998	176	TBD	NO	
CB-5	Concrete Breaker	Badger State Hwy	2004	8615	T8600 Badger Breaker	Deutz	BF6L913	2002	8653627	150	2DZXL06.1009	NO	
R023	Pneumatic Roller	Bros.	1974	9005	74 Bros.	Bros	TBD	1974	3D0117276	TBD	TBD	NO	
TD012	Transfer Truck	Peterbilt	1993	1XP5L59X8PD328035	379	Cummins	L10	1993	34679608	TBD	TBD	NO	
R306	Pneumatic Compactor	Caterpillar	2004	9LS00306	PS-360B	Perkins	3054 DIT	2003	7BJ27322	106.6	PKXL03.9AK1	NO	
E00726	Backhoe	Komatsu	1996	20255	PC650LC-5	Komatsu	SAA6D140-1	1995	22377	TBD	TBD	NO	
E00736	Excavator	Caterpillar	2002	CAT0330CVDKY00265	330CL	Caterpillar	C9	2001	4ZF00951	257	1CPXL08.8HSK	YES	ECS Purifilter Installed
TD013	Transfer Truck	Peterbilt	1993	1XP5L59X1PD328035	379	Cummins	L10	1993	34679611	TBD	TBD	NO	
TD011	Transfer Truck	Peterbilt	1993	1XP5LP5XXPD328036	378	Cummins	L10	1993	34679609	TBD	TBD	NO	
E00720	Excavator	Komatsu	1998	10040	PC1100LC	Komatsu	SAA6D170E-2	1998	190669	641	WKLXL23.2FD1	NO	
E03410	Skip Loader	Case	1998	TBD	570LXT	Case	4-390	1998	45607157	75	WX9XL0239AAA	NO	
E03416	Backhoe Loader	Caterpillar	2004	CAT0446DCDBL00186	446D	Caterpillar	3114	2004	2FG08006	102	4CPXL04.4MRA	NO	
E00351	Dozer	Caterpillar	2000	1652152	D4C	Caterpillar	3046	2000	1498746	TBD	WMVXL05.0888	NO	
E01901	Screening Plant	Extec	1994	2965	6000S	Deutz	F4L912	1994	8228635	TBD	TBD	NO	
E02444	Aerial Lift	Marklift	1990	190M4594	62C	Deutz	F3L914	1990	TBD	TBD	TBD	NO	
39-201	Self-Loading Scraper	Caterpillar	1986	6CB550	623E	Caterpillar	3406	1986	70V22216	330	TBD	NO	
E01437	Compressor	Ingersoll-Rand	1990	181822	TBD	Deutz	F4L912	1990	8397821	TBD	TBD	NO	
E01147	Water Truck	Volvo	1994	4V1JBBDF2RR828318	TBD	Caterpillar	3176	1994	7LG23057	275	TBD	NO	
E01422	Air Compressor	Ingersoll-Rand	1985	145572U85957	TBD	John Deere	4039D366184	1985	TD4039D366184	TBD	TBD	NO	
E05321	Semi Tractor	Kenworth	2005	1XKDDB0X25R085994	T-800	Caterpillar	C15	2005	BXS31313	475	EIEJGN9UDEA	NO	
E01350	Generator Set	Multiquip	1997	862385	DCA-25SSIU	Isuzu	QD-60	1997	TBD	30.6	TBD	NO	
1272233	Ride Saw	Diamond Projects	2006	1272233	CC78-78	Deutz	BF4L2011	2005	992195	74	5DZXL03.1039	NO	
1298236	Slab Saw	Diamond Projects	2006	1298736	CC6560XL3	Deutz	BF3L2011	2005	10177318	60	5DZXL03.1039	NO	
1272791	Ride Saw	Diamond Projects	2006	1272791	CC78-78	Deutz	BF4L2011	2005	879054	74	5DZXL03.1039	NO	
E03415	Wheel Loader	Caterpillar	1995	8YG01067	988F	Caterpillar	3408	2006	BKY00278	TBD	YCPXL18.0HRN	NO	
PU101	Pick Up Machine	Cedar Rapids	2000	50465	MS-2	John Deere	4045TF150A	2000	TO4045T867518	TBD	YJDXL06.8014	YES	
15603	Air Compressor	LeRoi	1997	3349X19	750	Cummins	C8.3-C	1997	454703394	TBD	VCE505R6DTRC	YES	
15605	Air Compressor	LeRoi	1993	152907	P375WD	Cummins	4BT3.9C	1993	45451291	78	TBD	NO	
16302	Water Pump	Rain4Rent	2004	008580A	5RBCORN	John Deere	6068TF275D	2004	PE6068T279605	TBD	3JDXL06.8041	YES	
16305	Water Pump	LELY Manufacturing	2004	PE393340	4000 GPM	John Deere	4045DF270	2004	PE4045D393339	TBD	4JDXL04.5051	YES	
17114	Generator Set	Wacker	1998	5027171	G70	John Deere	4045TF150	1998	T04045T786572	TBD	WJDXL06.8014	YES	
17204	Generator Set	Caterpillar	1999	8JJ00612	XQ225	Caterpillar	3306	1999	8JJ00612	TBD	XCPXL10.5MRG	YES	

APPENDIX D

Draft Sustainable Planning, Design, and Construction Guidelines

Los Angeles World Airports
Global Leader in
Airport Sustainability

DRAFT
AIRPORT SUSTAINABLE PLANNING, DESIGN and CONSTRUCTION GUIDELINES

For Implementation on All Airport Projects

City of Los Angeles

Mayor Antonio Villaraigosa

Los Angeles World Airports

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ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ACI	Airports Council International
ACQ	Ammonial Copper Quartenary
APS	Auxiliary Power System
ASTM	American Society of Testing and Materials
BOAC	Board of Airport Commissioners
BMP	Best Management Plan
CARB	California Air Resources Board
CCA	Copper Chromate Arsenate
CDA	Continuous Descent Arrival
CEQA	California Environmental Quality Act of 1970
CI	Commercial Interiors (LEED®)
CIP	LAWA's Capital Improvement Program
CFC	Chlorofluorocarbon
CO_2	Carbon Dioxide
CP	Construction Point that can be earned by achieving a performance standard of the *Sustainable Construction Guidelines*
CRRC	Cool Roof Rating Council
CRT	Cathode Ray Tube
CS	Core and Shell (LEED®)
CTMP	Construction Traffic Management Plan
DNL	Day-Night Average Sound Level
DP	Design Point that can be earned by achieving a performance standard of the *Sustainable Planning and Design Guidelines*
EB	Existing Building (LEED®)
EIR	Environmental Impact Report
EM	Electromagnetic
EO	Executive Order
ETS	Environmental Tobacco Smoke
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FEMP	Federal Energy Management Plan

ACRONYMS (cont.)

FHWA	Federal Highway Administration
FIDIC	International Federation of Consulting Engineers
FSC	Forest Stewardship Council
FTP	File Transfer Protocol
GHG	Greenhouse Gas
GPU	Ground Power Unit
HAP	Hazardous Air Pollutants
HASP	Health and Safety Plan
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
HPS	High Pressure Sodium
HPV	Human Powered Vehicle
HVAC&R	Heating, Ventilation, Air Conditioning, and Refrigeration
IAQ	Indoor Air Quality
ICF	Insulated Concrete Forms
IESNA	Illuminating Engineering Society of North America
IPM	Integrated Pest Management
IPMVP	International Performance Measurement & Verification Protocol
ISO	International Organization for Standardization
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
LED	Light Emitting Diode
LEED®	Leadership in Energy and Environmental Design
LEED®-CI	LEED® for Commercial Interiors
LEED®-CS	LEED® for Core and Shell
LEED®-EB	LEED® for Existing Buildings
LEED®-NC	LEED® for New Construction and Major Renovations
LID	Low Impact Development
MERV	Minimum Efficiency Reporting Value
MH	Metal Halide
MMRP	Mitigation, Monitoring, and Reporting Program
MRF	Materials Recycling Facility
MSDS	Material Safety Data Sheet
NA	Number of Events Above
NADP	Noise Abatement Departure Procedure

ACRONYMS (cont.)

NC	Noise Criterion or New Construction and Renovation (LEED®)
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
O&M	Operation & Maintenance
ONT	LA/Ontario International Airport
ORD	Chicago O'Hare International Airport
OSHA	Occupational Safety and Health Association
PANYNJ	Port Authority of New York and New Jersey
PECI	Portland Energy Conservation, Inc.
PFC	Perfluorocarbon
PMD	LA/Palmdale Regional Airport
Q&A	Question and Answer
RC	Room Criterion
RCM	Runway Construction Model
RFP	Request for Proposal
RNP	Required Navigation Procedure
ROI	Return on Investment
RRM	Rapidly Renewable Materials
SCAQMD	South Coast Air Quality Management District
SMACNA	Sheet Metal and Air Conditioning National Contractors' Association
SOX	Sarbanes-Oxley
SPCC	Spill Prevention Countermeasure and Control
SWPPP	Stormwater Pollution Prevention Plan
TA	Time Above
TBL	Triple Bottom Line
TSA	Transportation Security Administration
TSS	Total Suspended Solids
UC	University of California
USACE	United States Army Corps of Engineers
USDOA	Unites States Department of Agriculture
USDOE	United States Department of Energy
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGBC	United States Green Building Council

ACRONYMS (cont.)

UV	Ultraviolet
UW	University of Washington
VALE	Voluntary Airport Low-Emission Program
VNY	Van Nuys Airport
VOC	Volatile Organic Compound
WCI	Western Climate Initiative
WRI	World Resources Institute
ZEV	Zero Emissions Vehicle

DEFINITIONS

Albedo	The fraction of light or solar radiation that is reflected by a surface.
Air Emissions Reduction	Reduction of emissions that would normally occur with a combustion process typically from using an advanced combustion process or devices to remediate air emissions.
Air Toxics Emissions	Emissions to the atmosphere that are toxic including but not limited to lead, mercury, sulfur, carbon monoxide, nitrogen oxides, ozone, particulate matter, etc.
Alternative Fuels	Fuels that consists of non-conventional materials and substances that are largely renewable compared to fossil fuels (i.e. biodiesel, hydrogen).
Best Management Practice	Standard policies, practices, procedures, and/or structures that are implemented on a project site to mitigate the adverse environmental effects on surface water quality resulting from construction and operations phases of the development.
Building Envelope	Exterior elements of a building (e.g. windows, walls, roof) that enclose the interior spaces.
Carbon Footprint	Measure of the impact from human activities on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide.
Carbon Neutral	Term applied to individuals or organizations that seek to balance their total carbon release into the environment.
Certified Design	Design project where a licensed professional is required to approve, stamp and/or sign the final design.
Change Orders	Addendums made during construction that stray from contract specifications and drawings.
Construction Documentation	Drawings, contracts, RFIs, specifications, change orders or other documents associated with a construction project.
Construction Site Plans	Plans developed to coordinate contractors for constructions purposes.

DEFINITIONS (cont.)

Construction Waste Management Plan	Plan that outlines the goals and methods to divert construction and demolition waste from landfills and return appropriate materials into the manufacturing life cycle.
Core and Shell	Base building elements, such as the structure, envelope and building-level systems (e.g. HVAC, lighting, security).
Diesel Particulate Filter	A particulate filter used to remove particulate matters created during the combustion of diesel fuels that reduce air quality.
Diesel Oxidation Catalyst	Catalyst to control carbon monoxide, hydrocarbons, odor causing compounds, and the soluble organic fraction of particulate matter.
Deliverables	Products that are submitted for review at major project milestones.
Downgradient	Direction of groundwater flow.
Eco-efficient	Consideration of environmental stewardship & economic growth (not the Triple Bottom Line); maximizing economic returns while minimizing environmental impact.
Ecological footprint	Load that a population group imposes on the earth based on resources consumed & waste generated.
Embedded Energy	Energy associated with the creation or manufacturing of a material or product. Also know as “Embodies Energy”.
Erosion and Sedimentation Controls	Practices and applications that are utilized on the project site to ensure the stabilization of earthworks and protection of conservation areas, buffers, waterways, and forests during construction.
Fossil Fuels	Carbon or hydrocarbon fuels that form from the deposition of organisms over millions of years underground or beneath the sea floor (i.e. coal, oil, natural gas).

DEFINITIONS (cont.)

Geotextiles	Permeable fabric or synthetic material that, when used in association with soil in different geotechnical engineering applications, enhance the ability of the soil to filter, reinforce, protect, or drain.
Graywater	Stormwater or wastewater produced from baths and sinks (not toilets) that may be reused according to local regulations for purposes such as irrigation.
“Green”	Consideration of environmental stewardship (not the Triple Bottom Line).
Greenfields	Land that has not previously been developed.
Greenhouse Gas	Atmospheric gas that traps infrared radiation and contributes to rising temperatures of the planet (global warming). Common examples include carbon dioxide and methane.
Green roof	Building roof that is partially or completely covered with vegetation and soil planted over a waterproofing membrane.
Heat Island Effect	Artificial thermal gradient between developed and undeveloped land as a result of solar heat retention in urban (developed) areas.
Infill Development	New development within existing urban areas on a site that is either vacant or has been previously developed.
Light Pollution	Illumination of the nocturnal sky by artificial or man-made sources that interfere and alter natural light levels.
Major Renovation	Less than 50% of building occupants remain in the building during construction (encompasses the entire building).
Microclimate	The climate within a microhabitat or a local, defined area.
Nitrogen Fixing	The conversion by certain soil microorganisms (i.e. diazotrophs) of atmospheric nitrogen into useful compounds for other plants and organisms.
Non-Renewable Energy	Natural energy sources that exist in limited amounts, such as fossil fuels.

DEFINITIONS (cont.)

Particulate Matter	Microscopic solid and liquid particles that are easily suspended in the atmosphere.
Potable Water	Water that is safe for human consumption.
Project Life cycle	In relation to the Guidelines and the LAWA-Sustainable Rating System, a project's life cycle includes the planning, design, and construction phases.
Project Milestones	Examples include 30%, 60% & 90% design reviews, submissions to City Council or BOAC, RFP Development, Pre-Bid meetings, Bid Selection, Construction Kick-off Meeting and Progress Meetings.
Rain-harvesting System	Practices and structures by which to capture rainfall for reuse activities such as landscape irrigation.
Recycled Water	Wastewater that is captured and treated to regulated levels for various reuse activities, such as landscape irrigation.
Renewable Energy	Energy derived and replenished from sources that are naturally inexhaustible (e.g. hydroelectric, solar, wind).
Siltation	The deposition of fine soil or mineral particles at the bottom of waterways and water bodies.
Specifications	Document that includes details on the general description, quality standards, manufacturing requirements, and installation procedures of project components that correspond to the construction drawings.
Stakeholders	Individuals or entities that affect or are affected by the project, including the Project Delivery Team, the construction, maintenance and operation teams, users of the final project, members of other LAWA projects that may be impacted or interested in collaboration on construction aspects, City officials, tenants, community participants, and members of the FAA, TSA and the USEPA.
Stormwater	Runoff generated by rainfall events that do not infiltrate into the ground.
Sustainable	Consideration of the Triple Bottom Line; environmental stewardship, economic growth & social responsibility.

DEFINITIONS (cont.)

Sustainability Performance	A measure of how well an entity incorporates sustainability concepts and practices into its organization based on established benchmarks and indicators.
Tailpipe Emissions	Gas emitted from automobile exhaust systems.
Task Lighting	Lighting installed in a local space or area to provide direct illumination for specific visual tasks.
Upgrade	Greater than or equal to 50% of building occupants remain in the building during construction (encompasses the entire building).
Vegetated Surfaces	Surfaces areas that are covered with vegetation (e.g. meadows, forests, grass fields).
Virgin Materials	Resources that are extracted from the environment in their raw form, such as timber and metal ore.
Waste Stream	A stream of waste that can be characterized from a single source, common source, or common material.

PART I:
BACKGROUND INFORMATION

Introduction

Los Angeles World Airports (LAWA) strives to be an airport leader in the development and implementation of sustainable planning, design and construction practices. LAWA's vision "to set the global airport standard for customer satisfaction and security, regional economic leadership and organizational performance," coupled with the Los Angeles Mayor's Executive Order on Sustainable Practices, the City Council's motion to have Los Angeles International Airport (LAX) "built and held to the highest green standards" and the Board of Airport Commissioners' (BOAC's) goal to make LAX the greenest airport in the world, has established LAWA's commitment to improving the sustainability performance of LAX, LA/Ontario International Airport (ONT), Van Nuys Airport (VNY), and LA/Palmdale Regional Airport (PMD). To support this commitment, LAWA is developing, implementing and continually improving the sustainable planning, design and construction processes and is increasingly using sustainability principles to make informed decisions in their drive to become the global leader in airport sustainability.

An integral part of LAWA's efforts to improve sustainability performance is the development and implementation of these Airport Sustainable Planning, Design and Construction Guidelines (Guidelines). The intent of the Guidelines is to facilitate the integration of sustainable concepts and practices into all capital and non-capital projects that are executed at LAX, ONT, VNY, and PMD. The Guidelines' structure provides several tools for achieving this objective, including:

- Performance standards that contain required actions, targets, metrics, and documentation for planning, design and construction activities;
- A system for measuring the level of achievement of the performance standards; and
- A method for sharing "lessons learned" to ensure that the process of integrating sustainability into all airport projects is continually improved.

These Guidelines are also intended to support the City of Los Angeles' ongoing efforts toward implementing more environmentally sustainable buildings and civic development, as well as to be published for use by all airports nationwide.

The development of LAWA's Airport Sustainable Planning, Design and Construction Guidelines was a successful collaborative effort between LAWA staff and other City Departments and stakeholders to ensure that the sustainable planning, design and construction objectives are appropriate and applicable during the development and implementation of all projects at all of LAWA's four airports.

Sustainability Vision Statement and Principles

LAWA's actions demonstrate the commitment of the organization and its employees to sustainability. By documenting this commitment in Sustainability Vision and Principles statement, LAWA has further communicated its position on sustainability to its employees, customers, tenants, suppliers, peers, and the communities in which it works. A formal statement regarding their Sustainability Vision and Principles also serves to improve LAWA's sustainability performance by aligning activities throughout the organization at LAX, ONT, VNY, and PMD, optimizing its return on investment (ROI) and fostering growth by attracting and retaining the best and brightest employees. LAWA's Sustainability Vision and Principles statement is included on the following page.

Los Angeles World Airports
Global Leader in
Airport Sustainability

Los Angeles World Airports
Sustainability Vision and Principles

Our Sustainability Vision As the international gateway in our region, Los Angeles World Airports is committed to setting the global airport standard for customer satisfaction and security, regional economic leadership and organizational performance. Building on our core values, we will engage our employees, tenants, customers, and communities in an effort to continually improve our environmental, economic and social performance.

Our Sustainability Principles We will foster stewardship and continual performance improvement at all levels within LAWA's organization by complying with applicable legal requirements, integrating sustainable practices into our operations and administrative processes, communicating our endeavors, and following these principles:

Becoming an innovative and national model in implementing environmental solutions.

Taking responsibility for improving our overall operational sustainability.

Increasing our business value through improved sustainable performance.

Engaging our stakeholders to better understand and address their concerns.

Incorporating sustainable design and construction practices in the development of our airport system.

Monitoring and measuring our progress through our sustainability performance improvement management system.

Purpose of the Guidelines

The main purpose of the Guidelines is to provide a compilation of existing, applicable sustainability performance standards supplemented with airport-specific performance standards that account for unique opportunities and obstacles that exist at airports. The Guidelines are a comprehensive and appropriate set of planning, design and construction practices and strategies for airports that can be used as an accepted model to measure and compare success in improving sustainability performance. The Guidelines are intended to be applied to individual airport projects, as opposed to organizational or operational processes, throughout the life cycle of the project (i.e. planning, design and construction phases).

The Guidelines can be used for a variety of project types, including capital, non-capital, tenant, and federal projects. They can be applied to projects that involve general construction and maintenance, buildings and facilities, roads, runways, taxiways, infrastructure, and other civil projects, both airside and landside. In addition to being a planning tool, the Guidelines also provide a rating system to measure and document the level of a project's success in achieving the requirements of the performance standards. This "LAWA-Sustainable" Rating System will be used to track progress and to continually improve the sustainable planning, design and construction processes.

The Guidelines are a compilation of new, airport-specific performance standards combined with existing performance standards, guidelines and tools published by the United States Green Building Council (USGBC), Chicago O'Hare Airport (ORD), the Port Authority of New York and New Jersey (PANYNJ), Airports Council International (ACI), the American Association of State Highway and Transportation Officials (AASHTO), the United States Army Corps of Engineers (USACE), the University of California, and the International Federation of Consulting Engineers (FIDIC). In particular, publications by the USGBC, ORD, PANYNJ, and ACI serve as the foundation for these Guidelines. A complete list of references is included at the end of Part I of this document.

Purpose of the Guidelines

To provide a comprehensive set of performance standards applicable to airports that can be utilized to integrate sustainable practices into all airport projects; and

To provide a rating system that can be used to consistently measure the achievement of improved sustainability performance for projects executed at airports nationwide.

Outcomes of the Guidelines

- Reduction of Waste
- Minimization of a Project's Carbon and Water Footprints
- Conservation of Natural Resources
- Pollution Prevention
- Resource Efficiency
- Consistent Measurement of Sustainability Performance
- Creation of Public Benefits
- Successful Community Outreach
- Strengthening of Local & Regional Economies
- Advancement of Emerging Markets
- Integrated Solutions
- Continued Improvement of the Planning, Design & Construction Processes

Sustainable vs. Green

LAWA's approach to sustainability focuses on the "Triple Bottom Line" (TBL) as originally proposed by John Elkington. The TBL recognizes that, in order to be sustainable, organizations need to measure their success not only by the traditional bottom line of financial performance, but also by their impact on the broader economy, the environment, and on the society in which they operate. The TBL framework is a means to organize and communicate progress in the areas of:

1. Economic Growth
2. Social Responsibility
3. Environmental Stewardship

LAWA successfully applies the TBL approach to understand and leverage the synergies that exist in these three areas in order to improve sustainability performance.

LAWA recognizes the important difference between a "green" project and a "sustainable" project. A "green" project focuses solely on the "Environmental Stewardship" component of the TBL, such as reducing waste, minimizing carbon and water footprints, preventing pollution, and conserving natural resources. A "sustainable" project includes these green aspects as well as economic growth (e.g. use of local contractors and supplies, creating and strengthening markets such as alternative fuels and solar and wind power technologies) and social responsibility (e.g. implementing fair labor practices, educating surrounding communities).

LAWA employs the "Triple Bottom Line" approach to improve sustainability performance.

Although LAWA strives to achieve BOAC's goal to make LAX the "greenest" airport in the world, improvement of the organization's overall sustainability performance is also a top priority. Developing and implementing sustainable projects is one element being used by LAWA to achieve these goals. Using the Guidelines, LAWA's planning, design, and construction activities will embrace the best possible environmental, social and fiscally responsible practices to enhance the overall quality of a project and maintain consistency with the overall mission and goals of the City of Los Angeles as a whole.

Applicability of the Guidelines

The Airport Sustainable Planning, Design and Construction Guidelines are required to be applied to all LAWA projects. This section discusses project categories that capture all LAWA activities, the general components of the Guidelines, the parties responsible for implementing the Guidelines, and the relationship of the Guidelines with regulatory requirements.

Project Categories

These Guidelines have been written with consideration of seven general project categories that cover projects in LAWA's Capital Improvement Program (CIP) as well as its non-capital projects. These categories include:

- General Construction and Maintenance: Activities such as landscaping, sidewalk and street cleaning, airfield cleaning, clearing and maintenance, general remediation projects, stormwater system management, oil/water separator maintenance, solid waste management, building maintenance, paving, asbestos removal, tank maintenance, ground vehicle and aircraft maintenance, lighting system and signage repair and maintenance, wildlife control, and fuel system maintenance.
- Occupied Buildings/Facilities: New construction, renovation and upgrade of facilities such as passenger terminals, concourses, security posts, administration buildings, remote passenger gate facilities, utility plants, fire stations, and cargo facilities.
- Unoccupied Buildings/Facilities: Electrical vaults, ventilation buildings, baggage screening facilities, mechanical spaces, and fueling stations.
- Civil – Landside: Roads, bridges, storm drain systems, storm water detention facilities, electrical lighting systems, telecommunications systems and other airport utilities, parking lots, parking structures, signage, landscaping, and fencing.
- Civil – Airside: Runways, taxiways and shoulders, service roads, storm drain systems, storm water detention facilities, electrical lighting systems, and airport utilities.
- Tenant Projects: Projects executed by tenants of LAWA.
- Federal Projects: Projects executed by federal agencies including the Transportation Security Administration (TSA) and the Federal Aviation Administration (FAA).

Components of the Guidelines

The Guidelines consist of two sets of performance standards:

1. *Sustainable Planning and Design Guidelines* and
2. *Sustainable Construction Guidelines*.

These two components are intended to be used together for all project categories, however the *Sustainable Construction Guidelines* can be used as a stand-alone document for most General Construction and Maintenance activities. Specifically:

- All activities that require a certified design (i.e. a project that requires a licensed professional in California to approve, stamp and/or sign the final design) are required to proceed in accordance with both the *Sustainable Planning and Design Guidelines* and the *Sustainable Construction Guidelines*.
- General Construction and Maintenance activities that do not require a certified design will be required to abide by the *Sustainable Construction Guidelines* only.

Detailed information on how to use the Guidelines, including their use during the earliest project stage and the synergy between LAWA's Guidelines and USGBC's Leadership in Energy and Environmental Design (LEED®) programs, is included in the section entitled **"Using the Guidelines During Planning, Design and Construction"**.

A summary of the applicability of each set of performance standards to the seven project categories is presented in **Table 1**.

Parties Responsible for Implementing the Guidelines

In addition to LAWA staff, every planning, engineering, and construction professional team working at LAWA as well as all tenants and federal agencies will be provided a copy of these Guidelines for incorporation of sustainable elements in their designs and/or construction activities. LAWA's Mitigation Compliance Division will be auditing, tracking and reporting progress as the Guidelines evolve to ensure that sustainable planning, design and construction measures are incorporated into every element of all LAWA projects to the greatest extent possible.

Regulatory Requirements

These Guidelines are meant to supplement the existing requirements of Federal, State or Local regulatory agencies, including:

- Federal Aviation Administration (FAA)
- U.S. Environmental Protection Agency (USEPA)
- U.S Department of Agriculture (DOA)
- State of California
- City of Los Angeles, Los Angeles World Airports Signage Standards, Storm Water Pollution Prevention Plan (SWPPP), Underground Storage Tank Management Plan, Haz-Mat Management Plan, Landscaping Standards, etc.
- City of Los Angeles codes and ordinances including street, sewer and storm drain design standards
- LAWA Recycling Plan
- LAWA Spill Prevention Countermeasure and Control (SPCC) Plan
- LAWA Noise and Acoustical Quality Requirements
- South Coast Air Quality Management District (SCAQMD)

The Guidelines do not supersede any existing standards, regulations, codes, guidelines or practices currently in place or adopted by the State of California, City of Los Angeles or LAWA and its tenants. The Guidelines are designed to work in conjunction with existing regulations and should be used to streamline compliance with established regulations, including the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

If conflicts between the Guidelines and existing regulations are encountered and the sustainable performance standard is deemed to be more beneficial than an established regulation, it is the responsibility of the planning, design and/or construction teams to review these conflicts and identify a plan of action, which may involve negotiations with regulators. It is expected that, to the extent feasible, the most rigorous requirement will be met in regards to sustainability.

Table 1
Los Angeles World Airports
Airport Sustainable Planning, Design and Construction Guidelines
Applicability of Sustainable Performance Standards to Airport Projects
December 2007

Category	General Construction and Maintenance	Occupied Buildings/Facilities	Unoccupied Buildings/Facilities	Civil Airside	Civil Landside	Tenant Projects	Federal Projects
Planning and Design Guidelines							
Project Management - Planning & Design		✓	✓	✓	✓	✓	✓
Sustainability-Focused Specifications		✓	✓	✓	✓	✓	✓
Airside Planning			✓	✓		✓	✓
Landside Planning	✓	✓	✓		✓	✓	✓
Site Selection	✓	✓	✓	✓	✓	✓	✓
Stormwater Management & Erosion Control - Planning & Design	✓	✓	✓	✓	✓	✓	✓
Landscape Design	✓	✓	✓	✓	✓	✓	✓
Water Efficiency & Conservation	✓	✓	✓	✓	✓	✓	✓
Reduce Heat Islands	✓	✓	✓	✓	✓	✓	✓
Interior & Exterior Lighting Quality	✓	✓	✓	✓	✓	✓	✓
Noise Pollution Reduction	✓	✓	✓	✓	✓	✓	✓
Energy Efficiency & Conservation	✓	✓	✓	✓	✓	✓	✓
Atmosphere Protection - Planning & Design	✓	✓	✓	✓	✓	✓	✓
Materials & Resources	✓	✓	✓	✓	✓	✓	✓
Indoor Environmental Quality		✓	✓			✓	✓
Post-Construction Maintenance, Monitoring & Reporting	✓	✓	✓	✓	✓	✓	✓
Community Involvement	✓	✓	✓	✓	✓	✓	✓
Social Responsibility - Planning & Design	✓	✓	✓	✓	✓	✓	✓
Additional Planning & Design Elements	✓	✓	✓	✓	✓	✓	✓
Construction Guidelines							
Project Management - Construction	✓	✓	✓	✓	✓	✓	✓
Stormwater Management & Erosion Control - Construction	✓	✓	✓	✓	✓	✓	✓
Construction Water Conservation	✓	✓	✓	✓	✓	✓	✓
Construction Indoor Air Quality	✓	✓	✓	✓	✓	✓	✓
Construction Waste Management	✓	✓	✓	✓	✓	✓	✓
Construction Vehicles	✓	✓	✓	✓	✓	✓	✓
Construction Equipment	✓	✓	✓	✓	✓	✓	✓
Atmosphere Protection - Construction	✓	✓	✓	✓	✓	✓	✓
Construction Materials Conveying	✓	✓	✓	✓	✓	✓	✓
Construction Noise Control	✓	✓	✓	✓	✓	✓	✓
Construction Lighting	✓	✓	✓	✓	✓	✓	✓
Landscape Maintenance	✓	✓	✓	✓	✓	✓	✓
Construction Health & Safety	✓	✓	✓	✓	✓	✓	✓
Construction Roadways	✓	✓	✓	✓	✓	✓	✓
Social Responsibility - Construction	✓	✓	✓	✓	✓	✓	✓
Additional Construction Elements	✓	✓	✓	✓	✓	✓	✓

Using the Guidelines During Planning, Design and Construction

All activities that involve a certified design (i.e. projects that require a licensed professional in California to approve, stamp and/or sign the final design) are required to adhere to both the *Sustainable Planning and Design Guidelines* and the *Sustainable Construction Guidelines*. General Construction and Maintenance activities that do not require a certified design are required to follow the *Sustainable Construction Guidelines* only. Each project should strive to be "LAWA-Sustainable" to the highest possible level.

Use of the Guidelines during the Earliest Project Stage

The contents of the Guidelines should be first considered in the earliest project stage by all Project Delivery Team members and other interested stakeholders. A fundamental belief underlying these Guidelines is that an integrated design process will enable LAWA to achieve thoughtful, sustainable planning, design and construction efforts with no or minimal impact to a traditional schedule or budget. To reach this objective, the following actions are required during the initial project evaluation:

- Establish sustainability goals for the project at the earliest stage by engaging all members of the Project Delivery Team as well as other interested stakeholders, including construction, maintenance and operation teams, users of the final project, members of other LAWA projects that may be impacted or interested in collaboration on construction aspects, City officials, tenants, community participants, and members of the FAA, TSA and the USEPA;
- Identify specific planning, design and construction strategies and communicate these strategies to all interested stakeholders;
- Balance the sustainability goals and strategies with planning, design and construction requirements to find integrated solutions, not tradeoffs or compromise, to any conflicts that may exist; and
- Resolve competing interests and address schedule and budget concerns both within the project itself and with other LAWA projects;

Following the initial project evaluation, continued use of the Guidelines throughout all stages of the planning, design and construction processes will ensure that the sustainability goals are met as the project progresses.

To assist in the initial project evaluation, "LAWA-Sustainable Checklists" are provided in Part II of this document. The Checklists should be used to record general information regarding the project, the sustainability goals of each project (e.g. LAWA-Sustainable: Level 3, LEED® Silver certification, etc.) and the selected planning, design and construction strategies. The Checklists summarize the required performance standards, the optional performance standards with corresponding point allocations, and strategies for achieving the performance standards.

Coupling the Guidelines with Project Plans and Specifications

Project Plans and Specifications should directly reference the requirements of these Guidelines. Integrating the Guidelines into the project Plans and Specifications will ensure that all sustainability goals are clearly communicated to the bidders and that realistic schedules and budgets can be developed. Coupling the Guidelines with synergistic Plans and Specifications is especially important for projects that do not allow members of the construction, operation and maintenance teams to participate in the

early project stages. In many cases, Plans and Specifications will need to clearly detail the execution and submittal requirements with which the contractor will be required to adhere in order to achieve the sustainability goals. In addition, linking payment to the achievement of the sustainability goals, such as air quality or noise requirements, may be considered as part of the project Specifications.

The LAWA-Sustainable Rating System

The Guidelines incorporate the "LAWA-Sustainable" Rating System, which is used to measure the level of sustainability achieved by each project. For each performance standard that is achieved, an allocation of "LAWA-Sustainable Points" will be awarded, the sum of which will determine which "LAWA-Sustainable Level" is achieved. For performance standards included in the *Sustainable Planning and Design Guidelines*, "Planning and Design Points (DPs)" are awarded. Similarly, for performance standards included in the *Sustainable Construction Guidelines*, "Construction Points (CPs)" are awarded. There are four LAWA-Sustainable levels:

- LAWA-Sustainable: Construction Level (10 – 12 CPs)
- LAWA-Sustainable: Level 1 (10 – 15 CPs and 60 – 70 DPs)
- LAWA-Sustainable: Level 2 (16 – 20 CPs and 71 – 90 DPs)
- LAWA-Sustainable: Level 3 (21 – 30 CPs and 91 – 150 DPs)

Each performance standard includes actions, metrics, targets, and documentation that are needed to achieve DPs and CPs, which are defined in Part III of the Guidelines. In some instances, allocation of DPs and CPs will include studies and calculations, while in others it will be through product and material data. The Project Delivery Team will review the project Plans and Specifications as well as the construction submittals to ensure that all sustainability requirements are met and implement corrective actions for instances where the sustainability requirements are not met.

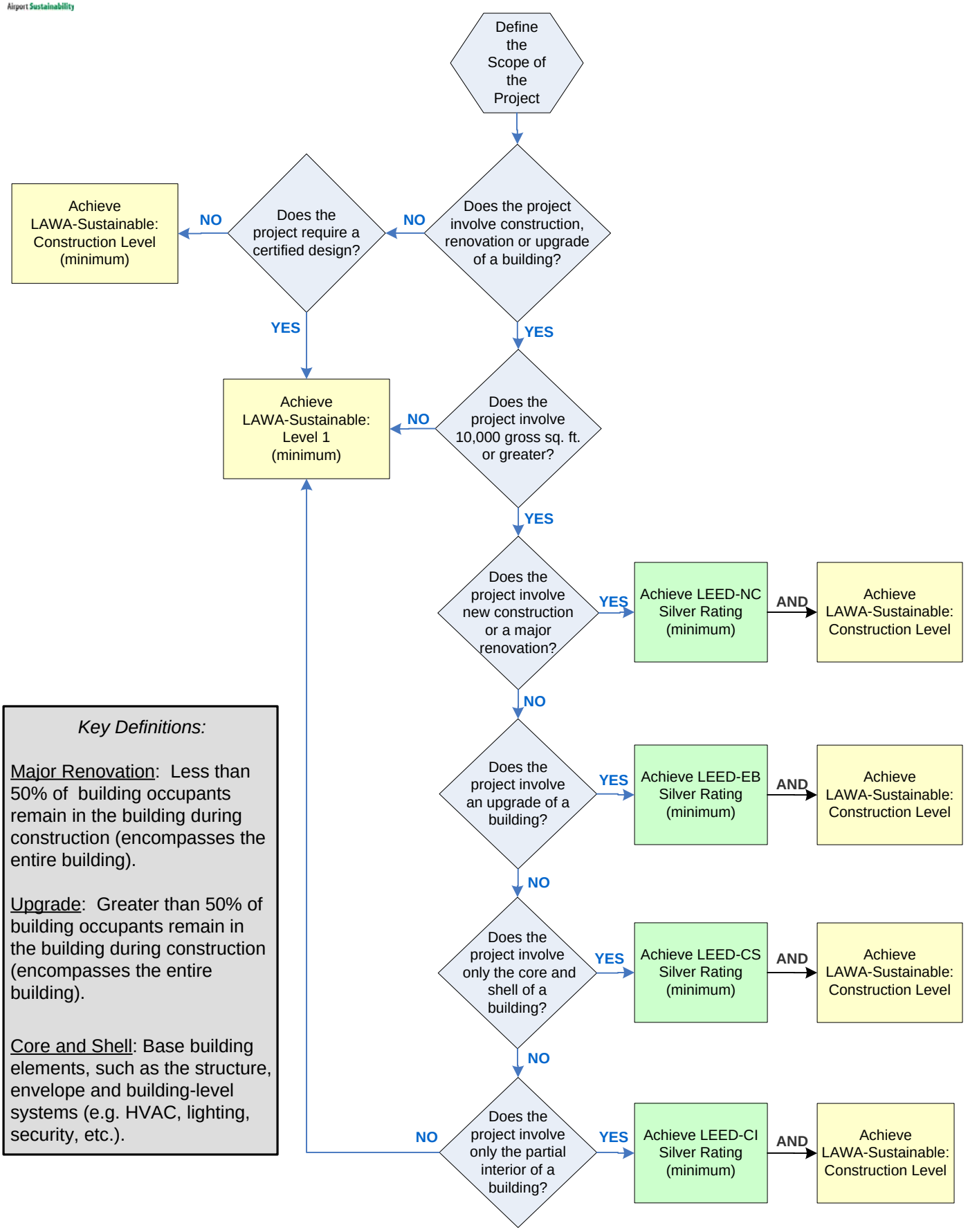
LAWA-Sustainable Level and LEED® Certification Requirements

A significant portion of the Guidelines are based on the USGBC's LEED® programs for buildings, which was created to assist in the development of high performance, healthy, durable, affordable, and environmentally sound buildings. The LEED® programs also provide rating systems that are used to certify the design, construction and renovation of a building as "Green".

While airports can achieve LEED® certification for their buildings, these types of projects typically comprise less than 25% of design and construction activities that take place on airport properties. The sustainability concepts included in the LEED® programs, however, can also be applied to non-building projects and are thus included in the Guidelines, which are intended to go ***beyond LEED®*** and provide a set performance standards and a rating system for both building and non-building airport projects.

Because of the considerable overlap between the Guidelines and the USGBC's LEED program for buildings, a process has been developed to assist Project Delivery Teams in the determination of whether a project is required to achieve LEED® certification and, if so, how that project is integrated into the LAWA-Sustainable system. This process and the project requirements established by these Guidelines (LAWA-Sustainable and LEED®) are presented in **Figure 1**.

Figure 1
LAWA-Sustainable Level and LEED® Certification Requirements



To address the commonalities between LEED® and the LAWA-Sustainable system, LAWA projects that intend to achieve LEED® certification for a new or existing building/facility will only be required to follow the *Sustainable Construction Guidelines* and achieve the "LAWA-Sustainable: Construction Level". Building projects that achieve LEED® certification will automatically achieve LAWA-Sustainable status as long as the required CP's are also met. Comparable LAWA-Sustainable status will be as follows:

- LEED® Silver Certified = LAWA-Sustainable: Level 1
- LEED® Gold Certified = LAWA-Sustainable: Level 2
- LEED® Platinum Certified = LAWA-Sustainable: Level 3

To create synergy between the LAWA-Sustainable System and the LEED® programs and to minimize the documentation required to achieve both LEED® certification and "LAWA-Sustainable: Construction Level" status, the activities, metrics, targets, documentation, and point allocation outlined in the *Sustainable Construction Guidelines* are the same as those of LEED® programs. It should be noted, however, that many performance standards included in the *Sustainable Construction Guidelines* are not included in the LEED® programs and will require additional actions and documentation.

LEED® Requirements

Building/facility projects having a size of 10,000 gross sq. ft or greater are required to be designed to meet, at a minimum, a LEED® Silver rating, provided that sustainable planning and design measures meet the life cycle assessment criteria and do not compromise safety and security. This requirement applies for projects that qualify for any one of four LEED® programs: New Construction and Major Renovation (NC), Commercial Interiors (CI), Core and Shell (CS), and Existing Building (EB). If this requirement cannot be met, the Project Delivery Team is required to notify LAWA's Mitigation Compliance Division immediately.

LAWA-Sustainable Requirements

Building/facility projects having a size less than 10,000 gross sq. ft. are required to be designed to meet, at a minimum, the "LAWA-Sustainable: Level 1" requirements.

Non-building/facility projects (e.g. Civil-Landside, Civil-Airside, and General Construction and Maintenance) that require a certified design are required to be designed to meet, at a minimum, the "LAWA-Sustainable: Level 1" requirements.

Non-building/facility projects that do not require a certified design are required to meet, at a minimum, the "LAWA-Sustainable: Construction Level" requirement.

Structure of the Performance Standards

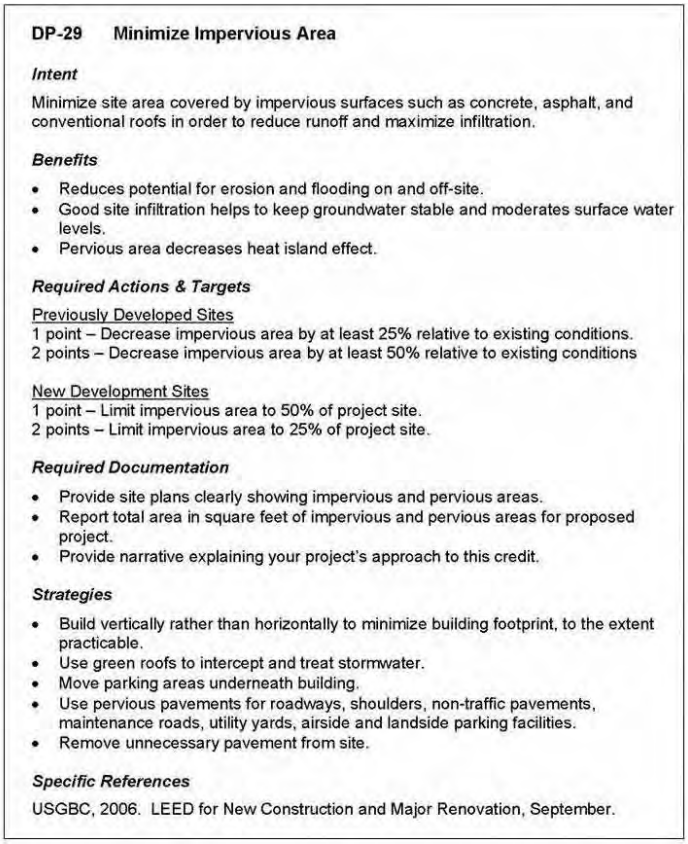
The Guidelines contain both required and optional performance standards for planning, design and construction. The title of the performance standard indicates whether it is required or option using the following format:

- Required performance standards are titled in green ink with the word "Required" at the end.
- Optional performance standards are titled in black ink and do not contain the word "Required" at the end.

Required performance standards may be waived if that standard does not apply to the project category, as outlined in Table 1.

Each performance standard is divided into six sections:

1. Intent
2. Benefits
3. Required Actions & Targets
4. Required Documentation
5. Strategies
6. Specific References (as needed)



DP-29 Minimize Impervious Area

Intent

Minimize site area covered by impervious surfaces such as concrete, asphalt, and conventional roofs in order to reduce runoff and maximize infiltration.

Benefits

- Reduces potential for erosion and flooding on and off-site.
- Good site infiltration helps to keep groundwater stable and moderates surface water levels.
- Pervious area decreases heat island effect.

Required Actions & Targets

Previously Developed Sites
1 point – Decrease impervious area by at least 25% relative to existing conditions.
2 points – Decrease impervious area by at least 50% relative to existing conditions

New Development Sites
1 point – Limit impervious area to 50% of project site.
2 points – Limit impervious area to 25% of project site.

Required Documentation

- Provide site plans clearly showing impervious and pervious areas.
- Report total area in square feet of impervious and pervious areas for proposed project.
- Provide narrative explaining your project's approach to this credit.

Strategies

- Build vertically rather than horizontally to minimize building footprint, to the extent practicable.
- Use green roofs to intercept and treat stormwater.
- Move parking areas underneath building.
- Use pervious pavements for roadways, shoulders, non-traffic pavements, maintenance roads, utility yards, airside and landside parking facilities.
- Remove unnecessary pavement from site.

Specific References

USGBC, 2006. LEED for New Construction and Major Renovation, September.

Intent – The intent is the primary motivation for achieving success at implementing sustainable practices. The most sustainable projects will be planned, designed and built around the intent of the LAWA-Sustainable system rather than focusing on the number of points that can be achieved.

Benefits – The environmental, economic and social benefits accomplished by each performance standard also serve as motivation for incorporating sustainable planning, design and construction practices into all LAWA projects.

Required Actions & Targets – This section outlines the activities, metrics and targets that are required to achieve the DPs and CPs. In many cases, targets will outline the incremental performance improvement over a baseline or a quantifiable number or percentage that must be achieved (For example, achieve a 75% recycling rate during construction). In other cases, achievement of the performance standard will be measured by the accomplishment of a specific milestone or task (For example, develop an Energy Management Plan).

Required Documentation – This section outlines the documentation that is required to achieve the LAWA-Sustainable Point(s).

Strategies – For each performance standard, technical strategies are highlighted as specific ways to achieve the intent and points.

Specific References – For performance standards that cite detailed requirements from specific references, these references are noted.

While not all performance standards will be applicable to every project category, Project Delivery Teams are highly encouraged to ***think creatively*** and to consider the intent of each performance standard throughout the planning, design and construction processes.

In all cases, it is the planning, design and/or construction teams' responsibility to evaluate any anticipated adverse cost or schedule impacts due to the integration of sustainable practices and communicate them to all interested stakeholders.

Implementing the Guidelines

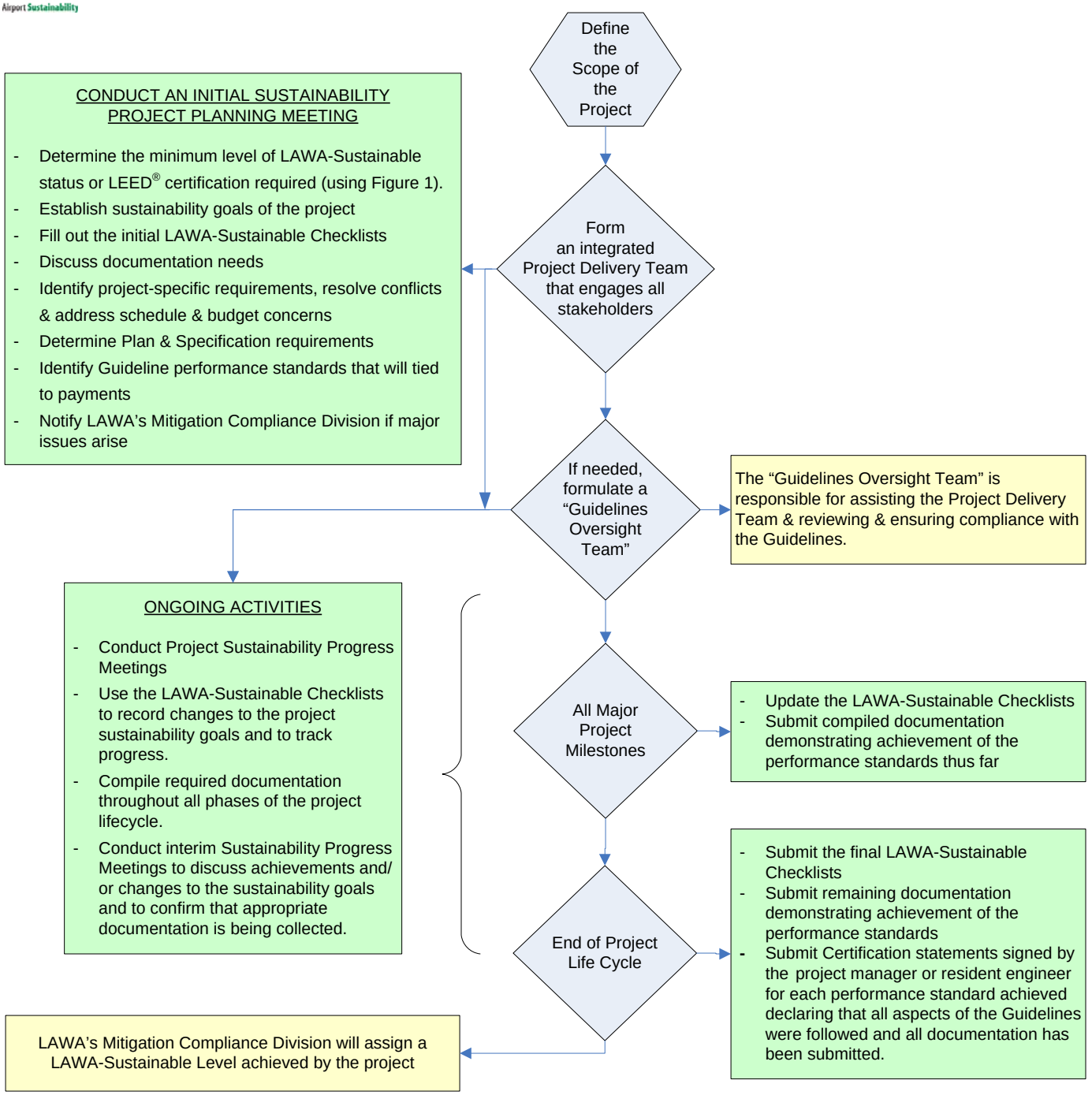
Implementation of the Guidelines may require changes to traditional planning, design and construction processes. The following steps outline the general procedure that should be considered for successful implementation of the Guidelines. The steps are also presented in **Figure 2**.

- Define the Scope of Work for the project.
- In the earliest project stage, develop an integrated Project Delivery Team that engages all interested stakeholders and conduct a meeting(s) specifically to:
    - Determine the minimum level of LAWA-Sustainable status or LEED® certification that is required for the project (using Figure 1).
    - Establish sustainability goals for the project;
    - Fill out the initial LAWA-Sustainable Checklists;
    - Discuss documentation needs;
    - Identify project-specific requirements, resolve competing interests and address potential schedule and budget concerns;
    - Determine Plan and Specification requirements needed to achieve the sustainability goals;
    - Identify Guideline requirements that will be tied to payment; and
    - Notify LAWA's Mitigation Compliance Division if major issues arise or if it is determined that the project requirements cannot be achieved.
- If needed, formulate a "Guidelines Oversight Team" in addition to the project delivery team to review and ensure the achievement of compliance with the requirements of the Guidelines.
- Compile required documentation throughout all phases of the project life cycle. If the project delivery team waits until the end of the project to collect the required documentation, it is likely that several performance standards will not be achieved.
- To monitor progress as the project proceeds, conduct interim sustainability progress meetings with the integrated Project Delivery Team to discuss achievements and/or changes to the sustainability goals and to confirm that appropriate documentation is being collected throughout all phases of the project. Use the LAWA-Sustainable Checklists to record changes and track progress.
- At all major project milestones, such as 30%, 60% and 90% design reviews, submissions to the City Council or BOAC, and construction meetings:
    - Update the LAWA-Sustainable Checklists (i.e. the Planning and Design Checklist and the Construction Checklist); and
    - Submit compiled documentation demonstrating achievement of the performance standards thus far.
- At the end of a project's life cycle (i.e. the planning, design and construction phases), the Project Delivery Team must submit the following information to achieve LAWA-Sustainable status:

- The final Planning and Design and Construction Checklists;
- All remaining documentation demonstrating achievement of the performance standards; and
- Certification statements signed by the project manager or resident engineer for each performance standard achieved declaring that all aspects of the Guidelines were followed and all documentation has been submitted.

LAWA's Mitigation Compliance Division will review the completed submission to determine the LAWA-Sustainable Level that is accomplished by each project.

Figure 2
Implementing the Guidelines for an Airport Project



Key Definitions:

Stakeholders: In addition to the Project Delivery Team, stakeholders may include construction, maintenance and operation teams, users of the final project, members of other LAWA projects that may be impacted or interested in collaboration on construction aspects, City officials, tenants, community participants, the FAA, and the USEPA.

LAWA-Sustainable Checklists: The *Sustainable Planning and Design Checklist* and *Sustainable Construction Checklist* included in Part II of the Guidelines.

Major Project Milestones: Examples include 30%, 60% & 90% design reviews, submissions to City Council or BOAC, RFP Development, Pre-Bid meetings, Bid Selection, Construction Kick-off Meeting and Progress Meetings.

Project Life Cycle: Includes the planning, design and construction phases of a project.

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PART II:

LIST OF PERFORMANCE STANDARDS, CERTIFICATION STATEMENT AND CHECKLISTS

LIST OF PERFORMANCE STANDARDS

Sustainable Planning and Design Guidelines

Project Management - Planning & Design

DP-1 Initial Sustainability Project Planning Meeting
DP-2 Project Sustainability Progress Meetings
DP-3 Recycled & Bleach-Free Paper
DP-4 Double-Sided Printing
DP-5 Electronic Submissions
DP-6 Electronic Meetings
DP-7 Engage LAWA Construction & Maintenance, Tenants, Airline, Local Regulators, &/or FAA & USEPA Representatives During Planning & Design

Sustainability-Focused Specifications

DP-8 Contractor Sustainability Experience/Performance Requirements
DP-9 Designation of Construction Sustainability Liaison to the Owner
DP-10 Interim Electronic As-Built Drawing Submittals
DP-11 Contractor Involvement in Public Hearings

Airside Planning

DP-12 Design Runways, Taxiways & Terminals to Reduce Taxiing Distances & Times
DP-13 Design Airside Layout to Reduce Aircraft Delay
DP-14 Provide Infrastructure for Pre-Conditioned Air
DP-15 Provide Infrastructure for Alternatively-Fueled GSE in Airside Design
DP-16 Provide Infrastructure for Hydrant Fueling for Aircraft

Landside Planning

DP-17 Minimize Roadway Congestion
DP-18 Design Roads for Increased Life Cycle
DP-19 Public Transportation Access
DP-20 Bicycle Storage & Changing Rooms
DP-21 Parking Capacity
DP-22 Support for Fuel Efficient Vehicles
DP-23 Planning for Future Land Use

Site Selection

DP-24 Avoid Development of Inappropriate Sites
DP-25 Brownfield Redevelopment
DP-26 Site Protection & Restoration (Landside)
DP-27 Integrated Vegetation & Wildlife Management Plan (Airside)

Stormwater Management & Erosion Control - Planning & Design
DP-28 Prevent Downstream Erosion
DP-29 Minimize Impervious Area
DP-30 Provide Stormwater Treatment

Landscape Design
DP-31 Reduce Potable Water Use for Landscaping
DP-32 Eliminate Potable Water Use for Landscaping
DP-33 Reduce Fertilizing Impact
DP-34 Provide Infrastructure for Composting & Vermiculture

Water Efficiency & Conservation
DP-35 Water Management Plan
DP-36 Water Use Efficiency
DP-37 Water & Wastewater Reuse

Reduce Heat Islands
DP-38 Non-Roof
DP-39 Roof

Interior & Exterior Lighting Quality
DP-40 Exterior Light Pollution Reduction
DP-41 Interior Lighting Quality

Noise Pollution Reduction
DP-42 Exterior Noise & Acoustical Quality Control (Non-aircraft)
DP-43 Exterior Noise & Acoustical Quality Control (Aircraft)
DP-44 Interior Noise & Acoustical Quality Control

Energy Efficiency & Conservation
DP-45 Energy Management Plan
DP-46 Minimum Baseline Energy
DP-47 Energy Systems Commissioning
DP-48 Energy Optimization
DP-49 “Energy Star” Compliance
DP-50 On-site Alternative & Renewable Energy
DP-51 On-grid Renewable Energy

Atmosphere Protection - Planning & Design
DP-52 Refrigerant Management/Ozone Protection – Planning & Design
DP-53 Greenhouse Gas Inventory & Mitigation – Planning & Design
DP-54 Criteria & Air Toxics Inventory & Mitigation - Planning & Design

Materials & Resources

DP-55 Waste Reduction & Management Plan
DP-56 Storage & Collection of Recyclables
DP-57 Return of Unused Materials
DP-58 Material Durability
DP-59 Building Reuse
DP-60 Materials Reuse
DP-61 Recycled Content
DP-62 Regional Materials
DP-63 Rapidly Renewable Materials
DP-64 Certified Wood
DP-65 Wood Preservatives
DP-66 Low-Emitting Materials
DP-67 Furniture & Fixtures
DP-68 Planning for Structure Deconstruction, Reuse & Recycling

Indoor Environmental Quality

DP-69 Minimum Indoor Air Quality Performance
DP-70 Air Quality Monitoring
DP-71 Increased Effective Ventilation
DP-72 Indoor Chemical & Pollutant Source Control
DP-73 Thermal Control
DP-74 Lighting Control
DP-75 Thermal Comfort Design
DP-76 Daylight & Views
DP-77 Fuel Vapor Monitoring

Post-Construction Maintenance, Monitoring & Reporting

DP-78 Operation & Maintenance Program
DP-79 Facility Management
DP-80 Staff Training
DP-81 Systems Monitoring
DP-82 Recommissioning
DP-83 Emission Reduction Reporting
DP-84 Document Sustainable Project Cost Impacts
DP-85 Document Productivity Impacts

Community Involvement

DP-86 Community Education
DP-87 Community Partnerships
DP-88 School Noise Reduction Programs

Sustainable Planning and Design Guidelines (cont.)

Social Responsibility - Planning & Design

DP-89 Codes of Conduct
DP-90 Human Capital Development
DP-91 Sustainable Labor Practice Indicators
DP-92 Philanthropy & Social Investments
DP-93 ADA Compliance/Accommodation of Personnel with Special Needs
DP-94 Availability of Quality Health Care
DP-95 Environmental Justice

Additional Planning & Design Elements

DP-96 LEED® Accredited Professional - Planning & Design
DP-97 Innovation in Planning & Design

Sustainable Construction Guidelines

Project Management - Construction

CP-1 Develop & Implement Sustainable Construction Training
CP-2 Submit a Final Sustainable Construction Project Report
CP-3 Implement a Sustainability Inspection Program
CP-4 Construction Sequencing & Scheduling
CP-5 Paperless Submittals & Change Orders

Stormwater Management & Erosion Control – Construction

CP-6 Erosion & Sediment Control Measures
CP-7 Dust Control
CP-8 Stormwater Pollution Prevention Plan
CP-9 Minimize Site Disturbance During Construction

Construction Water Conservation

CP-10 Reduce Potable Water Use During Construction

Construction Indoor Air Quality

CP-11 Construction Environmental Tobacco Smoke Control
CP-12 Construction IAQ Management Plan – During Construction
CP-13 Construction IAQ Management Plan – Before Occupancy

Construction Waste Management

CP-14 Recycle & Reuse of Construction Materials
CP-15 Salvage Materials & Resources

Construction Vehicles

CP-16 Reduced Vehicle Idling Plan
CP-17 Low-Emission Construction Vehicles
CP-18 Retrofit Construction Vehicles
CP-19 Alternative Transportation During Construction

Sustainable Construction Guidelines (cont.)

Construction Equipment
CP-20 Construction Equipment Maintenance
CP-21 Low-Emission Construction Equipment

Atmosphere Protection – Construction
CP-22 Refrigerant Management/Ozone Protection - Construction
CP-23 Greenhouse Gas Inventory & Mitigation – Construction
CP-24 Criteria & Air Toxics Inventory & Mitigation - Construction

Construction Materials Conveying
CP-25 Construction Materials Conveying Plan

Construction Noise Control
CP-26 Construction Noise & Acoustical Quality Control Plan
CP-27 Construction Noise Levels

Construction Lighting
CP-28 Construction Light Pollution Reduction
CP-29 Energy Efficient Temporary Lighting During Construction

Landscape Maintenance
CP-30 Non-toxic Landscape Maintenance Chemicals
CP-31 Composting & Vermiculture During Construction
CP-32 Integrated Pest Management

Construction Health & Safety
CP-33 Construction Health & Safety Plan
CP-34 Dust Hazard Protection

Construction Health & Safety
CP-35 Construction Traffic Control
CP-36 Prevent & Repair Roadway Damage During Construction

Social Responsibility - Construction
CP-37 Disruptions & Continuity of Area Services
CP-38 Use of Local Contractors/Suppliers

Additional Construction Elements
DP-96 LEED® Accredited Professional - Construction
DP-97 Innovation in Construction

CERTIFICATION STATEMENT

FOR THE SUBMISSION OF DOCUMENTATION TO RECEIVE CREDIT FOR ACHIEVEMENT OF THE PERFORMANCE STANDARDS INCLUDED IN THE AIRPORT SUSTAINABLE PLANNING, DESIGN AND CONSTRUCTION GUIDELINES

For all airport projects, the Airport Sustainable Planning, Design and Construction Guidelines (Guidelines) are required to be implemented throughout the project life cycle. As part of the Guidelines, Project Delivery Teams are obligated to submit documentation as verifiable evidence that the requirements of the performance standards included in the Guidelines were achieved for the project. This Certification Statement must be submitted in conjunction will all relevant and required documentation in order to receive credit for the actions taken to accomplish the performance standard for the project.

"I certify, based upon my knowledge, information and belief obtained from my personal observations and the observation of the staff under my direct supervision, that the requirements for the performance standard listed below were achieved for the indicated project and that all relevant and required documentation is contained herein. "

_____

Project Name

_____

Project Location

_____

Performance Standard Name and Number (e.g. DP-17 Minimize Roadway Congestion)

_____ _____

Printed Name Date

_____

Signature

_____

Title

SUSTAINABLE PLANNING and DESIGN CHECKLIST

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
PROJECT MANAGEMENT - PLANNING & DESIGN					
✓	---	DP-1 Initial Sustainability Project Planning Meeting			
		Strategies:			
		Include educational training on sustainability as part of the Initial Sustainability Project Planning Meeting.			
		Provide training on LAWA's Airport Sustainable Planning, Design and Construction Guidelines, including their basis, the parties responsible for using the Guidelines and the LAWA Sustainable Rating System.			
		Address the Planning Design Guidelines requirements and develop a plan to comply.			
		Fill out this Planning and Design Checklist as part of the initial meeting.			
		Form a "Green Team" and designate a leader. The Green Team will be responsible for managing the integration of selected sustainability goals into the design.			
	3	DP-2 Project Sustainability Progress Meetings			
		Strategies:			
		Enable members to utilize conference calls, net-meetings, etc. when unable to attend in person.			
		Utilize project planning and tracking tools to facilitate documentation and communication.			
✓	---	DP-3 Recycled and Bleach-Free Paper			
		Strategies:			
		Identify all recycled paper product lines with paper weights.			
		Develop marketing materials (electronic, if possible) denoting the benefits of recycled paper and the usage of recycled paper.			
✓	---	DP-4 Double-sided Printing			
		Strategies:			
		Set all print drivers to default to double-sided printing.			
		When purchasing new copiers or printers, investigate machines that offer double- sided printing only.			
	1	DP-5 Electronic Submissions			
		Strategies:			
		Utilize CDs, FTP sites, eRooms, or other innovative information technology exchanges.			
	1	DP-6 Electronic Meetings			
		Strategies:			
		Utilize conference calls.			
		Utilize NetMeetings, LiveMeetings, or equal.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
PROJECT MANAGEMENT - PLANNING & DESIGN (cont.)					
	2	DP-7 Engage LAWA Construction and Maintenance, Tenants, Airline,			
		Strategies:			
		Establish a regular meeting schedule			
		Facilitate meeting in order to ensure all agenda items are thoroughly addressed in an efficient manner.			
Sub-total:	7				
SUSTAINABILITY-FOCUSED SPECIFICATIONS					
	2	DP-8 Contractor Sustainability Experience/Performance Requirement			
		Strategies:			
		Provide a mix of General and Subcontractors with sustainability experience for larger projects. Provide focused sustainability experience with the General Contractor for smaller projects.			
	2	DP-9 Designation of Construction Sustainability Liaison to the Owner			
		Strategies:			
		Require regular meetings (weekly or monthly) with the Sustainability Liaison.			
	1	DP-10 Interim Electronic As-Built Drawing Submittals			
		Strategies:			
		Adopt Library and Documentation procedures and protocols for posted materials.			
		Establish central depositories for viewing secure project information.			
	1	DP-11 Contractor Involvement in Public Hearings			
		Strategies:			
		For all construction projects indicate green and sustainable goals in all interactions with the public.			
		Require the Contractor to provide interaction with the public to communicate sustainable goals.			
Sub-total:	6				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
AIRSIDE PLANNING					
	10	DP-12 Design Runways, Taxiways & Terminals to Reduce			
		Strategies:			
		To the extent practicable, design runway and taxiway systems such that aircraft are not required to cross a runway after landing.			
		Design runway systems with high speed exits, end-around taxiways, centerline taxiways, or other facilities to maximize the efficient flow of aircraft.			
	10	DP-13 Design Airside Layout to Reduce Aircraft Delay			
		Strategies:			
		Ensure that airfield layout provides room for an aircraft to hold without delaying other aircraft			
		Where practicable, provide double-wide taxiways to facilitate the movement of aircraft.			
		Where practicable, provide sufficient ramp area to reduce ramp congestion.			
	5	DP-14 Provide Infrastructure for Pre-Conditioned Air			
		Strategies:			
		For terminals with long-term leases that are not up for renewal, provide incentives for airlines to install preconditioned air units at gates with 400 Hz power.			
		For all new terminal leases, establish lease provisions that require preconditioned air units at all gates with 400 Hz power.			
		Include requirement for preconditioned air units in all bid documents for terminal and gate design and renovation projects.			
	5	DP-15 Provide Infrastructure for Alternatively-Fueled GSE in Airside			
		Strategies:			
		Work with airlines, other tenants and local air quality regulatory agencies, as appropriate, to reach agreement concerning conversion of GSE to electricity or alternative fuels.			
	5	DP-16 Provide Infrastructure for Hydrant Fueling for Aircraft			
		Strategies:			
		Work with airlines and fuel providers to develop a privately-owned fuel consortium for airports where hydrant fueling does not currently exist.			
Sub-total:	35				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
LANDSIDE PLANNING					
	2	DP-17 Minimize Roadway Congestion			
		Strategies:			
		Provide a waiting area for vehicles conducting passenger pick-up.			
		Provide satellite check-in facilities.			
		Utilize traffic flow monitoring for planning.			
		Consolidate rental car facilities and shuttle transportation to minimize congestion on terminal roads.			
	2	DP-18 Design Roads for Increased Life Cycle			
		Strategies:			
		Perform a pavement Life Cycle Analysis for each potential strategy.			
		Design to meet long life pavement design criteria.			
		Ensure that quality contractors are used in roadway construction.			
	1	DP-19 Public Transportation Access			
		Strategies:			
		Work with LAWA to plan for and implement strategies aimed at reducing parking needs and improving efficiency of access.			
		Design with support for incentives to employees to use public transportation.			
	1	DP-20 Bicycle Storage & Changing Rooms			
		Strategies:			
		Provide safe bicycle lanes/paths.			
		Provide a centralized facility(s) for secure bicycle storage with convenient changing/shower areas.			
	1	DP-21 Parking Capacity			
		Strategies:			
		Plan for the development of preferred parking and/or lot locations for alternative fuel rental vehicles, carpools and vanpools.			
		Reduce parking capacity to encourage public transportation.			
	4	DP-22 Support Alternative Fuel Vehicles			
		Strategies:			
		Design to enhance and support LAWA's existing programs for alternative fuel vehicles within the airport operations.			
		Include a fueling station for alternative fuels as part of the design.			
	1	DP-23 Planning for Future Land Use			
		Strategies:			
		Evaluate potential future uses for the land.			
Sub-total:	12				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
SITE SELECTION					
	1	DP-24 Avoid Development of Inappropriate Sites			
		Strategies:			
		Practice infill development. Build on a previously developed site, or one close to existing infrastructure.			
		In many cases, this requirement can be fulfilled with guideline DP-25, Brownfield Redevelopment			
	1	DP-25 Brownfield Redevelopment			
		Strategies:			
		Develop and implement a site remediation plan.			
		Utilize Life Cycle Assessments to determine the best remediation alternative.			
	1	DP-26 Site Protection & Restoration (Landside)			
		Strategies:			
		Minimize removal of existing tress and vegetation.			
		Exceed the local zoning requirements.			
		Provide open space area(s) that are equal to or greater than the development area.			
		Conduct a topographical analysis.			
		Operate construction vehicles and equipment only on areas to be paved.			
		Plant vegetation on-site to replace disturbed site areas.			
		Plant vegetation off-site to replace disturbed site areas.			
		Donate money to an organization that plants trees/vegetation.			
	1	DP-27 Integrated Vegetation & Wildlife Management Plan (Airside)			
		Strategies:			
		Manage airfield sites to prevent use by hazardous wildlife.			
		In areas where trees are undesirable, favor long-term vegetation management for meadow or shrubs over periodic tree cutting.			
		Avoid use of pesticides and herbicides whenever possible.			
		For existing open water bodies, favor management techniques that reduce the risk of wildlife injury or water quality impairment.			
		Where rare non-hazardous wildlife habitat is present on an airfield (e.g. butterflies), manage vegetation to maintain this habitat.			
Sub-total:	4				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
STORMWATER MANAGEMENT & EROSION CONTROL - PLANNING AND DESIGN					
	1	DP-28 Prevent Downstream Erosion			
		Strategies:			
		Utilize landscaping and plant materials to reduce runoff.			
		Design for curb breaks and drainage ditches, basins and/or bioswales.			
	2	DP-29 Minimize Impervious Area			
		Strategies:			
		Utilize pervious pavements for roadways, shoulders, non-traffic pavements, maintenance roads, utility yards, airside and landside parking facilities.			
		Include green/vegetated roof systems.			
		Remove existing pavement not required or needed for future use.			
	1	DP-30 Provide Stormwater Treatment			
		Strategies:			
		Implement Best Management Practices outlined in Chapter 4, Part 2 on the USEPA's Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, January 1993.			
		Include first flush systems including slotted edge drains connected to underground holding tanks.			
		Utilize detention basins, detention ditches, ditch checks and other BMP's for effective first flush treatment.			
		Design for bioswales along roadways and parking areas to encourage groundwater infiltration of stormwater runoff. On airside projects, these strategies should not encourage animal habitat.			
		Include nitrogen-fixing vegetation in fertilized areas.			
		Minimize current treatment of all stormwater by reducing runoff.			
		Utilize engineered wetlands for stormwater treatment.			
		Develop stormwater collection and rain harvesting systems for treatment prior to reuse or discharge.			
Sub-total:	4				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
LANDSCAPE DESIGN					
	2	DP-31 Reduce Potable Water Use for Landscaping			
		Strategies:			
		Utilize native vegetation for site use.			
		Segregate drought-resistant vegetation from conventional vegetation.			
		Employ high-efficiency irrigation systems with a slow-drip, sub-soil irrigation and automated linkages to meteorological data.			
		Perform a soil and climate analysis.			
		Evaluate stormwater and/or graywater cisterns.			
	3	DP-32 Eliminate Potable Water Use for Landscaping			
		Strategies:			
		Do not install an irrigation system.			
		Utilize native vegetation for site use.			
		Segregate drought-resistant vegetation from conventional vegetation.			
		Perform a soil and climate analysis.			
		Evaluate stormwater and/or graywater cisterns.			
	1	DP-33 Reduce Impact of Fertilizer Use			
		Strategies:			
		Include nitrogen-fixing vegetation in fertilized areas.			
		Specify non-toxic, non-chemical materials for initial planting and fertilization.			
	1	DP-34 Provide Infrastructure for Composting & Vermiculture			
		Strategies:			
		Evaluate composting methods appropriate for anticipated waste.			
Sub-total:	7				
WATER EFFICIENCY & CONSERVATION					
✓	---	DP-35 Water Management Plan			
		Strategies:			
		Include the evaluation of onsite stormwater and graywater reclamation.			
		Include the evaluation of operation and maintenance needs, utility information, facility information, emergency response information, and planning considerations.			
		Develop a coordinated management plan for site water resources.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
WATER EFFICIENCY & CONSERVATION (cont.)					
✓	2	DP-36 Water Use Efficiency			
		Strategies:			
		Evaluate high-efficiency fixtures and valves.			
		Evaluate dry fixtures such waterless urinals.			
		Evaluate using reclaimed water for cooling tower makeup.			
		Evaluate pulsed-power electromagnetic water treatment, ultraviolet treatment, or ozone treatment for cooling tower water.			
		Establish a water supply system that supports vehicle maintenance without the use of potable water.			
	1	DP-37 Water & Wastewater Reuse			
		Strategies:			
		Develop stormwater collection/rain harvesting systems for reuse.			
		Design for the use of graywater for non-potable uses.			
		Design plumbing to use reclaimed water from reclaimed water pipeline from Hyperion for capturing for sewage conveyance or on-site wastewater treatment systems.			
Sub-total:	3				
REDUCE HEAT ISLANDS					
✓	---	DP-38 Roof			
		Strategies:			
		Utilize an ENERGY STAR compliant roofing system.			
		Include a green/vegetated roof systems.			
	1	DP-39 Non-Roof			
		Strategies:			
		Maximize light colored/high albedo pavement, for roadways, parking lots, sidewalks and plaza areas.			
		Install trees to provide shade within 5 years for at least 30% of dark colored impervious surfaces.			
		Include structured parking.			
		Design for open grid pavement.			
Sub-total:	1				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
INTERIOR & EXTERIOR LIGHTING QUALITY					
	1	DP-40 Exterior Light Pollution Reduction			
		Strategies:			
		Conduct a light modeling study.			
		Utilize high-pressure and low-pressure sodium lamps.			
		Limit lighting in protected ecological areas to mitigate lighting impacts on wildlife.			
		Minimize site lighting where possible.			
		Design for monitoring of maximum candela value.			
	1	DP-41 Interior Lighting Quality			
		Strategies:			
		Specify strict site lighting criteria.			
		Conduct a light modeling study.			
		Utilize LED lighting.			
		Utilize compact fluorescent light bulbs.			
		Coordinate electrical lighting scenarios with daylighting strategies.			
		Provide high frequency ballasts and low mercury/low lead lamps.			
		Specify recyclable lamps.			
		Minimize site lighting where possible.			
		Design for monitoring of maximum candela value.			
Sub-total:	2				
NOISE POLLUTION REDUCTION					
	1	DP-42 Exterior Noise & Acoustical Quality Control (Non-aircraft)			
		Strategies:			
		Conduct a noise modeling study.			
		Utilize sound barriers.			
		Program locations of mechanical equipment and other sources of noise away from exterior spaces designed for use .			
		Use rubberized pavements or innovative pavement treatments to reduce noise resulting from traffic.			
	1	DP-43 Exterior Noise & Acoustical Quality Control (Aircraft)			
		Strategies:			
		Continue to implement sound insulation program for 9,000 residences as previously adopted by LAWA.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
NOISE POLLUTION REDUCTION (cont.)					
	1	DP-44 Interior Noise & Acoustical Quality Control			
		Strategies:			
		Place noise transmissive surfaces away from the sensitive spaces.			
		Utilize acoustical ceiling tiles, flooring and walls.			
		Program locations of mechanical equipment and other sources of noise away from areas of occupancy.			
		Specify lighting and HVAC systems that produce minimal noise.			
		Develop an insulation plan.			
		Specify laminated glazing or double-pane windows.			
Sub-total:	3				
ENERGY EFFICIENCY & CONSERVATION					
✓	---	DP-45 Energy Management Plan			
		Strategies:			
		Develop an energy use budget for the project for the first year.			
		Identify strategies that can be used to reduce energy consumption below the energy use budget established for the first year.			
✓	---	DP-46 Minimum Energy Baseline			
		Strategies:			
		Develop an energy use budget for the project for the first year.			
		Identify strategies that can be used to reduce energy consumption below the energy use budget established for the first year.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
ENERGY EFFICIENCY & CONSERVATION (cont.)					
✓	---	DP-47 Energy Systems Commissioning			
		Strategies:			
		Review the design intent and the basis of design documentation.			
		Incorporate commissioning requirements into the construction documents.			
		Engage a commissioning agent at the start of the design.			
		Develop and utilize a commissioning plan.			
		Verify installation, functional performance, training, operations and maintenance documentation.			
		Complete a commissioning report.			
		Develop commissioning requirements for the following systems:			
		- Central Building Automation system			
		- All HVAC system equipment			
		- Lighting controls and sensors			
		- Site Lighting			
		- Refrigeration systems			
		- Vertical Transport			
		- Building Envelope			
		- Uninterruptible Power Supply systems			
		- Lightning Protection			
		- Domestic and Process water pumping and mixing systems			
		- Equipment sound control systems			
		- Data and Communication systems			
		- Paging systems			
		- Security systems			
		- Irrigation systems			
		- Plumbing			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
ENERGY EFFICIENCY & CONSERVATION (cont.)					
	10	DP-48 Energy Optimization			
		Strategies:			
		Use a computer simulation model to assess energy performance and identify the most cost effective energy measures.			
		Provide high-efficiency motors and systems.			
		Provide energy efficient lighting systems.			
		Organize circuiting of lighting and building systems so that individual areas may be separately controlled.			
		Orient buildings for passive solar/daylight penetration.			
		Include architectural features for daylighting and glare.			
		Install motion sensors in stairs, toilets, storage & equipment rooms.			
		Quantify energy performance after mitigation component design and compare to a baseline evaluation without mitigation components. Provide a summary report to the LAWA.			
		Carefully define lighting requirements.			
		Specify a strict quality control program for system component storage and installation.			
		Consider ease of maintenance when designing lighting and HVAC systems.			
		Specify the use of infrared imaging during construction to identify issues with thermal leaks from buildings.			
		Use variable-air-volume systems for cooling to reduce energy use during part-load conditions.			
		Evaluate a multiple-chiller system with units of varying size.			
		Utilize absorption cooling.			
		Tie lighting, temperature and ventilation in public areas of terminals to flight schedules.			
		Design terminal areas with a variety of light and sound levels.			
		The following technologies and strategies should be included:			
		- Specify Variable Frequency Drive (VFD) motors.			
		- Energy efficiency upgrades to relocated facilities.			
		- Use LED “exit” signs in buildings.			
		- Provide daylight harvesting control systems.			
		- Optimize lighting controls.			
		- Integrate lighting systems with BAS.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
ENERGY EFFICIENCY & CONSERVATION (cont.)					
		DP-48 Energy Optimization (cont.)			
		- Use high performance glazing and window systems.			
		- Utilize underfloor air distribution systems.			
		- Design for high levels of thermal insulation.			
		- Utilize premium efficiency motors.			
		- Ground-source heat pumps.			
		- Utilize LED lighting for lighting, signage and signals, including for taxiways and runways.			
		- Include compact fluorescent light bulbs for lighting.			
		- Employ heat recovery from equipment rooms, such as an in-line baggage room, and apply to other areas of the site.			
		- Utilize thermal storage to decrease peak loading.			
	2	DP-49 "Energy Star" Compliance			
		Strategies:			
		Provide “Energy Star” compliant equipment and appliances.			
	6	DP-50 On-site Alternative & Renewable Energy			
		Strategies:			
		Cogeneration of power.			
		Implement discrete photovoltaic power source for outlying equipment, ancillary buildings, and parking and site lighting.			
		Use solar powered signs and lighting.			
		Utilize solar powered water heaters.			
		Include solar trombe-walls for passive solar heating.			
		Install geothermal heating and cooling systems.			
		Utilize wind power where appropriate.			
		Design for building-integrated photovoltaic cells.			
		Utilize fuel cells.			
	1	DP-51 On-Grid Renewable Energy			
		Strategies:			
		Local energy utilities are increasingly providing green energy to individual buyers of energy at a slightly hire cost.			
		Renewable energy certificates may be acquired to fulfill credits.			
Sub-total:	19				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
ATMOSPHERE PROTECTION - PLANNING & DESIGN					
✓	---	DP-52 Refrigerant Management/Ozone Protection - Planning & Design			
		Strategies:			
		Specify new base building HVAC equipment that uses no CFC or HCFC refrigerants.			
		When reusing existing HVAC systems, conduct an inventory to identify equipment that uses CFC and HCFC refrigerants and adopt a replacement schedule for these refrigerants.			
✓	---	DP-53 Greenhouse Gas Inventory & Mitigation - Planning & Design			
		Strategies:			
		Conduct a Greenhouse Gas (GHG) inventory for the finished project.			
		Identify design changes to mitigate GHG emissions.			
✓	---	DP-54 Criteria & Air Toxics Inventory & Mitigation - Planning & Design			
		Strategies:			
		Conduct an emission inventory for build out operations based on known emissions sources, or base on land-use if details not available.			
		Identify operational changes to mitigate air emissions such as alternative fueled equipment, connections to transit and pedestrian/bike paths, improved/available parking, reduced truck-trips required for operations.			
Sub-total:	---				
MATERIALS & RESOURCES					
✓	---	DP-55 Waste Reduction & Management Plan			
		Strategies:			
		Develop a waste reduction and management plan.			
		Audit similar waste stream to determine the waste baseline.			
		Allow reuse of forms or utilize ICFs for decreased waste.			
		Educate building occupants on waste reduction policies.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
MATERIALS & RESOURCES (cont.)					
✓	---	DP-56 Storage & Collection of Recyclables			
		Strategies:			
		Incorporate collection rooms for recycling.			
		Coordinate recyclable collection infrastructure with hauler capability.			
		Design infrastructure for the following recyclables:			
		- Plastic			
		- Aluminum			
		- Glass			
		- Paper, newspapers, magazines and cardboard			
		- Carpet			
		- Food Waste			
		- Gas & oil filters			
		- Motor oil and Anti-freeze			
		- Scrap metal			
		- Batteries			
		- Light bulbs			
		- Toner cartridges			
		- Tires			
		- Electronics including monitors			
		Specify cardboard balers, aluminum can crushers, recycling chutes, and other technologies.			
	1	DP-57 Return of Unused Materials			
		Strategies:			
		Include in all contract documents the stipulation, under each product category or as a general requirement applicable to all categories, of the minimum quantities of excess materials that will be accepted for return by the vendor and the required conditions of such material.			
	2	DP-58 Material Durability			
		Strategies:			
		Specify more durable, longer lasting materials and finishes to extend material life and reduce maintenance requirements.			
	2	DP-59 Building Reuse			
		Strategies:			
		Relocate or reuse existing structures.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
MATERIALS & RESOURCES (cont.)					
	2	DP-60 Materials Reuse			
		Strategies:			
		Reuse the following major components:			
		- Aggregate and fly-ash in cast in place concrete			
		- Bituminous concrete pavement			
		- Unit pavers			
		- Soil and vegetation			
		- Steel reinforcement			
		- Structural and miscellaneous steel			
		- Steel fencing and furnishings			
		- Unit masonry			
		- Ductile iron pipe			
		- Aluminum products			
		- Site generated broken concrete for gabions			
		- Steel doors and frames			
		- Aluminum doors and windows			
		- Plaster			
		- Terrazzo			
		- Acoustical ceilings			
		- Drywall			
		- Carpet and resilient flooring			
		- Toilet and shower compartments			
		- Equipment			
		- Sheet metal ductwork			
		- Site Lighting			
	2	DP-61 Recycled Content			
		Strategies:			
		Establish and meet a project goal for recycled content materials.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
MATERIALS & RESOURCES (cont.)					
	2	DP-62 Regional Materials			
		Strategies:			
		Evaluate the following materials from regional vendors:			
		- Concrete			
		- Asphalt			
		- Structural steel			
		- Masonry			
		- Post-industrial recycled gypsum wallboard			
		- Storm system concrete pipe of all sizes			
		- Manholes and handholds			
		- Electrical ductbanks			
		- Cable			
		- Gas and water piping			
		- Landscape material and seed			
		For buildings, specify MEP equipment and components.			
		Develop an inspection plan to ensure that the specified regional materials are installed.			
	2	DP-63 Rapidly Renewable Materials			
		Strategies:			
		Consider temporary construction materials.			
		Evaluate the following rapidly renewable materials:			
		- Formwork, temporary construction and underlayment			
		- Poplar OSB			
		- Straw board or “agriboard”			
		- Sunflower seed board			
		- Bamboo flooring			
		- Cork			
		- Wool carpets and fabrics			
		- Cotton-batt insulation			
		- Linoleum flooring			
		- Wheat grass or Straw board cabinetry and others			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
MATERIALS & RESOURCES (cont.)					
	1	DP-64 Certified Wood			
		Strategies:			
		Establish a FSC certified wood products goal.			
		Specify construction materials; finish products, and temporary construction materials that meet the goal.			
		Consider temporary construction materials.			
		Develop an inspection program to ensure that the FSC-certified wood products are installed.			
	1	DP-65 Wood Preservatives			
		Strategies:			
		Reduce the requirements for preservative treated wood.			
		Utilize Ammoniacal Copper Quaternary for wet conditions.			
		Use lumber that is treated with less toxic, borate-based chemicals for dry conditions.			
		Prohibit the use of creosote to treat ground contact members.			
	2	DP-66 Low-Emitting Materials			
		Strategies:			
		Utilize low-VOC adhesives and sealants.			
		Utilize low-VOC field applied paints and coating.			
		Utilize low-VOC carpet systems.			
		Utilize wood and agrifiber products with no added urea-formaldehyde resins.			
		Specify that all shop finished material meet the VOC emission requirements.			
		Materials to consider are:			
		- Primed steel			
		- Finished metals including aluminum			
		- Finished millwork			
		- Finished steel and wood doors and windows			
	1	DP-67 Furniture & Fixtures			
		Strategies:			
		Specify use of recycled furniture.			
		Specify use furniture systems that are Greenguard certified.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
MATERIALS & RESOURCES (cont.)					
	1	DP-68 Planning for Structure Deconstruction, Reuse & Recycling			
		Strategies:			
		Evaluate potential future uses for the land, structure and/or building components.			
		Consider the future value of materials and systems during selection.			
		Use homogenous material whenever possible.			
		Detail connections for disassembly.			
		Design structural system for flexibility.			
Sub-total:	19				
INDOOR ENVIRONMENTAL QUALITY					
✓	---	DP-69 Minimum Indoor Air Quality (IAQ) Performance			
		Strategies:			
		Identify potential IAQ problems on the site and locate air intakes away from contaminants, including loading areas, exhaust fans, and cooling towers.			
		Locate air intakes for protection from potential attacks.			
		Meet or exceed the ventilation requirements of the referenced standard.			
		Specify carbon or electrostatic filters or other technology for particulate control.			
		Provide a security monitoring for outdoor air intakes.			
	1	DP-70 Air Quality Monitoring			
		Strategies:			
		Install CO2 monitors to automatically adjust HVAC ventilation system.			
		Provide real time control of terminal unit (VAV box) flow rates and total outdoor air flow rates based on CO2 levels.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
INDOOR ENVIRONMENTAL QUALITY (cont.)					
	1	DP-71 Increased Effective Ventilation			
		Strategies:			
		Select and place air diffusers for all mechanically ventilated spaces, particularly office and terminal spaces, following the recommended design approaches in the ASHRAE 2001 Fundamentals, Chapter 32, Space Air Diffusion.			
		Increase air change effectiveness using:			
		- Displacement ventilation in terminal areas			
		- Underfloor air distribution in office areas			
		- Operable windows and skylights in cargo buildings			
		- Increase air movement in cargo facilities with ceiling fans			
		Specify trickle ventilators in cargo facilities.			
		Specify relief vents or operable skylights in cargo facilities.			
	1	DP-72 Indoor Chemical & Pollutant Source Control			
		Strategies:			
		Plumb drain for appropriate disposal of liquid waste.			
		Utilize finish materials and assemblies that resist mold growth.			
		Design central locations in terminal and office buildings for storage of concentrated cleaning chemicals and other pollutant sources.			
		Design separate exhaust and plumbing systems for rooms/areas with contaminants.			
		Avoid plants, trees, and bushes in building entrance areas.			
		Eliminate plants that require pesticides.			
		Provide utility outlets such as water and electricity for cleaning.			
		Install a grate or mat to track dirt before it enters building.			
	1	DP-73 Thermal Control			
		Strategies:			
		Integrate micro switches of operable windows with HVAC operation.			
		Use direct digital control systems for greater accuracy, flexibility, and operator interface compared to pneumatic systems.			
		Integrate micro switches of operable windows with HVAC operation.			
		Integrate occupancy sensors with HVAC operation.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
INDOOR ENVIRONMENTAL QUALITY (cont.)					
	1	DP-74 Lighting Control			
		Strategies:			
		Install controls that dim or turn lights off at times when daylight is sufficient.			
		Use direct digital control systems for greater accuracy, flexibility, and operator interface compared to pneumatic systems.			
		Specify photoelectric controls that are sensitive to levels of daylight.			
		Specify task lighting or more light switching zones in office areas.			
	1	DP-75 Thermal Comfort Design			
		Strategies:			
		Evaluate humidification in HVAC systems serving office and terminal areas.			
		For spaces with humidification, install humidistats.			
		Evaluate underfloor air distribution systems with individual diffusers in office areas.			
	1	DP-76 Daylight & Views			
		Strategies:			
		Maximize interior daylight. Consider:			
		- Building orientation			
		- Shallow floor plates			
		- Increased building perimeter			
		- Floor-to-ceiling heights			
		- Ceiling configurations			
		Design the building to maximize view opportunities.			
		Provide sky or clerestory lighting as appropriate in cargo facilities.			
		Coordinate daylight strategy with BAS and lighting control system.			
		Provide exterior and interior permanent shading devices.			
		Provide spectrally selective glazing to maximize daylight while minimizing heat gain.			
		Provide photo-integrated light sensors to dim artificial lights.			
		Predict daylighting via calculations or model daylighting strategies to assess foot-candle levels and daylight factors achieved.			
	1	DP-77 Fuel Vapor Monitoring			
		Strategies:			
		Install remote monitoring systems for detection of Jet A vapors.			
Sub-total:	8				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
POST-CONSTRUCTION MAINTENANCE, MONITORING & REPORTING					
✓	---	DP-78 Operation & Maintenance Program			
		Strategies:			
		Specify the development of a comprehensive operation and maintenance (O&M) Manual, including record logs, for *all* systems and operations:			
		- Central Building Automation System			
		- All HVAC system equipment			
		- Lighting controls and sensors			
		- Refrigeration systems			
		- Vertical Transport			
		- Building Envelope			
		- Emergency Power Generators & Automatic Transfer Switching			
		- Uninterruptible Power Supply systems			
		- Life Safety systems; Fire protection Fire alarm, Egress pressurization; Lightning Protection			
		- Domestic and Process water pumping and mixing systems			
		- Equipment sound control systems			
		- Data and Communication systems			
		- Paging systems			
		- Security systems			
		- Irrigation systems			
		- Plumbing and fixtures			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
POST-CONSTRUCTION MAINTENANCE, MONITORING & REPORTING (cont.)					
✓	---	DP-79 Facility Management			
		Specify the following requirements in requests for proposals:			
		- Collection, storage and disposal of recyclable materials, including any special infrastructure that is available.			
		- Low-impact landscape management, including decreased use of fertilizers and chemicals, use of organic and/or non-toxic products, segregating drought-resistant landscaping from conventional vegetation, use of non-potable water, and operation of automated watering systems.			
		- Low environmental impact cleaning equipment, including Green Label equipment, low noise level and low emissions equipment.			
		- Low environmental impact cleaning policies, including Green Seal compliant products, floor coating products free of zinc, disposal procedures, decreased use of chemicals, and prevention of exposure of workers to concentrated chemicals.			
		- Integrated Pest Management.			
✓	---	DP-80 Staff Training			
		Strategies:			
		Specify the execution of a comprehensive training program(s) for all appropriate staff that covers all aspects of the O&M Manual.			
	1	DP-81 Systems Monitoring			
		Strategies:			
		Develop and/or implement a Measurement and Verification plan that incorporates the monitoring information from the monitored end-uses and is consistent with Option B, C or D of the 2001 International Performance Measurement & Verification Protocol (IPMVP) Volume I: Concepts and Options for Determining Energy and Water Savings.			
		Specify the submission of a report following the first year of project end-use.			
	1	DP-82 Recommissioning			
		Strategies:			
		Re-conduct commissioning of systems to optimize system performance.			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
POST-CONSTRUCTION MAINTENANCE, MONITORING & REPORTING (cont.)					
	1	DP-83 Emission Reduction Reporting			
		Strategies:			
		Specify tracking and recording emission reductions .			
		Specify report emissions reductions through third-party voluntary certification program.			
	1	DP-84 Document Sustainable Project Cost Impacts			
		Strategies:			
		Determine overall O&M costs over first year of project end-use.			
	1	DP-85 Document Productivity Impacts			
		Strategies:			
		Measure and communicate changes in absenteeism of affected employees.			
		Measure and communicate healthcare cost impacts.			
Sub-total:	5				
COMMUNITY INVOLVEMENT					
	1	DP-86 Community Education			
		Strategies:			
		Host a seminar open to the community that provides education on airport and aviation related topics.			
		Coordinate with local schools to arrange for field trips or presentations for education on airport and aviation related issues.			
		Host a meeting or panel discussion for affected communities as an opportunity for questions and education about the project separate from the public hearing and include all appropriate personnel.			
	1	DP-87 Community Partnerships			
		Strategies:			
		Enter into a partnership with community groups or local businesses to mitigate adverse effects of the project, if any.			
	1	DP-88 School Noise Reduction Programs			
		Strategies:			
		Proactively engage local schools to evaluate and implement noise reduction programs for school facilities.			
Sub-total:	3				

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
SOCIAL RESPONSIBILITY - PLANNING & DESIGN					
	1	DP-89 Codes of Conduct			
		Strategies:			
		Involve all stake-holders upfront in developing or modifying the codes of conduct.			
		The codes of conduct should be consistent with the larger goal of the business or organization.			
	1	DP-90 Human Capital Development			
		Strategies:			
		Identify critical human capital needs and develop a plan before project kick-off.			
		Conduct frequent reviews of human capital needs and available resources.			
		Develop a strategic human capital retention and development plan in conformance with the overall project plan, organizational needs, and changing business needs.			
	1	DP-91 Sustainable Labor Practice Indicators			
		Strategies:			
		Conduct frequent reviews to ensure alignment of labor practice goals with business strategy.			
		Implement corrective actions as soon as key performance indicators fall below allowable standards.			
	1	DP-92 Philanthropy & Social Investments			
		Strategies:			
		Establish a long term relationship with the local community and the leadership.			
		Solicit feedback from local community leaders from time to time and improve the program.			
	1	DP-93 ADA Compliance/Accommodation of Personnel with Special			
		Strategies:			
		Include objectives of this performance standard upfront in the planning phase so that the any additional costs can be properly managed.			
		Policy actions should be consistent with the overall program			

Requirements	Planning & Design Points (DPs)		Goal	Met (%)	Verified
Planning and Design Guidelines					
SOCIAL RESPONSIBILITY - PLANNING & DESIGN (cont.)					
	1	DP-94 Availability of Quality Healthcare			
		Strategies:			
		Include objectives of this performance standard upfront in the planning phase so that the any additional costs can be properly managed.			
		Policy actions should be consistent with the overall program			
	1	DP-95 Environmental Justice			
		Strategies:			
		Legal review of any information released to the public is necessary.			
		Involvement of the public is key; give the information that is necessary in a simple and easy to understand manner.			
Sub-total:	7				
ADDITIONAL PLANNING & DESIGN ELEMENTS					
	1	DP-96 LEED Accredited Professional - Planning & Design			
		Strategies:			
		Designate a LEED Accredited Professional from the beginning that has experience in airport planning.			
		Involve LEED Accredited Professionals at all levels of planning and design.			
	4	DP-97 Innovation in Planning & Design			
		Strategies:			
		Substantially exceed a LAWA-Sustainable performance standards. For example: increase the total reduction in water use to 50%.			
		Create an interactive multimedia display (i.e. video, website, etc.) that would engage and educate visitors about the sustainable aspects of the completed project.			
		Acquire manufacturer documentation and guarantee of installations, projected results, and in-situ performance criteria compared to standard performance results.			
Sub-total:	5				
Grand Total:	**150**				

SUSTAINABLE CONSTRUCTION CHECKLIST

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
PROJECT MANAGEMENT - CONSTRUCTION					
✓	---	CP-1 Develop & Implement Sustainable Construction Training			
		Strategies:			
		Provide training on LAWA's Sustainable Construction Guidelines.			
		Emphasize environmentally and socially sensitive areas.			
✓	---	CP-2 Submit a Final Sustainable Construction Project Report			
		Strategies:			
		Document all sustainable activities.			
		Track progress at several stages throughout the construction process to provide continual feedback on sustainability performance.			
	1	CP-3 Implement a Sustainability Inspection Program			
		Strategies:			
		Develop daily checklists customized to the sustainable construction activities and record pertinent information.			
	1	CP-4 Construction Sequencing & Scheduling			
		Strategies:			
		Publish a construction schedule with a focus on sustainability.			
		Schedule and coordinate construction activities to reduce noise and vibration impacts.			
		Minimize the extent and duration of exposure of bare ground surface to be opened at any one time, to prevent erosion at the source.			
		Plan the phases or stages of construction to minimize exposure. Before site disturbance occurs, perimeter controls, sediment traps, basins, and diversions should be in place to control runoff and capture sediments.			
		Prioritize disturbed areas in the vicinity of water bodies, wetlands, steep grades, long slopes, etc. for effective stabilization within seven days of disturbance.			
	1	CP-5 Paperless Submittals & Change Orders			
		Strategies:			
		Utilize electronic submission of documents.			
Sub-total:	3				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
STORMWATER MANAGEMENT & EROSION CONTROL - CONSTRUCTION					
✓	---	CP-6 Erosion & Sediment Control Measures			
		Strategies:			
		Develop an erosion and sediment control plan.			
		Monitor water quality impacts before and during construction.			
		Incorporate temporary sedimentation basins, temporary ditch checks, diversion dikes, temporary ditches, pipe slope drains into the construction plans.			
		Establish temporary and permanent seeding plans.			
		Develop an inventory of topsoil for potential re-use.			
		Use natural fiber geotextiles that are biodegradable.			
		Develop a policy to chip or compost all vegetation for re-use on site.			
✓	---	CP-7 Dust Control			
		Strategies:			
		Develop dust control plan.			
		Utilize nonhazardous, biodegradable dust suppression agents.			
		Adjust dust control strategies for meteorological conditions.			
		Utilize non-potable water for dust control.			
✓	---	CP-8 Stormwater Pollution Prevention Plan			
		Strategies:			
		Provide a Construction Stormwater Pollution Prevention Plan conforming to USEPA document 832/R-92-005, Chapter 3.			
		Collect and treat water used for vehicle washing.			
		Prepare a spill prevention plan for construction activities.			
		Utilize non-potable water for dust control.			
✓	3	CP-9 Minimize Site Disturbance During Construction			
		Strategies:			
		If material to be staged is unconsolidated, protect it from weather by covering it or otherwise securing it.			
		Make sure that all contractors and sub-contractors have been briefed on access road and staging area locations.			
Sub-total:	3				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION WATER CONSERVATION					
✓	---	CP-10 Reduce Potable Water Use During Construction			
		Strategies:			
		Utilize reclaimed and non-potable water for vehicle wash down, dust suppression, concrete mixing, soil compaction, etc…			
CONSTRUCTION INDOOR AIR QUALITY					
✓	---	CP-11 Construction Environmental Tobacco Smoke Control			
		Strategies:			
		Work with unions to ensure acceptance and compliance			
		Prohibit smoking at the construction site.			
	1	CP-12 Construction IAQ Management Plan - During Construction			
		Strategies:			
		Prepare a Construction IAQ Management Plan.			
		During construction meet or exceed the recommended Design Approaches of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ, Chapter 3			
		Protect stored on-site or installed absorptive materials from moisture damage.			
		Do not operate air-handling equipment during construction.			
		Sequence the installation of materials to avoid contamination.			
		If air handlers are used during construction, filtration media with a MERV of 8 must be used at each return air grill.			
	1	CP-13 Construction IAQ Management Plan - Before Occupancy			
		Strategies:			
		Prepare a Construction IAQ Management Plan.			
		Replace all filtration media immediately prior to occupancy.			
		Evaluate conducting a two-week flush out with 100% outside air.			
Sub-total:	2				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION WASTE MANAGEMENT					
✓	2	CP-14 Recycle and Reuse of Construction Materials			
		Strategies:			
		Develop a Balanced Earthwork Plan.			
		Develop a Construction Waste Management Plan.			
		Develop a detailed lay-down/sequencing plan.			
		Evaluate (at a minimum) the following waste for recycling:			
		- land-clearing debris			
		- cardboard			
		- metal			
		- brick			
		- concrete			
		- asphalt			
		- plastic			
		- clean wood			
		- glass			
		- gypsum wallboard			
		- carpet			
		- insulation			
		Require haulers to cover truck beds.			
		Identify project waste that is a resource to another project such as:			
		- Concrete			
		- Asphalt			
		- Land clearing debris			
		- Small ancillary buildings or structures			
		- Building components			
		Designate a specific site area for recycling.			
		Track recycling efforts throughout the construction process.			
		Approve subcontractor material practices for refused or rejected material.			
	1	CP-15 Salvage Materials & Resources			
		Strategies:			
		Utilize salvageable materials.			
		Advertise for salvage activities prior to demolition activities.			
		Create a public information site to list salvaged materials to offer for sale or donation.			
Sub-total:	3				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION VEHICLES					
✓	---	CP-16 Reduced Vehicle Idling Plan			
		Strategies:			
		Reduce construction activities that require significant amounts of vehicle idling.			
		When vehicles will be left idle for more then 30 seconds vehicles should be turned off.			
	2	CP-17 Low-Emission Construction Vehicles			
		Strategies:			
		Require construction vehicles that meet California Low Emission Vehicle Standards.			
	2	CP-18 Retrofit Construction Vehicles			
		Strategies:			
		Include particulate filters on vehicles on site more than 6 months.			
		Fit vehicles with diesel oxidation catalysts (DOC).			
		Develop a vehicle inspection program to ensure pollution control devices are in place.			
		Require construction vehicles that use high technology diesel emissions traps.			
	1	CP-19 Alternative Transportation During Construction			
		Strategies:			
		Coordinated, staged private vehicle parking during construction.			
		Provide a transportation plan to and from the construction site.			
Sub-total:	5				
CONSTRUCTION EQUIPMENT					
	1	CP-20 Construction Equipment Maintenance			
		Strategies:			
		Require contractors to submit pre-construction plan to recycle oil and use environmentally friendly maintenance agents during construction.			
		Use biodegradable hydraulic fluid and non-toxic lubricants.			

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION EQUIPMENT (cont.)					
	1	CP-21 Low-Emission Construction Equipment			
		Strategies:			
		Require construction equipment to limit idle times.			
		Implement proposed Tier 4 emission standards for non-road diesel equipment.			
		Use alternative fuels for construction equipment.			
Sub-total:	2				
ATMOSPHERE PROTECTION - CONSTRUCTION					
✓	---	CP-22 Refrigerant Management/Ozone Protection - Construction			
		Strategies:			
		Eliminate equipment that utilizes CFC and HCFC refrigerants.			
✓	---	CP-23 Greenhouse Gas Inventory & Mitigation - Construction			
		Strategies:			
		Conduct a Greenhouse Gas (GHG) inventory for all construction activities.			
		Identify steps that can be taken to reduce GHG emissions and plan for these changes.			
✓	---	CP-24 Criteria & Air Toxics Inventory & Mitigation - Construction			
		Strategies:			
		Conduct an emission inventory for all phases of construction.			
		Identify construction operational changes to mitigate air emissions such as alternative fueled equipment, efficient construction scheduling and operations, reducing traffic congestion from additional construction traffic or traffic diversions due to construction.			
Sub-total:	---				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION MATERIALS CONVEYING					
	1	CP-25 Construction Materials Conveying Plan			
		Strategies:			
		Use a conveyor system to replace construction vehicles.			
		Install freight elevators as early as possible.			
Sub-total:	1				
CONSTRUCTION NOISE CONTROL					
✓	---	CP-26 Construction Noise & Acoustical Quality Control Plan			
		Strategies:			
		Require contractors to submit sound reduction construction plans to mitigate unwanted construction noise and vibration.			
		Program locations of mechanical equipment and other sources of noise away from exterior spaces designed for use .			
		Require mufflers on all construction equipment.			
		Establish construction vehicle speed limits.			
✓	---	CP-27 Construction Noise Levels			
		Strategies:			
		Construction noise levels to be based on construction equipment and noise control measures established as part of the construction noise and acoustical quality control plan.			
Sub-total:	---				
CONSTRUCTION LIGHTING					
	1	CP-28 Construction Light Pollution Reduction			
		Strategies:			
		Conduct a light modeling study.			
		Establish a schedule for when lighting is required and develop a policy to reduce lighting when not needed.			
		Limit lighting in protected ecological areas to mitigate lighting impacts on wildlife.			
		Minimize site lighting where possible.			
		Design for monitoring of maximum candela value of all exterior lighting.			

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION LIGHTING (cont.)					
	1	CP-29 Energy Efficient Temporary Lighting During Construction			
		Strategies:			
		Utilize high-pressure and low-pressure sodium lamps.			
Sub-total:	2				
LANDSCAPE MAINTENANCE					
	1	CP-30 Non-toxic Landscape Maintenance Chemicals			
		Strategies:			
		Decreased use of fertilizers and chemicals.			
		Use organic and/or non-toxic products.			
	1	CP-31 Composting & Vermiculture During Construction			
		Strategies:			
		Evaluate composting methods appropriate for anticipated waste.			
	1	CP-32 Integrated Pest Management			
		Strategies:			
		Consideration of environmentally benign pest management procedures should be made.			
		Establish a non-toxic pest control program.			
Sub-total:	3				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
CONSTRUCTION HEALTH & SAFETY					
✓	---	CP-33 Construction Health & Safety Plan			
		Strategies:			
		Appoint a site health and safety manager.			
		Establish an emergency notification program.			
		Develop a site-specific health and safety plan that identifies all potential hazards and steps taken to mitigate accidents.			
		Conduct a daily health and safety meeting at the start of each day.			
		Record and submit weekly reports summarizing all safety incidences as well as all events which may have resulted in an accident and an evaluation of what steps can be taken to prevent those events in the future.			
✓	---	CP-34 Dust Hazard			
		Strategies:			
		Determine conclusively if toxic dusts or fumes exist or will enter breathing space during construction.			
		Provide reusable or ventilated masks for worker comfort and health.			
Sub-total:	---				
CONSTRUCTION ROADWAYS					
	1	CP-35 Construction Traffic Control			
		Strategies:			
		The importance of managing the traffic should be emphasized and as early in the project planning process as is feasible.			
	1	CP-36 Prevent & Repair Roadway Damage During Construction			
		Strategies:			
		Coordinate with CalTrans to evaluate potentially vulnerable areas and avoid damage.			
Sub-total:	2				

Requirements	Construction Points (CPs)		Goal	Met (%)	Verified
Construction Guidelines					
SOCIAL RESPONSIBILITY - CONSTRUCTION					
	1	CP-37 Disruptions & Continuity of Area Services			
		Strategies:			
		Conduct risk analysis as apart of project planning.			
		Consider the intangible impacts such as negative publicity and loss of public confidence.			
	1	CP-38 Use of Local Contractors & Suppliers			
		Strategies:			
		Seek strategic local suppliers and contractors which can lead to a better competitive positioning and better public relations			
Sub-total:	2				
ADDITIONAL CONSTRUCTION ELEMENTS					
	1	DP-39 LEED Accredited Professional - Construction			
		Strategies:			
		Include at least 3 LEED Accredited Professionals on the Construction Team.			
	4	DP-40 Innovation in Construction			
		Strategies:			
		Substantially exceed a LAWA-Sustainable performance standard.			
Sub-total:	5				
Grand Total:	**30**				