

LAX MASTER PLAN
COMMUNITY BENEFITS
AGREEMENT (CBA)

2010 Annual Progress Report



PUBLISHED SEPTEMBER 2011



Los Angeles World Airports

LAX MASTER PLAN
COMMUNITY BENEFITS AGREEMENT
(CBA)

2010 ANNUAL PROGRESS REPORT

Prepared by
Los Angeles World Airports

**LAX Master Plan Program
2010 CBA Annual Progress Report
September 2011**

Table of Contents

- 1.0 Executive Summary
- 2.0 Introduction/Background - LAX Master Plan Program and the Community Benefits Agreement
- 3.0 Status Update
 - III. Residential Noise Mitigation
 - IV. Job Training
 - V. First Source Hiring
 - VI. Living Wage, Worker Retention, and Contractor Responsibility
 - VII. Air Quality Study
 - VIII. Health Study
 - IX. Community Based Research Studies as Part of LAWA's Future LAX Master Plan Program Project-Level Analysis
 - X. Air Quality
 - XI. Green Building Principles
 - XII. Traffic
 - XIII. Minority Business Enterprise, Women Business Enterprise, and Small Business Utilization and Retention Program
 - XIV. Community Preparedness for Airport-Related Emergency
 - XV. Designated Airport Funds
 - XVI. Miscellaneous
- 4.0 Lennox School District – Sound Attenuation Measure
- 5.0 Inglewood School District – Sound Attenuation Measure
- 6.0 Summary

Appendices:

- A. Updated Noise Mitigation Program and Schedule
- B. Third Party Monitor Semi-Annual Report dated May 16, 2011

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.

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 Area¹ and the City of Los Angeles. The agreement precludes LAWA from making expenditures or taking actions prohibited by the FAA or any other regulatory authority. The Cooperation Agreement also prohibits the use of Los Angeles City's General Fund or any other City-controlled non-airport source of funds to meet any of LAWA's obligations under the agreement.

In accordance with 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 sixth annual report on the progress of the Agreement. This document has been provided to the Coalition Representative and is available at LAWA website <http://www.ourlax.org>.

¹ *Project Impact Area includes the communities immediately surrounding the airport and those most impacted by airport operations and is comprised of South Los Angeles, El Segundo, Hawthorne, Inglewood, and Lennox.*

2.0 Introduction/Background

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, an attachment to the Cooperation Agreement, details the various proposals of mitigation and benefits. 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

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.

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.** Similarly, 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.

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.

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; and
- \$4.275 million per year for the County of Los Angeles 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 → In Progress:

The County of Los Angeles requested funding for 2010 in the amount of \$7,500,000. The City of Inglewood, for the second year in a row, has not requested any annual funding. No new funds were actually authorized during 2010, although the request for funding from the County of Los Angeles will be processed as soon as possible in 2011, and will be considered part of the 2010 allocation. The County did receive withheld sums of \$500K and \$100K for two grants that were closed out during the month of December. The County is working toward compliance with program requirements, and the recommendations that stemmed from the Final Audit that was presented to them in November 2010. The primary issues are related to the closing out of grants that are older than four years. This will allow LAWA to process the 2010 grant request in early 2011.

Therefore, the allocation of new funds in 2010 is as follows:

Calendar Year 2010

<i>County of Los Angeles (component)</i>	<i>\$ 750,000.00</i>
<i>Inglewood (component)</i>	<i>\$ <u>0.00</u></i>
<i>Total</i>	<i>\$ 750,000.00</i>

III.B Acceleration of Noise-Mitigation Programs for City

The Agreement states:

“Within eight 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 → Completed:

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. LAWA staff has notified all property owners of their eligibility. LAWA has spent approximately \$140 million to-date on the implementation of this program.

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 with the Coalition on this provision is 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 this 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 → On-Going:

Progress on this program is driven by voluntary participation. All end-of-block eligible property owners have been notified (via certified mail) of their eligibility in the program. The estimated construction completion date for the City of Los Angeles' program is 2012. Approximately 1,200 dwelling units were added under the block rounding program that utilizes PFC funding approved by the FAA.

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 (as set out in Exhibit A), expressly waiving his or her ability to sue LAWA with respect to the impacts (listed in

the aviation 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 Coalition that is envisioned by this Agreement, and as long as this Agreement remains in effect, LAWA agrees to suspend its requirement that express, full aviation easements (as set out in Exhibit A) 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 aviation easements as part of LAWA's ongoing noise variance within its permit from Caltrans to operate LAX;
 - b. In lieu of requiring full, express aviation 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 aviation easements (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 aviation or any other easements in return for funding of, or participation in, the residential soundproofing program has been eliminated pursuant to the terms of a separate, independent agreement, the LAX Master Plan Stipulated Settlement Agreement, 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 as LAWA does not impose regulations or standards related to property conditions that are more stringent than those enforced by the local government jurisdiction as 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:

During 2010, the LAX Part 161 Study was delayed due to problems related to the difficulty of preparing the required baseline and projected fleet mix forecasts in an uncertain economy, and the need for those projections to be consistent with LAWA's ongoing planning processes at LAX. However, at the end of the 2010, the required fleet mix and forecasts were being finalized, and should be ready for use in 2011. The Part 161 Study will re-commence in April 2011, and be completed within 12 to 18 months. The application is expected to be submitted to the FAA during the year 2012.

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:

Job Training Program (JTP)

Although the FAA has not approved a job training program (JTP) for LAWA and therefore no LAWA funds may be used for job training, LAWA leverages its relationships with agencies funded to provide job training.

By leveraging LAWA’s relationships with over 16 JTP partners, LAWA, through its Business and Job Resources Division (BJRD), initiated its JTP in January 2007. LAWA successfully partnered with agencies funded through other means to provide job training opportunities to residents in the Project Impact Area. Currently, LAWA is working with agencies that provide an array of training, including computer skills, customer service, time management, leadership skills, and other classes.

Collaboratively, LAWA was able to work with Loyola Marymount University (LMU) to train 150 shuttle bus drivers for Servisair. They were given courses in anger management, customer service, and cultural diversity. These drivers also received training which allowed them to become ADA certified.

Based on surveys to employers, both internally and externally, new training courses will include Conversational Spanish for Concessions Division staff and Management training in the areas of communication, coaching, and interviewing with Duty Free Shops (DFS). The conversational Spanish course officially started on September 8, with a class of about 20 LAWA students.

As a result of its partnership with the Los Angeles Community College District, LAWA has been able to train over 50 high school and college interns. For the second consecutive year, through Los Angeles City College (LACC), students have taken courses in life and work skills, customer service, time management, and work ethics. The students received college credit for their efforts.

LAWA has been able to refer over 65 individuals to pre-apprenticeship construction training. As a result, over two dozen have received their Pre-Apprenticeship Construction Training Certificate. Through the LAWA partnerships, many local residents have completed training in customer service, retail sales, auto mechanics, and other disciplines.

The Mayor’s Office has initiated discussions with Worksource Centers, the Los Angeles Community College District, and surrounding LAWA businesses to conduct Hospitality Training for local residents. Plans are underway to create training modules that will

result in career paths for residents within the hospitality industry. Upon the completion of training, these candidates will be well-positioned to compete for job opportunities at the hotels or with various Airport employers.

As of June 30, 2010

*JTP Referrals: 505 Completed Training 321**

**This number includes new employees as well as incumbent workers.*

Training Goals for 2011

JTP Referrals: 600 Completed Trainings: 360

LAWA and the Coalition will continue to assess other job training opportunities.

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:

First Source Hiring Program

The First Source Hiring Program (FSHP) is designed to provide residents from the communities immediately surrounding the airport and those most impacted by airport operations access to airport jobs. Those communities are a part of the Project Impact Area (PIA) and are comprised of South Los Angeles, El Segundo, Hawthorne, Inglewood and Lennox.

The FSHP is now automated with a new Applicant Tracking System (ATS) to quickly assist those LAWA employers in need of prescreened and qualified individuals for employment consideration. Over 3,500 people have registered and posted their resumes on the ATS.

The Business and Jobs Resources Center (BJRC) works closely with the Work Source, One-Stop Centers and, community and faith-based organizations that serve the airport area and beyond to register potential candidates on the ATS for positions with LAWA

employers. FSHP is training the job developers at these organizations to prescreen and qualify their clients to be eligible for opportunities at LAWA as they arise. Their clients are able to post their resumes and apply for positions and those applications are reviewed by hiring managers in the terminals.

FSHP has assisted Walsh-Austin Joint Venture to find key personnel from administrative assistants to project managers on the Bradley West Project at LAX. They have listed their open positions on the FSHP ATS and will encourage their subcontractors to follow suit as they begin their work at LAWA.

The BJRC also participates in the Mayor's monthly roundtable with the Port of Los Angeles and the Los Angeles Department of Water and Power to discuss and work through workforce development initiatives and on the Mayor's South Los Angeles Initiative. The purpose of this initiative is to ensure job opportunities for those residents that experience disproportionate levels of poverty and unemployment compared to the general population, many of whom live in the designated Project Impact Area.

As of 6/30/2010 - Actual

FSHP	Referrals:	3,360	Hires:	679
------	------------	-------	--------	-----

<u>Hiring Goals:</u>	Through June 2010	through June 2011
----------------------	-------------------	-------------------

FSHP	675	790
------	-----	-----

Gateways Internship Program

The Gateways Internship Program provides college and high school students with exposure to career opportunities in the aviation industry and other airport-related jobs. The Gateways Program gives students on-the-job practical experience in various airport jobs through education, training, and mentoring activities to better prepare them to enter the workforce.

The Gateways Internship Program began as a pilot in 1998. The pilot was a collaborative initiative of the Inglewood Unified School District, South Bay Workforce Investment Board, and the Los Angeles World Airports (LAWA). The program has since expanded to include four school districts, Cerritos College, UCLA, USC, Cal State Long Beach, Loyola Marymount, West Los Angeles College, Cal State Fullerton, CSUN, and Cal Poly Pomona. LAWA also partners with Playa Vista Job Opportunities and Business Services (PV Jobs), Watts Labor Community Action Committee (WLCAC), and Los Angeles Job Corp to place students into its internship program. Since its inception, the Gateways Program has placed more than 800 students in a wide range of internship positions, including Administrative, IT, Engineering, Human Resources, Noise Management, Public Relations, and FAA-related.

LAWA's Gateways Program is comprised of three internship programs:

- *Gateways College Student Professional Worker Program* – Since its inception, this program has provided hundreds of college students with paid employment working

in various LAWA divisions at LAX or they can work for the Federal Aviation Administration (FAA) at the airport.

Status → In Progress:

The BJRC was able to place over 70 students from seven schools within various internships in LAWA Divisions this year. This increase in internship positions was accomplished with supplemental funding through partnerships with other organizations, educational institutions, and through Federal stimulus dollars. The American Recovery and Reinvestment Act (ARRA) allowed many community-based organizations to partner with LAWA to place youth in airport jobs. Primary funding partners included community and faith based organizations such as PV Jobs, WLCAC, UCLA OneSource Center, and Trinity Baptist Church.

The majority of the student interns worked during the summer. However, this year a substantial number of college students were able to work year-round.

The BJRC conducted extensive outreach to students by attending four Career Day events at colleges, posting internship job descriptions to the college career sites, and connecting with various college career centers and advisors. BJRC also disseminated internship information at 35 community Job Fairs. Additionally, the BJRC established a relationship with Cerritos College to refer IT students with LAWA approved prerequisite course work to the program.

In addition to students from local and out-of-state schools, the BJRD also attracts international students who wish to volunteer at LAX. BJRC hosted international students from Germany, Korea, and Japan.

Goals for Next Year

Program goals for the upcoming year will be to increase the number of paid positions through partnerships with other organizations, and to increase the volunteer internship numbers by continuing our current relationships with the various colleges and community and faith based organizations. Also, BJRC plans to reach out to colleges that have not participated in the internship program and to increase international student participation.

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:

LAWA commenced an Air Quality and Source Apportionment Study (AQSAS) to assess air quality in areas adjacent to LAX. This AQSAS will be the most comprehensive air monitoring, modeling, and data analysis program to be undertaken by LAWA for one of its facilities.

This study will include ambient monitoring in selected areas to collect and measure both criteria and toxic air pollutants on site at LAX and at sites in the communities surrounding LAX. This study was planned to be conducted in three phases. The first phase commenced in March 2008. The second phase included a Technology and Methodology Feasibility Demonstration Project (Demonstration Project) where data was collected continuously at five on-airport sites during June, July, and August 2008 to assess the feasibility of the approach and methodology for Phase III. The results of the Demonstration Project will be used to validate the scientific approach of Phase III, the Long-Term Study.

The Study’s scope or Work Plan was developed by a Technical Working Group (TWG) comprised of representatives from U.S. Environmental Protection Agency (EPA), Federal Aviation Administration (FAA), California Air Resources Board, South Coast Air Quality Management District, State of California Office of Environmental Health Hazard Assessment, Desert Research Institute, University of Southern California, research experts in the fields of receptor modeling and air pollutant monitoring, and representatives from community organizations.

Several meetings were held in 2008 to communicate the status, progress and results of the Study to a larger Briefing Group consisting of a diverse panel of environmental and public health regulatory agencies, as well as Federal, State and local elected officials.

At the commencement of the Demonstration Project, LAWA authorized funding for the consultant to perform Phases I and II as a detailed scope for Phase III could not be developed until the Demonstration Project was completed and the data fully analyzed. In 2009, the Study’s TWG reviewed the draft documentation from the Technology and Methodology Feasibility Demonstration Project (Demonstration Project) and recommended that additional analysis of the sizeable Demonstration Project data and air sampling of taxiing aircraft be completed prior to developing the methodology, protocols, and Work Plan for Phase III.

In 2010, an approach was developed to move the Air Quality Study forward in the most expeditious manner possible.

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. As future project-level environmental documents are prepared for LAX Master Plan Program projects, LAWA is not required to utilize the Community-Based Studies as part of each project-level environmental review, and shall have discretion to determine whether a particular project-level analysis would be appropriate for including the Community-Based Studies...”

Status → Not applicable at this time:

LAWA determined that none of the project-level environmental analysis conducted in 2010 was appropriate for including the Community-Based Studies.

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 completed the first phase of a feasibility assessment in 2006. LAWA currently is preparing an updated assessment of the electrification program to account for changes on the Airport over the past few years, including remodeling and renovation of some terminals and facilities, and airlines moving to different locations on the Airport.

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 completed the first phase of a feasibility assessment in 2006. LAWA has determined that an updated assessment of the electrification program is needed to account for changes on the Airport over the past few years, including remodeling and renovation of some terminals and facilities and airlines moving to different locations on the Airport.

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 be limited to, inventory utilization, operations, technological trends, and capital and maintenance costs...”

Status → In Progress:

LAWA completed the first phase of a feasibility assessment in 2006. LAWA has determined that an updated assessment of the electrification program is needed to account for changes on the Airport over the past few years, including remodeling and renovation of some terminals and facilities and airlines moving to different locations on the Airport.

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:

LAWA has provided a status of the electrification program in each of the annual CBA reports.

Section X.F. Construction Equipment

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 was retained by LAWA to monitor compliance with the requirements of Section X.F. The role of the Independent Third Party Monitor was to monitor, document, and report on a semi-annual 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.

The following is an update of activities and findings reported by the Independent Third Party Monitor as it relates to diesel construction equipment utilized on the Crossfield Taxiway Project (CFTP), Aircraft Rescue and Firefighting Station (ARFF), Taxiway S, and the Bradley West (BWP) construction projects.

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 reviewed the documentation submitted by the Contractors for each piece of diesel equipment utilized or planned for possible utilization on the CFTP and ARFF or proposed for use on the CFTP, ARFF, Taxiway S, and BWP relative to compatibility with Best Available Emissions Control Devices. Approximately 471 pieces of diesel equipment have been assessed to date to 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 related to outfitting their diesel construction equipment with the best available emissions control devices.

The findings for this Section are as follows:

- During CFTP major construction, approximately 35 percent of all diesel equipment operating or identified for potential operation was equipped with a diesel engine compatible with a Level 3 (85 percent particulate matter reduction) off-road Verified Diesel Emission Control System (VDECS). Diesel equipment determined to be compatible with a Level 3 VDECS was required to be retrofitted prior to commencing work.*
- Diesel construction equipment utilized on the ARFF operated under a 20-day exemption status. The construction contractor provided records for each piece of diesel equipment, documenting the equipment's accrued days of operation from initiation of construction through project completion. These records were provided to the Independent Third Party Monitor for review. No violations of the 20-day exemption provision were identified.*
- Taxiway S construction is ongoing and anticipated to be complete in March 2011. Interim findings include the documentation of 68 pieces of equipment, independent verification of equipment compatibility with a CARB or EPA-verified*

VDECS, and documentation of equipment that has received an exemption from LAWA. Nine (9) pieces of diesel equipment are operating with a diesel emission reduction system: four (4) pieces of diesel equipment are equipped with Level 3 diesel particulate filters and five (5) vehicles are equipped with the Caterpillar ACERT low emission engine technology.

- Major construction work commenced on the Bradley West Project in March 2010. To date, 284 pieces of equipment have been submitted by the construction contractors for review by LAWA. This documentation has subsequently been provided to the Third Party Monitor for independent monitoring and reporting.
- Off-road diesel equipment operating on the CFTP, ARFF, Taxiway S, and BWP whose engines were determined to be compatible with a Level 3 VDECS, but not retrofitted with the best available emissions control technology, were documented to ensure that the equipment had been granted an exemption in accordance with Section X.F.4.

X.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 available to assist LAWA and the LAX Coalition in identifying potential opportunities to conduct a Demonstration Project in accordance with Section X.F.2. No Demonstration Projects were initiated during 2010.

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 assessed each piece of diesel construction equipment equipped with a VDECS pursuant to Section X.F.1 and documented its compliance as it related to meeting or exceeding Level 2 diesel emission reductions.

Final findings for this Section are as follows:

With respect to CFTP, Taxiway S, and BWP construction activities during 2010, thirty-six (36) pieces of diesel construction equipment were equipped with VDECS. The primary VDECS used on the retrofitted equipment is the HUSS FS-MK diesel particulate filter,

verified at Level 3 (greater than 85 percent particulate matter reduction). No Level 1 or Level 2 VDECS were identified for equipment assessed pursuant to Section X.F.1.

The Third Party Monitor verified with CARB that the Level 3 device utilized on the CFTP and ARFF did 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 CFTP, ARFF, taxiway S, and BWP as it pertained 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. 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 CFTP, ARFF, Taxiway S, or BWP would not exceed twenty (20) calendar days per calendar year was granted a "20-day" exemption by LAWA. The Third Party Monitor maintained 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 was required to be removed from the airfield;
- The Third Party Monitor reviewed and documented cases where it was determined that the VDECS would impair the equipment operator's field of vision. These vehicles were granted a safety exemption by LAWA. Specific classes of diesel equipment, including motor graders, received an exemption from LAWA on the basis of safety. The Independent Third Party Monitor reviewed and documented each piece of diesel construction equipment that received a safety exemption;
- Exemptions were also granted by LAWA for diesel equipment equipped with small displacement engines and horsepower ratings less than 50 hp; this included light towers and air compressors. In addition, on-road vehicles licensed under the Department of Motor Vehicles were granted an on-road vehicle exemption.
- The Third Party Monitor also independently assessed and documented diesel equipment for which no CARB verified or EPA certified diesel emission control

system was available. This equipment was 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 independently reviews and documents fuel purchase records for diesel fuel used on the CFTP and ARFF. 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 parts per million (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 shortage of ULSD was experienced within Southern California during CFTP, ARFF, Taxiway S, or BWP construction in 2010. No substitution of any fuel in lieu of 15 ppm ULSD occurred during any LAX Master Plan construction project;*
- *The Third Party Monitor reviewed fuel purchase records as provided by LAWA on behalf of the construction firms. No exceptions to the requirements of Section X.F.5 were documented;*
- *The Independent Third Party did not monitor on-road vehicles operating on the CFTP and ARFF that were fueled off-site. Fuel purchase records were only provided for vehicles that were 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 monitored excessive vehicle idling enforcement and compliance with engine maintenance intervals based on independent observation, review of enforcement action documentation, and review of construction firm engine maintenance procedures and records. Findings as it relates to this Section are as follows:

- *No written violations pertaining to excessive equipment idling were cited by LAWA on any construction firm. On infrequent occasions, vehicles deemed to be*

idling beyond the period of time stipulated in CARB regulations were instructed to turn off their engines. Formal enforcement actions were not deemed necessary by LAWA;

- *Each construction firm proposing a piece of diesel equipment was required to submit in writing the scheduled maintenance procedures for that piece of equipment. The Third Party Monitor has reviewed each maintenance plan submitted to LAWA.*

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:

No formal enforcement actions were taken by LAWA in 2010 as it pertains to CFTP, ARFF, Taxiway S, and BWP construction activities. No public complaints related to construction activities were received in 2010.

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 retained an Independent Third Party Monitor. The findings of the Independent Third Party Monitor are reported in this document and in Appendix B.

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

“LAWA shall designate the best available emission control devices annually or more frequently, in consultation with the Coalition Representative and the Independent Third Party Monitor. LAWA, in consultation with the Coalition Representative, shall establish processes to revise these designations and incorporate the requirement to use the emission control devices newly designated as best available into construction bid documents to take into account advances in emission control devices prior to bidding of new construction phases of the LAX Master Plan Program. The process of emission control technology review shall include any new relevant requirements promulgated by CARB or EPA. Results from the reassessments shall not be applied retroactively.”

Status → In Progress:

The Independent Third Party reviewed each piece of diesel construction equipment proposed for use on the CFTP and Taxiway S for compatibility with newly verified Level 3 VDECS. While it was understood that the requirement to utilize new VDECS could not be applied retroactively for equipment operating on the CFTP and Taxiway S, the reassessment process and findings will be used to designate best available control emission devices for subsequent LAX Master Plan Program construction projects.

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:

See Section X.I. regarding status of GSE Requirements.

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 → Complete:

The study has been completed and the 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:

LAWA, in conjunction with airlines, is evaluating strategies and options for GSE emission reductions in compliance with this section.

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 the Coalition in July 2005.

- “2. Conversion of Truck, Shuttles, Passengers, Vans and Buses to Alternative Fuel
 - a. Covered Vehicles. Requirements established under this Section X.J.2 shall apply to all on-road vehicles, including trucks, shuttles, passenger vans, and buses, that are 8,500 lbs gross vehicle weight rating or more and are used in operations related to LAX (“Covered Vehicles”). Diesel equipment for construction related to the LAX Master Plan Program that is subject to Section X.F. of this Agreement shall be exempt from requirements established pursuant to this Section X.J.2.
 - b. Conversion Schedule. LAWA shall ensure that by five years from the effective date of this Agreement, 50 percent of the Covered Vehicles operated by any Airport Contractor, Airport Lessee, and Airport Licensee (collectively “Operators”) are Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles. LAWA shall ensure that by ten years from the date of execution of this Agreement, 100 percent of the Covered Vehicles operated by each Operator are Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles.
 - c. Least-Polluting Available Vehicles. In cases where Operators cannot comply with requirements established pursuant to Section X.J.2.b because neither Alternative-Fuel Vehicles nor Optional Low NOx Standard Vehicles are commercially available for performance of particular tasks, LAWA shall instead require Operators to use Least-Polluting Available Vehicles for such tasks. An Independent Third Party Monitor shall determine on an annual basis whether Alternative-Fuel Vehicles or Optional Low NOx Standard Vehicles are commercially available to perform particular tasks, and, in cases where Alternative-Fuel Vehicles or Optional Low Standard Vehicles are not commercially available for performance of a particular task, shall identify the Least Polluting Available Vehicles for performance of that task.”

Status → In Progress:

LAWA has an Alternative Fuel Vehicle Requirement Program that applies to all on-road vehicles weighing 8,500 lbs gross or larger. This program is currently in effect and requires the conversion of car rental shuttles, trucks, and other large vehicles in use at LAX.

LAWA has taken a leadership role to meet this commitment and has met the mid-way milestone for vehicles over 8,500 pounds. The entire LAX fleet is 63% alternative fuel. One hundred percent (100%) of the LAX courtesy shuttles are alternative fuel, as are the Americans with Disability Act (ADA) shuttles.

The rental car companies report that about 87% of the LAX rental car shuttle fleet is fueled by compressed natural gas or has diesel particulate traps.

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, LAWA 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 → Completed:

In 2008, LAWA initiated environmental analysis of the Crossfield Taxiway Project (CFTP) and published a Draft Environmental Impact Report (EIR) on September 25, 2008. The Draft EIR included an assessment of PM 2.5 impacts in its air quality analysis.

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 was included in construction specifications of the Crossfield Taxiway Project (CFTP) and Bradley West Project (BWP) and the rock-crushing plant for

the CFTP and BWP complied with this requirement. This requirement is included in construction specifications for 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 → Complete:

Subject requirement was included in construction specifications for the CFTP and BWP and was monitored by LAWA’s Independent Third Party Monitor. This requirement will be included in construction specifications for 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 a liquefied natural gas (LNG)/compressed natural gas (CNG) facility located on airport property to service LAWA vehicles. There is also a public retail station owned and operated by Clean Energy on the southeast corner of Aviation Boulevard and 104th Street that sells CNG and hydrogen fuels.

In November, Clean Energy executed an agreement with The Hertz Corporation to build a second CNG station. The new station will be located on the west side of Aviation Boulevard between Arbor Vitae and Century Boulevard. The new station is a \$3 million private-sector investment. Clean Energy will own and operate the station under a long-term property lease with Hertz. When complete, the new CNG station will be the largest capacity public-access CNG station in the U.S. The new station will be capable of fueling up to six full-size transit buses or 10 light-duty vehicles, simultaneously. The combined CNG capacity for both Clean Energy stations will be 3,500+ gallons per hour.

During the past year, Clean Energy completed a 9-month contracting process and conducted design work on a separate, but parallel track. Phase 1 and 2 environmental site assessments have been completed, gas and electric service has been requested, and equipment for the site has been ordered. Clean Energy estimates the site will be operational about 3 months from the completion of the permitting process.

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 → Complete:

LAWA investigated the use of fuel cells for the Central Utility Plant replacement project (CUP-RP) Environmental Impact Report. The use of fuel cells would not be feasible due to size constraints and energy inefficiency.

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 is in close communication with United Airlines on their continued efforts to test ultra-clean jet fuels. In May 2010, United successfully completed the first commercial flight using an "ultra-clean" fuel made from synthetic gas developed by the engineering firm Rentech. Also, in March 2010, the Defense Logistics Agency's Defense Energy Support Center and Air Transport Association of America, Inc., signed a strategic alliance agreement forming a partnership for the development and deployment of alternative aviation fuels. LAWA will continue to monitor and support these 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.

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 developed a website at <http://www.lawa.org/laxdev> to provide construction information for the public. The general, program-wide construction hotline number to report incidences of non-compliance is (310) 649-LAWA (5292).

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:

The Business Outreach Unit (BOU) conducts a monthly workshop “How to Do Business With Los Angeles World Airports” at Los Angeles World Airports in collaboration with the Procurement Services Division. The workshop provides the business owner an opportunity to learn about the procurement processes and services available to them free of charge and with no charge for parking. LAWA presenters are from Purchasing, Public Works/Certification, Bond Assistance Program/Merriwether and Williams Insurance Services, Contract Services/Administrative Requirements and from the Business and Job Resources/Business Assistance. Business owners are given the opportunity to introduce their company so that the presenters know who is in the audience so that they can direct information on a particular product or service. Annually, attendance at the workshops averages 300 business representatives. Attendance at the monthly workshops averages 25.

The BOU has developed a database, BizConnect, of approximately 6,000 businesses that are seeking to do business with LAWA. This database was developed with the support of LAWA's Information Management and Technology Group, and is maintained by the BJRC staff. Staff periodically requests updated information from the listed businesses so that current information is always available. BizConnect lists the companies' contact, concept, and certification information for distribution internally and externally. The database is accessible to the public at www.lawa.org/bjrc.

The BOU actively participates in LAWA Division's Request for Qualifications, Request for Proposals, and Request for Bids meetings. Announcements on potential procurement opportunities are sent to businesses listed on BizConnect and to other business assistance agencies that LAWA partners with for distribution.

The Business Outreach unit also participates and supports outreach events by LAWA's Divisions, City Departments, and other public agencies. This past year LAWA conducted or participated in approximately 280 meetings and events. The unit is actively involved with local Chambers and ethnic business organizations in supporting its members and programs through sponsorship, participation or promotion.

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:

Los Angeles World Airports (LAWA) continues to provide effective and well coordinated response to incidents that may pose a threat to life safety and/or disrupt airport operations. By working closely with its many partner agencies, LAWA strives to proactively put emergency management principals in place to successfully mitigate, prepare, respond to, and recover from large-scale incidents. In 2010, LAWA opened the new LAX Airport Response Coordination Center (ARCC). The ARCC is a new 24/7 centralized operations center to serve the LAX airport community during normal operations. The ARCC also includes the Incident Management Center (IMC) that manages special events and emergency incidents at LAX. The ARCC and IMC will enhance communication and coordination capabilities during incidents which fosters collaboration with LAWA and its many partner agencies.

XV. Designated Airport Fund

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 ensures 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 regularly scheduled 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:

Application for PFC Allocation to Fund Schools Mitigation Program

Throughout 2010, LAWA staff worked closely with the Lennox School District and the FAA in gathering required documentation in order to compile the PFC application. During the year, LAWA staff met with the Lennox representatives on several occasions to discuss and obtain information relative to the preparation of the PFC application that will be submitted to the FAA to fund sound attenuation of schools in the Lennox School District. LAWA staff and Lennox representatives met with the FAA on four separate occasions during 2010 to discuss the Lennox Soundproofing Program, PFC eligibility, noise contour maps and other items and issues related to the submittal of the PFC application.

On November 29, 2010, LAWA held its airline consultation meeting with the air carriers at LAX. At the meeting, LAWA described and explained the need for the Lennox School Soundproofing Program and the proposed application.

On November 29, 2010, LAWA posted a “Notice and Opportunity for Public Comment on the Proposed PFC Application for the Soundproofing of Schools in the Lennox School District” on its webpage per FAA requirements. The public notice must allow the public to file comments for at least 30 days, but not more than 45 days after the date of posting on the public agency’s website.

Reimbursement for Work Completed

On November 16, 2010, the Lennox School submitted a request for reimbursement for the work already completed in building the new Huerta Elementary School.

On November 16, 2010, LAWA submitted a request to the FAA for confirmation that such reimbursement would not constitute revenue diversion.

On November 30, 2010, the FAA sent a letter to LAWA indicating that airport revenue for the purpose of sound insulating this school was appropriate.

On December 6, 2010, the BOAC authorized issuance of approximately \$1.27 million for reimbursement from the LAX Revenue Fund to the Lennox School District for Huerta School for sound attenuation costs that have already been paid by Lennox.

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. On October 2, 2008, Public Law 110-337 authorized the Secretary of Transportation to expand the use of passenger facility fees for the purpose of carrying out certain noise mitigation at Inglewood and Lennox Unified School Districts.

In July 2009, LAWA submitted a letter to the FAA on behalf of Lennox School District asking that the Secretary of Transportation make a determination, based on Public Law 110-337, that certain schools in Lennox are adversely affected by airport noise, and thereby would be eligible for PFC funding for noise mitigation. Subsequently, the FAA indicated to LAWA that this determination will be made as part of the PFC application process.

LAWA has drafted a letter to the FAA on behalf of Inglewood Unified School District (IUSD), but this letter is still under review. Further discussions with IUSD are needed to clarify that the list of schools to be included in the letter is the same list used in the Settlement. LAWA is also working with the IUSD to provide sufficient information necessary for LAWA to submit the PFC application; with the assumption that the required adverse impact determination by the Secretary of Transportation will be handled through the PFC application process as is the case with Lennox Schools. To date, IUSD has provided some materials that were prepared in 2000. More recent cost estimates will be required in order for LAWA to amend the PFC application to include the IUSD mitigation program.

6.0 Summary

To date, LAWA continues to implement applicable provisions from the Community Benefits Agreement. Construction-related provisions were included in the CFTP and Bradley West Project using contract specifications and are being implemented during construction. These provisions are also being incorporated into all ongoing Master Plan projects at this time. 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 2010

LAX Residential Soundproofing Program



Background

Los Angeles World Airport's (LAWA) Residential Soundproofing Program (RSP) was established in 1997 to implement the LAX Aircraft Noise Mitigation Program by soundproofing dwelling units in noise impacted areas in the City of Los Angeles. The program covers approximately 9,400 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. This number includes 1,200 resulting from the Community Benefits Agreement calling for the soundproofing of properties within the same block of a previously impacted parcel. These 9,400 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.

The program is on track to be completed by the end of 2012 at a cost of about \$160 million. Two soundproofing demonstration model homes continue to be available to interested homeowners, by appointment, one in Playa del Rey, and another within Council District 8. This Soundproofing Program is fully funded by Passenger Facility Charges (PFCs).

Program Status

Of the 9,400 eligible units, as of December 2010, 6,880 have been soundproofed or are currently undergoing soundproofing. Owners of 144 dwelling units have signed installation documents and await contract award by the Board. Furthermore, approximately 138 units have finalized paper work and will be seeking bids in 2012. In addition owners of 80 units have accepted participation and are waiting for their scopes of work to be designed. However, owners of 756 units have declined or are no longer eligible due to new construction or vacant parcels and the owners of the remaining 1,400 have failed to reply to our mailings.

To date, there have been 127 construction contracts awarded totaling approximately \$122 million.

Project Budget: \$160 million **Project Completion Date:** 2012

Project Spent to date: \$140 million **Project Percent complete:** 90%

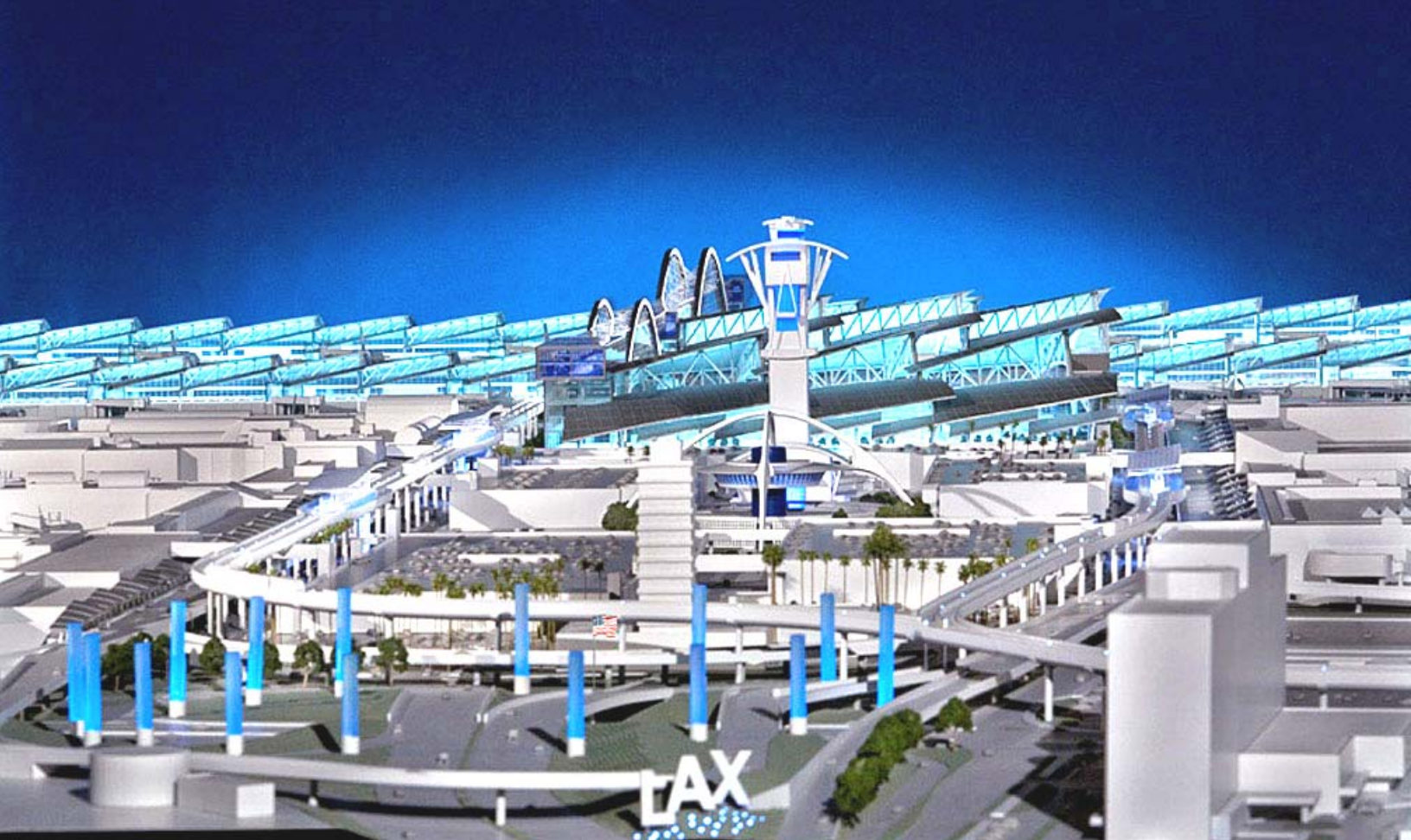
PROJECT COMPLETION PLAN

LAWA has notified (via certified mail) all non-responsive homeowners of the program completion. LAWA anticipates construction will be completed by 2012 for those homeowners who have signed installation agreements.



APPENDIX B

THIRD PARTY MONITOR SEMI-ANNUAL REPORT DATED MAY 16, 2011



Independent Third Party Monitor LAX Master Plan Projects Semiannual Report

Prepared by:



Clean Fuel Connection, Inc.

May 16, 2011

TABLE OF CONTENTS

SECTION 1.	INTRODUCTION	1
SECTION 2.	TASK-BY-TASK STATUS REPORT	3
	Task 1: Best Available Emissions Control Devices Required	3
	Task 2: Demonstration Projects	25
	Task 3: Emission Reduction Standard	26
	Task 4: Exemptions	28
	Task 5: Ultra-Low Sulfur Diesel & Other Fuel	47
	Task 6: Operational Requirements	48
	Task 7: Enforcement Actions by LAWA	51
	Task 8: Reassessments of Emission Control Devices	52
	Task 9: Implementation of Public Complaint Registration Process	55
SECTION 3.	RESULTS & CONCLUSIONS	57
APPENDIX A.	Equipment Databases	

SECTION 1 - INTRODUCTION

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)¹. This Semiannual Report discusses findings of the Third Party Monitor relative to four (4) LAX Master Plan projects that were undergoing construction during the period commencing July 1, 2010 and ending December 31, 2010. These projects include:

- Crossfield Taxiway Project (CFTP, Taxiway R)
- Taxiway S
- Air Rescue & Firefighting Facility (ARFF)
- Bradley West Project (BWP)

CFCI's efforts to date in monitoring, documenting, and reporting on the status of CBA Section X.F as it pertains to LAX Master Plan projects include:

- Development of an Equipment database to include all known equipment utilized in each Master Plan Project, including equipment operating under a 20-day exemption , driver-visibility safety 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;
- 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 construction equipment, including physical inspections to ensure emission control devices are properly installed and functioning;
- On-airfield monitoring of construction equipment operations enforcement, including equipment idling restrictions, fugitive dust emissions, and equipment in an apparent state of disrepair.

The purpose of this Semiannual Report is to document CFCI's efforts as they relate to the accomplishments described above, as well as record the extent to which LAX Master Plan construction activities conform to all requirements incorporated in CBA Section X.F.

¹ <http://www.ourlax.org/comBenefits.cfm>

The CFCI project staff is comprised of the following individuals:

- Enid Joffe, founder and owner of Clean Fuel Connection, Inc.;
- Ray Gorski, lead air quality engineer 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 Master Plan project equipment.

SECTION 2 - 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 microns² in diameter (PM₁₀), 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:

² One micron equals 1×10^{-6} meter or 0.000001 meter.

- 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 July 1, 2010 through December 31, 2010.

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

Key elements of the monitoring process include:

- *Review of available documentation* – The principal source of technical information for each vehicle proposed for operation on the CFTP, Taxiway S, ARFF, and BWP projects are the equipment reports submitted by the construction contractors for review by LAWA project management and environmental management 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 an Equipment Database* – All relevant information derived from review of the equipment reports or field inspections is documented in the 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;

- *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.

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 an LAX Master Plan construction project. To ensure completeness the database incorporates the following data fields:

- *Equipment ID Number* – Most equipment operating on an LAX Master Plan construction project 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 R&L Brosamer;
- *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 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 Model* – The number or other descriptive terminology used by the manufacturer in engine marketing, used to differentiate similar products;
- *Engine Model Year* – The year of manufacture of the diesel engine, diesel emission control devices are often verified for a specific engine model year;
- *Engine Serial Number* – A unique identification number or alphanumeric code assigned by the engine manufacturer;
- *Engine 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 Horsepower* – The rated horsepower of the engine by the engine manufacturer;
- *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 a Master Plan project. For equipment that has been removed, the date of removal is recorded if known. This portion of the database is currently undergoing reconciliation with the results of the airfield equipment inventory.
- 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.

During the period of July 1, 2010 through December 31, 2010, 471 pieces of construction-related equipment were assessed and documented in the Equipment Database. This includes documentation equipment compatibility with available VDECS devices.

A sample of the type of data recorded is shown below in Table 1.1-1:

Table 1.1-1 – Sample of Equipment Database Fields

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Engine Horsepower	Manufacturer	Engine Model Year	Engine Family
369001	ARB, INC.			Mobile Ram		ABI		
111-004	Malcom Drilling	RG 19 T	C16	Drill Rig	630	Bauer	2004	4CPXL15.8EXK
623-9	Fine Grade Equipment	623F	3406C	Scraper	365	Caterpillar	1996	TCP14.RZDBRJ
140-10	Fine Grade Equipment	140H	3306	Motor Grader	150	Caterpillar	1997	VCP10.RZDARF
14-10	Fine Grade Equipment	14H	3306	Motor Grader	215	Caterpillar	1997	VCP10.RZDARG
160-1	Fine Grade Equipment	160H	3306	Motor Grader	180	Caterpillar	1997	VCP10.RZDARG
3414	Griffith	345 BL	3176C	Excavator	290	Caterpillar	1998	WCPXL10.3ERK
140-12	Fine Grade Equipment	140H	3306	Motor Grader	165	Caterpillar	1998	WCPXL10.5MRF
557	La Londe	D6RXL	3306	Crawler Tractor	175	Caterpillar	1998	WCPXL10.5MRF
140-11	Fine Grade Equipment	140H	3306	Motor Grader	165	Caterpillar	1999	XCPXL10.5MRF
TR026	Royal Electric	416C	1907/2200	Backhoe	61	Caterpillar	2000	XcPXL03.9AK1
578	La Londe	330B	3306	Excavator	241	Caterpillar	2000	YCPXL10.5MRG
980-2	Fine Grade Equipment	980G	3406	Rubber Tired Dozer	300	Caterpillar	2000	YCPXL14.6MRJ

452	La Londe	320LC	3066	Excavator	147	Caterpillar	2000	YMVXL06.4AAB
3485	Griffith	TH103	3054T	Telehandler	105	Caterpillar	2000	YXPXL03.9AKI
TD9M65	ECCO Equipment	345	3176	Excavator	322	Caterpillar	2001	1CPXL10.3ESK
479	La Londe	140H	3306	Motor Grader	165	Caterpillar	2001	1CPXL10.5MRF
14-11	Fine Grade Equipment	14H	3306	Motor Grader	215	Caterpillar	2001	1CPXL10.5MRG
3478	Griffith	TH103	3054T	Telehandler	105	Caterpillar	2001	1XPXL03.9AKI
515	La Londe	950GII	3123	Rubber Tired Loader	183	Caterpillar	2002	2CPXL07.2HSX
645	Jason Groom	850	3114	Excavator	483	Caterpillar	2003	352XL15.7EXA
552	La Londe	950GII	3126	Rubber Tired Loader	309	Caterpillar	2003	3CPXL07.2HSL
140-13	Fine Grade Equipment	140H	3176	Motor Grader	222	Caterpillar	2003	3CPXL10.3ESK
140-14	Fine Grade Equipment	140H	3176	Motor Grader	222	Caterpillar	2003	3CPXL10.3ESK

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

The primary objective of this Task is 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 a Master Plan Project. Using the methodology described under Task 1.1, CFCI staff regularly coordinates with LAWA project management, requesting and receiving access to files and records for diesel equipment operating or proposed for operation on a Master Plan project.

Only CARB and/or EPA-verified devices available at the commencement of construction activities on a specific Master Plan project were considered when assessing compliance with CBA Section X.F.1. This is based upon the following language included in 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. 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”*.

At the time of commencement of construction activities on Taxiway R, S, the ARFF, and BWP, multiple diesel emission control devices were verified by CARB for off-road use. CARB assigns a designation to each diesel emission control device as a function of its effectiveness in reducing diesel particulate matter (PM) emissions. This is referred to as the “Verification Level” of the device; CARB currently recognizes three verification levels, as follows:

- Level 1 – greater than or equal to 25% reduction of diesel PM;
- Level 2 – greater than or equal to 50% reduction in diesel PM;
- Level 3 – greater than or equal to 85% reduction in diesel PM.

As shown above, CARB Level 3 offers the highest level of diesel pollution reduction. In accordance with the CBA, the “Best Available Control Technology” (BACT) is Level 3 verification. The following is a brief summary Level 3 verified diesel emission control systems. Additional information is provided on specific devices in subsequent Sections of this Semiannual Report:

Engine Control Systems Combifilter

The ARB has verified Engine Control Systems Combifilter for 2007 or older model year diesel engines used in off-road applications operating on standard ultra low sulfur diesel fuel or bio-diesel (B20). The Combifilter system employs an actively regenerated uncatalyzed diesel particulate filter to achieve an 85 percent reduction in particulate matter emissions, qualifying it for Level 3 verification;

Engine Control Systems Purifilter

The ARB has conditionally verified the Engine Control Systems Purifilter for equipment powered by certain off-road diesel engines with model years between 1996 and 2008. Approved engines are certified to a particulate matter emission level equal to or less than 0.2 grams per brake horsepower-hour, are rated to at least 50 horsepower and at most 750 horsepower, and are not equipped with exhaust gas recirculation systems;

HUSS

The Huss FS-MK filter is verified as a Level 3 Plus diesel emission control system for use with most on-road and off-road diesel engines. The FS-MK series of filters uses a silicon carbide wall-flow filter with a fuel burner for regeneration to achieve an 85 percent reduction in particulate matter emissions. In addition, the HUSS FS-MK filter may also be applied to off-road engines using diesel fuel that contains as much as 20 percent biodiesel.

Caterpillar

The Air Resources Board verified the Caterpillar Diesel Particulate Filter as a Level 3 Plus passively regenerated diesel emission control system for use with all off-road equipment powered by certain off-road diesel engines with model years between 1996 and 2005. Approved engines are certified to a particulate matter emission level equal to or less than 0.2 grams per brake horsepower-hour, are rated to 175 horsepower through 600 horsepower, and are not equipped with exhaust gas recirculation systems.

Claire Allmetal

The Air Resources Board has conditionally verified the Claire Allmetal diesel retrofit system for certain 1996 through 2010 model year diesel engines in both tracked and rubber-tired off-road vehicles. The Allmetal system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the passively regenerated Allmetal system include a diesel oxidation catalyst, a metal diesel particulate filter, and a driver notification and data logging system. The Allmetal system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Claire Lonestar

The Air Resources Board has conditionally verified the Claire Lonestar diesel retrofit system for certain 1996 through 2009 model year diesel engines in rubber-tired off-road vehicles. The Lonestar reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The Lonestar also reduces emissions of oxides of nitrogen (NO_x) by 40 percent. The primary components of the Lonestar include a catalyzed silicon carbide wall-flow filter and a lean NO_x catalyst. The Lonestar system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Claire Phoenix

The Air Resources Board has conditionally verified the Claire Phoenix diesel retrofit system for certain 1996 through 2010 model year diesel engines in rubber-tired off-road vehicles. An on-road certified engine used in rubber-tired off-road vehicles is also included the verification. The Phoenix reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the actively regenerated Phoenix system include a silicon carbide wall-flow filter, an exhaust flow conditioner, a diesel-fueled burner assembly, and a system controller. The

Phoenix system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

DCL MINE-X Sootfilter

The Air Resources Board has verified the DCL Mine-X Sootfilter system for certain 1996 through 2009 model year off-road diesel engines rated to between 100 and 1000 horsepower. The Mine-X Sootfilter system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 Plus system. The primary components of the Mine-X Sootfilter include a catalyzed flow-through filter, a catalyzed diesel particulate filter, and a back pressure monitor.

Teleflex

The Air Resources Board conditionally verified Teleflex's Clear Sky DPF as a Level 3 plus active regenerated diesel emission control system for use with the Comfort Pro APU, powered by select Kubota Z482 diesel engines with model years between 2005 and 2009. Teleflex's Clear Sky DPF uses a silicon carbide wall-flow filter with a heating element for regeneration to achieve an 85 percent reduction in emissions of diesel particulate matter and is compliant with CARB's 2009 nitrogen dioxide standard.

Task 1.2 Results

Each of the 471 pieces of diesel equipment submitted for LAWA project management review were independently assessed to determine their compatibility with a CARB and/or EPA-verified diesel emission control system. The following sections discuss conformance with Task 1.2 for each of the four LAX Master Plan projects monitored during the previous six months.

1.2.1 Crossfield Taxiway Project (CTFP) – The CTFP was completed in July 2010. During CTFP major construction, approximately 35 percent of all diesel equipment operating or identified for potential operation was equipped with a diesel engine compatible with a Level 3 (85 percent particulate matter reduction) off-road Verified Diesel Emission Control System (VDECS).

The Crossfield Taxiway Project (CTFP) is part of the first phase of the LAX Master Plan. Situated west of the Tom Bradley International Terminal, the \$88-million taxiway is 3,437 feet long and wide enough to accommodate the largest commercial planes as they travel between the north and south runway complexes.

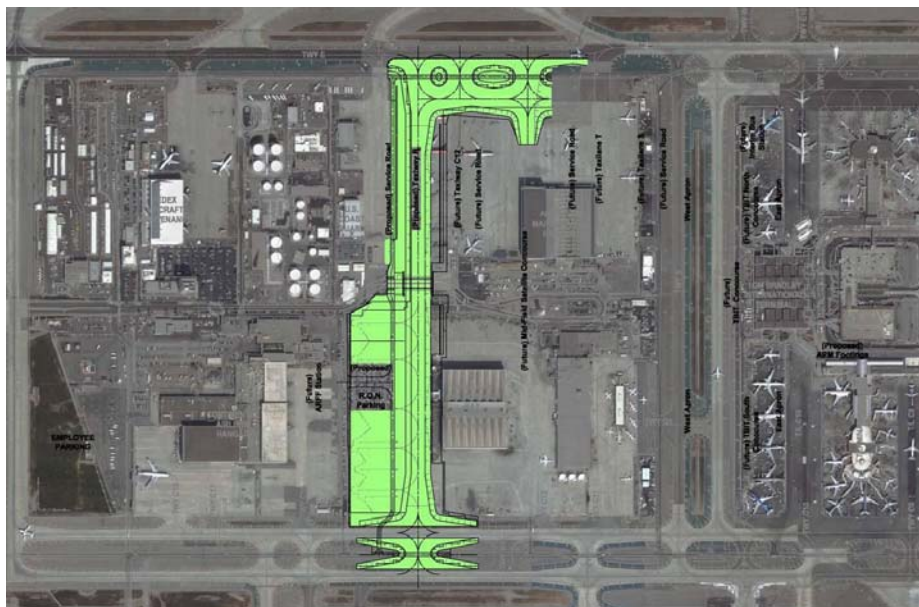


Figure 1.2.1-1: Crossfield Taxiway Project Location at LAX

Construction work included demolishing existing structures, removing existing deteriorated concrete and asphalt pavement; constructing Portland Cement Concrete and asphalt concrete pavement; installing airfield signage and lighting systems and airfield pavement markings; and improving storm drains. The project also realigned the existing World Way West road and constructed two bridges over the road - one for aircraft crossing as part of Taxiway C13 and the other for vehicular traffic. Figure 1.2.1--1, above, shows the project location of the CFTP on the LAX airfield.

Each of the 98 pieces of diesel equipment submitted for LAWA project management review were independently assessed to determine their compatibility with a CARB and/or EPA-verified diesel emission control system.

Of the 98 pieces of equipment assessed, eight (8) were granted an exemption on the basis of safety due to potential equipment operator visibility concerns. The issue of operator visibility has been recently investigated by the Occupational Safety and Health Standards Board (Standards Board) and enforced by the Division of Occupational Safety and Health (Cal/OSHA). A summary of the issues and current CARB guidance is included in this Semiannual Report.

The equipment granted a safety exemption is listed below in Table 1.2.1-1.

Table 1.2.1-1: CFTP Equipment Granted a Safety Exemption

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
30-404	R&L Brosamer, Inc.	Motorgrader	Caterpillar	2004
30-301	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1995
30-401	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1983
24-106	R&L Brosamer, Inc.	Drive Over Unloader		
14-11	R&L Brosamer, Inc.	Motor Grader	Caterpillar	2001
14-010	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1997
16-27	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1989
16-24	R&L Brosamer, Inc.	Motorgrader	Caterpillar	

In addition, twenty-four (24) pieces of equipment were granted an exemption on the basis that the equipment would not be used more than 20 days in a given calendar year. This exemption category is discussed further in Section 4 of this Semiannual Report.

The balance of diesel equipment proposed for operation on the Crossfield Taxiway Project was independently assessed to determine its compatibility with a verified diesel emission control system. Of the 66 remaining pieces of diesel equipment, 35 pieces were deemed compatible with a Level 3 verified diesel emission control system (VDECS).

Of the 35 pieces identified as being compatible with an available Level 3 VDECS, 30 were identified by LAWA contractors as being compatible. Of these 30 pieces of equipment, twenty two (22) pieces have been retrofitted with the HUSS MK system. Eight (8) pieces of equipment have installations pending; this equipment cannot be used on the CFTP until it is retrofitted, unless it is granted an exemption due to safety concerns or the contractor agrees to the terms of the 20-day exemption waiver. CFCI, in performing our independent assessment, identified an additional five (5) pieces of equipment proposed for operation on the CFTP for which a VDECS has not been identified by LAWA contractor staff. According to CARB verification documentation, the five pieces of diesel equipment shown below in Table 1.2.1-2 are compatible with the HUSS MK-Systems Level 3 VDECS:

Table 1.2.1-2: Diesel Equipment for which a VDECS Appears Compatible but was Not Retrofitted

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
980-3	R&L Brosamer, Inc.	Wheel Loader	Caterpillar	2004
623-10	R&L Brosamer, Inc.	Scraper	Caterpillar	1997
LP-008	Royal Electric Co.	Light Plant	Wacker	2002
LP-009	Royal Electric Co.	Light Plant	Wacker	2002
LP-010	Royal Electric Co.	Light Plant	Wacker	2002

The remaining 31 pieces of diesel equipment were assessed and found to not be compatible with a VDECS at the time construction on the CFTP commenced. Recently verified VDECS compatible with this diesel equipment is discussed further in Section 3 Task 8 of this Report.

1.2.2 Air Rescue & Firefighting Facility (ARFF) - The \$13.5-million Aircraft Rescue and Firefighting Facility, also known as Los Angeles Fire Department (LAFD) Station 80, replaces a 25-year-old building that no longer accommodates the size of today's firefighting apparatus and materials nor the increasing volume and nature of operations at LAX associated with larger, new-generation aircraft. The 13-month construction project began in September 2009, was completed on October 21, 2010 and dedicated in November 2010. The new facility is shown in Figure 1.2.2-1, below.

The new ARFF Station 80 is located midway between LAX's north and south airfield complexes with a total four runways and 2,400 feet further west of the passenger terminal area than the former station. Federal Aviation Administration (FAA) regulations require at least one ARFF apparatus capable of arriving at the midpoint of the furthest runway within three minutes. The North and South airfield runways are approximately one mile apart.



Figure 1.2.2-1: Aircraft Rescue & Firefighting Facility (Photo courtesy of Clay Irving)

The ARFF Station 80 was constructed by Tobo Construction, Inc. TOBO submitted to LAWA construction project management a list of diesel construction equipment proposed for utilization during ARFF construction. The list includes the following pieces of diesel equipment:

Table 1.2.2-1: Equipment List for ARFF Construction

Equipment Category	Manufacturer	Equipment Model Number	Engine Model	Engine Serial Number	Engine Horsepower	Engine Displacement (Liters)
Backhoe	Bobcat	S220	V3300	BCS22012D7854S7474	75	2.2
Roller	Bomag	BW177D	BF 4M 2011	BGX899D78X6S	75	2.2
Loader	Caterpillar	416D	3054C	CD5547D8545D2	78	4.4
Compactor	Caterpillar	563E	3056E	CRL87456D85SLS	150	4.4
Backhoe	Case	580	445T/M2	CTX45DS3245DF2	91	4.6
Backhoe	Caterpillar	420D	3054T	CX24K54868	85	4.4
Backhoe	Caterpillar	430D	3054C	DK852S11D47D	94	4.4
Generator	Aurora	AG110	DCA-125USJ	DX-85D47862D90	75	6.8
Roller	Caterpillar	3030	3054T	EX2458CKD8973	25	4.4
Forklift	Gradall	RFL-822	e4045TF275	FXL-78965214S	110	4.5

Loader	Caterpillar	938G	3126B	GD875CL495785	160	6.7
Loader	John Deere	624G	6068T	JDG62547EL547	145	6.8
Manlift	Lift	NR8-Y35	F3M1011	KESHUIE78UI73894	45	1.0
Forklift	Skylift	3606	F3M1011	SK896S24D57D	75	1.0
Boomlift	JLG	460SJ	F3M1011	SKCY834SHJ89D9AF	45	1.0
Boomlift	JLG	460SJ	F3M1011	SKHY826HSI8364FA	49	1.0
Boomlift	JLG	460SJ	F3M1011	SKWX358930DW9AM	45	1.0
Boomlift	JLG	460SJ	F3M1011	SKXU873LDY7909DS	49	1.0
Roller	Sakai	SW350	3LD1	TD45SC125S478	28	2.2
Manlift	Lift	TB-42	F3M1011	TXKSY87E3649	45	1.0
Roller	Ingersoll	DD24	V2203M	XDKK090384HJ32	44	2.2

TOBO Construction, Inc. did not provide the above equipment's CARB engine certification information, specifically the CARB EO engine family designation. As a result, it is not possible to determine each piece of diesel equipment's compatibility with a CARB verified diesel emission control system.

By inspection, however, it appears that approximately ten (10) of the 21 pieces of diesel equipment have very high probabilities of being compatible with a verified diesel emission control device, as follows:

Table 1.2.2-2: Equipment with High Probability of VDECS Compatibility

Equipment Category	Manufacturer	Equipment Model Number	Engine Model	Engine Serial Number	Engine Horsepower	Engine Displacement (Liters)
Loader	Caterpillar	416D	3054C	CD5547D8545D2	78	4.4
Compactor	Caterpillar	563E	3056E	CRL87456D85SLS	150	4.4
Backhoe	Case	580	445T/M2	CTX45DS3245DF2	91	4.6
Backhoe	Caterpillar	420D	3054T	CX24K54868	85	4.4
Backhoe	Caterpillar	430D	3054C	DK852S11D47D	94	4.4
Roller	Caterpillar	3030	3054T	EX2458CKD8973	25	4.4
Forklift	Gradall	RFL-822	e4045TF275	FXL-78965214S	110	4.5
Loader	Caterpillar	938G	3126B	GD875CL495785	160	6.7
Loader	John Deere	624G	6068T	JDG62547EL547	145	6.8
Forklift	Skylift	3606	F3M1011	SK896S24D57D	75	1.0

In lieu of conducting equipment retrofits in accordance with CBA Section X.F.1, TOBO construction sought and was granted by LAWA a 20-day exemption for each piece of equipment included in Table 1-4. In consideration of granting the exemption, TOBO Construction was obligated to maintain and submit

to LAWA records of each piece of equipment's utilization on the airfield. The final listing of equipment and its accrued days of use was submitted in late August 2010. A discussion of the 20-day exemptions granted to the TOBO Construction equipment is included in the Task 4 section of this Report.

1.2.3 Taxiway S - Construction of Taxiway S (Taxiway Sierra) is adjacent to the Crossfield Taxiway Project. Flatiron Construction Company is the prime contractor. Although CFTP and Taxiway S use different prime contractors, the projects did utilize common subcontractors during construction. Thus, vehicle equipment lists for the CFTP and Taxiway Sierra often show the same piece of diesel equipment assigned to both LAX Master Plan Projects.



Figure 1.2.3-1: Taxiway S Under Construction at LAX

A total of 68 pieces of equipment were assessed during Taxiway S construction. The equipment is shown below in Table 1.2.3-1:

Table 1.2.3-1: Equipment List for Taxiway S Construction

Equipment Owner	Equipment Category	Manufacturer	Model Year	Equipment Model Number	Engine Manufacturer
Flatiron	3/4 Ton Pickup	Ford	2006		Ford
Flatiron	3/4 Ton Pickup	Ford	2006		Ford
Flatiron	3/4 Ton Pickup	Ford	2006		Ford
Flatiron	3/4 Ton Pickup	Ford	2006		Ford
Flatiron	3/4 Ton Pickup	Ford	2006		Ford
Flatiron	F450 Pickup	Ford	2008	F450	Ford
Flatiron	F550 Pickup	Ford	2006	F550	Ford
Flatiron	F550 Pickup	Ford	2008	F550	Ford
Flatiron	Fuel/Lube Truck	Peterbilt	2007		Caterpillar
Flatiron	Water Truck	Freightliner	1996	4000 Gallon	N/A
Flatiron	Water Truck	International	2009	2000 Gallon	N/A
Flatiron	Water Truck	International	2009	2000 Gallon	N/A
Flatiron	CNG Sweeper	Tymco	2000	Model 600	N/A
Flatiron	CNG Sweeper	Elgin	2002	Crosswind	N/A
Flatiron	CNG Sweeper	Elgin	2002	Crosswind	N/A
Flatiron	CNG Sweeper	Elgin	2005	Crosswind	N/A
Flatiron	Hydro Crane	Terex	2006	T-340	N/A
Flatiron	Concrete Placer	Gomaco	2002	RTP-500	John Deere
Flatiron	Concrete Paver	Gomaco	2008	2800	Caterpillar
Flatiron	Concrete Paver	Gomaco	2007	4000	Caterpillar
Flatiron	Concrete Cure	Gomaco	2008	TC 600	Caterpillar
Flatiron	Motor Grader	Volvo	2006	G990	Volvo
Rental	Backhoe	Caterpillar	2008		Perkins
Rental	Excavator	John Deere	2004	800C	Izuzu
Rental	Excavator	Caterpillar	2006	345 CL	Caterpillar
Rental	Rubber Tire Backhoe	Caterpillar	2006	446D	Caterpillar
Rental	Tracked Dozer	Caterpillar	2006	D8T	Caterpillar
Rental	Backhoe	John Deere	2006		John Deere
Rental	Tracked Dozer	Caterpillar	2000		Caterpillar
Rental	Excavator	Caterpillar	2001		Mitsubishi
Rental	Motor Grader	Caterpillar	2006		Caterpillar
Rental	Rubber Tire Backhoe	Caterpillar	2006		Caterpillar
Flatiron	Excavator	Caterpillar	2008		Caterpillar
Rental	Manlift	Genie	2008		N/A
Rental	Manlift	Genie	2008		Deutz
Flatiron	Loader	Caterpillar	2004		Caterpillar
Rental	Excavator	Caterpillar	2006		Caterpillar

Rental	Excavator	Caterpillar	2009		Caterpillar
Rental	Excavator	Caterpillar			
Rental	Loader	Caterpillar			
Rental	Skiploader	John Deere			
Rental	Wheeled Dozer	Caterpillar			
Rental	Double Drum Roller	Dynapac			
Rental	Loader	Kamatsu			
Antigo	Breaker	Badger	2007	Badger 8600	Deutz
Antigo	Breaker	Badger	2003	Badger T8600	Cummins
Antigo	Breaker	Badger	2008	Badger T8600	John Deere
Lange		Caterpillar	1994	973	Caterpillar
Lange		Caterpillar	1990	EL300B	Caterpillar
Royal	Compressor	Ingersoll	2007	185 CFM	John Deere
Royal	Compressor	Ingersoll	2007	185 CFM	John Deere
Royal	Light Plant	Wacker	2000	320-4000 LT4	Caterpillar
Royal	Light Plant	Wacker	2000	320-4000 LT4	Caterpillar
Royal	Light Plant	Wacker	2002	LTC4L	Lombardini
Royal	Light Plant	Wacker	2002	LTC4L	Lombardini
Royal	Light Plant	Wacker	2002	LTC4L	Lombardini
Royal	Skid Steer	Bobcat	2006	Bobcat S200	Deutz
Royal	Backhoe	John Deere	2008	410J	John Deere
Royal	Backhoe	John Deere	2008	410 J	John Deere
Royal	Light Duty Pickup	Ford	2002	F250	International
Royal	Light Duty Pickup	Ford	2005	F250	International
Royal	Heavy Duty Pickup	Ford	2005	F650	International
Royal	Light Duty Pickup	Ford	2008	F250	International
Royal	Medium Duty Pickup	Ford	2008	F550	International
Royal	Medium Duty Pickup	Ford	2008	F450	International
Royal	Medium Duty Pickup	Ford	2008	F450	International
Soil Stabilization		Caterpillar	2000	RM350B	Caterpillar
Soil Stabilization		Wirtgen	2006	WR2400	Mercedes Benz
Soil Stabilization		Caterpillar	2001	3406	Caterpillar

Forty two (42) pieces had sufficient documentation provided to allow an independent assessment of compatibility with a CARB-verified diesel emission control device. Equipment that did not have sufficient documentation was primarily medium duty on-road pickup trucks, which received an exemption from LAWA, and rental equipment that was used for a period of less than 20 days, thus earning 20-day exemption status. Also, four (4) pieces of equipment are powered using compressed natural gas (CNG). These are street sweepers used to clean the construction site and adjacent road surfaces as a fugitive dust mitigation measure. The diesel equipment that included sufficient data was

assessed against the CARB database of verified diesel emission control devices. Twenty-three (23) pieces of diesel equipment were found to be compatible with a commercially available device; these are shown below in Table 1.2.3-2:

Table 1.2.3-2: Taxiway S Equipment Compatible with VDECS

Equipment Number	Equipment Owner	Equipment Category	Compatible VDECS						
			Caterpillar DPF	Cleaire Allmetal	Cleaire Phoenix	DCL International Mine-X	ECS Purifilter H	ESW ThermaCat	HUSS FS-MK
32-10-001	Flatiron	Placer	●	●	●	●	●	●	●
32-55-001	Flatiron	Paver				●	●	●	●
Savala B-72	Rental	Backhoe					●		●
RJL JD800	Rental	Excavator				●	●		●
RJL 537	Rental	Excavator				●	●	●	●
Savala B-66	Rental	Backhoe							●
ECCO	Rental	Dozer				●	●	●	●
ECCO #5884	Rental	Dozer				●	●	●	●
Penhall #837	Rental	Grader				●	●	●	●
Savala B-64	Rental	Backhoe							●
13-45-003	Flatiron	Excavator				●	●	●	●
King	Rental	Manlift							●
RJL #706	Rental	Excavator				●	●	●	●
RJL #771	Rental	Excavator		●	●	●	●	●	●
T8616	Antigo	Breaker			●	●	●		●
T8614	Antigo	Breaker					●		●
LP008	Royal	Light Plant							●
LP009	Royal	Light Plant							●
Lp010	Royal	Light Plant							●
TR042	Royal	Backhoe					●		●
TR043	Royal	Backhoe					●		●
358	Soil								●
368	Soil					●	●		●

Seventeen (17) pieces of equipment were determined to be incompatible with any VDECS verified by CARB at the time of Taxiway S construction.

Of the 23 pieces deemed compatible, four (4) had VDECS installed; specifically, a Level 3 CARB verified diesel particulate filter. Five (5) additional vehicles were equipped with Caterpillar ACERT low-emission diesel engines. This equipment is shown below in Table 1.2.3-3:

Table 1.2.3-3: Taxiway S Equipment Retrofitted with VDECS or Low-Emission Engines

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year	Engine Manufacturer	Engine Model	VDECS or Low emission
Savala B-72	Rental	Backhoe	Caterpillar	2008	Perkins	C4.4-ACERT	ACERT
Savala E129	Rental	Excavator	Caterpillar	2001	Mitsubishi	3306	ACERT
13-45-003	Flatiron	Excavator	Caterpillar	2008	Caterpillar	C13	ACERT
RJL #706	Rental	Excavator	Caterpillar	2006	Caterpillar	C13	ACERT
RJL #771	Rental	Excavator	Caterpillar	2009	Caterpillar	C7	ACERT
TR037	Royal	Skid Steer	Bobcat	2006	Deutz	V-33-Di	DPF
TR042	Royal	Backhoe	John Deere	2008	John Deere	4045HT054	DPF
TR043	Royal	Backhoe	John Deere	2008	John Deere	4045HT054	DPF
VH215	Royal	HD Pickup	Ford	2005	International	C7	DPF

The equipment for which a VDECS was compatible but not installed had been granted a waiver by LAWA for one of the following reasons:

1. 20-Day Exemption – Antigo Breakers; Soil Stabilization Equipment;
2. “<50 Horsepower – Royal Electric Light Plants;
3. Driver Visibility – the balance of diesel equipment not retrofitted with a diesel particulate filter or equipped with a low-emission engine was granted an exemption by LAWA on the basis of a potential driver visibility impediment.

Additional detail regarding equipment exemptions is included in under Task 4 of this Semiannual Report.

1.2.4 Bradley West Project – The Bradley West Project will provide greater capacity to Tom Bradley International Terminal's (TBIT) west side with the addition of fifteen (15) new boarding gates to accommodate new-generation aircraft such as the Airbus A380. The facility will include expanded passenger waiting areas and a Great Hall with 140,000 square feet of dining, retail shopping, airline club lounges, and other passenger amenities beyond passenger screening.

The project includes upgraded customs and immigration federal inspection areas for more efficient passenger processing, as well as secured corridors between Terminal 3, TBIT and Terminal 4 so connecting passengers can conveniently go from one terminal to the next.



Figure 1.2.4-1: Bradley West Project Under Construction at LAX

During the period of this Semiannual Report, approximately 284 pieces of diesel construction equipment were assessed relative to their compatibility with a verified diesel emission control system. It is important to note that not all of this equipment will be utilized on any LAX Master Plan construction project. The contractor provides a listing of all potential equipment to be utilized during construction activities. Only a subset of the total equipment list is ultimately brought on the airfield. The Third Party Monitor, however, is obligated to assess all equipment submitted, irrespective of whether or not it is actually utilized. Equipment actually utilized on the Bradley West Project is included in the airfield equipment inventory which is included as an element the July 2011 Semiannual Report.

Of the 284 pieces of equipment assessed, twenty three (23) pieces were missing CARB Executive Order engine family designation information. The engine family number is the primary data used to determine whether or not a verified diesel emission control system is compatible with a diesel engine; thus, in cases where no engine family number was provided, a definitive match with a VDECS could not be accurately performed.

Twenty eight (28) additional pieces of diesel equipment had corresponding engine family designations that were deemed incorrect; in most cases, the data provided was not an actual engine family number. In these cases, a definitive match with a verified diesel emission control system could not be independently made. The third Party Monitor has requested that LAWA obtain correct data from the responsible construction contractor.

In several cases, an engine family designation was provided that had either an obvious error or was correctable with modest additional research. In these cases, CFCI staff was able to correct engine family designations and make a determination as to whether the diesel equipment was compatible with a diesel emission control device.

Each piece of diesel equipment with valid data was correlated against a CARB database of over twenty verified diesel emission control strategies – this is detailed in the Equipment Database:

- Engine Control Systems Combifilter (Off-Road)
- Engine Control Systems Purifilter H (Off-Road)
- Engine Control Systems Purifilter L (On-Road)
- Engine Control Systems Purifilter Plus (On-Road)
- HUSS FS-MK (On and Off-Road)
- DCL International Mine-X Soot Filter (Off-Road)
- CAT Diesel Particulate Filter (Off-Road)
- Cleaire Horizon (On-Road)
- Cleaire Longview (On-Road)
- Cleaire Allmetal (Off-Road)
- Cleaire Lonestar (Off-Road)
- Cleaire Phoenix (Off-Road)
- Teleflex (Off-road)
- ESW ThermaCat (Off-Road)
- Donaldson Low NO₂ (On-Road)
- Donaldson LXF (On-Road)

- Donaldson SEF (On-Road)
- Cleaire Vista On-Road
- Cleaire Longmile On-Road
- Johnson-Matthey ACCERT (On-Road)
- Johnson-Matthey CRT (On-Road)
- Johnson-Matthey EGRT (On-Road)
- SK Energy (On-Road)

In accordance with CBA Section X.F.1, both off-road and on-road diesel emission reduction technologies were evaluated for compatibility with diesel equipment operating on the Bradley West Project. The complete results of the analysis are included in the database.

Of the 284 pieces of diesel equipment included in the database, 233 were sufficiently characterized to determine compatibility with a verified diesel emission control device. Of these 233 pieces of equipment, 220 were found to be compatible with at least one VDECS device; thirteen (13) were initially found to be incompatible with any CARB or EPA-verified device. It should be noted that these vehicles are undergoing additional scrutiny to ensure the CARB engine family designation is correctly recorded; any changes will be noted in the next Semiannual Report. However, it is significant that the majority of equipment operating on the Bradley West Project is technically compatible with a verified diesel emission control system.

One technical issue was identified that required further investigation by the CFCI staff in cooperation with LAWA project management. In several cases, it appears that the prime construction contractor, or their technical representative, misinterpreted the CARB Executive Order (EO) for the HUSS FS-MK diesel emission control device. Specifically, an incorrect EO was used to determine if the device was verified at the time of initiation of construction activities on Bradley West. Because the construction contractor used the incorrect EO, it appeared that the HUSS FS-MK was not technically available at the start of construction activities. In fact, the device was fully verified and available as a Best Available Control Technology option. This issue is more fully discussed under Task 4, "Exemptions".

It is important to emphasize, however, that compatibility between the equipment's diesel engine and a diesel emission control device is not a definitive conclusion that the equipment can be retrofitted. Task 4 will discuss cases in which the equipment has been exempted from the requirement to be retrofitted with

a diesel emission control device due to driver visibility concerns. Other factors influence the requirement to retrofit a specific piece of diesel equipment, including whether or not the equipment's engine is equipped with exhaust gas recirculation (EGR, a NOx reduction emission control), or whether the equipment is granted an exemption due to anticipated low usage, i.e., a "20-day" exemption.

As of December 31, 2010, LAWA records and Third Party Monitor documentation review and onsite observations indicate that a total of twelve (12) pieces of equipment are equipped with a Level 3 VDECS. At least three (3) additional pieces of equipment have installation of a VDECS pending. The balance of equipment is either operating under an approved exemption category or has a verified diesel emission control system compatibility evaluation pending.

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.

No demonstration projects were conducted during the six month period of July 1st through December 31st 2010.

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 microns³ in diameter (PM₁₀), 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.

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 of LAX Master Plan project equipment (Appendix). This database is continually updated with new information collected from LAWA project management staff on behalf of the construction contractors or visual inspection by CFCI. As part of this inventory, the Task 1 effort included an equipment-by-equipment review for applicability of approved Best Available Control Technologies (BACT). Specifically, the equipment listed in this master

³ One micron equals 1x10⁻⁶ meter or 0.000001 meter.

database was compared against all available Verified Diesel Emission Control Systems (VDECS), with first priority given to Level 3 diesel emission reductions.

Not all equipment proposed for operation on the BWP is necessarily used – contractors provide a list of potential needs prior to the start of construction activities. Typically, a subset of this proposed equipment is actually used in construction activities. Also, not all equipment resides on the airfield during the entire project duration; equipment is moved on and off the airfield as construction demands dictate.

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 Purifier 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 device⁴. All VDECS assessed under Task 1 comply with the CARB NO₂ limit requirements.

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.

CFCI is currently evaluating the emission reduction benefits of the air pollution mitigation strategies implemented at the Taxiway S and Bradley West Projects. In addition to the use of VDECS, emission reductions associated with onsite material recycling are being quantified. These results will be included in the next Semiannual Report to be published in July 2011.

⁴ Title 13 CCR section 2706(a)

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 CFTP. 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 five (5) 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. "On-Road" vehicle exemptions;
5. Small displacement engine exemptions.

1.4.1 Crossfield Taxiway Project

Exemptions Granted Due to Unavailability of a Compatible VDECS

The Task 1 Section of this report discusses the 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 CFTP. The provisions of the CBA have been interpreted to only require VDECS commercially available at the time of commencement of CFTP construction. Equipment proposed for operation on the CFTP was assessed for their compatibility with available VDECS. The results are shown in Table 1.4.1-1, below. Equipment in un-shaded cells was determined to not be compatible with a verified diesel emission control technology at the time CFTP construction commenced.

Table 1.4.1-1: Compatibility with Verified Diesel Control System – Shaded Cells are Compatible with a VDECS – Unshaded Cells are not Compatible with a VDECS

Equipment Number	Equipment Owner	Equipment Category
14-401	R&L Brosamer, Inc.	Hydraulic Track Excavator
13-610	R&L Brosamer, Inc.	Wheel Loader
14-402	R&L Brosamer, Inc.	Hydraulic Track Excavator
14-705	R&L Brosamer, Inc.	Hydraulic Track Excavator
14-403	R&L Brosamer, Inc.	Hydraulic Track Excavator
9-002	R&L Brosamer, Inc.	RT Hydraulic Crane
C-23	R&L Brosamer, Inc.	Roller Compactor
45-205	R&L Brosamer, Inc.	Smooth Drum Roller
13-101	R&L Brosamer, Inc.	R/T Forklift
980-2	R&L Brosamer, Inc.	Wheel Loader
980-3	R&L Brosamer, Inc.	Wheel Loader
623-8	R&L Brosamer, Inc.	Scraper
623-10	R&L Brosamer, Inc.	Scraper
762-3	R&L Brosamer, Inc.	Scraper
14-11	R&L Brosamer, Inc.	Motor Grader
14-010	R&L Brosamer, Inc.	Motor Grader
16-27	R&L Brosamer, Inc.	Motor Grader
210-3	R&L Brosamer, Inc.	Skip Loader
C-21	R&L Brosamer, Inc.	Compactor
D6-3	R&L Brosamer, Inc.	Track Dozer
824-1	R&L Brosamer, Inc.	Wheel Dozer
I-85	R&L Brosamer, Inc.	Water Truck
05-109	R&L Brosamer, Inc.	Water Truck
06-017	R&L Brosamer, Inc.	Mechanic Truck

06-018	R&L Brosamer, Inc.	Mechanic Truck
09-002	R&L Brosamer, Inc.	Crane
09-103	R&L Brosamer, Inc.	Crane
13-101	R&L Brosamer, Inc.	Forklift
13-105	R&L Brosamer, Inc.	Forklift
13-110	R&L Brosamer, Inc.	Forklift
13-111	R&L Brosamer, Inc.	Forklift
13-112	R&L Brosamer, Inc.	Forklift
13-117	R&L Brosamer, Inc.	Forklift
13-203	R&L Brosamer, Inc.	Loader
13-607	R&L Brosamer, Inc.	Loader
13-608	R&L Brosamer, Inc.	Loader
14-006	R&L Brosamer, Inc.	Excavator
14-103	R&L Brosamer, Inc.	Backhoe
14-107	R&L Brosamer, Inc.	Backhoe
14-108	R&L Brosamer, Inc.	Backhoe
16-304	R&L Brosamer, Inc.	Cure Machine Pump
20-007	R&L Brosamer, Inc.	Paver
20-009	R&L Brosamer, Inc.	Paver
22-101	R&L Brosamer, Inc.	Cure Machine
24-104	R&L Brosamer, Inc.	Concrete Placer
45-205	R&L Brosamer, Inc.	Compactor
58-022	R&L Brosamer, Inc.	Vacuum Trailer
TR-043	Royal Electric Co.	Backhoe
TR-042	Royal Electric Co.	Backhoe
TR-037	Royal Electric Co.	Skid Steer
VH-257	Royal Electric Co.	2/3 Yard Dump Truck
VH-261	Royal Electric Co.	Flatbed Truck
VH-259	Royal Electric Co.	Flatbed Truck
VH-215	Royal Electric Co.	5-Yard Dump Truck
AC-025	Royal Electric Co.	Air Compressor
AC-026	Royal Electric Co.	Air Compressor
LP-006	Royal Electric Co.	Light Plant
LP-007	Royal Electric Co.	Light Plant
LP-008	Royal Electric Co.	Light Plant
LP-009	Royal Electric Co.	Light Plant
LP-010	Royal Electric Co.	Light Plant
VH-170	Royal Electric Co.	Pickup
VH-211	Royal Electric Co.	Pickup
VH-242	Royal Electric Co.	Pickup
VH-254	Royal Electric Co.	Pickup
LB04U0520	JV Land Clearing Inc.	Excavator
AT-1	Fine Grade Equipment	Articulated Dump Truck
AT-2	Fine Grade Equipment	Articulated Dump Truck
AT-3	Fine Grade Equipment	Articulated Dump Truck

Incompatibility Exemptions

Exemptions Granted Due to Driver Visibility Concerns

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 1.4.1-2, below:

Table 1.4.1-2: CFTP Equipment Granted a Safety Exemption

Equipment Number	Equipment Owner	Equipment Category	Manufacturer	Model Year
30-404	R&L Brosamer, Inc.	Motorgrader	Caterpillar	2004
30-301	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1995
30-401	R&L Brosamer, Inc.	Motorgrader	Caterpillar	1983
24-106	R&L Brosamer, Inc.	Drive Over Unloader		
14-11	R&L Brosamer, Inc.	Motor Grader	Caterpillar	2001
14-010	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1997
16-27	R&L Brosamer, Inc.	Motor Grader	Caterpillar	1989
16-24	R&L Brosamer, Inc.	Motorgrader	Caterpillar	



Figure 1.4.1-1; Motor Graders are Exempted Due to Driver Visibility Safety Concerns

The off-road diesel regulation promulgated by the California Air Resources Board will require many fleets to install exhaust retrofits on their vehicles to reduce emissions. These retrofits often come in the form of large cylinders, which can block an operator's view if installed in an unsuitable location (such as directly in front of a cab window). The Interim Visibility Policy is a joint agreement between the Air Resources Board (ARB) and the California Department of Industrial Relations Division of Occupational Safety and Health (Cal/OSHA) released on October 21, 2009. The Policy states vehicles will be exempt from retrofit requirements if they cannot be retrofit without impairing visibility (i.e. there is no location on the vehicle where a retrofit could be installed without creating visibility impairment to the front, sides, or rear). See Figure 1.4.1-2, below.

Fleets must consider the impact on visibility that would be created by installing a VDECS retrofit device. Manufacturers and installers are often able to identify suitable locations on a vehicle for a retrofit where the retrofit creates no visibility impairment. A description of how to assess equipment operator visibility impairment is available in CARB's Visibility Exemption Guide at: <http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm>

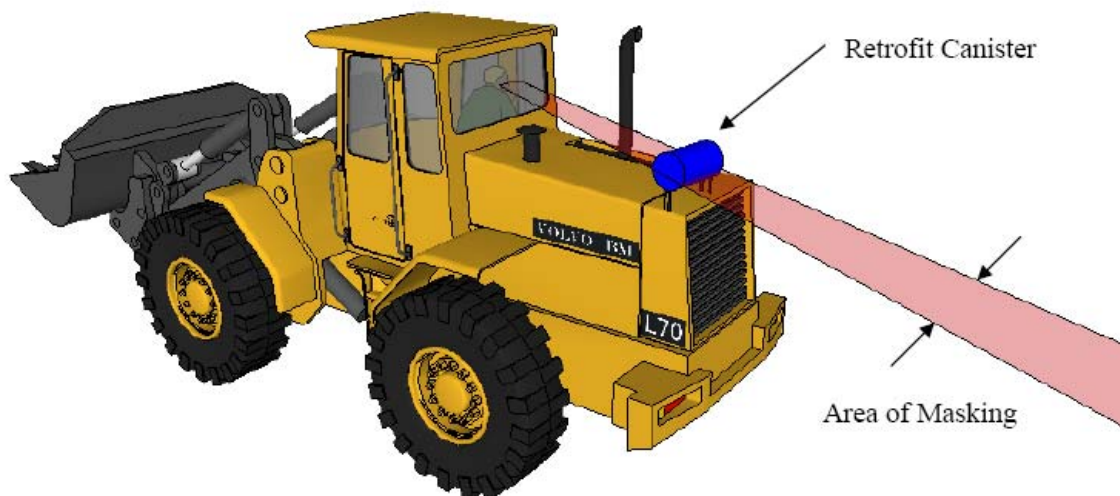


Figure 1.4.1-2: Example of Drive Visibility Impairment Due to Installation of VDECS

Safety exemptions have been granted by LAWA due to equipment operator visibility concerns for one class of equipment to date: motor graders whose engine exhaust pipe, if retrofitted, could potentially limit the operator's rear vision.

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 CFTP under a 20-day exemption:

Table 1.4.1-3: Equipment Operating Under 20-Day Exemption

Equipment Number	Equipment Owner	Equipment Category
58-108	R&L Brosamer, Inc.	Sweeper
58-113	R&L Brosamer, Inc.	Sweeper
23-8	R&L Brosamer, Inc.	Scraper
23-10	R&L Brosamer, Inc.	Scraper
210-03	R&L Brosamer, Inc.	Skip Loader
6323-5	R&L Brosamer, Inc.	Scraper
354	R&L Brosamer, Inc.	Reclaimer
358	R&L Brosamer, Inc.	Reclaimer
A-1	Antigo	Concrete Breaker
N/A	Diversified Concrete	Concrete Cutting Machine
N/A	JV Land Clearing Inc.	Loader
350-1	Fine Grade Equipment	Excavator
FL-005	Royal Electric Co.	Forklift
TL-049	Royal Electric Co.	Vacuum Trailer
TN-012	Royal Electric Co.	Trencher
TR-033	Royal Electric Co.	Loader
VH-094	Royal Electric Co.	Water Truck
VH-106	Royal Electric Co.	Dump Truck
VH-119	Royal Electric Co.	Flatbed Truck
VH-134	Royal Electric Co.	Flatbed Truck
VH-213	Royal Electric Co.	Flatbed Truck
VH-215	Royal Electric Co.	Dump Truck
VH-216	Royal Electric Co.	Ford F550 Pickup
VH-224	Royal Electric Co.	Flatbed Truck

On-Road Vehicle Exemptions

A number of on-road vehicles owned and operated by the primary construction contractors, as well as independent truck drivers, 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 not to require an on-road VDECS to be installed on vehicles that work on the airfield construction site, whether or not the vehicle is licensed to operate on the highway. This practice appears in some cases contrary to Section X.F.1 of the CBA.

Small Displacement Engine Exemption

Similar to on-road vehicle exemptions, LAWA has also granted the construction contractors exemptions for certain types of off-road construction equipment.

Currently, small displacement diesel equipment with horsepower ratings less than 50 hp have been granted exemptions. This includes equipment such as light towers that use a stationary diesel generator to provide electricity for the high intensity lights and air compressors. In three specific cases, verified diesel emission control systems are available for this class of equipment – these include light towers equipped with engines deemed compatible with the HUSS MK- System Level 3 VDECS.

1.4.2 Aircraft Rescue and Firefighting Facility (ARFF)

20-Day Exemptions

As discussed in Section 1, all diesel equipment operated during ARFF construction was done so under the provision of CBA Section X.F.4 (ii). The construction contractor, TOBO Construction, Inc. was required to submit equipment use records to LAWA project management staff documenting each piece of equipment's total accrued days of use throughout the 13-month construction period.

Because the ARFF was a relative small project that did not involve significant earth moving or large areas of concrete pouring, the number of pieces of heavy duty diesel construction equipment was much less as compared to other LAX Master Plan projects. The listing of equipment used during ARFF construction, as well as the total days of operation throughout the construction period is shown below in Table 1.4.2-1:

Table 1.4.2-1: All ARFF Equipment Operated Under a 20-Day Exemption

Equipment Owner	Equipment Category	Manufacturer	Equipment Model Number	Engine Model	Total Days at ARFF Construction Site
TOBO Construction	Backhoe	Bobcat	S220	V3300	10
TOBO Construction	Roller	Bomag	BW177D	BF 4M 2011	9
TOBO Construction	Loader	Caterpillar	416D	3054C	2
TOBO Construction	Compactor	Caterpillar	563E	3056E	9
TOBO Construction	Backhoe	Case	580	445T/M2	6
TOBO Construction	Backhoe	Caterpillar	420D	3054T	4
TOBO Construction	Backhoe	Caterpillar	430D	3054C	15
TOBO Construction	Generator	Aurora	AGI10	DCA-125USJ	9
TOBO Construction	Roller	Caterpillar	3030	3054T	9
TOBO Construction	Forklift	Gradall	RFL-822	e4045TF275	12
TOBO Construction	Loader	Caterpillar	938G	3126B	9
TOBO Construction	Loader	John Deere	624G	6068T	9
TOBO Construction	Manlift	Lift	NR8-Y35	F3M1011	4
TOBO Construction	Forklift	Skylift	3606	F3M1011	10
TOBO Construction	Boomlift	JLG	460SJ	F3M1011	8
TOBO Construction	Boomlift	JLG	460SJ	F3M1011	8
TOBO Construction	Boomlift	JLG	460SJ	F3M1011	12
TOBO Construction	Boomlift	JLG	460SJ	F3M1011	8
TOBO Construction	Roller	Sakai	SW350	3LD1	4
TOBO Construction	Manlift	Lift	TB-42	F3M1011	4
TOBO Construction	Roller	Ingersoll	DD24	V2203M	9

1.4.3 Taxiway S

Exemptions Granted Due to Unavailability of a Compatible VDECS

Each piece of diesel equipment for which sufficient data was provided was compared to the CARB database to determine compatibility with a verified diesel emission control system. Seventeen pieces of equipment were found to be incompatible with any commercially available VDECS device:

Table 1.4.3-1: Equipment Not Compatible with a Diesel Emission Control System (VDECS) Device

Equipment Number	Equipment Owner	Equipment Category	Equipment Model Number	Engine Manufacturer	Exemption Status
32-50-002	Flatiron	Concrete Paver	2800	Caterpillar	No VDECS matches
32-61-004	Flatiron	Concrete Cure	TC 600	Caterpillar	No VDECS matches
RJL #683	Rental	Backhoe		John Deere	No VDECS matches
Savala E129	Rental	Excavator		Mitsubishi	No VDECS matches
37-50-037	Flatiron	Loader		Caterpillar	No VDECS matches
AC025	Royal	Compressor	185 CFM	John Deere	No VDECS matches
AC026	Royal	Compressor	185 CFM	John Deere	No VDECS matches
LP006	Royal	Light Plant	320-4000 LT4	Caterpillar	No VDECS matches
LP007	Royal	Light Plant	320-4000 LT4	Caterpillar	No VDECS matches
TR037	Royal	Skid Steer	Bobcat S200	Deutz	No VDECS matches
354	Soil Stab.		3406	Caterpillar	No VDECS matches

20-Day Exemptions

Several pieces of equipment were also granted an exemption because of low usage during Taxiway S construction. These vehicles and equipment are shown below in Table 1.4.3-2:

Table 1.4.3-2: Taxiway S Equipment Operated Under a 20-Day Exemption

Equipment Number	Equipment Owner	Equipment Category	Equipment Model Number	Engine Manufacturer	Exemption Status
93-26-012	Flatiron	Fuel/Lube Truck		Caterpillar	20 Day Exemption
Mr. Crane #38	Flatiron	Hydro Crane	T-340	N/A	20 day Exemption
18-40-005	Flatiron	Motor Grader	G990	Volvo	20 day Exemption
T8616	Antigo	Breaker	Badger 8600	Deutz	20 Day Exemption
T8610	Antigo	Breaker	Badger T8600	Cummins	20 Day Exemption
T8614	Antigo	Breaker	Badger T8600	John Deere	20 Day Exemption
	Lange		973	Caterpillar	20 Day Exemption
	Lange		EL300B	Caterpillar	20 Day Exemption
358	Soil Stab.		RM350B	Caterpillar	20 Day Exemption
368	Soil Stab.		WR2400	Mercedes Benz	20 Day Exemption

On-Road Vehicle Exemptions and Small Displacement Engine Exemptions

As previously discussed within this Report, LAWA granted exemptions to on-road equipment and vehicles as well as equipment with engines less than or equal to 50 horsepower. Thus, all pickup trucks, light towers, air compressors, etc. used during Taxiway S construction were not required to be retrofitted with a BACT diesel emission control device:

Table 1.4.3-3: Taxiway S Equipment Operated Under an On-Road or Small displacement Exemption

Equipment Number	Equipment Owner	Equipment Category	Equipment Model Number	Engine Manufacturer
92-20-182	Flatiron	3/4 Ton Pickup		Ford
92-20-186	Flatiron	3/4 Ton Pickup		Ford
92-20-194	Flatiron	3/4 Ton Pickup		Ford
92-25-129	Flatiron	3/4 Ton Pickup		Ford
92-25-131	Flatiron	3/4 Ton Pickup		Ford
93-10-131	Flatiron	F450 Pickup	F450	Ford
93-21-020	Flatiron	F550 Pickup	F550	Ford
93-21-027	Flatiron	F550 Pickup	F550	Ford
Water Tech	Flatiron	Water Truck	4000 Gallon	N/A
UNI #2	Flatiron	Water Truck	2000 Gallon	N/A
UNI #1	Flatiron	Water Truck	2000 Gallon	N/A
AC025	Royal	Compressor	185 CFM	John Deere
AC026	Royal	Compressor	185 CFM	John Deere
LP006	Royal	Light Plant	320-4000 LT4	Caterpillar
LP007	Royal	Light Plant	320-4000 LT4	Caterpillar
LP008	Royal	Light Plant	LTC4L	Lombardini
LP009	Royal	Light Plant	LTC4L	Lombardini
Lp010	Royal	Light Plant	LTC4L	Lombardini
VH170	Royal	Light Duty Pickup	F250	International
VH211	Royal	Light Duty Pickup	F250	International
VH215	Royal	Heavy Duty Pickup	F650	International
VH254	Royal	Light Duty Pickup	F250	International
VH257	Royal	Med Duty Pickup	F550	International
VH259	Royal	Med Duty Pickup	F450	International
VH261	Royal	Med Duty Pickup	F450	International

1.4.4 Bradley West Project

As noted in Section 1.2.4, approximately 220 pieces of diesel equipment were either granted exemptions from being retrofitted with a CARB or EPA verified device, or were undergoing a compatibility determination as of December 31, 2010. Diesel equipment proposed for operation on the Bradley West Project that has been granted an exemption by LAWA is discussed in the following paragraphs.

Exemptions Granted Due to Unavailability of a Compatible VDECS

Approximately eight (8) pieces of diesel equipment evaluated by the Third Party Monitor were determined to not be compatible with a CARB or EPA-verified diesel emission control device, as shown below in Table 1.4.4-1:

Table 1.4.4-1: Diesel Equipment Not Compatible with a Diesel Emission Control Device

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Manufacturer	Engine Model Year	Engine Family
105G	Pacific Boring	TAD1353GE		Generator	Volvo	2009	9VPXL12.8BCA
A9	Pacific Boring	TCD914L06		Boring Machine 48" A/Auger	Deutz	2007	7DZXK06.5074
140	Pacific Boring	C7		Grove RT740 Crane	Caterpillar	2008	8CPXL7.2ESL
762	La Londe	710J	6068HT067	Loader Backhoe	John Deere	2009	9JDXL06.8105
VH252	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH256	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH258	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
C6	Concrete Coring	F550	N/A	On-Road Truck	Ford	2008	BNVXH06.4AGC

A technical issue was identified that required discussion between the Third Party Monitor and LAWA project management. In approximately seven (7) cases, the prime construction contractor, or their technical representative, misinterpreted the CARB EO for the HUSS FS-MK diesel emission control device. Specifically, an incorrect EO date was used to determine if the device was verified at the time of initiation of construction activities on Bradley West.

Manufacturers of diesel emission control systems often seek CARB authority to expand the number of engines or model years for which the device is verified. When a device is approved by CARB for use on additional engine families or engine family model years, CARB issues an updated EO to reflect this expanded compatibility. The new EO supersedes the prior EO and is valid as of the date executed.

The HUSS FS-MK diesel emission control system received an updated EO on February 1, 2009. Because this date was subsequent to the contract date for the construction company, the HUSS FS-MK device was not deemed eligible as a Best Available Control Technology, citing the interpretation of the CBA to include only CARB and/or EPA-verified devices available at the commencement of construction activities.

In the case of the HUSS FS-MK device, however, the construction contractor did not properly interpret the CARB Executive Order hierarchy. While it is true that approval of the most current HUSS FS-MK Executive Order occurred after the commencement of construction activities, a previous HUSS Executive Order was in effect at that time. Thus, the construction contractor should have utilized the prior Executive Order to determine if a given piece of diesel construction equipment was or was not compatible. In approximately nine cases the Third Party Monitor determined that the diesel equipment was compatible with the HUSS device and that a valid Executive Order was in effect at the commencement of construction activities, but was granted an incompatibility waiver based upon a subsequent Executive order date. The equipment deemed compatible is listed below in Table 1.4.4-2:

Table 1.4.4-2: Equipment Granted Incompatibility Exemption

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Manufacturer	Engine Model Year	Engine Family
	King	RS6-42	6,000 lb. Telescoping Forklift	Forklift	Gehl	2006	6JDXL06.8082
GP1	Pacific Boring	V2203		Grout Pump (Strong)	Kabota	2002	YKBL02.2FCD
GP2	Pacific Boring	BF4L1011F		Grout Pump (Swing)	Deutz	2003	3DZXL02.7014
GBM	Pacific Boring	4045TF270		Power Motor	John Deere	2005	5JDXL04.45057
GBM PUMP	Pacific Boring	1B30-X		Bentonite Tank	Hutz	2005	4HZXL.347V30
E-141	Savala	ZX300LC	C9	Excavator	Hitachi	2005	5SZXL08.8EXA
E-149	Savala	PC228	SAA6D114E-2	Excavator	Komatsu	2008	8KLXL0409AAC

The Third Party Monitor discussed this issue with CARB, and CARB did confirm that the diesel equipment in question was compatible with the HUSS system. However, it was also noted that EOs can be confusing; thus, in this case, it appears the incompatibility determination was inadvertent based on a misunderstanding of the CARB process.

The Third Party Monitor also discussed this issue with the LAWA project management staff. It was agreed that the best course of action was to educate involved parties regarding this issue in an effort to avoid similar occurrences in the future.

It should be noted, however, that this equipment may be eligible for an exemption under another CBA Section X.F.4 provision. For example, it is likely the excavators shown in Table 1.4.4-2 would have been granted a safety exemption due to the potential impact a VDECS could have on driver visibility.

20-Day Exemptions

As of December 31st 2010, one piece of diesel construction equipment had been formally granted a 20-day exemption, as shown below:

Table 1.4.4-3: Equipment Granted a “20-Day” Exemption

Equipment Number	Equipment Owner	Equipment Model Number	Equipment Category	Engine Horsepower	Manufacturer	Engine Model Year	Engine Family
A8	Pacific Boring	BF4M1013	Boring Machine 48" A/Auger	112	Deutz	2000	YDZXL07.1005

However, it is anticipated that additional specialty equipment will be granted 20-day exemption status during the construction of the Bradley West Project. The Semiannual Report scheduled for publication in July 2011 will document any additional equipment operating under this exemption provision.

Safety Exemptions

Multiple pieces of diesel equipment were exempted from the requirement to install a diesel emission control device due to safety considerations, specifically the potential that the device would impair the equipment operator’s line of sight visibility. As discussed in previous sections of this Semiannual Report, motor graders have been granted a categorical exemption based on safety for all LAX Master Plan projects implemented to date. Diesel equipment that has been granted a safety exemption is listed below in Table 1.4.4-4.

Table 1.4.4-4: Diesel Equipment Granted a Safety Exemption

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Manufacturer	Engine Model Year	Engine Family
623-9	Fine Grade Equipment	623F	3406C	Scraper	Caterpillar	1996	TCP14.RZDBRJ
D6-3	Fine Grade Equipment	D6	3126B	Crawler Tractor	Caterpillar	2004	4CPXL07.2HSK
B-71	Savala	450E	C404/ACERT	Backhoe	Caterpillar	2007	7PKXL04.4NJ1
3575	Griffith	450E	C4.4 ACERT	Backhoe	Caterpillar	2008	8PKXL04.4NJ1

623-10	Fine Grade Equipment	623F	C15	Scraper	Caterpillar	2009	9CXL15.2ESW
L-64	Savala	WA380-5L	SAA6D114E-2	Wheel Loader	Komatsu	2003	3KLXL0505ABD
623-5	Fine Grade Equipment	623B	3406	Scraper	Caterpillar	1983	1263NA020
623-8	Fine Grade Equipment	623E	3406	Motor Grader	Caterpillar	1991	1347NA011
623-11	Fine Grade Equipment	623F	3406	Scraper	Caterpillar	1995	1263NA
140-10	Fine Grade Equipment	140H	3306	Motor Grader	Caterpillar	1997	VCP10.RZDARF
14-10	Fine Grade Equipment	14H	3306	Motor Grader	Caterpillar	1997	VCP10.RZDARG
160-1	Fine Grade Equipment	160H	3306	Motor Grader	Caterpillar	1997	VCP10.RZDARG
140-12	Fine Grade Equipment	140H	3306	Motor Grader	Caterpillar	1998	WCPXL10.5MRF
140-11	Fine Grade Equipment	140H	3306	Motor Grader	Caterpillar	1999	XCPXL10.5MRF
479	La Londe	140H	3306	Motor Grader	Caterpillar	2001	1CPXL10.5MRF
14-11	Fine Grade Equipment	14H	3306	Motor Grader	Caterpillar	2001	1CPXL10.5MRG
140-13	Fine Grade Equipment	140H	3176	Motor Grader	Caterpillar	2003	3CPXL10.3ESK
140-14	Fine Grade Equipment	140H	3176	Motor Grader	Caterpillar	2003	3CPXL10.3ESK
551	La Londe	140H	3176	Motor Grader	Caterpillar	2003	3CPXL10.3ESK
553	La Londe	140H	3176	Motor Grader	Caterpillar	2003	3CPXL10.3ESK
3473	Griffith	140H	3176C	Motor Grader	Caterpillar	2004	4CPXL10.3ESK
3486	Griffith	140H	3176C	Motor Grader	Caterpillar	2004	4CPXL10.3ESK
16-21	Fine Grade Equipment	16G	3406	Motor Grader	Caterpillar	1979	1263NA023
16-27	Fine Grade Equipment	16G	3406	Motor Grader	Caterpillar	1988	1263NA028
16-19	Fine Grade Equipment	16G	3406	Motor Grader	Caterpillar	1990	1347NA017
16-22	Fine Grade Equipment	16G	RM736	Motor Grader	Caterpillar	2007	
16-24	Fine Grade Equipment	16G	RM736	Motor Grader	Caterpillar	2007	

On-Road Vehicle Exemptions and Small Displacement Engine Exemptions

On-road vehicles and equipment have for the most part been granted a categorical exemption by LAWA. It should be noted that for the majority of the vehicles listed in Table 1.4.4-5 at least one CARB verified diesel emission control system does exist and is compatible as it pertains to the requirements stipulated by the CARB Executive Order.

Royal Electric (Equipment ID numbers VH257, VH259, and VH261) and Griffith (Equipment ID 3572) were granted an exemption due to these vehicles being equipped with exhaust gas regeneration (EGR).

Table 1.4.4-5: On-Road Vehicles & Equipment Granted a Categorical Exemption

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Manufacturer	Engine Model Year	Engine Family
500	Robertson's	357	TBD	Concrete Truck	Pete	2004	
766	Robertson's	357	ISC 315	Concrete Truck	Pete	2004	
721	Robertson's	357	ISC 315	Concrete Truck	Pete	2005	
N/A	Goss Construction	Silverado 3500	N/A	On-Road Truck	Chevrolet	2006	
N/A	Goss Construction	F450	N/A	On-Road Truck	Ford	2000	
N/A	Goss Construction	F450	7.3	On-Road Truck	Ford	2000	
VH134	Royal Electric	F450 XL	TBD	On-Road Truck	Ford	2000	
I-85	Fine Grade Equipment	VALEW 7400	MAXXFORCE DT	Water Truck	International	2009	
VH119	Royal Electric	F450 XL	TBD	On-Road Truck	Ford	1999	XNVXH07.3ANE
N/A	Goss Construction	F650	N/A	On-Road Truck	Ford	2000	WCOXH0442HSK
VH128	Royal Electric	F450 XL	B235	On-Road Truck	Ford	2000	YNVXH07.3ANA
VH129	Royal Electric	F450 XL	B235	On-Road Truck	Ford	2000	YNVXH07.3ANA
VH170	Royal Electric	F250XL	B250CF	On-Road Truck	Ford	2002	2NVXH07.3ANC
VH186	Royal Electric	F450XL	A325	On-Road Truck	Ford	2003	3NVXH06.0AEA
C-3	Concrete Coring	F550	N/A	On-Road Truck	Ford	2004	3NVXH06.0AEA
C-34	Concrete Coring	F550	N/A	On-Road Truck	Ford	2004	4sZXH06.64AA

VH274	Royal Electric	F750	ISB 215	On-Road Truck	Ford	2005	4CEXH0359BAG
VH215	Royal Electric	F650	C7	On-Road Truck	Ford	2005	5CPXH0442HBK
VH254	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	6NVXH06.4AGC
VH252	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH170	Royal Electric	F-250 XL	B250CF	On-Road Truck	Ford	2002	2NVXH07.3ANC
VH213	Royal Electric	F450 XL	A325	On-Road Truck	Ford	2005	5NVXH06.0AEC
VH216	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2005	5NVXH06.0AEC
VH205	Royal Electric	F250XK	A325C	On-Road Truck	Ford	2005	5NVXH06.0AED
VH210	Royal Electric	F250 XL	A325C	On-Road Truck	Ford	2005	5NVXH06.0AED
VH224	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2006	6NVXH06.0AEC
VH225	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2006	6NVXH06.0AEC
VH237	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2007	6NVXH06.0AEC
VH242	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	6NVXH06.4AGC
VH256	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH258	Royal Electric	F250 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH257	Royal Electric	F550 XL	A325	On-Road Truck	Ford	2008	6NVXH06.4AGA
VH259	Royal Electric	F450 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
VH261	Royal Electric	F450 XL	A325	On-Road Truck	Ford	2008	7NVXH06.4AGA
C6	Concrete Coring	F550	N/A	On-Road Truck	Ford	2008	BNVXH06.4AGC
VH116	Royal Electric	FL-70	3126	On-Road Truck	Freightliner	1995	SCP442DzDARK
3572	Griffith	M2	OM926LA	Flat Bed Truck	Freightliner	2006	6MBXH7.20DJA
264027	ARB, INC.	10K Reachlift RCH	QSB4.5	10K Reachlift	JLG	2007	7CEXL02.75AAG
3570	Griffith	G10-55A	3472/2400	Telehandler	JLG	2007	7PKXL04.4NJ1
351	Robertson's	357	ISC 315	Concrete Truck	Pete	2004	2CEXH0505CAX
608	Robertson's	357	ISC 315	Concrete Truck	Pete	2004	4CEXH0505CAR
T-22	Savala	330	ISC260	Water	Pete	2004	4CEXH0505CAS

T-23	Savala	330	ISC260	Water Truck	Pete	2004	4CEXH0505CAS
147	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
171	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
722	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
179	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
148	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
146	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
682	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
652	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
142	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
143	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
141	Robertson's	357	ISC 315	Concrete Truck	Pete	2006	5CEXH0505CAX
1078	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	5CEXH0505CAX
1118	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1024	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1112	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1080	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1081	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1095	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1082	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1079	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1030	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1144	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1027	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1105	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1083	Robertson's	357	ISC 315	Concrete	Pete	2007	6CEXH0505CAX

1140	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1093	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1139	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1029	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1054	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1137	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1053	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1142	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1047	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1156	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1143	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1145	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1138	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX
1141	Robertson's	357	ISC 315	Concrete Truck	Pete	2007	6CEXH0505CAX

In addition, LAWA granted an exemption to diesel equipment with a horsepower rating of less than or equal to 50 hp; this equipment is listed below in Table 1.4.4-6:

Table 1.4.4-6: Equipment Less than 50 hp was Granted an Exemption from the CBA BACT Requirements

Equipment Number	Equipment Owner	Equipment Model Number	Engine Model	Equipment Category	Manufacturer	Engine Model Year	Engine Family
LP003	Royal Electric	MH400	D-850	Light Plant	Coleman	1990	
LP004	Royal Electric	LT4	3LB1/PV.04	Light Plant	Wacker	1999	JOZ1.1U6D2RA
LP007	Royal Electric	320-4000 LT4	3LB1	Light Plant	Wacker	2000	Y3ZXX01.1WNA
LP006	Royal Electric	320-4000 LT4	3LB1	Light Plant	Wacker	2000	YSZXS01.1WNA
LP008	Royal Electric	LTC4L	LDW 1003	Light Plant	Wacker	2002	2LBDL.916F69

LP009	Royal Electric	LTC4L	LDW 1003	Light Plant	Wacker	2002	2LBDL.916F69
LP010	Royal Electric	LTC4L	LDW 1003	Light Plant	Wacker	2002	2LBDL.916F69
482098	ARB, INC.			Air Compressor			
482132	ARB, INC.			Air Compressor			
534003	ARB, INC.			Pump			
534033	ARB, INC.			Pump			
RLF1488	ARB, INC.			Light Plant			
AC021	Royal Electric	P185 WJD	4024-TF-150B	Compressor	Ingersoll Rand	1999	XJDXL06.8016
AC022	Royal Electric	P185 WJD	4024-TF-150B	Compressor	Ingersoll Rand	2000	XJDXL06.8016
AC025	Royal Electric	P185 WJDR	4024-TF-270	Compressor	Ingersoll Rand	2007	7JDXL02-4090
AC026	Royal Electric	P185 WJDR	4024-TF-270	Compressor	Ingersoll Rand	2007	7JDXL02-4090
CB1	Concrete Coring	N/A	N/A	Air Compressor	John Deere	2000	YJDXL06.8016
CB6	Concrete Coring	N/A	N/A	Air Compressor	John Deere	2000	YJDXL06.8016

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.

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 LAX Master Plan projects, CFCI has requested 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.

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 state 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”.*

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.

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.

Vehicle and Equipment Idling – The Environmental Requirements for the Bradley West Project prohibit construction vehicles and equipment from excessive idling in accordance with the restrictions defined in the CARB Vehicle Idling Rule⁵. 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;

⁵ www.arb.ca.gov/toxics/idling/regtext.htm

- 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 LAWA extends the CARB idling restrictions to off-road vehicles and equipment operating in conjunction with BWP construction. 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.

It is the observation of the Third Party Monitor, and confirmed by LAWA project management, that excessive idling is less of an issue as compared to previously implemented LAX Master Plan projects such as the South Airfield Improvement Project (SAIP). The CARB anti-idling rule has been in place long enough that most vehicle and equipment operators are aware of its existence. Also, due to the price of diesel fuel, it is cost-effective to turn the vehicle engine off when not needed.

The limited amount of necessary enforcement of excessive idling restrictions 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. In discussion with LAWA project management, the policy of issuing a warning has worked successfully and there have been no documented repeat offenders. According to LAWA project management, during the period of July 1st through December 31st 2010 the average occurrence rate for excessive idling is less than one incident per week.

Equipment Maintenance Records – The CBA 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 is awaiting receipt of vehicle maintenance records.

LAWA project management and the Third Party Monitor also conduct regular visual inspections of diesel equipment operating on LAX Master Plan projects, looking for excessive exhaust soot or other indications that the equipment is in a state of disrepair. During the reporting 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 was removed, repaired, and returned to service. This action is also discussed under Task 7, Enforcement by LAWA.

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”.

Section 9, below, discusses one (1) enforcement action taken by LAWA in response to a public complaint to the South Coast Air Quality Management District (AQMD) regarding the concrete crushing component of the batch plant. This complaint has been investigated by LAWA project management and remedied. No formal Notice of Violation was issued by the AQMD, and LAWA did not levy any fine or other formal actions upon any construction contractor.

During the period of July 1st through December 31st 2010, LAWA project management and environmental contract staff did not levy any fines against a Master Plan project construction

contractor. LAWA did, however, take informal actions on multiple occasions to correct activities not in keeping with CBA obligations, but deemed insufficiently serious to warrant formal enforcement or fines.

Examples of informal enforcement actions taken by LAWA, and reported to the Third Party Monitor, include the following:

- Vehicle and Equipment Excessive Idling – infrequently, LAWA project management and environmental contractor staff identify a vehicle that appears to be idling in excess of the five (5) minute maximum. In these cases, the driver has been instructed to turn off the vehicle engine, and is also made aware of the idling restrictions enforced on LAX construction projects. Individuals are also instructed that a repeat offense may result in a fine;
- On the ARFF Project, LAWA project management issued one verbal warning to a delivery driver who inadvertently violated the curfew against construction deliveries prior to 9:00 am;
- One (1) piece of construction equipment was verbally cited for emitting excessive smoke. According to LAWA project management staff, this vehicle was voluntarily removed from service by the owner, repaired, and subsequently returned to service. Upon return to service, it was determined that the vehicle was in compliance. LAWA did not record the vehicle identification number and apparently no formal documentation exists pertaining to this enforcement action.

No enforcement actions were required for noise violation or fugitive dust emissions.

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...”*

In the time since equipment reports were originally submitted for LAWA review and approval, two (2) new diesel emission control systems have earned CARB Level 3 verification off-road diesel vehicles and equipment, and four (4) systems have earned Level 3 conditional off-road verification. These new devices are summarized below:

Caterpillar

The Air Resources Board verified the Caterpillar Diesel Particulate Filter as a Level 3 Plus passively regenerated diesel emission control system for use with all off-road equipment powered by certain off-road diesel engines with model years between 1996 and 2005. Approved engines are certified to a particulate matter emission level equal to or less than 0.2 grams per brake horsepower-hour, are rated to 175 horsepower through 600 horsepower, and are not equipped with exhaust gas recirculation systems.

Cleaire Allmetal

The Air Resources Board has conditionally verified the Cleaire Allmetal diesel retrofit system for certain 1996 through 2010 model year diesel engines in both tracked and rubber-tired off-road vehicles. The Allmetal system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the passively regenerated Allmetal system include a diesel oxidation catalyst, a metal diesel particulate filter, and a driver notification and data logging system. The Allmetal system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Cleaire Lonestar

The Air Resources Board has conditionally verified the Cleaire Lonestar diesel retrofit system for certain 1996 through 2009 model year diesel engines in rubber-tired off-road vehicles. The Lonestar reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The Lonestar also reduces emissions of oxides of nitrogen (NO_x) by 40 percent. The primary components of the Lonestar include a catalyzed silicon carbide wall-flow filter and a lean NO_x catalyst. The Lonestar system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

Cleaire Phoenix

The Air Resources Board has conditionally verified the Cleaire Phoenix diesel retrofit system for certain 1996 through 2010 model year diesel engines in rubber-tired off-road vehicles. An on-road certified engine used in rubber-tired off-road vehicles is also included in the verification. The Phoenix reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 plus system. The primary components of the actively regenerated Phoenix system include a silicon carbide wall-flow filter, an exhaust flow conditioner, a diesel-fueled burner assembly, and a system controller. The Phoenix system is compatible with off-road vehicles using diesel fuel that contains up to 20 percent biodiesel.

DCL MINE-X Sootfilter

The Air Resources Board has verified the DCL Mine-X Sootfilter system for certain 1996 through 2009 model year off-road diesel engines rated to between 100 and 1000 horsepower. The Mine-X Sootfilter system reduces emissions of diesel particulate matter by at least 85 percent and is designated as a Level 3 Plus system. The primary components of the Mine-X Sootfilter include a catalyzed flow-through filter, a catalyzed diesel particulate filter, and a back pressure monitor.

Teleflex

The Air Resources Board conditionally verified Teleflex's Clear Sky DPF as a Level 3 plus active regenerated diesel emission control system for use with the Comfort Pro APU, powered by select Kubota Z482 diesel engines with model years between 2005 and 2009. Teleflex's Clear Sky DPF uses a silicon carbide wall-flow filter with a heating element for regeneration to achieve an 85 percent reduction in emissions of diesel particulate matter and is compliant with CARB's 2009 nitrogen dioxide standard.

CFCI is currently conducting a reassessment of each piece of diesel construction equipment as to determine its compatibility with newly verified diesel emission control systems. The most encouraging aspect of this reassessment is that VDECS are now commercially available compatible with diesel engines equipped with internal exhaust gas recirculation (EGR). The reassessment will be included as an element of the next Semiannual Report to be published in July 2011.

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.

One (1) documented public complaints was logged during the period of July 1, 2010 through December 31, 2010. This occurred on or about December 16, 2010. The complaint was made to the South Coast AQMD and involved the horsepower rating of a stationary diesel engine used in conjunction with the onsite concrete crushing operations. Specifically, the complaint alleged that the engine horsepower (hp) exceeded that allowable under Title V. Subsequent inspections by LAWA project management personnel noted a discrepancy between the engine data plate and the recorded horsepower rating of the diesel engine. The magnitude of the discrepancy is one (1) horsepower; 500 hp versus 501 hp.

The corrective action taken in response to this complaint was to replace the diesel engine with a Tier 3, 440 hp engine that complies with Title V requirements. It should be noted that the AQMD did not issue a Notice of Violation (NOV) and no further action is anticipated.

No noise or fugitive dust complaints were recorded during the period of July 1st through December 31st 2010. Factors that may contribute to this include:

- Dissemination and strict enforcement of the environmental requirements of the CBA by LAWA project management and inspectors;

- Construction activities associated with the CFTP, Taxiway S, the ARFF, and Bradley West projects primarily take place largely in the geographic center of the LAX airfield. Sensitive receptors, such as the communities of El Segundo, are to a large extent buffered by the South airfield runways. A similar situation exists on the Northern area, where the North airfield runways provide a buffer. This serves as a barrier to common construction nuisances such as noise curfew violations.

SECTION 3 - RESULTS AND CONCLUSIONS

The following is a summary of Third Party Monitor independent monitoring results and findings for the six month period commencing July 1, 2010 and ending December 31, 2010:

- Monitoring and documentation of diesel equipment utilized or proposed for utilization on four LAX Master Plan projects. Approximately 471 pieces of diesel equipment were independently assessed to determine compatibility with a commercially-available CARB/EPA-verified diesel emission control system;
- Monitoring of diesel emission control devices installed on construction equipment. As documented in the above Sections of this report, all devices currently in use on LAX construction projects have been deemed functional;
- A review and documentation of all exemptions granted by LAWA that allow a piece of diesel construction equipment to operate on LAX construction projects without a best available control technology retrofit. This includes equipment that was deemed incompatible with a verified VDECS, granted an exemption on the basis of safety, or granted a “20-day” exemption on the basis of infrequent equipment use.

Overall, diesel equipment used on construction activities during the specified time period was found to be in substantial compliance with all provisions of the CBA Section X.F. The few exceptions include diesel construction equipment that appear compatible with a Level 3 VDECS but not identified by LAWA as requiring a BACT retrofit.

The next Semiannual Report will cover the period commencing January 1, 2011 and ending June 30, 2011. Additional items to be included in the Second Semiannual Report include a quantification of emission reductions resulting from the use of Level 3 VDECS, a reassessment of equipment compatibility with newly verified devices, and a quantification of emission reductions attributable to the onsite concrete batch plant.

