

**Air Quality Improvement Program (AQIP)
Advanced Technology Demonstration Project**

**Grant Summary and Authorization Form
Fiscal Year 2009-10**

Amendment No. 1

California Air Resources Board
February 14, 2011

**Grant Summary and Authorization Form, Amendment No. 1
Air Quality Improvement Program (AQIP) (Pursuant to AB 118)
Advanced Technology Demonstration Project**

Fiscal Year 2009-10

Project Title: Tier 4 PM Retrofit System for a Genset Switch Locomotive

Grant Number: G09-AQIP-13

Grant Amount: \$346,178

Grant Recipient Name: City of Los Angeles Harbor Department

Authorized Official: Geraldine Knatz Ph.D.

Title: Executive Director

**Address: 425 South Palos Verdes Street
San Pedro, CA
90731**

Phone #: (310) 732-3947

Tax ID No: 95-6000735W

Amendment No. 1 for Grant Number G09-AQIP-13 revised Disbursement Schedule (Exhibit B, Attachment II) and Project Implementation Schedule (Exhibit B, Attachment III). Deletions to the Grant Agreement are shown below with ~~strikeout~~ text and additions are shown with underline text. All other terms and conditions remain the same.

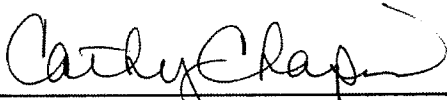
The following documents are attached and incorporated as part of this grant.

Exhibit B: Work Statement incorporating the following attachments:
Disbursement Schedule (Attachment II)
Project Implementation Schedule (Attachment III)

The undersigned parties agree to comply with the requirements and conditions contained herein, including all provisions, roles, and responsibilities identified in the Advanced Technology Demonstration Project: Advanced Locomotive Aftertreatment Technologies Fiscal Year 2009-10 Grant Proposal Solicitation as well as all commitments identified in the Grantee Application Package. The undersigned parties certify under the penalty of perjury that they are duly authorized to bind the parties to this grant.

California Air Resources Board:

Grant Recipient:



Signature of Authorized Official

Name: Cathy Chapin
Title: Chief, Financial Operations Branch

Date: 2/16/2011

Signature of Authorized Official

Name: Geraldine Knatz, Ph.D.
Title: Executive Director

Date:

APPROVED AS TO FORM AND LEGALITY

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CARMEN A. TRUTANICH, City Attorney

By


Deputy City Attorney

**EXHIBIT B, Attachment II
Amendment No. 1**

Disbursement Schedule

Grantee: City of Los Angeles Harbor Department

Grant No.: G09-AQIP-13

Project: Tier 4 PM Retrofit System for a Genset Switch Locomotive

Anticipated Disbursement Request Date	Milestone	Milestone Description	Project Funding Amount	Administration Funding Amount
December 10, 2010	Project Start	Initial Kickoff Meeting	\$24,617	\$10,000
March 1, 2011	1.4	Baseline Report on Emissions	\$69,236	\$0
July 1-March 31, 2011	1.10 1.4	Test Report After DPF System is Installed (Phase 1)	\$69,235 \$86,544	\$0
December 1- November 14, 2011	1.14 2.4	Phase 1 Summary Report Phase 2 Durability Summary Report (1,500 run hours)	\$69,236 \$86,545	\$0
March 1-June 15, 2012	2.5 3.4	Emissions Test Report with all DPFs installed Phase 3 Durability Summary Report (up to an additional 500-1500 run hours)	\$69,236 \$86,545	\$0
June 27-15, 2012	Project End	Final Meeting: and Final Report	\$24,618 \$41,927	\$10,000
		Subtotal	\$326,178	\$20,000
		Grand Total	\$346,178	

EXHIBIT B, Attachment III Amendment No. 1

Project Implementation Schedule

Grantee: City of Los Angeles Harbor Department

Grant No.: G09-AQIP-13

Project: Tier 4 PM Retrofit System for a Genset Switch Locomotive

Detailed Scope of Work and Schedule

#	Task	Duration	Start	Finish
	AB 118 Project - EPA Tier IV PM Retrofit System	413d 392d	Thu 7/1/10 Fri 12/10/10	Fri 1/26/12 Fri 6/15/12
	Phase 1 - Install and Test Single DPF	241d	Thu 7/1/10	Thu 6/2/11
1-1	Identify Locomotive and send it to test facility	30d	Thu 7/1/10	Wed 8/11/10
1-2	Conduct Baseline Emission Testing	5d	Thu 8/12/10	Wed 8/18/10
1-3	Inspect and Measure locomotive for design of custom DPF	5d	Thu 8/19/10	Wed 8/18/10
1-4	Analyze data and generate report	10d	Thu 8/19/10	Wed 9/1/10
1-5	Deliverable: Baseline test report	1d	Thu 9/2/10	Thu 9/2/10
1-6	Design DPF System	40d	Thu 8/19/10	Wed 10/13/10
1-7	Fabricate and install DPF system on one engine	45d	Thu 10/14/10	Wed 12/15/10
1-8	Test locomotive emissions per Part 92	5d	Thu 12/16/10	12/22/2010
1-9	Analyze data and generate report	1d	Thu 1/6/11	1/6/2011
1-10	Deliverable: Initial test report after installing DPF	1d	Thu 1/6/11	Thu 1/6/11
1-11	Conduct 1,500 hour field trial (100 day estimate)	100d	Thu 12/23/10	Wed 5/11/11
1-12	Test locomotive emissions per Part 92 and inspect DPF system	5d	Thu 5/12/11	Wed 5/18/11
1-13	Analyze data and generate report	10d	Thu 5/19/11	Wed 6/1/11
1-14	Deliverable: Phase 1 Summary Report	1d	Thu 6/2/11	Thu 6/2/11
	Phase 2 - Install and Zero-Hour Test Three DPF System	188d 90d	Thu 5/12/11 Fri 12/10/10	Fri 1/26/12 Thu 3/31/11
2-1 1.1	Make design changes if needed <u>Design DPF System</u>	40d 9d	Thu 5/12/11 Fri 12/10/10	Wed 5/25/11 Wed 12/22/10
2-2 1.2	Fabricate and install <u>two three additional DPF systems, one on each engine</u>	45d 73d	Fri 6/3/11 Thu 12/23/10	Thu 8/4/11 Mon 3/21/11
2-3	Conduct baseline emission test on combined-exhaust for 3 engines	5d	Fri 8/5/11	Thu 8/4/11
2-4 1.3	Analyze data and generate report	40d 3d	Fri 8/12/11 Tue 3/22/11	Thu 8/25/11 Thu 3/24/11
2-5 1.4	Deliverable: Test report after installing 2 additional the DPFs systems	4d 5d	Fri 8/26/11 Fri 3/25/11	Fri 8/26/11 Thu 3/31/11
	Phase 2 - Durability Test of DPF System for 1500 Hrs	158d	Fri 04/01/11	Mon 11/14/11
2-6 2.1	Conduct 1,500 hour field trial (100 day estimate)	100d 147d	Fri 8/12/11 Fri 4/1/11	Thu 12/29/11 Mon 10/24/11
2-7 2.2	Test locomotive emissions per Part 92 and inspect DPF systems	5d	Fri 12/30/11 Tue 10/25/11	Thu 1/5/12 Mon 10/31/11
2-8 2.3	Analyze test data and generate report	40d 5d	Fri 1/6/12 Tue 11/1/11	Thu 1/19/12 Mon 11/7/11
2-9 2.4	Deliverable: Phase 2 Summary Report	1d	Fri 1/20/12 Tue 11/8/11	Fri 1/20/12 Mon 11/14/11
	Phase 3 - Durability Test of DPF System for Remaining 1500 Hrs	160d	Tue 11/1/11	6/15/2012
3.1	Conduct second 1500 hour field trial	155d	Tue 11/1/11	Mon 6/4/12
3.2	Test locomotive emissions per Part 92 and inspect DPF systems	5d	Tue 6/5/12	Mon 6/11/12
3.3	Analyze test data and generate report	3d	Tue 6/12/12	Mon 6/14/12
3.4	Deliverable: Phase 3 Summary Report (up to 3000 Hrs)	1d	Fri 6/15/12	Thu 6/15/12
2-10	Return Locomotive to original condition	5d	Fri 1/20/12	Thu 1/26/12

Advanced Technology Demonstration Project Grant Agreement
Amendment No. 1