

**SECOND AMENDMENT TO FUNDING AGREEMENT NO. 013-DMV-05/06-11
WITH THE EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION**

This Second Amendment to Agreement No. 013-DMV-05/06-11 made and entered into the 25th day of October, 2005, and the First Amendment made and entered into the 26th day of September, 2006 by and between the **EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT**, a county Air Quality Management District formed pursuant to California Health and Safety Code section 40100, et seq. (hereinafter referred to as "AQMD"); and the **EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION**, a political subdivision of the State of California (hereinafter referred to as "COUNTY") hereby amends the Agreement to read as follows;

1. PROJECT

The project description shall be amended to include the attached "Amendment II to Proposal for the Diesel Fleet Retrofits," marked Exhibit "A" incorporated herein and made by reference a part hereof.


2. PERIOD OF PERFORMANCE/TIMETABLE

Shall be amended to extend the time within which to complete the **Diesel Fleet Retrofit** for one (1) additional year, expiring on October 24, 2009.

All other sections of the Agreement dated the 25th day of October, 2005, and the First Amendment made and entered into the 26th day

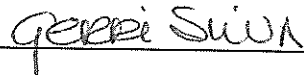
of September 2006 shall remain unchanged and in full force.

CONTRACT ADMINISTRATOR CONCURRENCE:


By:  Dated: 3-17-08

Marcella McTaggart
Air Pollution Control Officer

REQUESTING DEPARTMENT CONCURRENCE:

By:  Dated: April 16, 2008

Gerri Silva, M.S., R.E.H.S
Director, El Dorado County Environmental Management Dept.

By:  Dated: 3-17-08

Marcella McTaggart
Air Pollution Control Officer

IN WITNESS WHEREOF, the parties hereto have caused this Amended Agreement to be executed as of the day and year first herein below written.

COUNTY

EL DORADO COUNTY
DEPARTMENT OF
TRANSPORTATION

Date: _____

By: _____
Richard Shepard
Director of Transportation

AQMD

EL DORADO COUNTY
AIR QUALITY MANAGEMENT
DISTRICT

Date: _____

By: _____
Rusty Dupray
Chairman

Attest:
Cindy Keck,
Clerk of the Board
Date: _____

By: _____

EXHIBIT “A”

Amendment II to Proposal for the Diesel Fleet Retrofits

Amendment II to Proposal for the Diesel Fleet Retrofits

Motor Vehicle Emission Reduction Project

This Amendment II is to the **Diesel Fleet Retrofits** proposal submitted by the El Dorado County Department of Transportation to reduce diesel emissions through the installation and proper use of pollution control technologies retrofitted on thirty four (34) vehicles in the heavy equipment fleet.

The El Dorado County Air Quality Management District (EDCAQMD) agreed to provide funding in the amount of \$487,076 under Agreement No. 013-DMV-05/06-11 for the Diesel Fleet Retrofits emissions reduction project, based on the proposal submitted by the El Dorado County Department of Transportation in June of 2005.

The Diesel Fleet Retrofits proposal was prepared using the most current information available at the time; however, emission control technology has not developed as industry experts had predicted. Amendment I to the proposal was executed in September of 2006 to include the following changes:

1. addition of the Cleaire Horizon as an emission control device eligible to meet the project objectives;
2. addition of spare filters and a filter cleaning device required for effective use of the Horizon device;
3. addition of one unit of equipment to the project scope; and
4. extension of the term through October 24, 2008.

Based on further developments in emission reduction technology as of this date, it is necessary to make further amendments to the Diesel Fleet Retrofits proposal as follows:

1. addition of the Huss Umwelttechnik FS-MK series device as an emission control device eligible to meet the project objectives;
2. addition of spare filters for the Cleaire Longview and Huss devices;
3. addition of two new vehicles to the project scope; and
4. elimination of seven (7) vehicles from the project scope based on lack of cost effective technology available for these vehicles.

The Diesel Fleet Retrofits proposal is amended as follows:

Project Description

The funding under the amended project budget will allow the Department to retrofit thirty, instead of thirty-five, diesel powered on-road vehicle. As detailed on the attached schedule marked "Amendment II Exhibit D – Project Budget," seven units of equipment have been eliminated from the original proposal. It has become apparent, as the verified technology from the California Air Resources Board (CARB) becomes available, that it will not be possible to cost effectively retrofit the seven vehicles that have been eliminated. The year and use of the equipment would require the installation of two devices on each unit of equipment resulting in a cost that is twice the original estimate. Two new vehicles, which have been purchased since the original proposal was submitted, have been added to the retrofits list.

Project Organization/Background

Based on the criteria established for the project, the emission control devices selected are the Cleaire Longview, the Cleaire Horizon and the Huss FS-MK Series emission control devices.

The Cleaire Horizon and the Huss FS-MK Series devices both reduce PM10 while the Cleaire Longview system reduces both PM10 and NOX.

The Cleaire Longview device is effective when used with engines manufactured between 1994 and 2002 and some non-EGR motors through 2006. The Cleaire Horizon device and the Huss FS-MK Series devices are effective when used with engines manufactured in 2006 or earlier. The Cleaire Longview device and the Huss FS-MK Series device do not require the equipment to be out of service during the cleaning cycle. The Cleaire Horizon device requires cleaning through the use of electricity or a cleaning unit. It is only feasible to use the Cleaire Horizon device on equipment that may be taken out of service for five (5) hours at a time to allow for the cleaning cycle. The cleaning unit for the Horizon device and spare filters for all three types of devices have been added to the Diesel Fleet Retrofits proposal.

Emission Benefits/Cost Effectiveness

As shown on "Amended Exhibit D, Amendment II – Project Budget," a total of thirty (30) on-road diesel fueled vehicles will be modified to reduce NOx and PM10, and two cleaning units for use with the Cleaire Horizon device and spare filters for all devices will be purchased. The El Dorado County Air Quality Management District funding dollars of \$487,076 will remain the same and the Road Fund matching funds will remain the same at \$162,358.

The reduction of NOx and PM10 has been reduced from the original proposal primarily due to the elimination of seven vehicles with high baseline pollution rates and significant reduction in pollutants with the application of the filtering devices. The vehicles have been eliminated from the proposal because the technology to retrofit them would be too costly to warrant the investment in aging equipment. The NOx emissions reduction will decrease to 1,235 and the PM10 emissions reduction will decrease to 344.91. The revised cost effectiveness of funding dollars per pound is \$30.83 up from \$22.05 after Amendment I to the proposal.

Amended Work Statement

Twelve (12) units of equipment have received the Longview emission control device as of the date of this letter. The following Amended Work Statement provides the time frame for completing the retrofit project for the remaining eighteen (18) units of equipment.

Amended Work Statement

Amended Description of Work	# of Units	Estimated completion
1993 and older units receiving the Huss FS-MK Series Device	8	No later than the project completion date, October 24,2008
2003-2006 units receiving Horizon device	10	No later than the project completion date, October 24,2008
Totals	18 units	

Funding Request/Breakdown of Cost

The attached schedule titled "Amendment II Exhibit D – Project Budget" provides a list of thirty (30) units of on-road diesel fueled equipment that are eligible for the emissions reduction retrofit. The original proposal contained thirty-four (34) vehicles; one (1) vehicle was added with Amendment I to the Diesel Fleet Retrofits proposal and an additional two (2) vehicles are added with this Amendment II to the proposal. Seven (7) vehicles will be removed from the project scope because cost effective technology will not be available for this equipment in the near term. The total cost under the amended proposal remains the same at \$649,434, with \$487,076 in AB2766 DMV Surcharge funds being used and the match of \$162,358 being provided by the Road Fund. The unit cost for each retrofit device is provided at "Amendment II Exhibit D – Project Budget." Actual unit costs are effective as of the date of this Amendment II. The contribution of \$487,076 in AB2766 DMV Surcharge funds from the EDCAQMD will remain the same regardless of changes in unit costs.

El Dorado County Department of Transportation
 Cost Effectiveness of Emission Benefits
 Amended Exhibit D - Amendment II - Project Budget

Equip #	Description	Life	D	VMT	Total Cost	Matching Funds	DMV Funding Request ²	E	ROG	H	I	J	K	L	M	N	O	
									Baseline	Reduced to:	Baseline ³	Reduced to: ⁴	PM10	NOx	PM10	NOx	Capitol Recovery Factor	(N-E)/(NOx*PM) - Cost Effectiveness of Funding \$ PER POUND
25-04	1890 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	0.24	0.000	0.00	0.100	\$	
25-05	1890 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	1.6	0.000	0.00	0.100	\$	
33-02	1890 Peterbilt Tractor	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	1.6	0.000	0.00	0.100	\$	
25-06	1891 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	0.7	0.000	0.00	0.100	\$	
34-06	1991 International Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$	105.58
23-17	1992 International Dump Truck	12	30000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	45.79	0.100	\$	35.19
23-18	1992 International Dump Truck	12	30000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	45.79	0.100	\$	35.19
25-07	1892 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	0.7	0.000	0.00	0.100	\$	
34-07	1992 International Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$	105.58
88-03	1993 Ford Paint Striper	12	5000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	7.63	0.100	\$	211.17
39-02	1993 International PB Patcher	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$	105.58
39-03	1993 International PB Patcher	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$	105.58
25-09	1996 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	214.758	16.85	0.100	\$	6.19
24-04	1996 International Dump Truck 4x4	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	214.758	16.85	0.100	\$	6.19
38-03	1996 International Herbicide Sprayer Truck	12	25200	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	18.040	1.42	0.100	\$	73.64
23-19	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
23-20	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
23-21	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
23-22	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
24-05	2000 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
24-06	2000 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
23-21	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	71.586	5.62	0.100	\$	18.56
71-04	2001 Schwarze Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	143.172	11.23	0.100	\$	9.28
21-10	2002 International Dump Truck	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	143.172	11.23	0.100	\$	9.28
21-06	2003 Ford F550 Dump Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
21-07	2003 Ford F550 Dump Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
21-08	2003 Ford F550 Dump Truck 4x4	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
28-08	2003 International Shop Service Truck	12	7000	\$ 19,101	\$ 4,775	\$ 14,326	Longview	N/A	N/A	13	9.75	0.3	0.045	0.000	0.00	0.100	\$	387.14
28-10	2004 Ford F550	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
28-11	2004 Ford F550	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
28-09	2004 Ford F550 Truck	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	11.7	5.2	0.2	0.06	0.000	0.00	0.100	\$	96.37
25-41	2004 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	0.3	0.000	0.00	0.100	\$	
25-42	2004 International Dump Truck	12	0	\$	\$	\$	Eliminated	N/A	N/A	0	0	0	0.3	0.000	0.00	0.100	\$	
39-04	2004 International PB Patcher	12	10000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	N/A	N/A	0	0.3	0.000	0.00	0.100	\$	212.02
79-02	2004 Vector Truck	12	20000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	N/A	N/A	0	0.3	0.000	0.00	0.100	\$	106.01
35-01	1997 Water Truck	12	10000	\$ 21,489	\$ 5,372	\$ 16,117	Huss	N/A	N/A	N/A	N/A	0.7	0.007	0.000	15.26	0.100	\$	105.58
21-09	2006 Ford	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	N/A	N/A	0.3	0.045	0.000	12.36	0.100	\$	90.70
32-04	2006 Ford	12	22000	\$ 14,944	\$ 3,736	\$ 11,208	Horizon	N/A	N/A	N/A	N/A	0.3	0.045	0.000	12.36	0.100	\$	90.70
Project Total Calculation ¹																		
450520 \$ 649,434 \$ 162,358 \$ 487,076																		
1,235.00 0.10 \$ 30.83																		

Eliminated based on lack of technology available
 Huss Device
 Longview Device
 Horizon Device

Notes
 Calculation of cost effectiveness based on total project cost and total emissions reduction
 (10 x \$487,076) / (1492.93 + 716.25) = \$22.05 cost per pound reduced
² Cost of retrofit system less 25% County match
³ Baseline emission factors provided by Jeff Weir, Transportation Strategies Group, Air Resources Board (916) 445-0098
⁴ Reduction factors for the Clearie Longview retrofit system - 25% NOx reduction, 85% PM reduction per manufacturer's specifications
 Reduction factors for the Clearie Horizon 85% PM reduction per manufacturer's specifications