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

This First Amendment to Agreement No. 013-DMV-05/06-11 made and entered into the 25th day of October, 2005 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 "DISTRICT"); 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 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 two (2) additional years, expiring on October 24, 2008.

All other sections of the Agreement, dated the 25th day of October 2005 shall remain unchanged and in full force.

REQUESTING DEPARTMENT CONCURRENCE:

By: Gerri Silva Dated: August 1, 2006

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

By: Marcella McTaggart Dated: 7-31-06

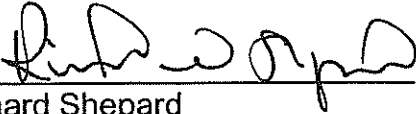
Marcella McTaggart
Air Pollution Control Officer

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

CITY

EL DORADO COUNTY
DEPARTMENT OF
TRANSPORTATION

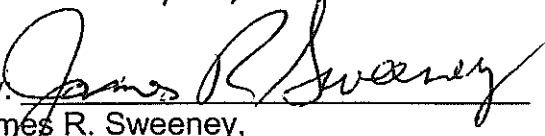
Date: 8/11/06

By: 
Richard Shepard
Director of Transportation

DISTRICT

EL DORADO COUNTY
AIR QUALITY MANAGEMENT
DISTRICT

Date: 9/26/06

By: 
James R. Sweeney,
Chairman

Attest:
Cindy Keck,
Clerk of the Board
Date: 9/26/06

By: 
Clerk

EXHIBIT “A”

Amendment to Proposal for the Diesel Fleet Retrofits

El Dorado County Air Quality Management District

Amendment to Proposal for the Diesel Fleet Retrofits - Motor Vehicle Emission Reduction Project

This Amendment 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 Air Quality Management District has 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 period of performance for the project was set at twelve months, through October 24, 2006. To date, emissions from eleven (11), units of equipment have been reduced through installation of the Cleaire Longview emission control device.

The Diesel Fleet Retrofits proposal was prepared using the most current information available at that time of preparation; however, changes in the available emission control technology have affected the original project description, project organization, cost effectiveness calculation and work statement incorporated in the proposal.

The following is a summary of the changes in emission control technology that affect the completion of the project for the remaining twenty-three (23) equipment units included in the original proposal.

- The California Air Resources Board (CARB) has not verified the Cleaire Longview device for vehicles manufactured between 2003 and 2006, but is expected to do so within three to six months. The verification will allow for installation of the device on seven (7) of the twenty three units of equipment.
- The CARB is not expected to verify the Cleaire Longview device for vehicles manufactured 1993 or earlier. An alternate technology, the Cleaire Horizon device, is available for vehicles manufactured in this time period. The Cleaire Horizon device is less expensive to purchase and install, but requires the purchase of spare filters and a cleaning unit. It will be possible to reduce emissions for the remaining sixteen (16) vehicles by using the Cleaire Horizon device and purchasing the cleaning unit.

Since the time the Department of Transportation submitted its proposal for this emissions reduction project, technology has become available for one additional

piece of equipment. The CARB is expected to verify the technology to retrofit the 1987 water truck with the Cleaire Horizon device, bringing the total number of vehicles for which emissions may be reduced to thirty-five (35).

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-five (35) instead of thirty-four (34) diesel powered on-road vehicle because the technology is now available of the 1987 water-truck which was not included in the original proposal.

Project Organization/Background

Based on the criteria established for the project, the emission control devices selected are the Cleaire Longview and the Cleaire Horizon emission control devices. The technology used by the Cleaire Horizon system reduces PM10 while the Cleaire Longview system reduces both PM10 and NOX.

The Cleaire Longview device is effective when use with engines manufactured between 1994 and 2006. The Cleaire Horizon device is effective when used with engines manufactured in 1993 or earlier. The Cleaire Longview device is a self cleaning unit. The Cleaire Horizon device requires cleaning daily through the use of electricity or a cleaning unit. In order to use the Cleaire Horizon device, a separate cleaning unit and spare filters will be required. The spare filters are inserted in equipment that can't be taken out of service for the cleaning of the device.

Emission Benefits/Cost Effectiveness

As shown on "Amended Exhibit C – Project Budget," a total of thirty-five (35) on-road diesel fueled vehicles will be modified to reduce NOx and PM10, and one cleaning unit will be purchased for use with the Cleaire Horizon device. The clean air funding dollars of \$487,076 will remain the same under the amended budget. Likewise, the Road Fund matching funds will remain the same at \$162,358. The resulting NOx emissions reduction will decrease to 1,492.93 pounds per year, down from 3,757 in the original proposal, due to the fact that the Cleaire Horizon device does not reduce NOx. The PM10 reduction will increase from 703 pounds per year in the original proposal to 716.25 pounds per year in the amended proposal due to the addition of the 1987 water truck. The cost per pound of emissions reduction for the total proposed project as amended will be \$22.05.

Work Statement

The Work Statement in the original proposal reflected the completion of all units of equipment by September of 2006. Due to the delays in the verification of technology, the Work Statement is amended to extend the period for completion of work , through October 24, 2008. The contract with Cummins West will be

amended to allow for installation of the Cleaire Longview device on seven additional units of equipment and to allow for the purchase and installation of the Cleaire Horizon device, cleaning unit and spare filters. The following is the work statement for the remaining 24 units of equipment:

Amended Work Statement

The following Amended Work Statement provides the time frame for completing the retrofit project for 24 units of equipment . The time of completion is dependent upon the California Air Resources Board testing and verification process. The equipment is listed below in the order of expected completion.

Amended Description of Work	# of Units	Estimated completion
1996 Herbicide Spray Truck, 1987 Water Truck	2	fiscal year 06-07
2003-2006 units awaiting verification for Longview device	6	fiscal year 07-08
2003-2004 units requiring testing to determine which unit to be used	4	fiscal year 07-08
1990-1993 units receiving Horizon device (including timeframe to revise DOT facility to accommodate electrical requirements of Horizon system)	12	fiscal year 08-09 Final project completion date October 24,2008
Totals	24 units	

Funding Request/Breakdown of Cost

The amended project budget, "Amended Exhibit C – Project Budget," provides a list of thirty-five (35) units of on-road diesel fueled equipment that would be eligible for the emissions reduction retrofit. Of the thirty-five (35) units , eleven (11) have received emission control devices. 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 is broken down as follows:

- √ 17 units at \$14,110, DMV Surcharge funds contributed \$10,583 per unit and \$3,528 in matching funds per unit from the Road Fund.
- √ 11 units at \$19,101, DMV Surcharge funds contributed \$14,326 per unit and \$4,775 in matching funds per unit from the Road Fund for which the work has been completed.
- √ 7 units at \$19,101, DMV Surcharge funds contributed of \$14,326 per unit and \$4775 in matching per unit from the Road Fund for which 6 units will be verified and 1 for which technology is verified and may be retrofit immediately.

Matching Funds

Matching Funds will be provided by the El Dorado County Road Fund and are included in the fiscal year 06-07 budget and will be budgeted in the fiscal year 07-08 and 08-09 budgets for the amended project. Included with the Amended Proposal is a letter stating the matching funds from the Road Fund for fiscal year 06-07 are budgeted and available as of July 1, 2006.

FUNDING AGREEMENT NO. 013-DMV-05/06-11

WITH THE EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION

This Agreement No. 013-DMV-05/06-11 made and entered 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 "DISTRICT"); and the **EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION** a political subdivision of the State of California (hereinafter referred to as "COUNTY");

WITNESSETH:

WHEREAS, the California Clean Air Act requires local air pollution control districts to reduce emissions from motor vehicles; and

WHEREAS, AB 2766, codified in California Health and Safety Code section 44223, authorizes districts to impose a fee of up to four dollars upon certain registered motor vehicles within the district, and the Governing Board of the DISTRICT has imposed said fee; and

WHEREAS, said legislation requires the DISTRICT to use said funds for activities related to reducing air pollution from motor vehicles and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act of 1988; and

WHEREAS, COUNTY has proposed a project that meets the eligibility criteria of the DISTRICT and that has been approved by DISTRICT for funding; and

WHEREAS, COUNTY represents that it is willing and able to perform the activities set forth herein.

NOW, THEREFORE, District and County mutually agree as follows:

1. PROJECT

COUNTY shall perform all activities and work necessary to complete the "Diesel Fleet Retrofits" project set forth in the fully described "Proposal" attached hereto and incorporated herein by this reference. COUNTY agrees to furnish all labor, materials, equipment, licenses, permits, fees, and other incidentals necessary to perform and complete, per schedule, in a professional manner, the services described herein. COUNTY represents that COUNTY has the expertise necessary to adequately perform the project specified in said Proposal.

In the event of any conflict between or among the terms and conditions of this Agreement, the Proposal incorporated herein, and the documents referred to and incorporated herein, such conflict shall be resolved by giving precedence in the following order of priority:

1. To the text of this Agreement;
2. Proposal to this Agreement; and
3. To the "Motor Vehicle Emission Reduction Projects Request for Proposals" (RFP) prepared by the DISTRICT and dated 2005-2006.

2. PERIOD OF PERFORMANCE/TIMETABLE

COUNTY shall commence performance of work and produce all work products in accordance with the Work Statement and deadlines for performance identified in the Proposal, Page 6, of this Agreement, unless this Agreement is

terminated sooner as provided for elsewhere in this Agreement. This Agreement may be extended for one (1) additional year if mutually agreed between the parties hereto in writing not less than thirty (30) days prior to the expiration of the then current Agreement.

If requested by the DISTRICT, COUNTY shall submit regular progress reports, at intervals determined by the DISTRICT, detailing the work performed during the current reporting period; work planned for the next reporting period; problems identified, solved, and/or unresolved; and the percentage of each task completed. COUNTY shall provide DISTRICT with a comprehensive final written report prior to the end of Agreement term. Said final report shall be complete and shall document the work performed under this Agreement.

3. COMPENSATION

District will pay the County the sum of \$487,076 as follows:

COUNTY shall obtain through other sources sufficient additional monies to fund the total cost of the “**Diesel Fleet Retrofits**” project as outlined in the Proposal, Pages 1, 5-1, and 7. Satisfactory written evidence of such funding commitments shall be provided to DISTRICT prior to the release by DISTRICT of any funds under this Agreement. In the event funding from other sources for the total cost of the project, as outlined in the Proposal, Pages 1, 5-1, and 7, is not received by COUNTY, DISTRICT reserves the right to terminate or renegotiate this Agreement. In accordance with Section 44233 of the California Health and Safety Code, COUNTY agrees to limit expenditure of funds for the purpose of administration to not more than five percent of the monies distributed to COUNTY. The DISTRICT is not obligated to pay COUNTY for administrative costs exceeding five percent of the actual total cost of the project.

The total obligation of the DISTRICT under this Agreement SHALL NOT EXCEED Four Hundred Eighty Seven Thousand Seventy-Six Dollars and 00/100 (\$487,076).

A. **PAYMENTS**: Advance payments shall not be permitted.

Payments will be permitted only at which time equivalent services have been satisfactorily rendered. The DISTRICT shall reimburse COUNTY quarterly, in arrears, after receipt and verification submitted to El Dorado County Air Quality Management District, Attention: Marcella McTaggart. Payment shall be made to COUNTY by the DISTRICT upon submission and evaluation of the COUNTY'S invoice of claim. Said invoice of claim shall set forth the work completed of the "**Diesel Fleet Retrofits**" pursuant to this Agreement.

Upon receipt of proper documentation, and verification that COUNTY has satisfactorily completed the work for which compensation is sought, DISTRICT will issue payment to COUNTY within thirty (30) calendar days of such time.

The amount to be paid to COUNTY under this Agreement includes all sales and use taxes incurred pursuant to this Agreement, if any, including any such taxes due on equipment purchased by the COUNTY. The COUNTY shall not receive additional compensation for reimbursement of such taxes and shall not decrease work to compensate therefore.

Concurrently with the submission of any claim for payment, COUNTY shall certify (through copies of invoices issued, checks, receipts, and the like) that complete payment has been made to any and all subcontractors as provided.

It is understood that all expenses incidental to COUNTY'S performance of services under this Agreement shall be borne exclusively by COUNTY.

In no event shall compensation paid by the DISTRICT to the COUNTY for the performance of all services and activities under this Agreement exceed the amount set forth in paragraph 3 above.

B. Surplus Funds: Any compensation, which is not expended by COUNTY pursuant to the terms and, conditions of this Agreement by the project completion date shall automatically revert to the DISTRICT. Only expenditures incurred by the COUNTY in the direct performance of this Agreement will be reimbursed by the DISTRICT. Allowable expenditures under this Agreement are specifically established and included in the Proposal, Pages 1, 5-1, and 7.

C. Closeout Period: All final claims shall be submitted by COUNTY within sixty (60) days following the final month of activities for which payment is claimed. No action will be taken by DISTRICT on claims submitted beyond the 60-day closeout period.

5. NON-ALLOCATION OF FUNDS

The terms of this Agreement and the services to be provided there under are contingent on the approval of funds by the appropriating government agency. Should sufficient funds not be allocated, the services provided may be modified or this Agreement terminated at any time by giving the COUNTY thirty (30) days prior written notice.

6. INDEPENDENT COUNTY LIABILITY

County is, and shall be at all times, deemed independent and shall be wholly responsible for the acts of County's employees, associates, and subcontractors, in connection with the installation, operation, use and maintenance of the "**Diesel Fleet Retrofits.**"

7. TERMINATION

A. **Breach of Agreement:** The DISTRICT may immediately suspend or terminate this Agreement, in whole or in part, where in the determination of the DISTRICT there is:

1. An illegal or improper use of funds;
2. A failure to comply with any term of this Agreement;
3. A substantially incorrect or incomplete report submitted to the DISTRICT; or
4. Improperly performed services.

In no event shall any payment by the DISTRICT constitute a waiver by the DISTRICT of any breach of this Agreement or any default, which may then exist on the part of the COUNTY. Neither shall such payment impair or prejudice any remedy available to the DISTRICT with respect to the breach or default. The DISTRICT shall have the right to demand of the COUNTY the repayment to the DISTRICT of any funds disbursed to the COUNTY under this Agreement which in the judgment of the DISTRICT were not expended in accordance with the terms of this Agreement. The COUNTY shall promptly refund any such funds upon demand.

In addition to immediate suspension or termination, DISTRICT may impose any other remedies available at law, in equity, or otherwise specified in this Agreement.

B. **Without Cause:** Either party may terminate this Agreement at any time upon giving the other party at least thirty (30) days advance, written notice of intention to terminate. In such case, the COUNTY shall, subject to paragraph 3, be paid the reasonable value of all services satisfactorily rendered and actual,

reasonable costs incurred up to the time of the termination. Upon such termination, all the work product produced by COUNTY shall be promptly delivered to the DISTRICT.

8. CHANGES TO AGREEMENT

This Agreement may be amended by mutual consent of the parties hereto. Said amendments shall become effective only when in writing and fully executed by duly authorized officers of the parties hereto.

9. INDEMNIFICATION

COUNTY shall defend, indemnify, and hold the District harmless against and from any and all claims, suits, losses, damages and liability for damages of every name, kind and description, including attorneys fees and costs incurred, brought for, or on account of, injuries to or death of any person, including but not limited to workers, District employees, and the public, or damage to property, or any economic or consequential losses, which are claimed to or in any way arise out of or are connected with the County's activities and work necessary to complete the **"Diesel Fleet Retrofits."** This duty of County to indemnify and save District harmless includes the duties to defend set forth in California Civil Code, Section 2778.

District shall indemnify COUNTY against and hold it harmless from any loss, damage, and liability for damages, including attorney fees and other costs of defense incurred by COUNTY, whether for damage to or loss of property, or injury to or death of COUNTY's officer's, agents, or employees which shall in any way arise out of or be connected with DISTRICT's performance of its obligations hereunder, unless such damage, loss, injury, or death shall be caused solely by the negligence of the COUNTY.

10. AUDITS AND INSPECTIONS

COUNTY shall at any time during regular business hours, and as often as DISTRICT may deem necessary, make available to DISTRICT for examination all of its records and data with respect to the matters covered by this Agreement.

COUNTY shall, and upon request by DISTRICT, permit DISTRICT to audit and inspect all of such records and data necessary to ensure COUNTY'S compliance with the terms of this Agreement. COUNTY shall be subject to an audit by DISTRICT or its authorized representative to determine if the revenues received by COUNTY were spent for the reduction of pollution as provided in AB 2766 and to determine whether said funds were utilized as provided by law and this Agreement. If, after audit, DISTRICT makes a determination that funds provided COUNTY pursuant to this Agreement were not spent in conformance with this Agreement, or AB 2766 or any other applicable provisions of law, COUNTY agrees to immediately reimburse DISTRICT all funds determined to have been expended not in conformance with said provisions.

COUNTY shall retain all records and data for activities performed under this Agreement for at least three (3) years from the date of final payment under this Agreement or until all state and federal audits are completed for that fiscal year, whichever is later.

Because this Agreement exceeds Ten Thousand Dollars (\$10,000), COUNTY shall be subject to the examination and audit of the Auditor General for a period of three (3) years after final payment under Agreement (Government Code Section 10532).

11. NOTICES TO PARTIES

All notices to be given by the parties hereto shall be in writing and served by depositing same in the United States Post Office, postage prepaid and return receipt requested. Notices to District shall be in duplicate and addressed as follows:

COUNTY

El Dorado County
Department of Transportation
2850 Fairlane Court
Placerville, CA 95667
Attn: Richard Shepard,
Director

DISTRICT

El Dorado County
Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667
Attn: Marcella McTaggart,
Air Pollution Control Officer

12. TIME IS OF THE ESSENCE

It is understood that for COUNTY'S performance under this Agreement, time is of the essence. The parties reasonably anticipate that COUNTY will, to the reasonable satisfaction of the DISTRICT, complete all activities provided herein within the time schedule outlined in the Proposals to this Agreement, provided that COUNTY is not caused unreasonable delay in such performance.

13. COMPLIANCE WITH APPLICABLE LAWS

COUNTY will comply with all federal, State, and local laws and ordinances which are or may be applicable to the PROJECT to be undertaken by the COUNTY including but not limited to California Health and Safety Code sections 44220 et seq., all Air Resources Board and DISTRICT criteria thereunder, prevailing wage and work day definitions where applicable, contracting license requirements and permits.

14. NO THIRD-PARTY BENEFICIARIES

Nothing in this Agreement shall be construed to create any rights of any kind or nature in any other party not a named party to this Agreement.

15. VENUE

Any dispute resolution action arising out of this Agreement, including but no limited to litigation, mediation, or arbitration, shall be brought in El Dorado County, California, and shall be resolved in accordance with the laws of the State of California. County waives any removal rights it might have under Code of Civil Procedure section 394.

16. ENTIRE AGREEMENT

This document and the documents referred to herein or exhibits hereto are the entire Agreement between the parties and they incorporate or supersede all prior written or oral Agreements or understandings.

17. AGREEMENT ADMINISTRATOR

The County Officer or employee with responsibility for administration of this Agreement is Marcella McTaggart, Air Pollution Control Officer.

18. AUTHORIZED SIGNATURES

The parties to this Agreement represent that the undersigned individuals executing this Agreement on their respective behalf are fully authorized to do so by law or other appropriate instrument and to bind upon said parties to the obligations set forth herein.

19. PARTIAL INVALIDITY

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will continue in full force and effect without being impaired or invalidated in any way.

REQUESTING DEPARTMENT CONCURRENCE:

By: Marcella McTaggart Dated: 10-6-05

Marcella McTaggart

Air Pollution Control Officer

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

COUNTY

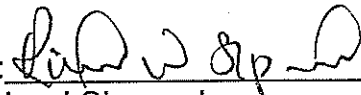
DISTRICT


EL DORADO COUNTY
DEPT. OF TRANSPORTATION

EL DORADO COUNTY
AIR QUALITY MANAGEMENT
DISTRICT


Date: 10/21/05

Date: 10/25/05

By: 
Richard Shepard,
Director of Transportation

By: 
Charlie Paine,
Chairman

Attest:
Cindy Keck,
Clerk of the Board
Date: 10/25/05

By: 
Deputy Clerk

PROPOSAL

AGREEMENT NO. 013-DMV-05/06-11

SUMMARY SHEET (Cover)

Applicant: El Dorado County Department of Transportation
Contact Person: Elizabeth B. Diamond, Interim Director of Transportation
Address: 2850 Fairlane Court, Placerville, CA 95667
Telephone #: (530) 621-5982 **FAX #(optional):** (530) 626-0387

Project Budget	AB 2766 Funds	\$ Matching Funds	In-Kind Match	Total Project Costs
Materials	\$	\$	\$	\$
Personnel	\$	\$	\$	\$
Other	\$487,076	\$162,358	\$-0-	\$649,434
TOTAL	\$487,076	\$162,358	\$-0-	\$649,434

Alternative Project Budget	AB 2766 Funds	\$ Matching Funds	In-Kind Match	Total Project Costs
<i>Materials</i>	\$	\$	\$	\$
<i>Personnel</i>	\$	\$	\$	\$
<i>Other</i>	\$343,818	\$114,606	\$	\$458,424
TOTAL	\$343,818	\$114,606	\$	\$458,424

Estimated Emission Reductions/Cost-Effectiveness	As Proposed	Alternate Funding Level
	Useful Life of Project (years)	12
Total Lifetime Emissions Reduced (lbs. Of ROG, NO _x , PM-10)	44,604	40,882
Cost-Effectiveness (total project costs divided by emissions = \$/lb)	10.92	8.41

Brief Project Description:

Diesel fleets contribute significant amounts of harmful emissions, and these emissions can be reduced through the installation and proper use of pollution control technologies retrofitted on diesel vehicles. The El Dorado County Department of Transportation (DOT) has seventy (70) diesel fueled vehicles used for various functions in the road maintenance operation that would be eligible for such emission reduction modifications.

With the funding requested under the Project Budget section above, the Department proposes to retrofit thirty-four (34) vehicles. Under the Alternative Project Budget, the Department proposes to retrofit twenty-four (24) vehicles.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: El Dorado County, Department of Transportation

Please complete and attach this checklist with your application.

- Summary Sheet (Cover) – page _____ 1 _____
- Request for Proposal Contents Checklist (Second Page) – page _____ 2 _____
- Authorization Letter/Resolution page _____ 3 _____
- Project Description – page _____ 4 _____
- Project Organization/Background – page _____ 4 _____
- Emission Benefits/Cost Effectiveness – page _____ 5 & 5-1 _____
- Work Statement – page _____ 6 _____
- Funding Request/Cost Breakdown – page _____ 7 _____
- Matching Funds – page _____ 7 _____
- Schedule of Deliveries/Self-Monitoring Program – page _____ 7 _____
- Local TPA Review (When Applicable) – page _____ N/A _____
- 3 Copies of Proposal – page _____ attached _____
- Letter of Commitment for matching funds – page _____ 8 & 9 _____
- Vendor Qualifications – page _____ 10 _____



RESOLUTION NO. 131-2005

OF THE BOARD OF SUPERVISORS OF THE COUNTY OF EL DORADO

RESOLUTION AUTHORIZING THE APPLICATION FOR AB2766 DMV SURCHARGE FUNDS THROUGH THE EL DORADO COUNTY AIR POLLUTION CONTROL DISTRICT

WHEREAS, the County of El Dorado, through the Air Pollution Control District has AB2766 DMV Surcharge funds available for motor vehicle emissions reduction projects; and

WHEREAS, said procedures and criteria established by the Air Pollution Control District require a resolution authorizing the application by the applicant's governing body before submission of said application; and

WHEREAS, El Dorado County desires to obtain funding for re-powering of on-road diesel fueled vehicles used for road maintenance functions in order to reduce air pollution emissions produced by such vehicles;

NOW THEREFORE, BE IT RESOLVED, that the El Dorado County Board of Supervisors hereby:

1. Authorizes the filing of an application for the AB2766 DMV Surcharge Funds; and
2. Appoints the Interim Director of the Department of Transportation to execute all grant application documents and act as the County's agent for this project; and
3. Will give the Air Pollution Control District representative access to and the right to examine all records, books, papers or documents related to the transportation activity; and
4. Will cause work on the project to be commenced within a reasonable time after receipt of notification from the Air Pollution Control District that funds have been approved and that the project will be carried to completion with reasonable diligence.

PASSED AND ADOPTED by the Board of Supervisors of the County of El Dorado at a regular meeting of said Board, held on the 24 day of MAY, 2005, by the following vote of said Board:

ATTEST
CINDY KECK
Clerk of the Board of Supervisors

By [Signature]
Deputy Clerk 5/24/05

Ayes: DUPRAY, BAUMANN, SWEENEY, PAINE, SOLARO

Noes: NONE

Absent: NONE

[Signature]
Charlie Paine
Chairman, Board of Supervisors 5/24/05

I CERTIFY THAT:
THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE.

DATE _____
ATTEST: CINDY KECK, Clerk of the Board of Supervisors of the County of El Dorado, State of California

By _____
Deputy Clerk

Project Description

The Department of Transportation operates seventy (70) diesel powered on-road vehicles in the course of maintaining existing roads. These vehicles include pick up trucks, dump trucks, service trucks, water trucks, graders, loaders, rollers, sweepers, pavers, and a paint striper. Diesel fleets contribute significant amounts of harmful emissions, and these emissions can be reduced through the installation and proper use of pollution control technologies retrofitted on diesel vehicles or through engine replacements. The objective of the proposed project is to retrofit on-road diesel fueled vehicles in order to reduce the nitrogen oxides (NOx) and particulate matter (PM10) emitted by these vehicles.

If this application is successful, the funding under the Project Budget will allow the Department to retrofit engines for thirty-four (34) of the seventy (70) diesel powered on-road vehicles over a one year period. Under the Alternative Project Budget the Department will retrofit twenty-four (24) of the seventy (70) diesel powered on-road vehicles in our fleet during the same period. The vehicles included in the Alternative Project Budget provide greater emissions reduction because they are older, less efficient vehicles and/or those that travel the greatest number of miles per year.

Project Organization/Background

The Department of Transportation provides a variety of transportation services to the West Slope of the County as well as the Tahoe Basin. Approximately 150,000 people are serviced on the over 1,000 maintained road miles. With an annual budget of \$62.9 million, the Department is able to maintain existing roads; design and construct new roads and erosion control projects; provide transit services in South Lake Tahoe; provide services to special districts; and integrate long term transportation planning with the goals and plans of adjacent cities such as Placerville and South Lake Tahoe, as well as the neighboring counties of Sacramento, Placer, and Amador.

The Maintenance Division of the Department of Transportation is responsible for the maintenance of existing roads and has units responsible for traffic operations, and bridge, road and equipment maintenance for the West Slope and Tahoe Basin. The equipment shop has skilled mechanics responsible for repair and maintenance of the fleet of vehicles used in the road operations; however, an outside vendor will be used to complete the project of retrofitting on-road diesel powered vehicles to ensure that sufficient resources are allocated to this project. The Department has interviewed four vendors with the expertise and equipment to re-power or retrofit the diesel fueled equipment. The following criteria were used to select vendors to interview for the project:

- Technology must be verified by the California Air Resources Board.
- Technology must reduce nitrogen oxides (NOx) and particulate matter (PM10).
- Vendor must possess the expertise, staff and equipment necessary to perform the work within the prescribed time period.
- Vendor must have experience in completing similar projects.

Based on the above listed criteria, the product selected for the project is the Cleaire Longview system. The technology used by this system reduces NOx in addition to PM10, providing the greatest long term benefit and emission reduction. The contractor selected to install the product is Cummins-West, the regional distributor for the Cleaire product in this area.

EMISSION BENEFITS/COST EFFECTIVENESS

The cost effectiveness calculation for the proposed Project Budget is provided in Page 5-1 included with this proposal. The cost effectiveness calculation for the Alternative Project Budget is provided in page 5-2 included with this proposal.

Under the proposed Project Budget, a total of thirty-four (34) on-road diesel fueled vehicles would be modified to reduce NOx and PM10. The clean air funding dollars contributed total \$487,076, with matching funds of \$162,358 contributed by the Road Fund. Retrofitting these vehicles would result in NOx emissions reduction of 3,757 pounds per year and a reduction of PM10 of 703 pounds per year. The cost per pound of emissions reduction for the total proposed project would be \$10.92.

Under the Alternative Project Budget, a total of twenty-four (24) diesel fueled vehicles would be modified to reduce NOx and PM10. The clean air funding dollars contributed total \$343,818, with matching funds of \$114,606 contributed by the Road Fund. Retrofitting these vehicles would result in NOx emissions reduction of 3,480 pounds per year and a reduction of PM10 of 609 pounds per year. The cost per pound of emissions reduction for the total alternative project would be \$8.41.

**EI Dorado County Department of Transportation
Cost Effectiveness of Emission Benefits
Project Budget**

Equip #	Description	Life	DMV VMT	Total Cost	Matching Funds	Request ²	ROG	NOx	PM10	NOx	PM10	N	O
25-04	1990 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Baseline	15.6	1.6	257,709	89.87	0.100	\$ 4.12
25-05	1990 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	1.6	257,709	89.87	0.100	\$ 4.12
33-02	1990 Peterbilt Tractor	12	35000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	1.6	300,691	104.85	0.100	\$ 3.53
25-06	1991 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	11.7	0.7	257,709	39.32	0.100	\$ 4.82
34-08	1991 International Water Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	85,903	13.11	0.100	\$ 14.47
23-17	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	257,709	39.32	0.100	\$ 4.82
23-18	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	257,709	39.32	0.100	\$ 4.82
25-07	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	257,709	39.32	0.100	\$ 4.82
34-07	1992 International Water Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	85,903	13.11	0.100	\$ 14.47
89-03	1993 Ford Paint Striper	12	5000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	42,982	6.59	0.100	\$ 28.94
39-03	1994 International PB Patcher	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	85,903	13.11	0.100	\$ 14.47
25-09	1996 International PB Patcher	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	214,756	16.85	0.100	\$ 18.56
24-04	1996 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	214,756	16.85	0.100	\$ 18.56
38-03	1996 International Herbicide Sprayer Truck	12	2520	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	18,040	1.42	0.100	\$ 73.64
23-19	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	71,586	5.62	0.100	\$ 18.56
24-05	2000 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	71,586	5.62	0.100	\$ 18.56
23-22	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	71,586	5.62	0.100	\$ 18.56
71-04	2001 Schwabe Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	143,172	11.23	0.100	\$ 9.28
25-10	2002 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	11.7	0.2	143,172	3.08	0.100	\$ 9.28
21-06	2003 Ford F550 Dump Truck	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	28,075	11.63	0.100	\$ 35.19
21-07	2003 Ford F550 Dump Truck	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	28,075	11.63	0.100	\$ 35.19
21-08	2003 Ford F550 Dump Truck 4x4	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	28,075	11.63	0.100	\$ 35.19
21-10	2003 International Ship Service Truck	12	7000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	29,251	3.70	0.100	\$ 110.61
21-11	2004 Ford F550	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	28,075	11.63	0.100	\$ 35.19
25-11	2004 International Dump Truck	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	29,075	11.63	0.100	\$ 35.19
25-12	2004 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	39,648	15.88	0.100	\$ 25.81
39-04	2004 International PB Patcher	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	39,648	15.88	0.100	\$ 25.81
79-02	2004 Vector Truck	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	13,216	5.29	0.100	\$ 77.43
Project Total Calculation ¹			651520	\$ 649,434	\$ 162,358	\$ 487,076	N/A	5.2	0.3	3,756.81	703.14	0.101	\$ 10.92

¹ Calculation of cost effectiveness based on total project cost and total emissions reduction
 $(.10 \times \$487,076) / (3756.81 + 703.14) = \10.92 cost per pound reduced
² Cost of CleanAir Longview retrofit system less 25% County match
³ Baseline emission factors provided by Jeff Weil, Transportation Strategies Group, Air Resources Board (9/19) 445-0098
⁴ Reduction factors for the CleanAir Longview retrofit system - 25% NOx reduction, 85% PM reduction per manufacturer's specifications

El Dorado County Department of Transportation
 Cost Effectiveness of Emission Benefits
 Alternative Project Budget

Equip #	Description	Life	VMT	Total Cost	Matching Funds	Funding Request ²	ROG	NOx	PM10	NOx	PM10	Capital Recovery Factor	(NEM/NOx+PM) = Cost Effectiveness of Funding \$ PER POUND						
							D	E	F	G	H	I	J	K	L	M	N	O	
							DMV												
25-04	1990 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	Baseline	Reduced to: Baseline ³	Reduced to: Baseline ³	Reduced to: Baseline ³	Reduced to: Baseline ³								
25-05	1990 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	1.6	0.24	257,709	89.87	0.100	\$ 4.12					
25-06	1990 Peterbilt Tractor	12	35000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	1.6	0.24	257,709	89.87	0.100	\$ 4.12					
34-06	1991 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
23-17	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
23-18	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
25-07	1992 International Dump Truck	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
34-07	1992 International Water Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
39-02	1993 International PB Patcher	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
39-03	1994 International PB Patcher	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	15.6	0.7	0.105	257,709	39.32	0.100	\$ 4.82					
25-09	1996 International PB Patcher	12	30000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	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	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
23-19	1997 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
24-05	2000 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
23-22	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
23-21	2001 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
71-04	2001 Schwarze Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
71-05	2001 Schwarze Sweeper	12	20000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	13	0.3	0.045	214,758	16.85	0.100	\$ 6.19					
25-10	2002 International Dump Truck	12	10000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	11.7	0.2	0.06	143,172	11.23	0.100	\$ 9.28					
21-06	2003 Ford F550 Dump Truck	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	0.06	29,075	11.63	0.100	\$ 35.19					
21-07	2003 Ford F550 Dump Truck	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	0.06	29,075	11.63	0.100	\$ 35.19					
21-08	2003 Ford F550 Dump Truck 4x4	12	22000	\$ 19,101	\$ 4,775	\$ 14,326	N/A	5.8	0.3	0.06	29,075	11.63	0.100	\$ 35.19					
Project Total Calculation ¹							481000	\$ 458,424	\$ 114,606	\$ 343,818	3480.40	609.01	0.10	\$ 8.41					

¹ Notes
 Calculation of cost effectiveness based on total project cost and total emissions reduction
 (.10 x \$343,818) / (3480.40 + 609.01) = \$8.41 cost per pound reduced
² Cost of Cleanre Longview 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 Cleanre Longview retrofit system - 25% NOx reduction, 85% PM reduction per manufacturer's specifications

WORK STATEMENT

The table below provides a schedule for the proposed work assuming a total of thirty-four 34 vehicles are retrofitted within a one year period. The schedule allows for removal of equipment at a rate that will not effect road maintenance operations.

Description of Work	Time frame	# of units completed	Estimated time period for preparation	Contract period
Execution of grant documents. Contract for installation of systems including, review by County Counsel and Risk Management Board of Supervisors approval.	August & September	0	2 months	
Beginning of contract period Remove 4 units of equipment from operation each month.	October - December	12		3 month
Remove 4 units of equipment from operation each month.	January & February	8		2 months
Sweepers and PB Patchers.	March & April	4		2 months
Remove 4 units of equipment from operation in March and April and 2 units in May.	May-July	10		3 months
2 months to complete any unfinished items, resolve any issues.	August & September	0		2 months
Totals		<u>34</u>		<u>12 months</u>

The Department will acknowledge receipt of AB2766 DMV Surcharge Funding for this project in two ways. First, each retrofitted unit of diesel fueled equipment for which AB2766 DMV Surcharge funding was received will have a decal affixed in a prominent location on the vehicle. In addition, a brief presentation regarding the emissions reductions and related benefits made possible by the AB2766 DMV Surcharge Funding will be made to the El Dorado County Board of Supervisors at the time the grant contract is submitted for approval.

Funding Request/Breakdown of Cost

Page 5-1, included with this proposal, provides a list of thirty-four (34) on-road diesel fueled vehicles that would be eligible for the emissions reduction retrofit. Included in this summary is the total cost, amount of the matching funds and AB2766 DMV Surcharge Funding request for each piece of equipment and in total for the proposed project. The total cost under this proposal is \$649,434, with \$487,076 in AB2766 DMV Surcharge funds being requested and the match of \$162,358 to be provided by the Road Fund. The total project cost of \$649,434 or \$19,101 per unit includes only the purchase and installation of the Claire Longview system and no other costs related to the equipment.

Page 5-2, also included with this proposal, provides a list of twenty-four (24) on-road diesel fueled vehicles that would be eligible for the emissions reduction retrofit. Under the alternative project, newer equipment (model year 2004) and those that are driven fewer than 10,000 miles per year have been eliminated. This list provides the Department of Transportation vehicles that, when retrofitted, will provide the greatest benefit through the most significant emissions reductions. The total Alternative Project cost under this proposal is \$458,424, with \$343,818 in AB2766 DMV Surcharge funds being requested and the match of \$114,606 being provided by the Road Fund. The total Alternative Project cost of \$458,424 or \$19,101 per unit includes only the purchase and installation of the Claire Longview system and no other costs related to the equipment.

Matching Funds

Matching Funds will be provided by the El Dorado County Road Fund and are included in the fiscal year 05-06 budget submitted to the Chief Administrative Officer. The funding will be available on July 1, 2005. Page 9 to this proposal is a letter stating that matching funds from the Road Fund are budgeted and will be available July, 1 2005.

Schedule of Deliverables/Monitoring Program

The Department of Transportation Project Supervisor will be Dennis Milligin, Equipment Superintendent. All communications with the contractor throughout the project will be handled by the Project Supervisor.

Deliverables will be specified by the County for each individual vehicle, and specific task assignments and work requirements will apply to each installation. Failure to submit the requested deliverables as specified will be grounds for termination of the Agreement. When a vehicle retrofit is complete, an inspection of the installation will take place and a Punch List will be generated of all non-compliant work. All issues will be resolved prior to acceptance of the work. Upon completion, and acceptance an invoice will be issued in accordance with the provisions of the contract.

The Project Supervisor will prepare a quarterly report stating the number of vehicles scheduled for retrofitting, the number completed and the number projected for the next quarter. In the event the work is not being accomplished according to the work statement provided in this proposal, the Project Supervisor will provide an explanation and the action required to meet the proposed schedule.

Letter of Commitment for Matching Funds



MAINTENANCE DIVISION
2441 Headington Road
Placerville CA 95667
Phone: (530) 642-4909
Fax: (530) 642-9238

ELIZABETH B. DIAMOND
Interim Director of Transportation

Internet Web Site:
<http://co.el-dorado.ca.us/dot>

MAIN OFFICE:
2850 Fairlane Court
Placerville CA 95667
Phone: (530) 621-5900
Fax: (530) 626-0387



June 2, 2005

Warren Hawkins
El Dorado County Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667

Dear Mr. Hawkins:

Subject: Matching Funds – Request for Proposal El Dorado County Air Quality Management District Motor Vehicle Emission Reduction Projects

The Department of Transportation is submitting an application for DMV Surcharge Funds, AB2766, to retrofit various diesel fueled vehicles. The matching funds included in the Department's Request for Proposal is derived from available Road Fund discretionary monies. Matching funds of \$162,358 is included in the fiscal year 2005/2006 Road Fund budget. The budget has been submitted to the Chief Administrative Officer and will be presented to the El Dorado County Board of Supervisors on June 14, 2005. The matching funds will be available July 1, 2005.

If you have any questions, please contact me at (530) 621-5934.

Sincerely,

Ruth Young
Transportation Fiscal Services Manager

RY:ms

VENDOR'S QUALIFICATIONS

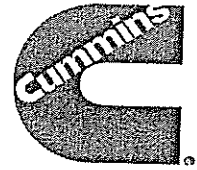
This provides a list of the vendor's qualifications and the specifications for the Claire Longview system.

Cummins West, Inc.
 14775 Wicks Blvd.
 San Leandro, CA 94577-6779
 (510) 351-6101 Fax (510) 357-3432



Founded	1934 (The original company name was Watkins and Meehan)
Ownership	Cummins West Inc. is a privately held company.
Locations	Cummins West is headquartered in San Leandro, California with branch offices in Arcata, Redding, Sacramento, Stockton, Fresno and Bakersfield, California and Honolulu, Hawaii.
People	<p>Cummins West has 350 employees with core competencies in:</p> <ul style="list-style-type: none"> ▪ Highly skilled master technicians trained in diesel engine service, diagnosis, repair, maintenance and upgrades; ▪ Customer oriented, well trained staff located at six major diesel repair facilities in Northern California and one major facility in Hawaii; (the location in Stockton does not include a major repair facility); ▪ Well staffed and stocked product inventory and distribution system; ▪ Highly trained and competent customer support staff to address sales, service and warranty support.
Technologies	<p>Cummins West is Certified to rent, sell, warrant and maintain:</p> <ul style="list-style-type: none"> ▪ Cummins Engine Company products; ▪ Komatsu Heavy Equipment Company products; ▪ Cleaire Advanced Emission Controls products.
Management	<ul style="list-style-type: none"> ▪ Kevin Shanahan, President and CEO ▪ Paul Bleeker, Vice-President and COO ▪ Michael Doherty, Vice-President and CFO

Cummins West, Inc.
14775 Wicks Blvd.
San Leandro, CA 94577-6779
(510) 351-6101 Fax (510) 357-3432



<p>Retrofit Accomplishments</p>	<p><u>CARB Flash & Match Program:</u> Under a contract with the California Air Resources Board, Cummins West installed exhaust retrofit systems on 658 heavy-duty, private company line-haul trucks. Cummins West completed all installations within three months.</p> <p><u>Bay Area Transit Retrofits :</u> The Metropolitan Transportation Commissions has awarded funds to seven transit districts in the Bay Area to install exhaust retrofit systems on over 1,500 diesel buses. Over 500 units have been installed to date. Cummins West has performed the majority of these installations and has trained staff at one transit property to perform their own installations.</p> <p><u>Bay Area AQMD Transportation Funds for Clean Air Solid Waste Collection Vehicle program:</u> Bay Area Air Quality Management District has awarded funds to 19 cities in the Bay Area to install Cleaire exhaust retrofit systems on 259 solid waste collection vehicles. Cummins West has installed 54 units to date.</p> <p><u>California Department of Transportation:</u> Caltrans has proactively purchased over 130 Cleaire exhaust retrofit systems. Cummins West has done all Caltrans installations.</p> <p><u>Sacramento Municipal Utility District:</u> SMUD has proactively purchased over 40 Cleaire exhaust retrofit systems and is currently using a Cleaire filter cleaning machine. Cummins West has done all SMUD installations.</p> <p><u>Auburn/Placer Disposal:</u> 24 approved, 14 installed, funded by Placer APCD</p> <p><u>City of Roseville:</u> 24 approved, 14 installed, funded by Placer APCD</p> <p><u>Vacaville Sanitary Disposal:</u> 14 approved, 7 installed, funded by Yolo/Solano AQMD</p>
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clēaire

ADVANCED EMISSION CONTROLS®

LONGVIEW®

The Cleaire Longview® is a cost-effective system that reduces NOx and PM emissions from in-use diesel engines.

The Longview integrates a NOx reducing catalyst (NRC) and a catalyzed diesel particulate filter (DPF) to provide simultaneous control of NOx, PM, HC, and CO emissions. The Longview is a muffler replacement unit with a modular design that facilitates installation and maintenance.

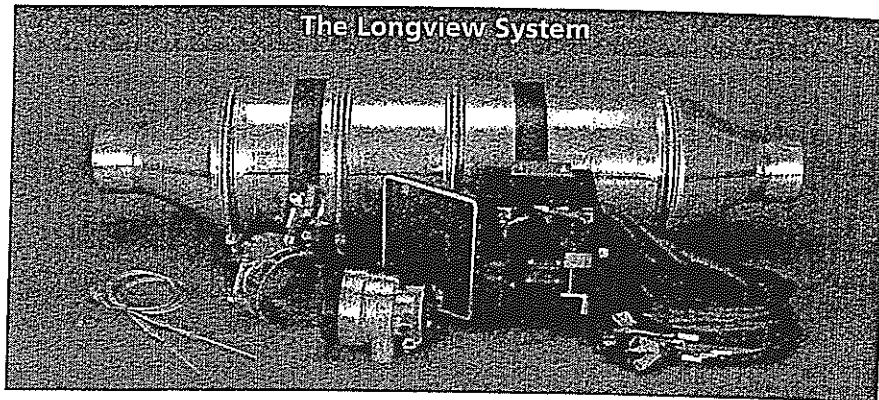
PRODUCT APPLICATIONS

Longview systems are in service on a wide variety of applications, including transit buses, dump trucks, and refuse haulers. The Longview is CARB verified for on-road use across multiple engine makes and models. Check with your Cleaire distributor for the most current list of verified engines and applications.

SYNERGY THROUGH CHEMISTRY

The NRC uses diesel fuel as a reducing agent to catalytically remove NOx from the exhaust stream. The DPF then reduces PM, HC, and CO. Emission reductions depend on engine and duty cycle, but typically the Longview reduces NOx by 25% and PM by 85%.

The combination of NRC + DPF offers emission benefits with minimal impact on the engine operator. The use of diesel fuel as a reducing agent promotes NOx reductions without causing power loss, requiring a separate chemical reagent (such as urea), or adding exhaust gas recirculation.



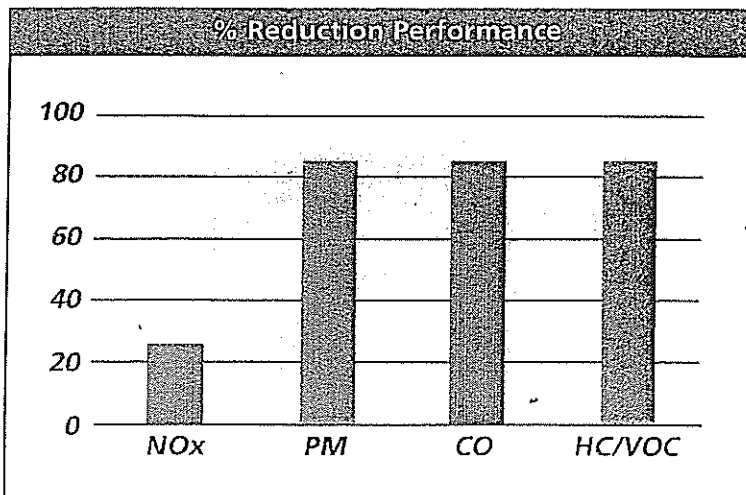
The Longview System

The Longview system is managed by the MLC®, a proprietary controller that determines the precise amount of diesel fuel to inject. Diesel fuel is drawn from the vehicle fuel supply, pressurized, filtered, and sent to a cooled fuel injector mounted on the exhaust pipe. The injected diesel fuel and exhaust gases react on the NRC to remove NOx.

These reactions also release heat, increasing the oxidation rate of PM inside the DPF. This facilitates DPF regeneration, which in turn keeps backpressure at acceptable levels. This catalyzed DPF also eliminates any unreacted diesel fuel. Cleaire uses a rugged silicon carbide DPF for enhanced durability.

THE PATH IS CLEAIRE

The Cleaire Longview is a retrofit system designed to address the business needs of diesel engine operators and the environmental needs of our community. NOx and PM reductions are achieved at typical operating conditions. The Longview is a cost-effective system providing a diesel retrofit solution.



Contact: 1-800-308-2111

www.cleaire.com

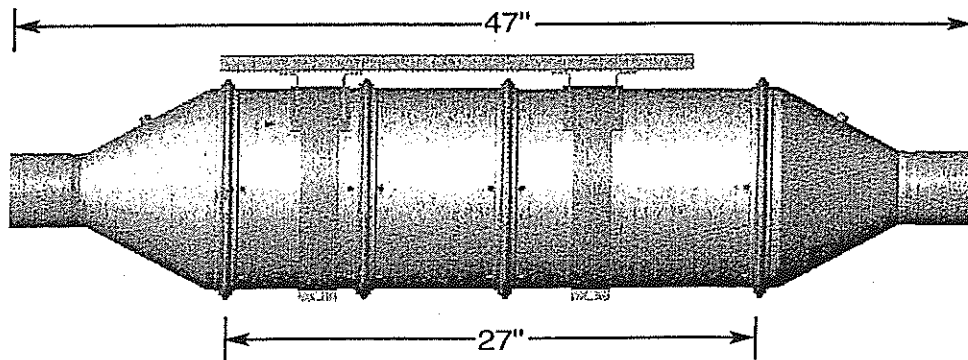
PRODUCT FEATURES

CLEAIRE LONGVIEW

Engine Applicability	1994-2003 4-strokes, see duty cycle requirement below
Mounting	Vertical or horizontal
NOx Reduction	25%
PM Reduction	>85%
CO Reduction	>85%
HC/VOC Reduction	>85% including some toxic air contaminants
Odor Reduction	Yes
Smoke Reduction	Yes
Fuel Requirement	ULSD
Duty Cycle Requirement	>260°C for >25% of driving cycle
Maintenance	Annual de-ash of DPF and system inspection

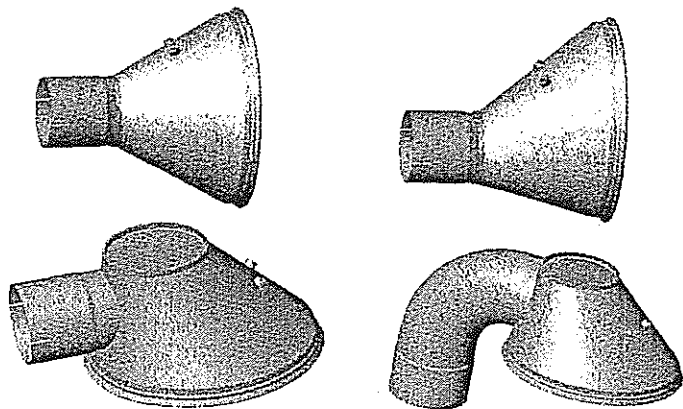
Verification requirements may vary. Contact your Cleaire distributor for current information.

CLEAIRE LONGVIEW® SPECIFICATIONS



Optional end cones (std pipe size, slip-fit, or custom)

COMPONENT WEIGHTS	
End Cones	5 lbs each
NRCs	17 lbs each
DPF	44 lbs
Clamps, bolts, etc.	10 lbs
Bracketry	8 lbs
Total Weight (approx.)	106 lbs



cleaire

ADVANCED EMISSION CONTROLS®