MECA
Manufacturers of Emission Controls Association
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December 5, 2000

SUBJECT: MECA Independent Cost Survey for Emission Control Retrofit Technologies

TO: Interested Parties

FROM: Dale McKinnon, Deputy Director

Attached for your information is a copy of MECA Independent Cost Survey for Emission Control Retrofit Technologies, dated November 9, 2000. This report was prepared in response to numerous requests received by MECA for information regarding the estimated costs of various diesel retrofit emission control technologies.

The report is designed to provide estimates on the range of costs for emission control technologies under the various scenarios spelled out in the report. Information regarding the costs of retrofit technology for specific applications should be obtained directly from the technology manufacturers

We also would note that as the market for diesel exhaust emission control technology for both new and retrofit applications grows over the next several years and as these technologies are further optimized, we anticipate that the costs of diesel retrofit technologies will continue to be reduced over time.

Please contact me if you have any questions.

MANUFACTURERS OF EMISSION CONTROLS ASSOCIATION

REPORT OF AGREED-UPON PROCEDURES
NOVEMBER 9, 2000

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ACCOUNTING AND
MANAGEMENT SERVICES

MEMBER OFTHE AMERICAN INSTITUTE OF
CERTIFIED PUBLIC ACCOUNTANTS AND
ITS INFORMATION TECHNOLOGY SECTION

November 9, 2000

Mr. Bruce I. Bertelsen
Manufacturers of Emission Controls Association
1660 L Street NW
Suite 1100
Washington, DC 20036-5603

Dear Bruce:

I have applied certain agreed-upon procedures, as discussed-below, solely to provide you with the mean costs or range of costs of emission control retrofit technologies that certain member companies estimated for certain sales volumes. My procedures and findings are as follows:

1. From information submitted to this office by emission-control retrofit manufacturers in tabular formats created by you, I report the means of or the range of the costs to users in the same tabular formats.

2. Your survey assumes technology for four-stroke engines and where appropriate, respondents should indicate a cost scaling factor for two-stroke engines and nonroad equipment. I have summarized the respondents' comments about such factors below respective tables.

3. Observing your request to keep individual cost estimates and comments strictly confidential, I issue the survey results on the following two pages entitled, "MECA Independent Cost Survey for Emission Control Retrofit Technologies".

I have reported the means of the costs and the summaries of the comments received and do not express an opinion on the accuracy of the responses reported to you.

Respectfully submitted,

Mark L. Gollub, CPA

MECA Independent Cost Survey for
Emission Control Retrofit Technologies

Oxidation Catalysts

Engine Size (hp)	Yearly Sales Volume	Mean Cost to User $ Muffler Replacement	In-Line
100 - 200	500	1,250	575
	1,000	1,200	563
	5,000	1,100	463
	10,000	975	425
201- 300	500	1,650	850
	1,000	1,600	825
	5,000	1,400	725
	10,000	1,225	650
301- 500	500	1,750	1,150
	1,000	1,700	1,125
	5,000	1,550	1,000
	10,000	1,375	900

Two-Stroke Scaling Factor: None or N/A
Nonroad Scaling Factor: None or N/A

Diesel Particulate Filters

Engine Size (hp)	Yearly Sales Volume	Mean Cost to User $ Muffler Replacement	In-Line
100 - 200	500	4,500	4,000
	1,000	4,400	4,000
	5,000	4,000	3,500
	10,000	3,250	3,000
201 - 300	500	5,000	4,000
	1,000	4,900	4,000
	5,000	4,500	3,500
	10,000	3,750	3,000
301- 500	500	5,500	4,000
	1,000	5,400	4,000
	5,000	5,000	3,500
	10,000	4,250	3,000

Two-Stroke Scaling Factor: None or N/A
Nonroad Scaling Factor: None or N/A

MECA Independent Cost Survey for
Emission Control Retrofit Technologies

SCR

Engine Size (hp)	Yearly Sales Volume	Range of Costs to User $
100 - 200	500	17,500 - 40,000
	1,000	15,000 - 35,000
	5,000	12,500 - 30,000
	10,000	10,000 - 15,000
201- 300	500	18,000 - 45,000
	1,000	15,500 - 40,000
	5,000	13,000 - 35,000
	10,000	10,500 - 18,000
301- 500	500	18,500 - 50,000
	1,000	16,000 - 45,000
	5,000	13,500 - 40,000
	10,000	11,000 - 20,000

Two-Stroke Scaling Factor: N/A
Nonroad Scaling Factor: N/A

LNC/DPF Combined Systems

Engine Size (hp)	Yearly Sales Volume	Mean Cost to User $
100 - 200	500	5,000
	1,000	5,000
	5,000	5,000
	10000	5,000
201- 300	500	7,500
	1,000	7,500
	5,000	7,500
	10,000	7,500
301- 500	500	10,000
	1,000	10,000
	5,000	10,000
	10,000	10,000

Two-Stroke-Scaling Factor: Need to be sized 50-100% larger & priced accordingly
Nonroad Scaling Factor: Anticipate same pricing