

Table 5 - Annual Respondent Burden and Cost

CI Exhaust Emissions Certification & AB&T Programs - All Industries Except Alternative Fuels & HD GHG

Information Collection Activity	Burden and Cost per Application												Total Burden and Cost			
	Engineer	Manager	Legal	Mechanical Engineering Technician	Truck Driver	Assembler	Clerical	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Applications/Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr	
	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour									
<b>Certification</b>																
Review of regulations and guidance documents	16	9	10	4	0	0	1	40	\$4,570	\$0	\$16	2.0	103	8,240	\$944,570	
Developing engine family groups	5	1	0	0	0	0	1	7	\$613	\$0	\$0	1.0	103	721	\$63,174	
Developing deterioration factors	30	5	0	38	2	0	3	78	\$5,791	\$0	\$5	2.1	103	17,018	\$1,264,616	
<b>In-house Testing<sup>3</sup></b>																
Testing/Gathering emission data	10	7	0	60	4	1	14	95	\$6,144	\$0	\$5	2.5	56	13,395	\$867,075	
Laboratory maintenance											\$81,237	1.0	56	0	\$4,533,013	
<b>Outsourced Testing Costs, Annualized<sup>4</sup></b>																
HD and NR											\$15,982	3.5	8	0	\$447,487	
Marine CI											\$17,970	3.0	10	0	\$539,110	
IMO											\$4,000	1.0	2	0	\$8,000	
Evaporative											\$2,689	0.6	9	0	\$14,520	
Locomotives											\$16,387	1.0	15	0	\$245,809	
Analyze data to determine compliance	5	6	1	0	0	0	1	13	\$1,446	\$0	\$0	2.1	93	2,561	\$284,931	
Preparing and submitting certification application and fee filing form	5	1	0	0	0	0	4	10	\$668	\$0	\$4	10.4	93	9,206	\$651,192	
*Preparing and submitting "carry over" applications	1	0	0	0	0	0	2	3	\$169	\$0	\$5	8.3	93	2,316	\$134,150	
<b>Application Fee<sup>5</sup></b>																
HD Federal											\$55,892	3.1	8	0	\$1,397,300	
HD California only											\$563	0.8	8	0	\$3,378	
HD Evaporative											\$563	0.8	6	0	\$2,815	
NRCI											\$2,940	9.3	40	0	\$1,087,800	
Marine CI (All Categories)											\$563	10.7	29	0	\$174,530	
Locomotives											\$563	4.1	15		\$34,343	
Preparing and supporting running changes	4	1	1	2	0	0	1	9	\$784	\$0	\$6	11.6	103	10,167	\$944,870	
Answer questions related to EPA's confirmatory testing	5	3	2	0	0	0	0	10	\$1,176	\$0	\$10	2.0	10	200	\$23,714	
<b>Compliance Programs</b>																
Preparing and Submitting Annual Production Report	12	2	1	0	0	0	2	17	\$1,571	\$0	\$3	1.0	103	1,751	\$162,138	
Preparing and Submitting AB&T Reports	90	8	6	0	0	0	50	154	\$12,014	\$0	\$50	1.0	33	5,082	\$398,110	
SEAs	95	5	2	79	2	2	8	191	\$14,515	\$0	\$16,970	1.0	2	382	\$62,969	
<b>Recordkeeping</b>																
Store, file and maintain records	15	10	4	2	2	2	51	84	\$5,584	\$0	\$1,000	1.0	103	8,652	\$678,153	
Total per respondent	293	58	27	185	10	5	138	710	\$55,045	\$0	varies	varies	N/A	N/A	N/A	
Total for the industry	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$6,320,651	\$0	\$8,647,118	varies	103	79,691	\$14,967,768	

<sup>1</sup>Includes phone calls, lab maintenance and testing limited to GHG certification. Other lab-related costs have already been accounted for in the general certification collection, ICR 1684. See section 6(b)(i) for details.

<sup>2</sup>See section 6(d) for details. Frequency refers to the number of times a respondent performs each task per year. In most instances, this is tied to the number of certification applications in each category, except when in one-time tasks or tasks that apply all applications, such as reviewing regulations.

<sup>3</sup>Some manufacturers, usually large companies with many engine families, invest in in-house testing laboratories for compliance testing as well as research & development.

<sup>4</sup>Some manufacturers, usually smaller companies, hire outside laboratories for testing.

<sup>5</sup>Carry over applications are generally a copy of the previous year application except for the first letter of the engine family name. The submittal of certification applications is already accounted for in the certification ICR.

**Table 6 - Annual Resp  
HD Engines Certifi**

Information Collection Activity <sup>1</sup>	Burden and Cost per Applic				
	Engineer	Manager	Legal	Mechanical Engineering Technician	Clerical
	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour
	\$88.01	\$132.91	\$168.46	\$60.10	\$40.38
Review of regs and guidance document	8.0	3.0	1.0	1.0	0.0
Testing/Gathering emission data on test engines	8.0	1.0	0.0	8.0	1.0
Analyze data to determine compliance	1.0	0.5	0.0	0.0	0.0
Adding GHG data to new, non carry-over certification applications	0.5	0.0	0.0	0.0	0.0
Carry over applications <sup>4</sup>	0.0	0.0	0.0	0.0	0.0
Prepare & Review GHG Compliance Plan	1.0	1.0	0.0	0.0	0.0
Preparing and supporting running changes/corrections	7.0	5.0	1.0	3.0	8.0
Submitting AB&T and Production Reports	4.0	1.0	0.0	0.0	0.0
Store, file and maintain records	0.0	0.0	0.0	0.0	2.0
<b>Total per manufacturer</b>	<b>30</b>	<b>12</b>	<b>2</b>	<b>12</b>	<b>11</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup>This table accounts for the incremental cost of adding GHG data to the HD certification application. Other certification burden ar

<sup>2</sup>Includes phone calls, lab maintenance and testing limited to GHG certification. Other lab-related costs have already been accou

<sup>3</sup>See section 6(d) for details. Frequency refers to the number of times a respondent performs each task per year. In most instanc

<sup>4</sup>Carry over applications are generally a copy of the previous year application except for the first letter of the engine family name.

## Respondent Burden and Cost

### Certification & Compliance

Certification				Total Burden and Cost			
Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>2</sup>	Frequency or Applications/ Respondent <sup>3</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
13.0	\$1,331	\$0	\$20	1.0	7	91	\$9,460
18.0	\$1,358	\$0	\$1,000	0.3	7	33	\$4,363
1.5	\$154	\$0	\$0	0.3	7	3	\$286
0.5	\$44	\$0	\$2	0.3	7	1	\$85
0.0	\$0	\$0	\$0	5.3	7	0	\$0
2.0	\$221	\$0	\$5	1.0	7	14	\$1,581
24.0	\$1,952	\$0	\$2	1.0	5	120	\$9,772
5.0	\$485	\$0	\$5	1.0	7	35	\$3,430
2.0	\$81	\$0	\$10	1.0	7	14	\$635
66	5,627	0	\$307	varies	N/A	N/A	N/A
N/A	\$27,468	\$0	\$2,144	1.9	7	311	29,612

<sup>1</sup> and costs are accounted for on Table 5, Certification.

<sup>2</sup> intended for in Table 5, Certification.

<sup>3</sup> For example, this is tied to the number of certification applications in each category, except when in one-time tasks or tasks that apply all applicable respondents. The submittal of certification applications is already accounted for in the certification ICR.

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:actions, such as reviewing regulations.

**Table 7 - Annual Respondent Burden and Cost per Application  
Pickups & Vans Certification**

Information Collection Activity	Burden and Cost per Application					
	Engineer	Manager	Legal	Mechanical Engineering Technician	Clerical	Respondent hr/yr
	Rate/hour \$88.01	Rate/hour \$132.91	Rate/hour \$168.46	Rate/hour \$60.10	Rate/hour \$40.38	
Review of regulations and guidance	8.0	3.0	1.0	1.0	0.0	13
Test/Gather emission data on test vehicles						
Pickups/Vans						
Dyno Testing	12.0	4.0	0.0	8.0	0.0	24
Coast Down Testing	2.0	2.0	0.0	10.0	0.0	14
Vocational Vehicles						
Tire Testing (ISO28580)	2.0	1.0	0.0	8.0		11
Collect, Input GEM Data & Run Model	20.0	4.0	0.0	0.0	0.0	24
Combination Tractors						
Coefficient of Drag Tests:						
- Coast Down Testing	0.0	0.0	0.0	0.0	0.0	0
- Wind Tunnel Testing	8.0	2.0	0.0	0.0	0.0	10
- Cfd (initial drawing)	8.0	4.0	0.0	0.0	0.0	12
- Cfd (layers)	2.0	1.0	0.0	0.0	0.0	3
Tire Testing ISO 28580	6.0	2.0	0.0	0.0	0.0	8
Collect Data & Run GEM	20.0	4.0	0.0	0.0	0.0	24
Prepare & submit certification applications						
Analyze data to determine compliance	16.0	4.0	2.0	2.0	0.0	24
Prepare and submit new, non-carryover certification applications	1.0	0.3	0.3	0.3	0.5	2
Prepare and submit "carryover" application <sup>(3)</sup>	1.0	0.0	0.0	0.0	0.0	1
Labeling Requirements	1.0	0.0	0.0	0.0	0.0	1
Prepare & Review GHG Compliance Plan (pick up mfrs only)	9.0	8.0	1.0	0.0	1.0	19
Preparing and supporting running changes/corrections	7.0	5.0	1.0	3.0	8.0	24
Store, file and maintain records	3.0	0.5	0.5	0.5	7.0	12
Total per manufacturer	124	45	6	33	17	224
Total for the industry	N/A	N/A	N/A		N/A	N/A

<sup>1</sup>Includes expenses such phone calls, printing costs and testing limited to GHG certification, annualized. See section

<sup>2</sup>See section 6(d) for details. Frequency refers to the number of times a respondent performs each task per year, us

<sup>3</sup>Carry over applications are generally a copy of the previous year application except for the first letter of the engine

## Burden and Cost

### & Compliance

			Total Burden and Cost			
Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Applications/ Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
\$ 1,331	\$0.00	\$10	1.0	42	546	\$146,478
\$ 2,069	\$0.00	\$100	2.5	7	420	\$39,034
\$ 1,043	\$0.00	\$500	2.5	7	245	\$28,080
\$ 309	\$0.00	\$321	0.1	31	47	\$2,709
\$ 2,292	\$0.00	\$0	0.1	31	103	\$9,855
\$ -	\$0.00	\$1,658	0.4	4	0	\$2,918
\$ 970	\$0.00	\$21,411	0.4	4	18	\$39,390
\$ 1,236	\$0.00	\$5,352	0.4	4	21	\$11,594
\$ 309	\$0.00	\$535	0.4	4	5	\$1,486
\$ 794	\$0.00	\$321	0.4	4	14	\$1,962
\$ 2,292	\$0.00	\$2	0.4	4	42	\$4,037
\$ 2,397	\$0.00	\$0	1.0	1.5	36	\$14,382
\$ 199	\$0.00	\$2	1.0	42	95	\$1,203
\$ -	\$0.00	\$0	3.3	42	139	\$0
\$ -	\$0.00	\$10	3.3	42	139	\$1,386
\$ 2,064	\$0.00	\$5	1.0	7	133	\$14,484
\$ 1,952	\$0.00	\$2	3.0	20	1,440	\$117,265
\$ 727	\$0.00	\$10	1.0	42	483	\$30,972
\$19,983	\$0	\$14,541	varies	N/A	N/A	N/A
\$400,359	\$0	\$66,877	3.3	42	4,571	\$467,236

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on 6(b)(ii) for details.

usually equal to the number of applications or reports per respondent per year.

family name. The submittal of certification applications is already accounted for in the certification ICR.

**Table 8 - Annual Respondent Burden and Cost**  
**Marine CI Production Line Testing Program**

Information Collection Activity	Burden and Cost per Application								Total Burden and Cost						
	Engineer	Manager	Legal	Mechanical Engineering Technician	Driver	Assembler	Clerical	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Applications/Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour	Rate/hour								
Review of instructions and regulations	20	4	6	0	0	0	0	30	\$3,303	\$0	\$0	1	25	750	\$82,565
Training	8	0	0	0	1	0	0	9	\$745	\$0	\$30	1	25	225	\$19,369
Projecting testing needs and planning test schedules	11	5	0	1	0	0	0	17	\$1,693	\$0	\$5	3.5	25	1487.5	\$148,554
Engine selection and transport	4	0	0	0	1	1	1	7	\$472	\$0	\$1	3.5	25	612.5	\$41,426
Engine inspection	1	0	0	0	6	0	0	7	\$332	\$0	\$0	3.5	25	612.5	\$29,053
<b>Testing</b>															
Testing (In-house) <sup>3</sup>	8	0	0	0	12	2	0	22	\$1,271	\$0	\$100	4	15	1320	\$82,249
Data entry and analysis	8	0	0	1	0	0	0	9	\$764	\$0	\$5	4	15	540	\$46,151
Other tasks (test equipment calibration, engine repair, etc.)	1	0	0	0	93	0	0	94	\$3,870	\$0	\$5	1	15	1410	\$58,130
Testing (Contract out) <sup>4</sup>	8	1	0	5	0	0	0	14	\$1,137	\$0	\$17,970	2.8	10	392	\$535,019
Preparing and submitting report	8	1	1	2	0	0	0	12	\$1,126	\$0	\$5	3.5	25	1050	\$98,932
<b>Recordkeeping</b>															
Store, file and maintain records	4	2	0	3	0	1	10	20	\$1,241	\$0	\$2	1	25	500	\$31,083
<b>Total per manufacturer</b>	<b>108</b>	<b>7</b>	<b>9</b>	<b>7</b>	<b>113</b>	<b>4</b>	<b>1</b>	<b>249</b>	<b>\$15,954</b>	<b>\$0</b>	<b>varies</b>	<b>varies</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$661,223</b>	<b>\$0</b>	<b>\$511,307</b>	<b>N/A</b>	<b>25</b>	<b>8,900</b>	<b>\$1,172,530</b>

<sup>1</sup>Includes photocopying, postage expenses, phone calls, testing costs and some lab costs, annualized. Most lab costs for in-house testing are accounted for in Table 5, Certification. See section 6(b)(ii) for details.

<sup>2</sup>Frequency: 1 = one time tasks; 4 = tasks carried out quarterly; other # = based on actual number of tests. Refer to Section 6(d) for further detail.

<sup>3</sup>Some manufacturers, usually large companies with many engine families, invest in in-house testing laboratories for compliance testing as well as research & development.

<sup>4</sup>Some manufacturers, usually smaller companies, hire outside laboratories for testing.

**Table 8b - Annual Respondent Burden and Cost**

**Locomotive Production Line Testing Program**

Information Collection Activity	Hours and cost per application									Total hours and cost			
	Engineer	Manager	Legal	Clerical	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost (1)	Engine Families	Frequency per family	Number of Respondents	Total hr/yr	Total Cost/yr
	Rate/hour	Rate/hour	Rate/hour	Rate/hour									
\$88.01	\$132.91	\$168.46	\$40.38										
Review of instructions and	70	2	5	0	77	\$7,268.82	\$0.00	\$0.00	1	1	15	1,155	\$109,032
Training	16	0	0	0	16	\$1,408.16	\$0.00	\$35.00	1	1	15	240	\$21,647
Projecting testing needs and planning test schedules	16	1	0	0	17	\$1,541.07	\$0.00	\$0.00	1	1	15	255	\$23,116
Engine selection	4	0	0	4	8	\$513.56	\$0.00	\$0.00	2.9	1	15	348	\$22,340
Engine inspection (manufacturers)	6	0	0	1	7	\$568.44	\$0.00	\$0.00	1	4	8	224	\$18,190
Engine inspection and installation audit (remanufacturers)	25	0	0	5	30	\$2,402.15	\$0.00	\$5,580.00	2	3	9	1,620	\$431,036
Testing (manufacturers only)	55	0	0	8	63	\$5,163.59	\$0.00	\$16,387	1	4	8	2,016	\$689,628
Data entry and analysis (manufacturers)	18	0	0	2	20	\$1,664.94	\$0.00	\$3.30	1	4	8	640	\$53,384
Data entry and analysis (remanufacturers)	20	0	0	4	24	\$1,921.72	\$0.00	\$3.30	2	3	9	1,296	\$103,951
Preparing and submitting report (manufacturers)	15	1	1	4	21	\$1,783.04	\$0.00	\$3.30	1	1	8	168	\$14,291
Preparing and submitting report (remanufacturers)	15	0	0	2	17	\$1,400.91	\$0.00	\$2.30	1	1	9	153	\$12,629
Store, file and maintain records	4	0	0	10	14	\$755.84	\$0.00	\$2.30	1	4	15	840	\$45,488
<b>Total per manufacturer</b>	<b>204</b>	<b>4</b>	<b>6</b>	<b>29</b>	<b>243</b>	<b>\$20,667.46</b>	<b>\$0.00</b>	<b>\$16,431.18</b>	<b>varies</b>	<b>varies</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total per remanufacturer</b>	<b>170</b>	<b>3</b>	<b>5</b>	<b>25</b>	<b>203</b>	<b>\$236.00</b>	<b>\$0.00</b>	<b>\$5,622.90</b>	<b>varies</b>	<b>varies</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$718,025.54</b>	<b>\$0.00</b>	<b>\$826,706.86</b>	<b>76</b>	<b>N/A</b>	<b>15</b>	<b>8,955</b>	<b>\$1,544,732</b>

(1) The required sample size is the lesser of one test per engine family or five tests per model year; with a minimum of one test per model year per family. Remanufacturers only need to audit the installation of one remanufactured locomotive engine or 5% of their production, whichever is less.



**Table 9a - Annual Respondent Burden and Cost**

**Manufacturer-run In-use Testing Program for HD Engines/Vehicles**

Information Collection		Hour and Cost per Response		
Activity	Description	Burden Hours per Vehicle Tested	Cost per vehicle	Cost for 5 vehicles (minimum for in-use each test)
Vendor Cost	Vendor supplies PEMS equipment, all expendables; Installs, operate, removes equipment. Maintains and calibrates equipment, analyzes data, supplies draft EPA submittal files, a test summary, and all backup QA/QC documentation. Travel time and travel costs included.		\$ 48,000	\$240,000
Vehicle manufacturer staff travel	Inspection and testing - varies by location, this is an estimate of an average		\$ 1,150	\$5,750
Customer incentive	Voluntary payment to customers lending their vehicles for testing.		\$ 1,000	\$5,000
Replacement vehicle rental	For customer to use during equipment installation		\$ 250	\$1,250
Vehicle manufacturer hours	60 hours per vehicle for recruiting, inspection, testing, data review and submission, test follow up, etc	58	\$ 10,500	\$52,500
Recordkeeping		2	\$ 362	\$1,810
Total per respondent	N/A	60	\$ 61,262	\$306,310
Total for the industry	N/A	N/A	N/A	N/A

Total Labor Cost: \$ 65,172

Total O&M Costs: \$ 1,772,690

Total Hours and Cost		
Number of Respondents (3)	Total hr/yr	Total Cost/yr
6		\$1,440,000
6		\$34,500
6		\$30,000
6		\$7,500
6	348	\$315,000
6	12	\$10,862.07
N/A	N/A	N/A
6	360	\$1,837,862

**Table 9b - Annual Respondent Burden and Cost  
Manufacturer-run In-use Testing Program for Locomotives**

Information Collection Activity	Hours and cost per application							
	Engineer	Manager	Legal	Clerical	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost(1)
	Rate/hour \$88.01	Rate/hour \$132.91	Rate/hour \$168.46	Rate/hour \$40.38				
Review of instructions and regulations	10	1	1	0	12	\$1,181	\$0	\$0
Training	4	0	0	1	5	\$392	\$0	\$50
Procure locomotives	4	2	0	4	10	\$779	\$0	\$30
Testing (in-house) (3)	40	0	0	8	48	\$3,843	\$0	\$710
Testing (contracting out)	0	0	0	4	4	\$162	\$0	\$16,387
Loss of revenue	0	0	0	0	0	\$0	\$0	\$1,469
Data entry and analysis (manufacturers)	16	0	0	2	18	\$1,489	\$0	\$4
Data entry and analysis (remanufacturers)	2	0	0	5	7	\$378	\$0	\$4
Preparing and submitting report	6	1	1	2	10	\$910	\$0	\$5
Store, file and maintain records	2	0	0	10	12	\$580	\$0	\$2
<b>Total per manufacturer (in-house testing)</b>	<b>82</b>	<b>4</b>	<b>2</b>	<b>27</b>	<b>115</b>	<b>\$9,176</b>	<b>\$0</b>	<b>\$2,270</b>
<b>Total per remanufacturer (contracting out)</b>	<b>28</b>	<b>4</b>	<b>2</b>	<b>26</b>	<b>60</b>	<b>\$4,383</b>	<b>\$0</b>	<b>\$17,947</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$55,036</b>	<b>\$0</b>	<b>\$116,526</b>

(1) Includes phone calls to procure locomotives, testing and the expense of stopping a locomotive for testing, among others expenses, annualized. See section 6(b)(iii) for details.

(2) Manufacturers must test one engine family per year. For new engine families, a minimum of two locomotives must be tested (but only one per carry-over family).

Engine families of less than 10 locomotives need not be tested. Sixteen of 30 new families have over 10 locomotives.

(3) Lab maintenance costs are not included here because they were accounted for in the certification burden table (Table 1).

Total hours and cost			
In-use tests/ Respondent (2)	Number of Respondents	Total hr/yr	Total Cost/yr
1.0	7	84	\$8,270
1.0	7	35	\$3,097
1.0	7	70	\$5,666
1.0	3	144	\$13,660
1.5	4	24	\$99,293
1.5	7	0	\$15,421
1.5	7	189	\$15,676
		0	\$0
1.0	7	70	\$6,406
1.0	7	84	\$4,073

varies	varies	N/A	N/A
varies	varies	N/A	N/A
varies	7	700	\$171,562



## den and Cost

		Total Burden and Cost				
Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Reports per Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr	
\$0	\$0	1.0	35	735	\$85,707	35
\$0	\$43	3.7	35	7,168	\$705,265	128
\$0	\$11	3.7	35	2,944	\$273,563	128
\$0	\$0	3.7	35	858	\$88,299	128
\$0	\$2	1.0	35	105	\$5,986	35
0						
\$0	\$0	1.0	6	132	\$14,199	6
\$0	\$43	4.1	6	713	\$69,355	24.6
\$0	\$11	4.1	6	443	\$45,198	24.6
\$0	\$11	6.0	6	936	\$96,438	36
\$0	\$2	4.1	6	1,082	\$50,659	24.6
0						
\$0	\$2	1.0	35	105	\$5,986	35
0	\$123.68	varies	N/A	N/A	N/A	
<b>\$0</b>	<b>\$8,706</b>	<b>varies</b>	<b>\$29</b>	<b>15,221</b>	<b>\$1,440,653</b>	

0.275

**Table 11 - Respondent Burden and Cost**  
**Marine CI Vessel Owners, Operators & Engine Rebuilders**

Table 5 - Annual Respondent Burden and Cost - Vessel Owners, Operators & Engine Rebuilders												
Information Collection Activity	Hours and Cost per Application									Total Hours and Cost		
	Engineer	Manager	Legal	Clerical	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Reports per Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
	Rate/hour	Rate/hour	Rate/hour	Rate/hour								
Review of instructions and regulations	\$88.01	\$132.91	\$168.46	\$40.38	5	\$404.20	\$0	\$10	1.0	192	960	\$79,526
Owners & Operators						\$0.00						
Inform EPA of malfunctions & other special events	4	1	1	2	8	\$529.96	\$0	\$10	1.0	187	1,496	\$100,973
Conduct Annual Records Review	10	3	3	5	21	\$1,432.59	\$0	\$100	1.0	187	3,927	\$286,594
Prepare and submit report	3	1	1	5	10	\$561.25	\$0	\$30	1.0	187	1,870	\$110,564
Owners, Ops & Rebuilders: Store, file and maintain records	15	5	5	30	55	\$2,963.30	\$0	\$50	1.0	192	10,560	\$578,554
<b>Total per manufacturer</b>	<b>95</b>	<b>5</b>	<b>2</b>	<b>8</b>	<b>99</b>	<b>\$6,955</b>	<b>\$0</b>	<b>varies</b>	<b>varies</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Annualized totals = total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$1,118,511</b>	<b>\$0</b>	<b>\$37,700</b>	<b>N/A</b>	<b>192</b>	<b>18,813</b>	<b>\$1,156,211</b>

(1) Includes CDs, photocopying, postage expenses, phone calls, and testing costs.

(2) Frequency: A frequency of 1 has been used to denote an annual event.

(3) EPA estimates it will audit 1 manufacturer over the next 3 years. It might, however, request pre-audit information from more than one manufacturer.



**Table 12- Respondent Burden and Cost**

**Alternative Fuel Conversions - Beginning-of-Useful-Life Conversions**

Information Collection Activity	Burden and Cost per Application			Total Burden and Cost			
	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Frequency or Applications/Respondent <sup>2</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
<b>General Tasks</b>							
Review of regulations and guidance documents	\$3,027	\$0	\$0	1.0	8	188	\$24,217
Developing engine family groups	\$309	\$0	\$0	1.4	8	34	\$3,460
Analyze data to determine compliance	\$1,534	\$0	\$0	1.4	8	157	\$17,185
Preparing and submitting certification application and fee filing form	\$404	\$0	\$4	1.4	8	73	\$4,570
Preparing and submitting "carry over" applications	\$44	\$0	\$4	0.4	8	2	\$154
Preparing and supporting running changes	\$389	\$0	\$6	1.0	4	22	\$1,579
<b>Beginning of Useful Life Conversions - New Applications Only</b>							
Test Cost (annualized) <sup>3</sup>	\$0	\$0	\$10,900	2.5	4	0	\$109,000
OBD Compliance Demo	\$176	\$0	\$200	2.5	4	20	\$3,760
Engine Shipping Costs	\$0	\$0	\$833	2.5	4	0	\$8,333
Lodging for employees to oversee testing	\$0	\$0	\$83	2.5	4	0	\$833
Fee	\$0	\$0	\$47,664	2.5	4	0	\$476,640
<b>Intermediate Age Conversions - New applications Only</b>							
Cost of OBD Scan Tool software updates (annualized)	\$128	\$0	\$183	1.0	1	2	\$ 311
Scan OBD and print results	\$176	\$0	\$0	1.0	1	2	\$ 176
<b>Recordkeeping</b>							
Store, file and maintain records	\$1,447	\$0	\$5	1.0	8	152	\$11,613
<b>Total per response (eng family)</b>	<b>\$7,634</b>	<b>\$0</b>	<b>\$59,883</b>	<b>varies</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total for the industry</b>	<b>\$64,720</b>	<b>\$0</b>	<b>\$597,111</b>	<b>varies</b>	<b>8</b>	<b>651</b>	<b>\$661,831</b>

<sup>1</sup>Includes phone calls, lab maintenance and testing limited to GHG certification. Other lab-related costs have already been accounted for in the general certification collection, ICR 1684. See section 6(b)(ii) for details.

<sup>2</sup>See section 6(d) for details. Frequency refers to the number of times a respondent performs each task per year. In most instances, this is tied to the number of certification applications in each category, except when in one-time tasks or tasks that apply all applications, such as reviewing regulations.

<sup>3</sup>Exhaust Testing only. Evap Certification is accounted for in Table 5 Certification.

**Table 13 - Annual Respondent Burden and Cost**

**Transition Program for Equipment Manufacturers - Equipment Manufacturers**

Information Collection Activity	Burden and Cost per Application								Total Burden and Cost		
	Engineer	Manager	Legal	Clerical	Respondent t hr/yr	Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
	Rate/hour \$88.01	Rate/hour \$132.91	Rate/hour \$168.46	Rate/hour \$40.38							
<b>Equipment Manufacturers</b>											
Review of regulations, contact EPA for guidance	12	5	5	1	23	\$2,603	0	\$ 17	107	2,461	\$ 280,377
Select an allowance	3	5	3	0	11	\$1,434	0	\$ -	20	220	\$ 28,679
Notify EPA of participation	1	1	1	1	4	\$430	0	\$ 5	20	80	\$ 8,695
Prepare and send letter to engine manufacturer	5	1	0	1	7	\$613	0	\$ 3	107	749	\$ 65,948
Post Bonds (foreign OEMs only)	1	3	5	10	19	\$1,733	0	\$ 5,000	50	950	\$ 336,642
Apply for Bond Waivers	0.5	0	0	1	1.5	\$84	0	\$ 2	10	15	\$ 864
Keep track of exempt equipment/gather information	10	5	2	25	42	\$2,891	0	\$ 5	107	4,494	\$ 309,879
Develop and submit final calculations (Annual Report)	5	1	0	3	9	\$694	0	\$ 3	107	963	\$ 74,590
Prepare Hardship Relief Requests (annualized)	25	10	25	20	80	\$8,548	0	\$ 15	2	160	\$ 17,127
Meet with EPA staff to answer questions (annualized)	3	1	0	1	5	\$437	0	\$ 1,200	6	30	\$ 9,824
Gather additional Data (annualized)	1.5	0.5	0	1	3	\$239	0	\$ 3	6	18	\$ 1,451
<b>Engine Manufacturers</b>											
Review of regulations, contact EPA for guidance	40	5	5	0	50	\$ 4,724.95	0	\$ 17	25	1250	\$ 118,549
Keep track of engines to be used in exempt equipment/gather information	20	7	0	35	62	\$ 3,880.46	0	\$ 5	25	1550	\$ 97,137
Develop and submit reports	5	3	0	3	11	\$ 899.87	0	\$ 3	25	275	\$ 22,572
<b>Recordkeeping</b>											
Recordkeeping	8	3	2	20	33	\$ 2,247	0	\$ 5	132	1,432	\$ 297,308
<b>Total per respondent</b>	<b>140</b>	<b>51</b>	<b>48</b>	<b>122</b>	<b>361</b>	<b>\$ 31,460</b>	<b>0</b>	<b>\$ 6,283</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>\$ 1,407,993</b>	<b>0</b>	<b>\$ 261,649</b>	<b>107</b>	<b>14,647</b>	<b>\$ 1,669,642</b>

<sup>1</sup>Includes costs such as phone calls and photocopying. See section 6(b)(ii) for details.

**Table 14 - Annual Respondent B**

**Special Compliance Pro**

Information Collection Activity	Burden and Cost per Application				
	Engineer	Manager	Legal	Clerical	Respondent hr/yr
	Rate/hour \$88.01	Rate/hour \$132.91	Rate/hour \$168.46	Rate/hour \$40.38	
Review of regulations, contact EPA for guidance	1.5	1	0	0	2.5
Prepare and submit National Security Exemptions (NSEs), annualized	5	3	2	4	14
Amend NSEs	1	0.5	0.5	1	3
Prepare and submit general exemptions (e.g. testing, display, not including imports/exports)	3	0	0	0	3
Keep track of exempt engines	10	0	0	10	20
Develop and submit reports, if applicable	5	3	0	3	11
Prepare and submit exemptions-related FOIA requests	1	0	0	0	1
<b>Recordkeeping</b>					
Recordkeeping	1.5	0	0	3	4.5
<b>Total per respondent</b>	<b>28</b>	<b>7.5</b>	<b>2.5</b>	<b>21</b>	<b>59</b>
<b>Total for the industry</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup>Includes costs such as phone calls and photocopying. See section 6(b)(ii) for details.

## Burden and Cost

### visions

			Total Burden and Cost		
Labor Cost/yr	Capital Startup Cost	O & M Cost <sup>1</sup>	Number of Respondents	Total hr/yr	Total Cost/yr
\$265	0	\$ 17	220	550	\$ 62,024
\$1,337	0	\$ 20	20	280	\$ 27,144
\$279	0	\$ 5	16	48	\$ 4,545
\$264	0	\$ 2	205	615	\$ 54,536
\$1,284	0	\$ 20	205	4100	\$ 267,300
\$960	0	\$ 3	205	2255	\$ 197,399
\$88	0	\$ 10	68	68	\$ 6,665
\$253	0	\$ 13	220	990	\$ 58,554
\$ 4,730	0	\$ 90	N/A	N/A	N/A
\$665,281	0	\$12,885	225	8,906	\$678,166

**Table 18 - Annual Agency Burden and Cost**

Employee	Level	Hours and Labor Cost				
		Total Annual Labor Cost	Rate Increase by 1.6	Number of Employees	Full time hours per employee	% of Time
CD Full-time Career Employees	GS 12 through 15	\$1,746,822	\$2,794,915	20	2080	80%
SEE Support	N/A	\$55,000	N/A	3	2080	90%
IT/Contract Support	GS 13/5	\$109,900	\$175,840	5	2080	30%
OGC & OECA (lawyers)	GS 13/10	\$126,062	\$201,699	4	2080	20%
Division Director	SES-1	\$201,700	\$322,720	1	2080	25%
Office Director	SES-2	\$181,500	\$290,400	1	2080	15%
Other Staff	GS-11/5	\$71,504	\$114,406	4	2080	10%
NHTSA Full-time Career Employees	GS 12 through 15	\$873,411	\$1,397,458	10	2080	70%
<b>Burden &amp; Labor Total:</b>		<b>\$ 3,365,899</b>	<b>\$ 5,297,438</b>	<b>48</b>	<b>N/A</b>	<b>N/A</b>
<b>O&amp;M Costs</b>						
In-use Testing						
Travel						
Confirmatory & Other Testing						
SEAs						
Contract Support - Compliance						
Contract Support -Certification						
<b>O&amp;M Total:</b>						

Total hr/yr	Total Labor cost/yr
33,280	\$2,235,932
5,616	\$49,500
3,120	\$52,752
1,664	\$40,340
520	\$80,680
312	\$43,560
832	\$11,441
14,560	\$978,220
<b>59,904</b>	<b>\$ 3,492,425</b>
	\$150,000
	\$12,000
	\$230,000
	\$12,000
	\$30,000
	\$500,000
	<b>\$ 934,000</b>
<b>TOTAL:</b>	<b>\$ 4,426,425</b>

**Table 19 - Certification Response Levels Per Respondent**

	# of Manufacturers (Cert IC only)	# Engine Families	New Engine Families	Carry-Over Applications	% Carry-Over	ABT
NRCI	40	370	53	317	86%	~33 manufacturers submit AB&T reports
HD Engines Gas & Diesel (Exhaust Emissions)	12	70	28	42	60%	
HD Evaporative	9	15	4	11	73%	
HD GHG Engines	7	37	2	35	95%	
HD GHG Vehicles	42	139	6	133	96%	
Alt Fuel	8	16	10	6	38%	
MCI Categories 1-3	29	231	21	210	91%	
IMO Only	2	2	0	2	100%	
Locomotives	15	61	18	43	70%	
<b>Totals<sup>1</sup>:</b>	<b>103</b>	<b>941</b>	<b>142</b>	<b>799</b>	<b>85%</b>	

<sup>1</sup>Many companies certify engines/vehicles in more than one industry. Therefore, the real total of certification respondents is more than the sum of manufacturers in each industry.

## Type

PLT
N/A
N/A
N/A
N/A
N/A
N/A
10 manufacturers 71 reports
N/A
14 manufacturers 17 reports

(# of manufacturers) is lower



**Table 20 - Number of Reports**

Program	Number of Respondents <sup>1</sup>	Initial Response (Application/ Notification/ Report)	Annual Reports + Running Changes + Amendments	Total number of Reports Per Program
<b>Certification (IC #1)</b>				
Certification	103	941	218	1,159
Evaporative Cert	9	15	29	44
AB&T (end-of-year + final reports)	33	25	33	58
PLT	40	28		28
Defects	35	128	61	189
In-use	13	13		13
SEAs	2	2		2
MCI Owner Reporting	192	192		192
Total for Cert:	103	1,152	341	1,685
<b>Other Programs (ICs #2-4)</b>				
HD Alternative Fuel Conversions	8	17	17	34
TPEM	132	10	132	142
Special Compliance Provisions	225	225	120	345
Total:	468	1,404	610	2,206
<b>Overall number of reports per respondent:</b>				

\*As explained in Table 18's footnote, the real number of respondents in certification (not including HD Alternative Fuel Conversions) engine manufacturing companies respond to this collection in more than one industry or category.

Number of Reports per Respondent
11.3
4.9
1.8
0.7
5.4
1.0
1.0
1.0
27
4.3
1.1
1.5
N/A
4.7

is 103 as many

**Table 21 - Summary by IC and Respondent Tally**

Program	Table Number [Section 6(a)]	Number of Respondents	Total Hours Per Year	Total Labor Cost Per Year	Total Annual Capital Costs	Total Annual O&M Costs	Total Costs
<b>Certification IC</b>							
Certification	5	103	79,691	\$ 6,320,651	0	\$ 8,647,118	\$ 14,967,768
HD GHG Engines	6		311	\$ 27,468	0	\$ 2,144	\$ 29,612
HD GHG Vehicles	7		4,571	\$ 400,359	0	\$ 66,877	\$ 467,236
PLT	8a & 8b		17,855	\$ 1,379,249	0	\$ 1,338,014	\$ 2,717,262
In-use	9a & 9b		1,060	\$ 120,208	0	\$ 1,889,215	\$ 2,009,424
Defects	10		15,221	\$ 1,431,947	0	\$ 8,706	\$ 1,440,653
MCI owners reporting	11	192	18,813	\$ 1,118,511	0	\$ 37,700	\$ 1,156,211
Total for Cert IC:		295	137,521	10,798,392	0	11,989,774	22,788,166
<b>Alternative Fuels IC</b>							
HD Alternative Fuel Conversions	11	8	651	\$ 64,720	0	\$ 597,111	\$ 661,831
<b>TPEM IC</b>							
TPEM	12	132	14,647	\$ 1,407,993	0	\$ 261,649	\$ 1,669,642
<b>Special Compliance Provisions IC</b>							
Special Compliance Provisions	13	225	8,906	\$ 665,281	0	\$ 12,885	\$ 678,166
Respondent Tally:		660	161,725	12,936,386	0	\$ 12,861,419	\$ 25,797,805
Average Burden Per Respondent			245				

**Table 22 - Change in Burden per IC**

Information Collection (IC)	Responses			Hours			O&M Costs	
	Previously Approved	Change (+/-)	Total Requested	Previously Approved	Change (+/-)	Total Requested	Previously Approved	Change (+/-)
IC #1 – Certification	1,144	541	1,685	89,209	48,312	137,521	\$ 16,423,301	\$ (4,433,527)
IC #2 – Alternative Fuel Conversions	4	30	34	293	358	651	\$ 132,820	\$ 464,291
IC #3 – Transition Program for Equipment Manufacturers	2,329	(2,187)	142	101,066	(86,419)	14,647	\$ 792,543	\$ (530,894)
IC #4 – Special Compliance Provisions	403	(58)	345	10,469	(1,563)	8,906	\$ 23,329	\$ (10,444)
<b>Total:</b>	<b>3,880</b>	<b>-1,674</b>	<b>2,206</b>	<b>201,037</b>	<b>-39,312</b>	<b>161,725</b>	<b>\$ 17,371,993</b>	<b>\$ (4,510,574)</b>

\* Previous ICR mistakenly included respondents from the spark-ignition and light-duty industries not covered under this collection.

For details, including the ICRs that cover those industries, see section 6(d)(iii), page 53.

Total Requested	Reason
\$ 11,989,774	Consolidation of 4 ICRs into ICR 1684.20, as discussed in Section 1(b). The reduction in cost is likely due to the higher use of carry-over applications (from an average of 56% to 78%).
\$ 597,111	Increase in the number of respondents (2 to 8) and responses (4 to 16).
\$ 261,649	Far fewer respondents as program is no longer available for most former respondents
\$ 12,885	Adjustment in estimates. Previous ICR mistakenly included respondents not covered in this ICR*.
<b>\$ 12,861,419</b>	