

Table 2 - Annual Respondent Burden and Cost for SI Engine Certification														
Information Collection Activity	Hours and Cost per Application											Total Hours and Cost		
	Engineer \$97.82/hr	Manager \$143.81/hr	Legal \$197.72/hr	Test Cell Operator \$65.08/hr	Transport \$38.58/hr	Clerical \$40.72/hr	Respondents hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost, Annualized (1)	Applications/ Respondent (2)	Number of Respondents	Total hr/yr	Total Cost/yr
Review of regulations and guidance documents	18.0	9.0	10.0	4.0	0.0	1.0	42	\$5,333.29	\$0.00	\$15.00	1.0	620	26,040	3,315,940
Developing eng families groups	15.0	3.0	1.0	0.0	0.0	1.0	20	\$2,137.17	\$0.00	\$0.00	1.0	354	7,080	756,558
Gathering durability data	12.0	5.0	0.0	38.0	2.0	3.0	60	\$4,565.25	\$0.00	\$0.00	2.9	187	32,538	2,475,735
Testing/Gathering emission data on test engines	30.0	14.0	0.0	22.0	2.0	14.0	82	\$7,026.94	\$0.00	\$0.00	2.9	187	44,469	3,810,710
Laboratory maintenance(1)	200.0	150.0	0.0	400.0	200.0	0.0	950	\$74,883.50	\$0.00	\$73,300.00	1.0	42	39,900	6,223,707
Cert, Durability & Evap Testing (annualized)(1)														
Small SI	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$5,666.67	2.4	146	0	1,985,600
Large SI							0	\$0.00		\$11,836.67	1.4	44	0	729,139
Rec Veh Test	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$7,333.33	1.7	85	0	1,059,667
Marine SI Test	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$15,000.00	1.7	27	0	688,500
Components (per manufacturer)	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$333.33	2.2	318	0	233,200
Analyze data to determine compliance	6.0	4.0	1.0	0.0	0.0	1.0	12	\$1,400.60	\$0.00	\$0.00	2.9	187	6,508	759,545
Preparing and submitting certification application	2.0	0.5	1.0	0.0	0.0	1.0	5	\$505.99	\$0.00	\$6.00	2.9	187	2,440	277,649
Preparing and submitting "carry over" applications	1.0	0.5	0.0	0.0	0.0	2.0	4	\$251.17	\$0.00	\$3.00	3.9	354	4,832	350,900
Paying Certification Fee	0.5	0.5	0.0	0.0	0.0	0.5	3	\$141.18	\$0.00	\$1.00	5.3	620	9,858	467,187
Certification Fee (3)														
Components	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$241.00	1.7	171	0	70,059
All Other SI Engines	0.0	0.0	0.0	0.0	0.0	0.0	0	\$0.00	\$0.00	\$563.00	5.8	249	0	813,085
Post Bond	1.0	1.0	0.5	0.0	0.0	1.0	4	\$381.21	\$0.00	\$20.00	5.4	76	1,432	164,095
Apply for Bond Waivers	2.0	0.5	0.5	0.0	0.0	1.0	4	\$407.13	\$0.00	\$2.00	1.0	20	80	8,183
Preparing and supporting running changes	3.0	2.0	1.0	3.0	0.0	2.0	11	\$1,055.48	\$0.00	\$6.00	3.9	354	15,187	1,465,479
Store, file and maintain records	3.0	1.0	1.0	0.0	0.0	7.0	12	\$920.03	\$0.00	\$6.00	1.0	354	4,248	327,815
Preparing and Submitting Annual Production Report	12.0	2.0	1.0	0.0	0.0	2.0	17	\$1,740.62	0	\$3	1.0	354	6,018	617,241
Total per respondent	305.5	193	17	467	204	36.5	1,224.5	\$ 100,750	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	\$ 17,902,473	0	\$ 8,697,520	varies	620	200,628.8	\$ 26,599,993

(1) See section 6(b)(ii) for details.

(2) See section 6(d) for details.

(3) See section 6(b)(ii) for details.

Table 3 - Annual Respondent Burden and Cost - Average, Trading and Banking Program											
Information Collection Activity	Hours and Cost per Application								Total Hours and Cost		
	Engineer \$97.82/hr	Manager \$143.81/hr	Legal \$197.72/hr	Clerical \$40.72/hr	Respondents hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost (1)	Number of Respondents	Total hr/yr	Total Cost/yr
Precertification activities/Submit info in cert application	60	2	2	0	64	\$841	\$0	\$25	50	3,200	\$43,294
Gather Information regarding point of first retail sale (2)	160	3	1	24	188	\$1,864	\$0	\$100	50	9,400	\$98,213
Develop and submit end-of-year-report	35	2	2	4	43	\$979	\$0	\$25	50	2,150	\$50,188
Develop and submit final reports	20	1	1	4	26	\$622	\$0	\$14	50	1,300	\$31,812
Recordkeeping (2)	24		4		28	\$913	\$0	\$14	50	1,400	\$46,335
Total	299	8	10	32	349	\$4,828	\$0	\$178	N/A	N/A	N/A
Total for the industry	N/A	N/A	N/A	N/A	N/A	\$260,941	\$0	\$8,900	50	17,450	\$269,841

(1) See section 6(b)ii for details.

\$5,219

(2) Numbers reflect one activity done four times a year.

Table 4 - Annual Respondent Burden and Cost - Production Line Testing Program															
	Hours and Cost per Engine Family											Total Hours and Cost			
Information Collection Activity	Engineer \$97.82/hr	Manager \$143.81/hr	Legal \$197.72/hr	Clerical \$40.72/hr	Test Cell Operator \$65.08/hr	Assembler \$42.44/hr	Transport \$38.58/hr	Respondents hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost(1)	Frequency (2)	Number of Respondents	Total hr/yr	Total Cost/yr
Review of instructions and regulations	45	5	8	0	0	0	0	58	\$6,702.71	\$0.00	\$0.00	1	179	10,382	\$1,199,785.09
Training	8	0	0	0	1	0	0	9	\$847.64	\$0.00	\$40.00	1	179	1,611	\$158,887.56
Projecting testing needs and planning test schedules	11	1	0	1	0	0	0	13	\$1,260.55	\$0.00	\$20.00	1	179	2,327	\$229,218.45
Engine selection and transport	4	0	0	0	1	1	1	7	\$537.38	\$0.00	\$20.00	1	179	1,253	\$99,771.02
Engine inspection	1	0	0	0	6	0	0	7	\$488.30	\$0.00	\$0.00	4	179	5,012	\$349,622.80
Testing (In-house)	8	0	0	0	12	2	0	22	\$1,648.40	\$0.00	\$300.00	10	37	8,140	\$720,908.00
Data entry and analysis	8	0	0	1	0	0	0	9	\$823.28	\$0.00	\$30.00	4	37	1,332	\$126,285.44
Other tasks (test equipment calibration, engine repair, etc.)	4	0	0	0	60	0	0	64	\$4,296.08	\$0.00	\$100.00	1	179	11,456	\$786,898.32
Testing (Contract Out)															
Small SI											\$5,666.67	11	21	0	\$1,360,000.00
Large SI											\$11,836.67	6	7	0	\$497,140.00
Marine SI											\$15,000.00	3	12	0	\$585,000.00
Setting up contract	2	1	2	2	0	0	0	7	\$816.33	\$0.00	\$21.00	1	142	994	\$118,900.86
Preparing and submitting report	8	1	1	2	0	0	0	12	\$1,205.53	\$0.00	\$5.00	4	179	8,592	\$866,739.48
Store, file and maintain records	2	0	0	3	0	1	0	6	\$360.24	\$0.00	\$2.00	4	179	4,296	\$259,363.84
Total per manufacturer	101	8	11	9	80	4	1	214	\$18,986.44	\$0.00	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	\$4,760,726.86	\$0.00	\$2,597,794.00	N/A	179	55,395	7,358,521

(1) Includes diskettes, photocopying, postage expenses, phone calls, and testing costs, annualized. See section 6(b)(iii) for details.

(2) 1 = one time tasks; 4 = tasks carried out quarterly; other # = number of engine families. Refer to Section 6(d) for further detail.

Average Burden= total burden / # of respondents

Table 5 - In-use Estimated Annual Respondent Burden and Cost															
Information Collection Activity	Hours and cost per application												Total hours and cost		
	Engineer \$97.82/hr	Manager \$143.81/hr	Legal \$197.72/hr	Clerical \$40.72/hr	Test Cell Operator \$65.08/hr	Assembler \$42.44/hr	Transport \$38.58/hr	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost(1)	Frequency (2)	Number of Respondents	Total hr/yr	Total Cost/yr
Review of instructions and regulations	7	1	1	0	0	0	0	9	\$1,026	\$0	\$0	1	40	360	\$41,051
Training	2	0	0	0	1	0	0	3	\$261	\$0	\$120	1	40	120	\$15,229
Plan activities	16	0	0	0	0	0	0	16	\$1,565	\$0	\$20	1	40	640	\$63,405
Procure engines	2	1	0	2	0	0	0	5	\$421	\$0	\$100	1	40	200	\$20,836
Ship Engines	1	0	0	0	0	0	4	5	\$252	\$0	\$200	1	40	200	\$18,086
Engine Maintenance	1	0	0	0	3	33	0	37	\$1,694	\$0	\$210	1	40	1,480	\$76,143
Testing In-house	8	0	0	0	38	1	1	48	\$3,337	\$0	\$900	1	35	1,680	\$148,282
Setting up contract testing (conducting out)	2	1	2	2	0	0	0	7	\$816	\$0	\$25	1	9	63	\$7,572
Small SI											\$5,667	16	8	0	\$725,333
Large SI											\$11,837	2	4	0	\$94,693
Marine SI											\$15,000	2	5	0	\$150,000
Data entry and analysis	22	0	0	5	2	0	0	29	\$2,486	\$0	\$10	1	40	1,160	\$99,832
Preparing and submitting report	18	1	1	1	0	0	0	21	\$2,143	\$0	\$15	1	40	840	\$86,320
Store, file and maintain records	8	0	0	1	0	0	0	9	\$823	\$0	\$5	1	40	360	\$33,131
Total per manufacturer	95	4	4	11	82	35	6	237	\$18,160	\$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	\$7,103	\$550,961	\$0	\$1,028,952	N/A	40	7,103	\$1,579,913

(1) Includes diskettes, photocopying, postage expenses, phone calls, and testing costs, annualized. See section 6(b)(iii) for details.

(2) 1 = one time tasks; 4 = tasks carried out quarterly; other # = number of tests performed/eng manufacturer/model year. Refer to Section 6(d) for further detail.

Average Burden= total burden/# of respondents

Average Burden In-use programs= (total burden Phase 1 + Phase 2) / (# of respondents Phase1 + Phase2)

Table 6 - Annual Respondent Burden and Cost - Selective Enforcement Auditing (SEA) Program															
Information Collection Activity	Hours and Cost per Application												Total Hours and Cost		
	Engineer \$97.82/hr	Manager \$143.81/hr	Legal \$197.72/hr	Clerical \$40.72/hr	Test Cell Operator \$65.08/hr	Assembler \$42.44/hr	Transport \$38.58/hr	Respondent hr/yr	Labor Cost/yr	Capital Startup Cost	O&M Cost(1)	Frequency (2)	Number of Respondents (5)	Total hr/yr	Total Cost/yr
Provide Pre-audit information	20	10	2	5	0	0	0	37	\$3,994	\$0	\$0	1	5	185	\$19,968
Review of instructions and regulations	7	1	1	0	0	0	0	9	\$1,026	\$0	\$0	1	5	45	\$5,131
Training	3	1	0	0	1	0	0	5	\$502	\$0	\$32	1	5	25	\$2,672
Plan activities	16	0	0	0	0	0	0	16	\$1,565	\$0	\$32	1	5	80	\$7,986
Testing In-house	8	0	0	0	38	1	1	48	\$3,337	\$0	\$200	1	3	144	\$10,610
Testing Contract Out	0	0	0	0	0	0	0	0	\$0	\$0	\$20,000	1	2	0	\$40,000
Data entry and analysis	22	0	0	5	2	0	0	29	\$2,486	\$0	\$1	1	5	145	\$12,434
Preparing and submitting report	18	1	1	1	0	0	0	21	\$2,143	\$0	\$3	1	5	105	\$10,730
Store, file and maintain records	8	0	0	1	0	0	0	9	\$823	\$0	\$1	1	5	45	\$4,121
Total per manufacturer	95	5	2	8	79	2	2	174	\$16,037	\$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	\$72,707	\$0	\$40,945	N/A	5	774	\$113,652

(1) Includes diskettes, photocopying, postage expenses, phone calls, and testing costs, annualized. See section 6(b)(iii) for details.

(2) 1 = one time tasks; other # = number of tests performed/eng manufacturer/model year. Refer to Section 6(d) for further detail.

(3) EPA estimates it will audit 14 manufacturers over the next 3 years. It might, however, request pre-audit information from several manufacturers each year.

Average burden = total burden / # of respondents

Total of 8 SEAs in 2017, though the three year average was about 5 per year.

		MY 2014	MY 2015	MY 2016	MY 2017	Number of manufactur ers
Nonroad Spark Ignition Engines	Small SI: Small nonroad gasoline powered equipment, such as lawnmowers, string trimmers, chain saws, small compressors, pumps, utility vehicles < 25 mph, snow blowers, rammers, floor cleaners	900	956	944	972	146
	Marine SI: Gasoline boats and personal watercraft	169	189	172	178	27
	Large SI: Large nonroad gasoline powered equipment, such as forklifts, compressors, generators, and stationary equipment	194	208	210	226	44
	Evaporative components (mostly intended for small nonroad gasoline and marine gasoline equipment)	815	831	843	866	318
Recreational Vehicles	All-terrain vehicles / utility vehicles	197	205	206	232	85
	Off-highway motorcycles	49	53	47	49	
	Snowmobiles	32	29	29	33	
Total		2356	4424	4551	4736	

620

Heavy Duty Highway Vehicles

36

NRSI and Evaporative Certificates	
Lawn and Garden Equipment	1084
Gasoline Boats and Personal Watercraft	112
Forklifts, Generators, and Compressors	34
Nonroad Spark Ignition Evaporative Components	--
91 All-Terrain Vehicles	309
25 Nonroad Motorcycles	106
8 Snowmobiles	37
Total	1682

Table 8 - Annual Agency Burden and Cost

Employee	Hours and Labor Cost					
	Level	Rate	Rate Increase by 1.6	Number of Employees	Full time hours	% of Time
Engineer	GS-13/6	\$53.88	\$86.21	8	2080	100%
Contracts	GS-13/6	\$53.88	\$86.21	3	2080	30%
Attorney	GS-13/7	\$54.90	\$87.84	1	2080	20%
Managers	GS-15/1	\$63.59	\$101.74	1	2080	100%
SES-1	SES - 1	\$126.15	\$201.84	2	2080	15%
IT Support	GS-13/6	\$53.88	\$86.21	5	2080	30%
SEE Support						
Contract Support						
Subtotal				20	N/A	N/A

O&M Costs

Testing	
Other	
SEE Support	
Contract Support - Compliance	
Contract Support - Certification	

Total hr/yr	Total Labor cost/yr
16640	\$1,434,501
1872	\$161,381
416	\$36,541
2080	\$211,628
624	\$125,946
3120	\$268,969
	\$177,066
	\$83,000
24,752	\$ 2,499,033

	\$200,000
	\$20,000
	\$177,066
	\$83,000
	\$200,000
Subtotal:	\$ 680,066

TOTAL:	\$ 3,179,099
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Table 7
Respondent Burden Tally

Program	Number of Respond.	Number of Activities	Total Hours Per Year	Total Labor Cost Per Year	Total Annual Capital Costs	Total Annual O&M Costs
Certification	620	15	200,629	17,902,473	-	8,697,520
AB&T	50	5	17,450	260,941	-	8,900
PLT	179	11	55,395	4,760,727	-	2,597,794
In-use	40	12	7,103	550,961	-	1,028,952
SEAs	5	8	774	72,707	-	40,945
Totals:	354	51	281,351	23,547,809	-	12,374,111

Hours per respondent: 795

Total Costs

26,599,993
269,841
7,358,521
-
113,652
34,342,007

15

126
22
18
491
193
30
151
972
178
226
866
232
49
33
3602
2276.572041

1.58220339
0.632029995