

**Table 1a: Annual Respondent Burden and Cost - NESHAP for Aerospace Manufacturing and Rework Facilities**

<b>Burden item</b>	<b>(A) Person hours per occurrence</b>	<b>(B) No. of occurrences per respondent per year</b>	<b>(C) Person hours per respondent per year (C=AxB)</b>	<b>(D) Respondents per year <sup>a</sup></b>
1. Applications	N/A			
2. Surveys and studies	N/A			
3. Reporting requirements				
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1	108
B. Required activities	N/A			
C. Create information	See 3E & 4C			
D. Gather existing information	See 3E & 4C			
E. Write report				
Notification of construction/reconstruction	2	1	2	0
Notification of physical and operational changes <sup>d</sup>	8	1	8	5
Notification of actual startup	2	1	2	0
Notification of change in production capacity	2	1	2	0
Compliance status information report <sup>e</sup>	20	1	20	108
Waiver application <sup>f</sup>	4	1	4	11
Preparation of site-specific test plan	N/A			
Notification of initial performance test	N/A			
Report of initial test	N/A			
Semiannual report – including report of periods of noncompliance <sup>g</sup>	12	2	24	86
<b>Subtotal for Reporting Requirements</b>				
4. Recordkeeping requirements				
A. Familiarize with regulatory requirements	See 3A			
B. Plan activities	4	1	4	108
C. Implement activities				
Solvent information records	4	2	8	108
Approved composition solvent records (demonstrating compliance) <sup>h</sup>	4	1	4	32
Non-approved list solvent usage records <sup>i</sup>	1	12	12	97
Solvent usage log for exempt processes <sup>j</sup>	0.5	12	6	76
Log of gun cleaner leaks <sup>k</sup>	1	6	6	22
D. Develop record system <sup>l</sup>	20	1	20	108
E. Time to enter information				
Records of all measurements and information required by standard	See 4C			
F. Time to train personnel <sup>m</sup>	4	50	200	108
G. Time for audits	20	1	20	108
<b>Subtotal for Recordkeeping Requirements</b>				
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>n</sup></b>				

<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>n, o</sup></b>				
<b>GRAND TOTAL (rounded) <sup>n</sup></b>				

**Assumptions:**

- <sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 respondents will be no new additional sources during the next three years of this ICR.
- <sup>b</sup> This ICR uses the following labor rates: \$141.06 per hour for Executive, Administrative, and Managerial labor; \$120.20 per hour for other labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2019, "Table 2. Civilian Workers' Compensation, by Industry, Sex, Race, and Hispanic or Latino Ethnicity," column 1, "Total Compensation." The rates have been increased by 110 percent to account for the benefit packages available to workers.
- <sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.
- <sup>d</sup> We have assumed that 5 percent of the total existing facilities will write the physical and operational changes report (108 x 5% = 5.4, rounded to 5).
- <sup>e</sup> We have assumed that each respondent will write compliance status information report.
- <sup>f</sup> We have assumed that 10 percent of the respondents will request a waiver (108 x 10% = 10.8, rounded to 11).
- <sup>g</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some way and require a permit.
- <sup>h</sup> We have assumed that 30 percent of facilities will use the approved list of solvents (108 x 30% = 32.4, rounded to 32).
- <sup>i</sup> We have assumed that 90 percent of facilities will use some solvents not on the approved list (108 x 90% = 97.2, rounded to 97).
- <sup>j</sup> We have assumed that 70 percent of facilities will use some solvents for exempt processes (108 x 70% = 75.6, rounded to 76).
- <sup>k</sup> We have assumed that 20 percent of facilities will have a leak in their enclosed gun cleaner (108 x 20% = 21.6, rounded to 22).
- <sup>l</sup> We have assumed that all facilities will need to develop a record keeping system.
- <sup>m</sup> We have assumed that each respondent will take 4 hours 50 times per year to complete task.
- <sup>n</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.
- <sup>o</sup> The total capital and O&M cost in this table are the total for cleaning, coating, repainting and specialty coating operations.

es (40 CFR Part 63, Subpart GG) (Renewal) (Cleaning Operations)

(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
108	5.4	10.8	\$14,384.52
0	0	0	\$0
40	2	4	\$5,327.60
0	0	0	\$0
0	0	0	\$0
2,160	108	216	\$287,690.40
44	2.2	4.4	\$5,860.36
2,064	103.2	206.4	\$274,904.16
<b>5,078</b>			<b>\$588,167</b>
432	21.6	43.2	\$57,538.08
864	43.2	86.4	\$115,076.16
128	6.4	12.8	\$17,048.32
1,164	58.2	116.4	\$155,033.16
456	22.8	45.6	\$60,734.64
132	6.6	13.2	\$17,581.08
2,160	108	216	\$287,690.40
21,600	1,080	2,160	\$2,876,904.00
2,160	108	216	\$287,690.40
<b>33,460</b>			<b>\$3,875,296</b>
<b>38,500</b>			<b>\$4,460,000</b>

Labor Rates	
Management	\$141.06
Technical	\$120.27
Clerical	\$58.67

			<b>\$108,000</b>
			<b>\$4,570,000</b>

idents, 108 are privately-owned and 36 are Federally-owned. There

7 per hour for Technical labor, and \$58.67 per hour for Clerical labor. workers, by Occupational and Industry group.” The rates are from table to those employed by private industry.

08 x 5% = 5.4, rounded to 5).

will submit semiannual reports (108 x 80% = 86.4, rounded to 86).

ed to 97).

to 76).

l to 22).

ns combined (see Tables 1b-1d for burden associated with these operations).

**Table 1b: Annual Respondent Burden and Cost – NESHAP for Aerospace Manufacturing and Rework Facili**

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year
1. Applications	N/A	
2. Surveys and studies	N/A	
3. Reporting requirements		
A. Familiarize with regulatory requirements <sup>c</sup>	1	1
B. Required activities		
Initial performance tests <sup>d</sup>	280	1
Repeat performance test <sup>e</sup>	280	1
C. Create information	See 3E & 4C	
D. Gather existing information	See 3E & 4C	
E. Write report		
Notification of construction/reconstruction	2	1
Notification of physical and operational changes <sup>f</sup>	8	1
Notification of actual startup	2	1
Notification of change in production capacity	2	1
Compliance status information report <sup>k</sup>	10	1
Waiver application <sup>g</sup>	4	1
Preparation of site-specific test plan	See 3B	
Notification of initial performance test <sup>d</sup>	2	1
Report of initial test	See 3B	
Annual and semiannual report – including report of periods of noncompliance <sup>h</sup>	11	2
<b>Subtotal for Reporting Requirements</b>		
4. Recordkeeping requirements		
A. Familiarize with regulatory requirements	See 3A	
B. Plan activities	4	1
C. Implement activities		
Compliance coating records	1	12
Daily records of weighted average mass <sup>i</sup>	1	250
Control device maintenance or rolling material balance log (organics) <sup>d</sup>	0.5	250
Control device maintenance log (inorganics)	0.25	250
D. Develop record system <sup>j</sup>	10	1
E. Time to enter/maintain information		
Records of all measurements and information required by standard	See 4C	
F. Time to train personnel	8	50
G. Time for audits	20	1
<b>Subtotal for Recordkeeping Requirements</b>		

<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>l</sup></b>		
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>l,m</sup></b>		
<b>GRAND TOTAL (rounded) <sup>l</sup></b>		

**Assumptions:**

<sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 resources during the next three years of this ICR.

<sup>b</sup> This ICR uses the following labor rates: \$141.06 per hour for Executive, Administrative, and Managerial labor; \$1. United States Department of Labor, Bureau of Labor Statistics, June 2019, "Table 2. Civilian Workers, by Occupation increased by 110 percent to account for the benefit packages available to those employed by private industry.

<sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.

<sup>d</sup> We assume that 3 privately-owned facilities will use add-on control equipment for maskant application.

<sup>e</sup> We have assumed that 20% of privately-owned facility with add-on control equipment will repeat performance test

<sup>f</sup> We have assumed that 5 percent of the total existing facilities will write the physical and operational changes report

<sup>g</sup> We have assumed that 10 percent of the respondents will request a waiver ( $108 \times 10\% = 10.8$ , rounded to 11).

<sup>h</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some way

<sup>i</sup> The final rule required monthly records. Daily averaging was included in the cost analysis because 90 percent of the permitting agency.

<sup>j</sup> We have assumed that all facilities will need to develop a record keeping system.

<sup>k</sup> We have assumed that each respondent will write compliance status information report.

<sup>l</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

<sup>m</sup> The capital and O&M cost for this operation has been included in the table for cleaning operations (see Table 1a).

ities (40 CFR Part 63, Subpart GG) (Renewal) (Coating Operations)

(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
1	108	108	5.4	10.8	\$14,384.52
280	3	840	42	84	\$111,879.60
280	1	280	14	28	\$37,293.20
2	0	0	0	0	\$0
8	5	40	2	4	\$5,327.60
2	0	0	0	0	\$0
2	0	0	0	0	\$0
10	108	1,080	54	108	\$143,845.20
4	11	44	2.2	4.4	\$5,860.36
2	3	6	0.3	0.6	\$799.14
22	86	1,892	94.6	189.2	\$251,995.48
			<b>4,934</b>		<b>\$571,385</b>
4	108	432	21.6	43.2	\$57,538.08
12	108	1,296	64.8	129.6	\$172,614.24
250	11	2,750	137.5	275	\$366,272.50
125	3	375	18.75	37.5	\$49,946.25
62.5	108	6,750	337.5	675	\$899,032.50
10	108	1,080	54	108	\$143,845.20
400	108	43,200	2,160	4,320	\$5,753,808.00
20	108	2,160	108	216	\$287,690.40
			<b>66,749</b>		<b>\$7,730,747</b>

Labor Rates	
Management	\$141.06
Technical	\$120.27
Clerical	\$58.67

		<b>71,700</b>			<b>\$8,300,000</b>
					<b>\$0</b>
					<b>\$8,300,000</b>

respondents, 108 are privately-owned and 36 are Federally-owned. There will be no new additional

20.27 per hour for Technical labor, and \$58.67 per hour for Clerical labor. These rates are from the  
 "Federal and Industry group." The rates are from column 1, "Total Compensation." The rates have been

: (3 x 20% = 0.6, rounded to 1).

t (108 x 5% = 5.4, rounded to 5).

and will submit semiannual reports (108 x 80% = 86.4, rounded to 86).

the industry is located in non-attainment areas and will be required to use daily averaging by the



**Table 1c: Annual Respondent Burden and Cost – NESHAP for Aerospace Manufacturing and Rework Facilities**

<b>Burden item</b>	<b>(A) Person hours per occurrence</b>	<b>(B) No. of occurrences per respondent per year</b>	<b>(C) Person hours per respondent per year (C=AxB)</b>
1. Applications	N/A		
2. Surveys and studies	N/A		
3. Reporting requirements			
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1
B. Required activities	N/A		
Initial performance tests	280	1	280
Repeat performance test	280	1	280
C. Create information	See 3E & 4C		
D. Gather existing information	See 3E & 4C		
E. Write report			
Notification of construction/reconstruction	2	1	2
Notification of physical and operational changes	8	1	8
Notification of actual startup	2	1	2
Notification of change in production capacity	2	1	2
Compliance status information report <sup>g</sup>	10	1	10
Waiver application	4	1	4
Preparation of site-specific test plan	N/A		
Notification of initial performance test	2	1	2
Report of initial test	See 3B		
Annual and semiannual report – including report of periods of noncompliance <sup>d</sup>	12	2	24
<b>Subtotal for Reporting Requirements</b>			
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements	See 3A		
B. Plan activities	4	1	4
C. Implement activities <sup>e</sup>			
Chemical stripper records (demonstrating compliance)	8	1	8
Chemical stripper usage log	1	12	12
Depainting equipment malfunction log	4	3	12
Exempt stripper usage log and reworked airplane log spot stripping and decal removal	1	12	12
Record of parts removed for parts depainting	8	2	16
Control device maintenance log	0.5	250	125
D. Develop record system <sup>f</sup>	10	1	10
E. Time to enter information			
Records of all measurements and information required by standard	See 4C		
F. Time to train personnel	4	1	4
G. Time for audits	10	1	10
<b>Subtotal for Recordkeeping Requirements</b>			
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>h</sup></b>			
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>h,i</sup></b>			

<b>GRAND TOTAL (rounded) <sup>h</sup></b>			
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**Assumptions:**

<sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 14 new additional sources during the next three years of this ICR. Of the 144 facilities we assume 4 privately-owned

<sup>b</sup> This ICR uses the following labor rates: \$141.06 per hour for Executive, Administrative, and Managerial labor; rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2019, "Table 2. Civilian V Compensation." The rates have been increased by 110 percent to account for the benefit packages available to th

<sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.

<sup>d</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some v

<sup>e</sup> We have assumed that 1 percent of facilities will use HAP containing chemical strippers as the primary strippin HAP chemical strippers, and 100 percent of facilities will use some HAP stripper for exempt processes.

<sup>f</sup> We have assumed that all respondents will need to develop a record keeping system.

<sup>g</sup> We have assumed that each respondent will write compliance status information report.

<sup>h</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

<sup>i</sup> The capital and O&M cost for this operation has be included in the table for cleaning operations (see Table 1a).

ilities (40 CFR Part 63, Subpart GG) (Renewal) (Depainting Operations)

(D) Respondents per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
4	4	0.2	0.4	\$532.76
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
4	40	2	4	\$5,327.60
0	0	0	0	\$0
0	0	0	0	\$0
3	72	3.6	7.2	\$9,589.68
		<b>133</b>		<b>\$15,450</b>
4	16	0.8	1.6	\$2,131.04
3	24	1.2	2.4	\$3,196.56
3	36	1.8	3.6	\$4,794.84
2	24	1.2	2.4	\$3,196.56
4	48	2.4	4.8	\$6,393.12
4	64	3.2	6.4	\$8,524.16
2	250	12.5	25	\$33,297.50
4	40	2	4	\$5,327.60
4	16	0.8	1.6	\$2,131.04
4	40	2	4	\$5,327.60
		<b>642</b>		<b>\$74,320</b>
		<b>775</b>		<b>\$89,800</b>
				<b>\$0</b>

Labor Rates	
Management	\$141.06
Technical	\$120.27
Clerical	\$58.67

				<b>\$89,800</b>
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4 respondents, 108 are privately-owned and 36 are Federally-owned. There will be no facilities and 1 Federally-owned facility will have depainting operations.

; \$120.27 per hour for Technical labor, and \$58.67 per hour for Clerical labor. These Workers, by Occupational and Industry group." The rates are from column 1, "Total cost employed by private industry.

will submit semiannual reports ( $4 \times 80\% = 3.2$ , rounded to 3).

ing techniques, 29 percent will use media blasting equipment, 70 percent will use non-

**Table 1d: Annual Respondent Burden and Cost – NESHAP for Aerospace Manufacturing and Rework Facility**

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)
1. Applications			
2. Surveys and studies			
3. Reporting requirements			
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1
B. Required activities			
Initial performance tests	N/A		
Repeat performance test	N/A		
C. Create information	See 4C		
D. Gather existing information	See 4C		
E. Write report <sup>e</sup>			
Notification of construction/reconstruction	N/A		
Notification of physical and operational changes	N/A		
Notification of actual startup	N/A		
Notification of change in production capacity	N/A		
Compliance status information report	N/A		
Waiver application	N/A		
Preparation of site-specific test plan	N/A		
Notification of initial performance test	N/A		
Report of initial test	N/A		
Annual and semiannual report – including report of periods of noncompliance	N/A		
<b>Subtotal for Reporting Requirements</b>			
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements	See 3A		
B. Plan activities <sup>d</sup>	4	1	4
C. Implement activities			
Compliance coating records <sup>f</sup>	30.5	1	30.5
Control device maintenance or rolling material balance log (organics) <sup>e</sup>	N/A		
Control device maintenance log (inorganics) <sup>e</sup>	N/A		
D. Develop record system <sup>d</sup>	10	1	10
E. Time to enter information			
Records of all measurements and information required by standard	See 4C		
F. Time to train personnel <sup>d, g</sup>	2	3	6
G. Time for audits <sup>h</sup>	10	1	10
<b>Subtotal for Recordkeeping Requirements</b>			
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>i</sup></b>			
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>i, j</sup></b>			

<b>GRAND TOTAL (rounded)</b> <sup>i</sup>			
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**Assumptions:**

- <sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 respondents, there will be no new additional sources during the next three years of this ICR. Of the 144 facilities we assume 82 privately-owned operations.
- <sup>b</sup> This ICR uses the following labor rates: \$141.06 per hour for Executive, Administrative, and Managerial labor; \$110.00 per hour for Non-Executive, Non-Administrative, and Non-Managerial labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2019, "Table 2. Civilian Workers: Annual Compensation by Industry and Occupation," column 1, "Total Compensation." The rates have been increased by 110 percent to account for the benefit packages associated with the rule.
- <sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.
- <sup>d</sup> One-time cost that is only incurred during the first year of compliance.
- <sup>e</sup> We have assumed that specialty coatings operations will not require installation of additional booths and control devices. Compliance costs for coating operations are based on the 2011 ICR survey responses.
- <sup>f</sup> These costs vary by facility, and are calculated assuming one hour per year per specialty coating used. The 2015 annual number of specialty coatings by facility based on 2011 ICR survey responses. This ICR averages the hours over the 6-year period.
- <sup>g</sup> We have assumed one person per shift will require training on recordkeeping requirements and system.
- <sup>h</sup> We have assumed auditing activities will coincide with similar activities for coating operations, so would entail additional costs.
- <sup>i</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.
- <sup>j</sup> The capital and O&M cost for this operation has been included in the table for cleaning operations (see Table 1a).



				<b>\$453,000</b>
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spondents, 108 are privately-owned and 36 are Federally-owned. There will  
ned facilities and 27 Federally-owned facilities will have specialty coating

20.27 per hour for Technical labor, and \$58.67 per hour for Clerical labor.  
n Workers, by Occupational and Industry group.” The rates are from  
available to those employed by private industry.

vices, and that the costs associated with these devices is covered under the

endment provides a separate worksheet which breaks down the assumed  
12 facilities to get ~30.5 person hours per occurrence.

out half the effort assumed for the same activity in coating operations.



**Table 1e: Summary of Annual Respondent Burden and Cost for Tables 1a, 1b, 1c, & 1d – NESHAP for Aero**

<b>Burden</b>	<b>Burden Hours per Year for Reporting</b>	<b>Burden Hours per Year for Recordkeeping</b>	<b>Total Burden Hours per Year (rounded) <sup>a</sup></b>	<b>Total Annual Labor Costs (\$) (rounded) <sup>a, b</sup></b>
1a. Cleaning Operations	5,078	33,460	38,500	\$4,570,000
1b. Coating Operations	4,934	66,749	71,700	\$8,300,000
1c. Depainting Operations	133	642	775	\$89,800
1d. Specialty Coating Operations	94	3,819	3,910	\$453,000
<b>Total Burden and Costs (rounded)</b>	<b>10,200</b>	<b>105,000</b>	<b>115,000</b>	<b>\$13,400,000</b>

**Assumptions:**

<sup>a</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

<sup>b</sup> The total annual costs includes both labor and capital and O&M costs

**space Manufacturing and Rework Facilities (40 CFR Part 63, Subpart GG) (Renewal)**

responses hr/response  
602 191.0299

**Table 2a: Annual Burden and Cost for Federal Government-Owned Facilities – NESHAP for Aerospace**

<b>Burden item</b>	<b>(A) Person hours per occurrence</b>	<b>(B) No. of occurrences per respondent per year</b>	<b>(C) Person hours per respondent per year (C=AxB)</b>
1. Applications	N/A		
2. Surveys and studies	N/A		
3. Reporting requirements			
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1
B. Required activities	N/A		
C. Create information	See 3E & 4C		
D. Gather existing information	See 3E & 4C		
E. Write report			
Notification of construction/reconstruction	2	1	2
Notification of physical and operational changes <sup>d</sup>	8	1	8
Notification of actual startup	2	1	2
Notification of change in production capacity	2	1	2
Compliance status information report <sup>e</sup>	20	1	20
Waiver application <sup>f</sup>	4	1	4
Preparation of site-specific test plan	N/A		
Notification of initial performance test	N/A		
Report of initial test	N/A		
Semiannual report – including report of periods of noncompliance <sup>g</sup>	12	2	24
<b>Subtotal for Reporting Requirements</b>			
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements	See 3A		
B. Plan activities	4	1	4
C. Implement activities			
Solvent information records	4	2	8
Approved composition solvent records (demonstrating compliance) <sup>h</sup>	4	1	4
Non-approved list solvent usage records <sup>i</sup>	1	12	12
Solvent usage log for exempt processes <sup>j</sup>	0.5	12	6
Log of gun cleaner leaks <sup>k</sup>	1	6	6
D. Develop record system <sup>l</sup>	20	1	20
E. Time to enter information			
Records of all measurements and information required by standard	See 4C		
F. Time to train personnel <sup>m</sup>	4	50	200
G. Time for audits	20	1	20
<b>Subtotal for Recordkeeping Requirements</b>			
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>n</sup></b>			
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>n,o</sup></b>			
<b>GRAND TOTAL (rounded) <sup>n</sup></b>			

**Assumptions:**

- <sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of that number, we have assumed that 36 will be new additional sources during the next three years of this ICR.
- <sup>b</sup> This ICR uses the following labor rates: \$66.62 for managerial, \$49.44 for technical, and \$26.75 for clerical and General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for inflation.
- <sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.
- <sup>d</sup> We have assumed that 5 percent of the total existing facilities will write the physical and operational change reports.
- <sup>e</sup> We have assumed that each respondent will write compliance status information report.
- <sup>f</sup> We have assumed that 10 percent of the respondents will request a waiver ( $36 \times 10\% = 3.6$ , rounded to 4).
- <sup>g</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some way.
- <sup>h</sup> We have assumed that 30 percent of facilities will use the approved list of solvents ( $36 \times 30\% = 10.8$ , rounded to 11).
- <sup>i</sup> We have assumed that 90 percent of facilities will use some solvents not on the approved list ( $36 \times 90\% = 32.4$ , rounded to 32).
- <sup>j</sup> We have assumed that 70 percent of facilities will use some solvents for exempt processes ( $36 \times 70\% = 25.2$ , rounded to 25).
- <sup>k</sup> We have assumed that 20 percent of facilities will have a leak in their enclosed gun cleaner ( $36 \times 20\% = 7.2$ , rounded to 7).
- <sup>l</sup> We have assumed that all facilities will need to develop a record keeping system.
- <sup>m</sup> We have assumed that each respondent will take 4 hours 50 times per year to complete task.
- <sup>n</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.
- <sup>o</sup> The total capital and O&M cost in this table are the total for cleaning, coating, repainting and specialty coating operations).

Ice Manufacturing and Rework Facilities (40 CFR Part 63, Subpart GG) (Renewal) (Cleaning Operations)

(D) Respondents per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
36	36	1.8	3.6	\$1,996.06
0	0	0	0	\$0
2	16	0.8	1.6	\$887.14
0	0	0	0	\$0
0	0	0	0	\$0
36	720	36	72	\$39,921.12
4	16	0.8	1.6	\$887.14
29	696	34.8	69.6	\$38,590.42
	<b>1,707</b>			<b>\$82,282</b>
36	144	7.2	14.4	\$7,984.22
36	288	14.4	28.8	\$15,968.45
11	44	2.2	4.4	\$2,439.62
32	384	19.2	38.4	\$21,291.26
25	150	7.5	15	\$8,316.90
7	42	2.1	4.2	\$2,328.73
36	720	36	72	\$39,921.12
36	7,200	360	720	\$399,211.20
36	720	36	72	\$39,921.12
	<b>11,146</b>			<b>\$537,383</b>
	<b>12,900</b>			<b>\$620,000</b>
				<b>\$36,000</b>
				<b>\$656,000</b>

Labor Rates	
Management	\$66.62
Technical	\$49.44
Clerical	\$26.75

of the 144 respondents, 108 are privately-owned and 36 are Federally-owned. There will

be 108 hours of direct labor. These rates are from the Office of Personnel Management (OPM), 2019  
survey data for the benefit packages available to government employees.

Direct labor report (36 x 5% = 1.8, rounded to 2).

Direct labor and will submit semiannual reports (36 x 80% = 28.8, rounded to 29).

(rounded to 11).

32.4, rounded to 32).

2.2, rounded to 2).

2.2, rounded to 2).

Reporting operations combined (see Tables 1b-1d for burden associated with these

**Table 2b: Annual Burden and Cost for Federal Government-Owned Facilities – NESHAP for Aerospace Man**

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year
1. Applications	N/A	
2. Surveys and studies	N/A	
3. Reporting requirements		
A. Familiarize with regulatory requirements <sup>c</sup>	1	1
B. Required activities		
Initial performance tests <sup>d</sup>	280	1
Repeat performance test <sup>e</sup>	280	1
C. Create information	See 3E & 4C	
D. Gather existing information	See 3E & 4C	
E. Write report		
Notification of construction/reconstruction	2	1
Notification of physical and operational changes <sup>f</sup>	8	1
Notification of actual startup	2	1
Notification of change in production capacity	2	1
Compliance status information report <sup>k</sup>	10	1
Waiver application <sup>g</sup>	4	1
Preparation of site-specific test plan	See 3B	
Notification of initial performance test <sup>d</sup>	2	1
Report of initial test	See 3B	
Annual and semiannual report – including report of periods of noncompliance <sup>h</sup>	11	2
<b>Subtotal for Reporting Requirements</b>		
4. Recordkeeping requirements		
A. Familiarize with regulatory requirements	See 3A	
B. Plan activities	4	1
C. Implement activities		
Compliance coating records	1	12
Daily records of weighted average mass <sup>i</sup>	1	250
Control device maintenance or rolling material balance log (organics) <sup>d</sup>	0.5	250
Control device maintenance log (inorganics)	0.25	250
D. Develop record system <sup>j</sup>	10	1
E. Time to enter/maintain information		
Records of all measurements and information required by standard	See 4C	
F. Time to train personnel	8	50
G. Time for audits	20	1
<b>Subtotal for Recordkeeping Requirements</b>		
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>l</sup></b>		
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>l,m</sup></b>		
<b>GRAND TOTAL (rounded) <sup>l</sup></b>		

**Assumptions:**

- <sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 respondents during the next three years of this ICR.
- <sup>b</sup> This ICR uses the following labor rates: \$66.62 for managerial, \$49.44 for technical, and \$26.75 for clerical labor excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available.
- <sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.
- <sup>d</sup> We assume that 1 Federally-owned facility will use add-on control equipment for maskant application.
- <sup>e</sup> We have assumed that 20% of Federally-owned facility with add-on control equipment will repeat performance tests.
- <sup>f</sup> We have assumed that 5 percent of the total existing facilities will write the physical and operational changes report.
- <sup>g</sup> We have assumed that 10 percent of the respondents will request a waiver ( $36 \times 10\% = 3.6$ , rounded to 4).
- <sup>h</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some way.
- <sup>i</sup> The final rule required monthly records. Daily averaging was included in the cost analysis because 90 percent of the permitting agency.
- <sup>j</sup> We have assumed that all facilities will need to develop a record keeping system.
- <sup>k</sup> We have assumed that each respondent will write compliance status information report.
- <sup>l</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.
- <sup>m</sup> The capital and O&M cost for this operation has been included in the table for cleaning operations (see Table 1a).



Manufacturing and Rework Facilities (40 CFR Part 63, Subpart GG) (Renewal) (Coating Operations)

(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
1	36	36	1.8	3.6	\$1,996.06
280	1	280	14	28	\$15,524.88
280	0	0	0	0	\$0
2	0	0	0	0	\$0
8	2	16	0.8	1.6	\$887.14
2	0	0	0	0	\$0
2	0	0	0	0	\$0
10	36	360	18	36	\$19,960.56
4	4	16	0.8	1.6	\$887.14
2	1	2	0.1	0.2	\$110.89
22	29	638	31.9	63.8	\$35,374.55
			<b>1,550</b>		<b>\$74,741</b>
4	36	144	7.2	14.4	\$7,984.22
12	36	432	21.6	43.2	\$23,952.67
250	4	1,000	50	100	\$55,446.00
125	1	125	6.25	12.5	\$6,930.75
62.5	36	2,250	112.5	225	\$124,753.50
10	36	360	18	36	\$19,960.56
400	36	14,400	720	1,440	\$798,422.40
20	36	720	36	72	\$39,921.12
			<b>22,346</b>		<b>\$1,077,371</b>
			<b>23,900</b>		<b>\$1,150,000</b>
					<b>\$0</b>
					<b>\$1,150,000</b>

Labor Rate
Management
Technical
Clerical

respondents, 108 are privately-owned and 36 are Federally-owned. There will be no new additional

: These rates are from the Office of Personnel Management (OPM), 2019 General Schedule, which  
able to government employees.

t ( $1 \times 20\% = 0.2$ , rounded to 0).

t ( $36 \times 5\% = 1.8$ , rounded to 2).

and will submit semiannual reports ( $36 \times 80\% = 28.8$ , rounded to 29).

ie industry is located in non-attainment areas and will be required to use daily averaging by the

tes
\$66.62
\$49.44
\$26.75

**Table 2c: Annual Burden and Cost for Federal Government-Owned Facilities – NESHAP for Aerospace M**

<b>Burden item</b>	<b>(A) Person hours per occurrence</b>	<b>(B) No. of occurrences per respondent per year</b>	<b>(C) Person hours per respondent per year (C=AxB)</b>
1. Applications	N/A		
2. Surveys and studies	N/A		
3. Reporting requirements			
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1
B. Required activities	N/A		
Initial performance tests	280	1	280
Repeat performance test	280	1	280
C. Create information	See 3E & 4C		
D. Gather existing information	See 3E & 4C		
E. Write report			
Notification of construction/reconstruction	2	1	2
Notification of physical and operational changes	8	1	8
Notification of actual startup	2	1	2
Notification of change in production capacity	2	1	2
Compliance status information report <sup>g</sup>	10	1	10
Waiver application	4	1	4
Preparation of site-specific test plan	N/A		
Notification of initial performance test	2	1	2
Report of initial test	See 3B		
Annual and semiannual report – including report of periods of noncompliance <sup>d</sup>	12	2	24
<b>Subtotal for Reporting Requirements</b>			
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements	See 3A		
B. Plan activities	4	1	4
C. Implement activities <sup>e</sup>			
Chemical stripper records (demonstrating compliance)	8	1	8
Chemical stripper usage log	1	12	12
Depainting equipment malfunction log	4	3	12
Exempt stripper usage log and reworked airplane log spot stripping and decal removal	1	12	12
Record of parts removed for parts depainting	8	2	16
Control device maintenance log	0.5	250	125
D. Develop record system <sup>f</sup>	10	1	10
E. Time to enter information			
Records of all measurements and information required by standard	See 4C		
F. Time to train personnel	4	1	4
G. Time for audits	10	1	10
<b>Subtotal for Recordkeeping Requirements</b>			
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>h</sup></b>			
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>h,i</sup></b>			

<b>GRAND TOTAL (rounded)</b> <sup>h</sup>			
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**Assumptions:**

- <sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 14 new additional sources during the next three years of this ICR. Of the 144 facilities we assume 4 privately-owned
- <sup>b</sup> This ICR uses the following labor rates: \$66.62 for managerial, \$49.44 for technical, and \$26.75 for clerical labor Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit
- <sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.
- <sup>d</sup> We have assumed that 80 percent of facilities will have excess emissions or will change their process in some way
- <sup>e</sup> We have assumed that 1 percent of facilities will use HAP containing chemical strippers as the primary stripping HAP chemical strippers, and 100 percent of facilities will use some HAP stripper for exempt processes.
- <sup>f</sup> We have assumed that all respondents will need to develop a record keeping system.
- <sup>g</sup> We have assumed that each respondent will write compliance status information report.
- <sup>h</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.
- <sup>i</sup> The capital and O&M cost for this operation has been included in the table for cleaning operations (see Table 1a).

**Manufacturing and Rework Facilities (40 CFR Part 63, Subpart GG) (Renewal) (Depainting Operations)**

(D) Respondents per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)	(F) Management person hours per year (F=Ex0.05)	(G) Clerical person hours per year (G=Ex0.1)	(H) Total Cost Per Year <sup>b</sup>
1	1	0.05	0.1	\$55.45
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
0	0	0	0	\$0
1	10	0.5	1	\$554.46
0	0	0	0	\$0
0	0	0	0	\$0
1	24	1.2	2.4	\$1,330.70
		<b>40</b>		<b>\$1,941</b>
1	4	0.2	0.4	\$221.78
1	8	0.4	0.8	\$443.57
1	12	0.6	1.2	\$665.35
0	0	0	0	\$0
1	12	0.6	1.2	\$665.35
1	16	0.8	1.6	\$887.14
0	0	0	0	\$0
1	10	0.5	1	\$554.46
1	4	0.2	0.4	\$221.78
1	10	0.5	1	\$554.46
		<b>87</b>		<b>\$4,214</b>
		<b>128</b>		<b>\$6,150</b>
				<b>\$0</b>

Labor Rates	
Management	\$66.62
Technical	\$49.44
Clerical	\$26.75

				<b>\$6,150</b>
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4 respondents, 108 are privately-owned and 36 are Federally-owned. There will be no facilities and 1 Federally-owned facility will have depainting operations.

labor. These rates are from the Office of Personnel Management (OPM), 2019 General benefit packages available to government employees.

may and will submit semiannual reports ( $1 \times 80\% = 0.8$ , rounded to 1).

dig techniques, 29 percent will use media blasting equipment, 70 percent will use non-

**Table 2d: Annual Burden and Cost for Federal Government-Owned Facilities – NESHAP for Aerospace Man**

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)
1. Applications			
2. Surveys and studies			
3. Reporting requirements			
A. Familiarize with regulatory requirements <sup>c</sup>	1	1	1
B. Required activities			
Initial performance tests	N/A		
Repeat performance test	N/A		
C. Create information	See 4C		
D. Gather existing information	See 4C		
E. Write report <sup>e</sup>			
Notification of construction/reconstruction	N/A		
Notification of physical and operational changes	N/A		
Notification of actual startup	N/A		
Notification of change in production capacity	N/A		
Compliance status information report	N/A		
Waiver application	N/A		
Preparation of site-specific test plan	N/A		
Notification of initial performance test	N/A		
Report of initial test	N/A		
Annual and semiannual report – including report of periods of noncompliance	N/A		
<b>Subtotal for Reporting Requirements</b>			
4. Recordkeeping requirements			
A. Familiarize with regulatory requirements	See 3A		
B. Plan activities <sup>d</sup>	4	1	4
C. Implement activities			
Compliance coating records <sup>f</sup>	61.6	1	61.6
Control device maintenance or rolling material balance log (organics) <sup>e</sup>	N/A		
Control device maintenance log (inorganics) <sup>e</sup>	N/A		
D. Develop record system <sup>d</sup>	10	1	10
E. Time to enter information			
Records of all measurements and information required by standard	See 4C		
F. Time to train personnel <sup>d,g</sup>	2	3	6
G. Time for audits <sup>h</sup>	10	1	10
<b>Subtotal for Recordkeeping Requirements</b>			
<b>TOTAL LABOR BURDEN AND COSTS (rounded) <sup>i</sup></b>			
<b>TOTAL CAPITAL AND O&amp;M COST (rounded) <sup>i,j</sup></b>			
<b>GRAND TOTAL (rounded) <sup>i</sup></b>			

**Assumptions:**



<sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 respondents, we assume 82 privately-owned operations and 62 public operations. We assume no new additional sources during the next three years of this ICR. Of the 144 facilities we assume 82 privately-owned operations.

<sup>b</sup> This ICR uses the following labor rates: \$66.62 for managerial, \$49.44 for technical, and \$26.75 for clerical labor General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for inflation.

<sup>c</sup> We have assumed all existing sources will have to re-familiarize with regulatory requirements each year.

<sup>d</sup> One-time cost that is only incurred during the first year of compliance.

<sup>e</sup> We have assumed that specialty coatings operations will not require installation of additional booths and control devices. Compliance costs for coating operations.

<sup>f</sup> These costs vary by facility, and are calculated assuming one hour per year per specialty coating used. The 2015 average number of specialty coatings by facility based on 2011 ICR survey responses. This ICR averages the hours over the 2011-2015 period.

<sup>g</sup> We have assumed one person per shift will require training on recordkeeping requirements and system.

<sup>h</sup> We have assumed auditing activities will coincide with similar activities for coating operations, so would entail additional costs.

<sup>i</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

<sup>j</sup> The capital and O&M cost for this operation has been included in the table for cleaning operations (see Table 1a).



spondents, 108 are privately-owned and 36 are Federally-owned. There will  
ned facilities and 27 Federally-owned facilities will have specialty coating

. These rates are from the Office of Personnel Management (OPM), 2019  
he benefit packages available to government employees.

VICES, and that the costs associated with these devices is covered under the

endment provides a separate worksheet which breaks down the assumed  
!7 facilities to get ~61.6 person hours per occurrence.

out half the effort assumed for the same activity in coating operations.



**Table 2e: Summary of Annual Burden and Cost for Federal Government-Owned Facilities for Tables 2a, 2b,**

<b>Burden</b>	<b>Burden Hours per Year for Reporting</b>	<b>Burden Hours per Year for Recordkeeping</b>	<b>Total Burden Hours per Year (rounded) <sup>a</sup></b>	<b>Total Annual Costs (\$) (rounded) <sup>a, b</sup></b>
1a. Cleaning Operations	1,707	11,146	12,900	\$656,000
1b. Coating Operations	1,550	22,346	23,900	\$1,150,000
1c. Depainting Operations	40	87	128	\$6,150
1d. Specialty Coating Operations	31	2,223	2,250	\$109,000
<b>Total Burden and Costs (rounded)</b>	<b>3,330</b>	<b>35,800</b>	<b>39,200</b>	<b>\$1,920,000</b>

**Assumptions:**

<sup>a</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.

<sup>b</sup> The total annual costs includes both labor and capital and O&M costs

**2c, & 2d – NESHAP for Aerospace Manufacturing and Rework Facilities (40 CFR Part 63, Subpart GG) (Renew**

193.1034 hr/response

ral)

**Table 3: Average Annual EPA Burden and Cost – NESHAP for Aerospace Manufacturing and Rework Facilities (40 C**

Activity	(A) EPA person hours per occurrence	(B) No. of occurrences per plant per year	(C) Person hours per plant per year (C=AxB)	(D) Plants per year <sup>a</sup>	(E) Technical person- hours per year (E=CxD)
1. Initial performance test	80	1	80	4	320
2. Repeat performance test					
Retesting preparation <sup>c</sup>	16	1	16	1	16
Retesting <sup>d</sup>	80	1	80	1	80
3. Report review					
Notification of construction/reconstruction	2	1	2	0	0
Notification of physical or operational changes <sup>e</sup>	2	1	2	14	28
Notification of anticipated startup	2	1	2	0	0
Notification of actual startup	2	1	2	0	0
Notification of changes in production capacity	2	1	2	0	0
Compliance status information report <sup>f</sup>	6	1	6	293	1,758
Waiver application <sup>g</sup>	6	1	6	30	180
Review of site specific test plan	N/A				
Notification of initial performance test <sup>h</sup>	2	1	2	4	8
4. Report review					
Report of initial test	8	1	8	0	0
Review of annual and semiannual reports <sup>i</sup>	3	2	6	234	1,404
<b>TOTAL (rounded) <sup>j</sup></b>					

**Assumptions:**

<sup>a</sup> We have assumed that the average number of respondents that will be subject to this rule will be 144. Of the 144 respondents there will be no new additional sources during the next three years of this ICR.

<sup>b</sup> This ICR uses the following labor rates: \$66.62 for managerial, \$49.44 for technical, and \$26.75 for clerical labor. These (OPM), 2019 General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account employees.

<sup>c</sup> We have assumed that it will take 16 hours to prepare for retesting.

<sup>d</sup> We have assumed that 20 percent of respondents will fail the initial performance test and will have to be retested.

<sup>e</sup> We have assumed that it will take two hours once per year to review the notification of physical or operational change.

<sup>f</sup> We have assumed that it will take six hours to review the compliance status information report.

<sup>g</sup> We have assumed that the Agency will take 6 hours to review the waiver application for each facility.

<sup>h</sup> We have assumed that it will take 2 hours to review the notice of initial performance test.

<sup>i</sup> We have assumed that it will take 3 hours to review each semiannual report.

<sup>j</sup> Totals have been rounded to 3 significant figures. Figures may not add exactly due to rounding.



**CFR Part 63, Subpart GG) (Renewal)**

<b>(F) Management person hours per year (F=Ex0.05)</b>	<b>(G) Clerical person hours per year (G=Ex0.1)</b>	<b>(H) Total Cost Per Year<sup>b</sup></b>
16	32	\$17,742.72
0.8	1.6	\$887.14
4	8	\$4,435.68
0	0	\$0
1.4	2.8	\$1,552.49
0	0	\$0
0	0	\$0
0	0	\$0
87.9	175.8	\$97,474.07
9	18	\$9,980.28
0.4	0.8	\$443.57
0	0	\$0
70.2	140.4	\$77,846.18
<b>4,360</b>		<b>\$210,000</b>

<b>Labor Rates</b>	
Management	\$66.62
Technical	\$49.44
Clerical	\$26.75

ts, 108 are privately-owned and 36 are Federally-owned.

rates are from the Office of Personnel Management  
for the benefit packages available to government