

	All facilities
Number of Existing Facilities	15
Number of New Facilities	0
Total	15

Industry Wages

May 2019 National Industry-Specific Occupational Employment and Wage Estimates
Sectors 31, 32, and 33 - Manufacturing

Category	Occupation Code	Title	2019 Wage
Technical	17-2081	Architecture and Engineering Occupations	48.4
Clerical	43-6014	Office and Administrative Support Occupations	22.65
Managerial	11-9041	Management Occupations	66.36

https://www.bls.gov/oes/current/naics4_3250A1.htm#11-0000

EPA Wages

	Hourly Mean Wage	With Fringe & Overhead
(GS- 12, step 1) - Tech.	30.9	\$49.44
(GS- 13, step 5) - Mgmt.	41.64	\$66.62
(GS-6, step 3) - Cler.	16.72	\$26.75

This ICR uses rates are from the Office of Personnel Management (OPM) General Schedule, which excludes locality rates of pay. The rates have been increased by 60 percent to account for the benefit packages available to government employees.

https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2019/GS_h.pdf

or <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/>

Loaded Wage
101.64
47.57
139.36

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 1

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year	(K) Total Non- Labor Costs Per Year (B x C x E)	(L) Total Number of Responses per Year (C X E)	Footnotes
1. Applications	NA												
2. Surveys and Studies	NA												
3. Reporting Requirements													
A. Read Rule	8	\$0	1	8	15	120	12	6	138	\$13,604	\$0	0	a
B. Required Activities													
1. Initial Performance Tests	0	\$21,350	1	0	15	0	0	0	0	\$0	\$320,250	0	b, c
2. Periodic 5-year Performance Testing	0	\$15,241	1	0	3	0	0	0	0	\$0	\$45,723	0	d, e
C. Create Information	Incl. in 3B												
D. Gather Information	Incl. in 3E												
E. Report Preparation													
1. Report of Initial Performance Test Results (Applicability Assessment)	4	\$0	1	4	15	60	6	3	69	\$6,802	\$0	15	b, c
2. Report of Periodic Performance Test Results	8	\$0	1	8	3	24	2	1	28	\$2,721	\$0	3	d, e
3. Notification of Performance Test Dates	1	\$0	1	1	18	18	2	1	21	\$2,041	\$0	18	
4. Notification of Compliance Status													
a. Initial Boiler Tune Up	3	\$0	1	3	15	45	5	2	52	\$5,101	\$0	15	f, h
b. Initial Performance Test (Applicability Assessment)	Incl. in E.1												b,c
5. Periodic Reports													
a. Periodic 5-Year Performance Test Results	Incl. in E.2												d,e
b. Subsequent Boiler Tune Up	1	\$0	0	0	0	0	0	0	0	\$0	\$0	0	f, h
Reporting Subtotal						267	27	13	307	\$30,269	\$365,973	51	

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 1

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year	(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year	(K) Total Non- Labor Costs Per Year (B x C x E)	(L) Total Number of Responses per Year (C X E)	Footnotes
4. Recordkeeping Requirements													
A. Read Instructions	Inc. in 3A												
B. Plan Activities	See 3B												
C. Implement Activities	See 3B												
D. Develop Record System	NA												
E. Record Information													
1. Performance Test Report Records	0.5	\$0	1	0.5	18	9	1	0	10	\$1,020	\$0	0	
2. Boiler Tune-Up Records/Reports	2	\$0	1	2	15	30	3	2	35	\$3,401	\$0	0	
F. Train Personnel													
1. Understand Requirements and Adjust Compliance Plan	20	\$0	1	20	15	300	30	15	345	\$34,010	\$0	0	g
G. Audits	NA											0	
Recordkeeping Subtotal						339	34	17	390	\$38,431	\$0	0	
TOTAL						606	61	30	697	\$68,700	\$365,973	51	

Footnotes:

- (a) We have included all 15 carbon black major sources, with no additional new or reconstructed sources becoming subject to the rule over the next three years. This is a one-time cost incurred in the first year.
- (b) This is a one-time cost incurred only in year 1 as the rule requires facilities to perform initial performance testing on vents downstream the main unit filter (MUF) to determine applicability. Respondent labor hours per occurrence accounts for on-site contractor support/review of testing/report.
- (c) The nonlabor estimated cost of the initial performance test is estimated to be \$21,350 (included in O&M costs for contractor to conduct performance test/prepare of a performance test report).
- (d) All costs related to periodic testing (requirement to repeat tests every 60 months) assumes that the periodic performance testing/reporting conducted by an emissions testing contractor and facility personnel will work on-site to assist the contractor. Responded labor hours per occurrence assume that 20% of the source category facilities will conduct this test annually.
- (e) The nonlabor estimated cost of periodic testing is estimated to be \$15,241 ((included in O&M costs for contractor to conduct performance test/prepare of a performance test report). For purposes of this burden estimate, it is assumed that 20% of source category facilities will conduct this test annually.
- (f) Includes labor hour to document initial/subsequent boiler tune-up requirements for facilities that comply with the rule by venting tail gas to process boilers for use as fuel gas.
- (g) This is a one-time cost incurred in the first year.
- (h) Cost estimates taken from the 2010 Control Cost Memo discussing Boiler tune-up anticipated costs.

Table 2 - Annual Respondent Burden and Cost of Recordkeeping and Reporting

Burden Item	(A) Respondent Hours per Occurrence (Technical hours)	(B) Non-Labor Costs Per Occurrence	(C) Number of Occurrences Per Respondent Per Year	(D) Technical Hours per Respondent Per Year (A X C)	(E) Number of Respondents Per Year
1. Applications	NA				
2. Surveys and Studies	NA				
3. Reporting Requirements					
A. Read Rule	8	\$0	1	8	0
B. Required Activities					
1. Initial Performance Tests	0	\$21,350	1	0	0
2. Periodic 5-year Performance Testing	0	\$15,241	1	0	3
C. Create Information	Inc. in 3B				
D. Gather Information	Inc. in 3E				
E. Report Preparation					
1. Report of Initial Performance Test Results (Applicability Assessment)	4	\$0	1	4	0
2. Report of Periodic Performance Test Results	8	\$0	1	8	3
3. Notification of Performance Test Dates	1	\$0	1	1	3
4. Notification of Compliance Status					
a. Initial Boiler Tune Up	3	\$0	0	0	0
b. Initial Performance Test (Applicability Assessment)	Incl. in E.1				
5. Periodic Reports					
a. Periodic 5-Year Performance Test Results	Incl. in E.2				
b. Subsequent Boiler Tune Up	1	\$0	1	1	15
Reporting Subtotal					
4. Recordkeeping Requirements					
A. Read Instructions	Inc. in 3A				
B. Plan Activities	See 3B				
C. Implement Activities	See 3B				
D. Develop Record System	NA				
E. Record Information					
1. Performance Test Report Records	0.5	\$0	1	0.5	3
2. Boiler Tune-Up Records/Reports	2	\$0	1	2	15
F. Train Personnel					
1. Understand Requirements and Adjust Compliance Plan	20	\$0	1	20	0
G. Audits	NA				
Recordkeeping Subtotal					
TOTAL					

Footnotes:

- (a) We have included all 15 carbon black major sources, with no additional new or reconstructed sources becoming subject to the rule.
- (b) This is a one-time cost incurred only in year 1 as the rule requires facilities to perform initial performance testing on vents downstream site contractor support/review of testing/report.
- (c) The nonlabor estimated cost of the initial performance test is estimated to be \$21,350 (included in O&M costs for contractor to conduct performance test).
- (d) All costs related to periodic testing (requirement to repeat tests every 60 months) assumes that the periodic performance testing/reporting is done by the contractor. Responded labor hours per occurrence assume that 20% of the source category facilities will conduct this test annually.
- (e) The nonlabor estimated cost of periodic testing is estimated to be \$15,241 ((included in O&M costs for contractor to conduct performance test). Source category facilities will conduct this test annually.
- (f) Includes labor hour to document initial/subsequent boiler tune-up requirements for facilities that comply with the rule by venting tail gas.
- (g) This is a one-time cost incurred in the first year.
- (h) Cost estimates taken from the 2010 Control Cost Memo discussing Boiler tune-up anticipated costs.

ig Requirements for the Carbon Black Production RTR - Year 2

(F) Technical Hours per Year (D X E)	(G) Clerical Hours per Year (F X 0.1)	(H) Management Hours per Year (F X .05)	(I) Total Hours per Year (F + G + H)	(J) Total Labor Costs Per Year	(K) Total Non- Labor Costs Per Year (B x C x E)	(L) Total Number of Responses per Year (C X E)	Footnotes
0	0	0	0	\$0	\$0	0	a
0	0	0	0	\$0	\$0	0	b, c
0	0	0	0	\$0	\$45,723	0	d, e
0	0	0	0	\$0	\$0	0	b, c
24	2	1	28	\$2,721	\$0	3	d, e
3	0	0	3	\$340	\$0	3	
0	0	0	0	\$0	\$0	0	f, h
							b,c
							d,e
15	2	1	17	\$1,700	\$0	15	f, h
42	4	2	48	\$4,761	\$45,723	21	
2	0	0	2	\$170	\$0	0	
30	3	2	35	\$3,401	\$0	0	
0	0	0	0	\$0	\$0	0	g
32	3	2	36	\$3,571	\$0	0	
74	7	4	85	\$8,332	\$45,723	21	

ver the next three years. This is a one-time cost incurred in the first year.

n the main unit filter (MUF) to determine applicability. Respondent labor hours per occurrence accounts for on-
ct performance test/prepare of a performance test report).

orting conducted by an emissions testing contractor and facility personnel will work on-site to assist

ance test/prepare of a performance test report). For purposes of this burden estimate, it is assumed that 20% of the

is to process boilers for use as fuel gas.

Table 3 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 3

Table 4 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR

Year	Technical Hours	Clerical Hours	Management Hours	Total Labor Hours	Labor Costs	Non-Labor (Annualized Capital/Startup and O&M) Costs	Total Costs
1	606	61	30	697	\$68,700	\$365,973	\$434,673
2	74	7	4	85	\$8,332	\$45,723	\$54,055
3	74	7	4	85	\$8,332	\$45,723	\$54,055
Total	753	75	38	866	\$85,364	\$457,419	\$542,783
Average	251	25	13	289	\$28,455	\$152,473	\$180,928
Year	Number of Respondents	Number of Responses	Reporting Hours	Recordkeeping Hours	Total Hours	Hours per Response	Hours Per Respondent
1	15	51	307	390	697	14	46
2	15	21	48	36	85	4	6
3	15	21	48	36	85	4	6
Total	45	93	404	462	866	9	19
Average	15	31	135	154	289	9	19

Table 5 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 1

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	10	8	80	4	8	92	\$4,436	a
3. Required Activities								
C. Create Information								
1. Initial Performance Testing (Applicability Assessment)	1.5	5.5	8.25	0.41	0.83	9.5	\$ 457	b, c
2. Periodic (Every 5 Years) Performance Testing	0.3	8	2.4	0.12	0.24	2.76	\$ 133	b, d
D. Gather Information	not applicable							
E. Report Reviews								
Rep 1. Notification of Performance Test Dates	18	0.5	9	0	1	10	\$499	
\$49! 2. Review Report of Initial Performance Test	15	10	150	8	15	173	\$8,317	c
3. Report of Periodic 5-year Performance Testing	3	20	60	3	6	69	\$3,327	d
4. Review of Notification of Compliance Status Report	15	1	15	0.75	1.50	17	\$832	
5. Review Periodic Report	30	1	30	1.50	3.00	35	\$1,663	e
F. Prepare annual summary report	1	4	4	0	0	5	\$222	
TOTAL			359	18	36	412	\$19,886	

Footnotes:

- (a) Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 4 EPA regions = 10 respondents).
- (b) Assumes that agency personnel will choose to observe 10 percent of performance tests conducted.
- (c) This rule requires facilities to perform initial performance testing (conduct an applicability assessment) on process vents downstream of the main unit filter (MUF) to determine applicability. Assumes 10 hours for initial performance test report (applicability assessment) review.
- (d) The EPA is requiring periodic performance testing once every 5 years, with the first periodic performance test required within 3 years of the promulgation date of the final rule. Assumes 20 hours for periodic performance test report review.
- (e) Assumes periodic reports will be submitted for review two times per year per facility (15 facilities).

Table 6 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 2

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	0	8	0	0	0	0	\$0	a
3. Required Activities	not applicable							
C. Create Information	not applicable							
1. Initial Performance Testing (Applicability Assessment)	0	5.5	0	0	0	0	\$ -	b, c
2. Periodic (Every 5 Years) Performance Testing	0.3	8	2.4	0.12	0.24	2.76	\$ 133	b, d
D. Gather Information	not applicable							
E. Report Reviews	not applicable							
Rep 1. Notification of Performance Test Dates	3	0.5	2	0	0	2	\$83	
\$83 2. Review Report of Initial Performance Test	0	10	0	0	0	0	\$0	c
3. Report of Periodic 5-year Performance Testing	3	20	60	3	6	69	\$3,327	d
4. Review of Notification of Compliance Status Report	0	1	0	0	0	0	\$0	
5. Review Periodic Report	30	1	30	1.50	3	35	\$1,663	e
F. Prepare annual summary report	1	4	4	0	0	5	\$222	
TOTAL			98	5	10	113	\$5,428	

Footnotes:

(a) Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 4 EPA regions = 10 respondents).

(b) Assumes that agency personnel will choose to observe 10 percent of performance tests conducted.

(c) This rule requires facilities to perform initial performance testing (conduct an applicability assessment) on process vents downstream of the main unit filter (MUF) to determine applicability. Assumes 10 hours for initial performance test report (applicability assessment) review.

(d) The EPA is requiring periodic performance testing once every 5 years, with the first periodic performance test required within 3 years of the promulgation date of the final rule. Assumes 20 hours for periodic performance test report review.

(e) Assumes periodic reports will be submitted for review two times per year per facility (15 facilities).

Table 7 - Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Carbon Black Production RTR - Year 3

Burden Item	(A) Number of Occurrences Per Year	(B) Technical Hours Per Occurrence	(C) Tech Hours Per Year (C=A x B)	(D) Management Hours Per Year (D = C x 0.05)	(E) Clerical Hours Per Year (E = C x 0.1)	(F) Total Hours Per Year (C+D+E)	(G) Total Cost Per Year	Footnotes
1. Applications	not applicable							
2. Read and Understand Rule Requirements	0	8	0	0	0	0	\$0	a
3. Required Activities								
C. Create Information								
1. Initial Performance Testing (Applicability Assessment)	0	5.5	0	0	0	0	\$ -	b, c
2. Periodic (Every 5 Years) Performance Testing	0.3	8	2.4	0.12	0.24	2.76	\$ 133	b, d
D. Gather Information	not applicable							
E. Report Reviews								
Rep 1. Notification of Performance Test Dates	3	0.5	2	0	0	2	\$83	
\$83 2. Review Report of Initial Performance Test	0	10	0	0	0	0	\$0	c
3. Report of Periodic 5-year Performance Testing	3	20	60	3	6	69	\$3,327	d
4. Review of Notification of Compliance Status Report	0	1	0	0	0	0	\$0	
5. Review Periodic Report	30	1	30	1.50	3	35	\$1,663	e
F. Prepare annual summary report	1	4	4	0	0	5	\$222	
TOTAL			98	5	10	113	\$5,428	

Footnotes:

(a) Number of occurrences is the number of states and EPA Regions with affected sources (6 states + 4 EPA regions = 10 respondents).

(b) Assumes that agency personnel will choose to observe 10 percent of performance tests conducted.

(c) This rule requires facilities to perform initial performance testing (conduct an applicability assessment) on process vents downstream of the main unit filter (MUF) to determine applicability. Assumes 10 hours for initial performance test report (applicability assessment) review.

(d) The EPA is requiring periodic performance testing once every 5 years, with the first periodic performance test required within 3 years of the promulgation date of the final rule. Assumes 20 hours for periodic performance test report review.

(e) Assumes periodic reports will be submitted for review two times per year per facility (15 facilities).

Table 8 - Summary of Annual Agency Burden and Cost of Recordkeeping and Reporting Requirements for the Cyanide Chemicals Manufacturing RTR

Year	Technical Hours	Management Hours	Clerical Hours	Total Hours	Labor Costs	Non-Labor Costs	Total Costs
1	359	18	36	412	\$19,886	\$0	\$19,886
2	98	5	10	113	\$5,428	\$0	\$5,428
3	98	5	10	113	\$5,428	\$0	\$5,428
Total	554	28	55	638	\$30,742	\$0	\$30,742
Average	185	9	18	213	\$10,247	\$0	\$10,247

(A) Testing	(B) Cost, Annualized	(C) Number of Respondents	(D) Total Cost, Annualized (B X C)	Footnotes
Periodic 5-Year Test				a
Method 25A	\$9,145	9	\$82,305	b
New Initial Performance Testing				c
Method 25A	\$7,117	15	\$106,755	d
TOTAL	-	24	\$190,000	

Footnotes:

- (a) Assumes 20% (3) of the total source category will annually perform the Periodic 5 -year test. Or 60% (9) in the 3 years of this ICR
- (b) The estimated cost of this test would be \$21,350 but is only required once. To determine annual cost we took the one time cost divided by the 3 year period of this ICR
- (c) This rule requires facilities to perform initial performance testing on vents downstream the main unit filter (MUF) to determinate applicability.
- (d) The estimated cost of this test would be \$15,241 and is required once every 5 years. To determine annual cost we took the test cost divided by 5 to determine the cost over the 5 year period between tests. We then took that value and multiplied it by 3 to represent the 3 years of this ICR.

(A) Testing	(B) Cost Per Test	(C) Total Number of Respondents Over 3-Year Period	(D) Total Cost (B X C)	Footnotes
Periodic 5-Year Test				a
Method 25A	\$15,241	9	\$137,169	b
New Initial Performance Testing				c
Method 25A	\$21,350	15	\$320,250	d
TOTAL		24	\$457,419	
AVERAGE		8	\$152,473	

Footnotes:

- (a) Assumes 20% (3) of the total source category will annually perform the Periodic 5 -year test. Or 60% (9) in the 3 years of this ICR
- (b) The estimated cost of this test would be \$15,241 and is required once every 5 years. We estimated that 20 percent of existing facilities (3 facilities) will need to performance these tests every year.
- (c) The proposed rule requires all existing facilities (15 facilities) to perform initial performance testing on vents downstream from the main unit filter (MUF) to determinate applicability within the first year of the promulgated amendments.
- (d) The estimated cost of this test would be \$21,350 but is only required once in the three-year period.

*Memorandum. SC&A Incorporated to Korbin Smith, U.S. EPA/OAQPS/SPPD. *Cost Estimates for Carbon Black Production National Emission Standards of Hazardous Air Pollutants (NESHAP) Risk and Technology Review(RTR) – Proposed Rule.* October 2020.

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