

**SUPPORTING STATEMENT
ENVIRONMENTAL PROTECTION AGENCY**

NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal)

1. Identification of the Information Collection

1(a) Title of the Information Collection

NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal), EPA ICR Number 2042.06, OMB Control Number 2060-0519.

1(b) Short Characterization/Abstract

The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Semiconductor Manufacturing were proposed on May 8, 2002, promulgated on May 22, 2003, and amended on July 22, 2008. These regulations apply to each new, reconstructed, or existing affected major source that emits or has the potential to emit, considering controls, in the aggregate, any single hazardous air pollutants (HAP) at a rate of 10 tons per year (tpy) or more or any combination of HAP at a rate of 25 tpy or more. Under the EPA's "Once In Always In" policy (May 16, 1995 memorandum from John S. Seitz, director, Office of Air Quality Planning and Standards, titled "Potential to Emit for MACT Standards – guidance on Timing Issues"), a facility would be considered a major source if it was a major source on the compliance date of the relevant MACT standard --even if it subsequently had a potential to emit that was below the regulatory levels. The semiconductor NESHAP, unlike some other NESHAPs, does not have a provision for EPA to re-evaluate the applicability of these standards.

Semiconductor manufacturing process units are used to manufacture p-type and n-type semiconductors and active solid-state devices from a wafer substrate, including research and development activities integrated into a semiconductor manufacturing process unit. A semiconductor manufacturing process unit includes the equipment assembled and connected by ductwork or hard-piping, including: furnaces and associated unit operations; associated wet and dry work benches; associated recovery devices; feed, intermediate, and product storage tanks; product transfer racks and connected ducts and piping; pumps, compressors, agitators, pressure-relief devices, sampling connecting systems, open-ended valves or lines, valves, connectors, and instrumentation systems; and control devices. New facilities include those that commenced construction or reconstruction after the date of proposal. This information is being collected to assure compliance with 40 CFR Part 63, Subpart BBBBB.

In general, all NESHAP standards require initial notifications, performance tests, and periodic reports by the owners/operators of the affected facilities. They are also required to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, or any period during which the monitoring system is inoperative. These notifications, reports, and records are essential in determining compliance, and are required of all affected facilities subject to NESHAP.

Any owner/operator subject to the provisions of this part shall maintain a file of these

measurements, and retain the file for at least five years following the date of such measurements, maintenance reports, and records. All reports are sent to the delegated state or local authority. In the event that there is no such delegated authority, the reports are sent directly to the U.S. Environmental Protection Agency (EPA) regional office.

The semiconductor facilities in the United States are owned and operated by the semiconductor manufacturing industry (aka: the “Affected Public”). While some semiconductor facilities could be owned by either state, or local, or the Federal government, the existing major source facility subject to this regulation is a privately-owned, for-profit businesses. The “burden” to the “Affected Public” may be found below in Table 1: Annual Respondent Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal). The Federal Government “burden” is attributed entirely to work performed by either Federal employees or government contractors and may be found below in Table 2: Average Annual EPA Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal).

Based on our consultations with industry representatives, there is an average of one affected facility at each plant site and that each plant site has only one respondent (i.e., the owner/operator of the plant site).

Over the next three years, we estimate there are 127 facilities, with either no new or reconstructed facilities becoming subject to these standards. Of the 127 facilities, only one is considered a major source and this is solely due to the fact that this small factory was once under common ownership with a larger business park complex that is a major source. The 126 other non-major sources only read the rule requirements for the first year and have no additional burden during this ICR renewal period.

The Office of Management and Budget (OMB) approved the currently active ICR without any “Terms of Clearance.”

2. Need for and Use of the Collection

2(a) Need/Authority for the Collection

The EPA is charged under Section 112 of the Clean Air Act, as amended, to establish standards of performance for each category or subcategory of major sources and area sources of hazardous air pollutants. These standards are applicable to new or existing sources of hazardous air pollutants and shall require the maximum degree of emission reduction. In addition, section 114(a) states that the Administrator may require any owner/operator subject to any requirement of this Act to:

- (A) Establish and maintain such records; (B) make such reports;
- (C) install, use, and maintain such monitoring equipment, and use

such audit procedures, or methods; (D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods, and in such manner as the Administrator shall prescribe); (E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical; (F) submit compliance certifications in accordance with Section 114(a)(3); and (G) provide such other information as the Administrator may reasonably require.

In the Administrator's judgment, HAP emissions from semiconductor manufacturing facilities either cause or contribute to air pollution that may reasonably be anticipated to endanger public health and/or welfare. Therefore, the NESHAP were promulgated for this source category at 40 CFR Part 63, Subpart BBBBBB.

2(b) Practical Utility/Users of the Data

The recordkeeping and reporting requirements in these standards ensure compliance with the applicable regulations which were promulgated in accordance with the Clean Air Act. The collected information is also used for targeting inspections and as evidence in legal proceedings.

Performance tests are required in order to determine an affected facility's initial capability to comply with the emission standards. Continuous emission monitors are used to ensure compliance with these standards at all times. During the performance test a record of the operating parameters under which compliance was achieved may be recorded and used to determine compliance in place of a continuous emission monitor.

The notifications required in these standards are used to inform the Agency or delegated authority when a source becomes subject to the requirements of the regulations. The reviewing authority may then inspect the source to check if the pollution control devices are properly installed and operated, leaks are being detected and repaired, and the standard are being met. The performance test may also be observed.

The required semiannual reports are used to determine periods of excess emissions, identify problems at the facility, verify operation/maintenance procedures and for compliance determinations.

3. Non-duplication, Consultations, and Other Collection Criteria

The requested recordkeeping and reporting are required under 40 CFR Part 63, Subpart BBBBBB.

3(a) Non-duplication

If the subject standards have not been delegated, the information is sent directly to the appropriate EPA regional office. Otherwise, the information is sent directly to the delegated state or local agency. If a state or local agency has adopted its own similar standards to implement the Federal standards, a copy of the report submitted to the state or local agency can be sent to the Administrator in lieu of the report required by the Federal standards. Therefore, duplication does not exist.

3(b) Public Notice Required Prior to ICR Submission to OMB

An announcement of a public comment period for the renewal of this ICR was published in the Federal Register (79 FR 30117) on May 27, 2014. No comments were received on the burden published in the Federal Register.

3(c) Consultations

The Agency has consulted industry experts and internal data sources to project the number of affected facilities and industry growth over the next three years. The primary source of information as reported by industry, in compliance with the recordkeeping and reporting provisions in the standard, is Enforcement and Compliance History Online (ECHO), which is operated and maintained by EPA's Office of Compliance. ECHO is EPA's database for the collection, maintenance, and retrieval of all compliance data. The growth rate for the industry is based on our consultations with the Agency's internal industry experts.

Industry trade associations and other interested parties were provided an opportunity to comment on the burden associated with the standard as it was being developed. In developing this ICR, we contacted both the Semiconductor Industry Association, at (202) 446-1700, and the Fab Owners Association, at (408) 725-7127. EPA received comments from the subject major facility and incorporated the comments into this ICR. The subject facility provided estimate for an additional O&M cost item, but felt that the respondent burden and cost estimates associated with the NESHAP and presented in Table 1 of this ICR are conservative.

It is our policy to respond after a thorough review of comments received since the last ICR renewal as well as those submitted in response to the first Federal Register notice.

3(d) Effects of Less Frequent Collection

Less frequent information collection would decrease the margin of assurance that facilities are continuing to meet the standards. Requirements for information gathering and recordkeeping are useful techniques to ensure that good operation and maintenance practices are applied and emission limitations are met. If the information required by these standards was collected less frequently, the proper operation and maintenance of control equipment and the possibility of detecting violations would be less likely.

3(e) General Guidelines

These reporting or recordkeeping requirements do not violate any of the regulations promulgated by OMB under 5 CFR Part 1320, Section 1320.5.

These standards require the respondents to maintain all records, including reports and notifications for at least five years. This is consistent with the General Provisions as applied to the standards. EPA believes that the five-year records retention requirement is consistent with the Part 70 permit program and the five-year statute of limitations on which the permit program is based. The retention of records for five years allows EPA to establish the compliance history of a source, any pattern of non-compliance and to determine the appropriate level of enforcement action. EPA has found that the most flagrant violators have violations extending beyond five years. In addition, EPA would be prevented from pursuing the violators due to the destruction or nonexistence of essential records.

3(f) Confidentiality

Any information submitted to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in Title 40, chapter 1, part 2, subpart B - Confidentiality of Business Information (CBI) (see 40 CFR 2; 41 FR 36902, September 1, 1976; amended by 43 FR 40000, September 8, 1978; 43 FR 42251, September 20, 1978; 44 FR 17674, March 23, 1979).

3(g) Sensitive Questions

The reporting or recordkeeping requirements in the standard do not include sensitive questions.

4. The Respondents and the Information Requested

4(a) Respondents/SIC Codes

The respondents to the recordkeeping and reporting requirements are semiconductor manufacturing facilities. The United States Standard Industrial Classification (SIC) code for the respondents affected by the standards is SIC 3674, which corresponds to the North American Industry Classification System (NAICS) 334413 for Semiconductor and Related Device Manufacturing.

4(b) Information Requested

(i) Data Items

In this ICR, all the data that is recorded or reported is required by the NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB).

A source must make the following reports:

Notifications	
Initial notification	63.9(b)(2)-(3), 63.7189(b)-(c)
Notification of performance test	63.7(b)-(c), 63.9(e), 63.7189(d)
Notification of compliance status	63.9(h), 63.10(d)(2), 63.7189(e)
Performance evaluation reports	63.8(e)(5), 63.7191(a)(e)
Startup, shutdown, malfunction	63.6(e)(3), 63.7190(a)(2)
Semiannual summary report	63.7190

A source must keep the following records:

Recordkeeping	
Initial notification or notification of compliance status	63.10(b)(2)(xiv), 63.7191(a)(1)
Record of startup, shutdown, malfunctions	63.6(e)(3), 63.7191(a)(2)
Records of performance tests and performance evaluations	63.10(b)(2)(viii), 63.7191(a)(3)
Records are required to be retained for five years	63.10(b)(2)

Electronic Reporting

Some of the respondents are using monitoring equipment that automatically records parameter data. Although personnel at the affected facility must still evaluate the data, internal automation has significantly reduced the burden associated with monitoring and recordkeeping at a plant site.

(ii) Respondent Activities

Respondent Activities

Respondent Activities
Familiarization with the regulatory requirements.
Install, calibrate, maintain, and operate CMS for opacity, or for pressure drop and liquid supply pressure for control device.
Perform initial performance test, Reference Method 320, 26, 26A tests, and repeat performance tests if necessary.
Write the notifications and reports listed above.
Enter information required to be recorded above.
Submit the required reports developing, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information.
Develop, acquire, install, and utilize technology and systems for the purpose of processing and maintaining information.
Develop, acquire, install, and utilize technology and systems for the purpose of disclosing and providing information.
Train personnel to be able to respond to a collection of information.
Transmit, or otherwise disclose the information.

5. The Information Collected: Agency Activities, Collection Methodology, and Information Management

5(a) Agency Activities

EPA conducts the following activities in connection with the acquisition, analysis, storage, and distribution of the required information:

Agency Activities
Review notifications and reports, including performance test reports, and excess emissions reports, required to be submitted by industry.
Audit facility records.
Input, analyze, and maintain data in Integrated Compliance Information System (ICIS) and ECHO.

5(b) Collection Methodology and Management

Following notification of startup, the reviewing authority could inspect the source to determine whether the pollution control devices are properly installed and operated. Performance test reports are used by the Agency to discern a source's initial capability to comply with the emission standard and note the operating conditions under which compliance was achieved. Data and records maintained by the respondents are tabulated and published for use in compliance and enforcement programs. The semiannual reports are used for problem identification, as a check on source operation and maintenance, and for compliance determinations.

Information contained in the reports is reported by state and local governments in the ICIS Air database which is operated and maintained by EPA's Office of Compliance. ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities. EPA uses ICIS for tracking air pollution compliance and enforcement by local and state regulatory agencies, EPA regional offices and EPA headquarters. EPA and its delegated Authorities can edit, store, retrieve and analyze the data.

The records required by this regulation must be retained by the owner/operator for five years.

5(c) Small Entity Flexibility

A majority of the respondents are large entities (i.e., large businesses). However, the impact on small entities (i.e., small businesses) was taken into consideration during the development of the regulation. Due to technical considerations involving the process operations and the types of control equipment employed, the recordkeeping and reporting requirements are the same for both small and large entities. The Agency considers these to be the minimum requirements needed to ensure compliance and, therefore, cannot reduce them further for small entities. To the extent that larger businesses can use economies of scale to reduce their burden, the overall burden will be reduced.

5(d) Collection Schedule

The specific frequency for each information collection activity within this request is shown in below Table 1: Annual Respondent Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBB) (Renewal).

6. Estimating the Burden and Cost of the Collection

Table 1 documents the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for the subpart included in this ICR. The individual burdens are expressed under standardized headings believed to be consistent with the concept of burden under the Paperwork Reduction Act. Where appropriate, specific tasks and major assumptions have been identified. Responses to this information collection are mandatory.

The Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently-valid OMB Control Number.

6(a) Estimating Respondent Burden

The average annual burden to industry over the next three years from these recordkeeping and reporting requirements is estimated to be 41 hours (Total Labor Hours from Table 1 below). These hours are based on Agency studies and background documents from the development of the regulation, Agency knowledge and experience with the NESHAP program, the previously approved ICR, and any comments received.

The one facility that is a major source emphasized that the cost estimates in Table 1 are only the reporting and recordkeeping burden associated with this NESHAP, which is a fraction of the facility compliance costs under the Clean Air Act. The Table 1 burden is relatively low because the NESHAP “piggyback” on the other compliance costs. The greater compliance costs relate to the time involved to ensure that emissions are within the permit limits whenever any change is made to the manufacturing process that might affect HAP emissions. The semiconductor fabrication process is complex, involving dozens of steps, and any changes to the process – such as changing a photoresist or moving a chemical to a different tool – requires extensive calculations to determine if a permit modification is required. In those cases where a permit modification is required, the preparation of the submission is both costly and takes about month to process with state regulatory authorities.

Like the other 126 facilities in the semiconductor industry, the one facility that is a considered a major source has a potential to emit below the NESHAP regulatory levels of a rate of 10 tons per year of any single hazardous air pollutants (HAP) and below at a rate of 25 tons per year for any combination of HAP. This facility is considered a major source solely due to the fact that it was once under common ownership with a larger business park complex that is a major source.

6(b) Estimating Respondent Costs

(i) Estimating Labor Costs

This ICR uses the following labor rates:

Managerial	\$129.93 (\$61.87 + 110%)
Technical	\$103.97 (\$49.51 + 110%)
Clerical	\$51.79 (\$24.66 + 110%)

These rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2014, “Table 2. Civilian Workers, by occupational and industry group.” The rates are from column 1, “Total compensation.” The rates have been increased by 110 percent to account for

the benefit packages available to those employed by private industry.

(ii) Estimating Capital/Startup and Operation and Maintenance Costs

The type of industry costs associated with the information collection activities in the subject standard are both labor costs which are addressed elsewhere in this ICR and the costs associated with continuous monitoring. The capital/startup costs are one-time costs when a facility becomes subject to the regulation. The annual operation and maintenance costs are the ongoing costs to maintain the monitor and other costs such as photocopying and postage.

(iii) Capital/Startup vs. Operation and Maintenance (O&M) Costs

Capital/Startup vs. Operation and Maintenance (O&M) Costs						
(A) Continuous Monitoring Device	(B) Capital/Startup Cost for One Respondent	(C) Number of New Respondents	(D) Total Capital/Startup Cost, (B X C)	(E) Annual O&M Costs for One Respondent ¹	(F) Number of Respondents with O&M	(G) Total O&M, (E X F) ²
N/A	N/A	N/A	N/A	\$550	1	\$550
					Total	\$550

¹ We assume annual photocopy and postage cost will be \$50, and the consulting fees will be \$500.

² Totals have been rounded to 3 significant values. Figures may not add exactly due to rounding.

The total capital/startup costs for this ICR are \$0. This is the total of column D in the above table.

The total operation and maintenance (O&M) costs for this ICR are \$550. This is the total of column G.

The average annual cost for capital/startup and/or operation and maintenance costs to industry over the next three years of the ICR is estimated to be \$550. These are recordkeeping costs.

6(c) Estimating Agency Burden and Cost

The only costs to the Agency are those costs associated with analysis of the reported information. EPA's overall compliance and enforcement program includes activities such as the examination of records maintained by the respondents, periodic inspection of sources of emissions, and the publication and distribution of collected information.

The average annual Agency cost during the three years of the ICR is estimated to be \$1,570.

This cost is based on the average hourly labor rate as follows:

Managerial	\$62.90 (GS-13, Step 5, \$39.31 + 60%)
Technical	\$46.67 (GS-12, Step 1, \$29.17 + 60%)
Clerical	\$25.25 (GS-6, Step 3, \$15.78 + 60%)

These rates are from the Office of Personnel Management (OPM), 2015 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. Details upon which this estimate is based appear below in Table 2: Average Annual EPA Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBB) (Renewal).

6(d) Estimating the Respondent Universe and Total Burden and Costs

Based on our research for this ICR, on average over the next three years, approximately one existing major source will be subject to the standard. It is estimated that no additional respondents per year will become subject. The overall average number of respondents, as shown in the table below, is one per year.

The number of respondents is calculated using the following table that addresses the three years covered by this ICR:

Number of Respondents					
	Respondents That Submit Reports		Respondents That Do Not Submit Any Reports		
Year	(A) Number of New Respondents ¹	(B) Number of Existing Respondents	(C) Number of Existing Respondents that keep records but do not submit reports	(D) Number of Existing Respondents That Are Also New Respondents	(E) Number of Respondents (E=A+B+C-D)
1	0	1	0	0	1
2	0	1	0	0	1
3	0	1	0	0	1
Average	0	1	0	0	1

¹ New respondents include sources with constructed, reconstructed and modified affected facilities.

Column D is subtracted to avoid double-counting respondents. As shown above, the average Number of Respondents over the three year period of this ICR is one.

The total number of annual responses per year is calculated using the following table:

Total Annual Responses				
(A) Information Collection Activity	(B) Number of Respondents	(C) Number of Responses	(D) Number of Existing Respondents That Keep Records But Do Not Submit Reports	(E) Total Annual Responses E=(BxC)+D
Initial notification	0	1	0	0
Notification of performance evaluation	0	1	0	0
Notification of compliance status	0	1	0	0
Performance evaluation reports	0	1	0	0
Startup, shutdown, malfunction report	0	4	0	0
Semiannual summary report	1	2	0	2
			Total	2

The number of Total Annual Responses is 2.

The total annual labor costs are \$4,160. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal).

6(e) Bottom Line Burden Hours and Cost Tables

The detailed bottom line burden hours and cost calculations for the respondents and the Agency are shown in Tables 1 and 2, respectively, and summarized below.

(i) Respondent Tally

The total annual labor hours are 41 hours at a cost of \$4,160. Details regarding these estimates may be found below in Table 1: Annual Respondent Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal).

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

Furthermore, the annual public reporting and recordkeeping burden for this collection of information is estimated to average 21 hours per response.

The total annual capital/startup and O&M costs to the regulated entity are \$550. The cost calculations are detailed in Section 6(b)(iii), Capital/Startup vs. Operation and Maintenance

(O&M) Costs.

(ii) The Agency Tally

The average annual Agency burden and cost over next three years is estimated to be 35 labor hours at a cost of \$1,570. See below Table 2: Average Annual EPA Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal).

We assume that burdens for managerial tasks take 5% of the time required for technical tasks because the typical tasks for managers are to review and approve reports. Clerical burdens are assumed to take 10% of the time required for technical tasks because the typical duties of clerical staff are to proofread the reports, make copies and maintain records.

6(f) Reasons for Change in Burden

There is a small increase in the respondent burden from the most recently approved ICR due to an update in assumption and an adjustment in labor rates. In this ICR, we assume the existing major source will read and re-familiar with the rule requirement annually. We have also updated all burden calculations using the latest labor rates from the Bureau of Labor Statistics.

There is also a small increase in the O&M cost. Based on comments received from industry consultation, the major source facility subject to this regulation incurs an annual consulting fee. We have added this fee to the annual O&M cost.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 21 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB Control Number. The OMB Control Numbers for EPA regulations are listed at 40 CFR Part 9 and 48 CFR Chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OECA-2014-0089. An electronic version of the public docket is available at <http://www.regulations.gov/>, which may be used to obtain a copy of the draft

collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. When in the system, select “search,” then key in the docket ID number identified in this document. The documents are also available for public viewing at the Enforcement and Compliance Docket and Information Center in the EPA Docket Center (EPA/DC), WJC West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the docket center is (202) 566-1752. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OECA-2014-0089 and OMB Control Number 2060-0519 in any correspondence.

Part B of the Supporting Statement

This part is not applicable because no statistical methods were used in collecting this information.

Table 1: Annual Respondent Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal)

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year ^a	(E) Technical person- hours per year (E=CxD)	(F) Managemen t person hours per year (Ex0.05)	(G) Clerical person hours per year (Ex0.1)	(H) Total Cost Per year ^b
1. Applications	N/A							
2. Survey and Studies	N/A							
3. Reporting requirements								
A. Familiarization with rule requirement	4	1	4	1	4	0.2	0.4	\$463
B. Process/review information ^d	4	2	8	1	8	0.4	0.8	\$925.16
C. Write Report								
Initial notification ^c	2	1	2	0	0	0	0	\$0
Notification of performance evaluation ^c	2	1	2	0	0	0	0	\$0
Notification of compliance status ^c	2	1	2	0	0	0	0	\$0
Performance evaluation reports ^c	2	1	2	0	0	0	0	\$0
Startup, shutdown, malfunction (SSM) report ^e	1	4	4	0	0	0	0	\$0
Semiannual summary report ^f	4	2	8	1	8	0.4	0.8	\$925.16
Subtotal for Reporting Requirements						23		\$2,312.91
4. Recordkeeping requirements								
A. Familiarization with rule requirement	See 3A							
B. Plan activities	8	1	8	1	8	0.4	0.8	\$925.16
C. Implement activities								
Control devices								
Design analysis	15	1	15	0	0	0	0	\$0

Burden item	(A) Person hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person hours per respondent per year (C=AxB)	(D) Respondents per year ^a	(E) Technical person- hours per year (E=CxD)	(F) Managemen t person hours per year (Ex0.05)	(G) Clerical person hours per year (Ex0.1)	(H) Total Cost Per year ^b
Performance evaluation	40	1	40	0	0	0	0	\$0
Equipment inspection	1	52	52	0	0	0	0	\$0
Monitoring activities	1	52	52	0	0	0	0	\$0
Maintenance	2	52	104	0	0	0	0	\$0
D. Develop record system								
Develop SSM plan	8	1	8	0	0	0	0	\$0
Control equipment/maintenance plan	12	1	12	0	0	0	0	\$0
E. Time to enter information								
Control equipment testing	1	1	1	0	0	0	0	\$0
Control equipment inspection	0.5	52	26	0	0	0	0	\$0
Control equipment monitoring	0.5	52	26	0	0	0	0	\$0
F. Time to train personnel								
Control equipment inspection and Monitoring	40	1	40	0	0	0	0	\$0
G. Store, file and maintain records ^g	2	2	4	1	4	0.2	0.4	\$462.58
H. Retrieve records/reports ^h	2	2	4	1	4	0.2	0.4	\$462.58
Subtotal for Recordkeeping Requirements						19		\$1,850.33
TOTAL LABOR BURDEN AND COST ⁱ						41		\$4,160
Capital and O&M Cost (see Section 6(b)(iii)): ⁱ								\$550
TOTAL COST: ^{i,j}								\$4,710

Assumptions:

^a We have assumed that there is approximately 127 existing sources currently subject to this rule (one major source and 126 non-major sources). There will be no additional new source that will become subject to the rule over the three-year period of this ICR.

^b This ICR uses the following labor rates: \$129.93 per hour for Managerial labor; \$103.97 per hour for Technical labor, and \$51.79 per hour for Clerical labor. These rates are from the United States Department of Labor, Bureau of Labor Statistics, June 2014 “Table 2. Civilian Workers, by Occupational and Industry group.” The rates are from column 1, “Total Compensation.” The rates have been increased by 110 percent to account for the benefit packages available to those employed by private industry.

^c This is a one-time only activity.

^d We have assumed that it will take the respondent 4 hours twice a year to process and review information.

^e We have assumed that it will take each respondent 1 hour four times a year to write SSM report.

^f We have assumed that it will take the respondent 4 hours two times a year to complete the semiannual report.

^g We have assumed that the respondent will take 2 hours two times per year to store, file and maintain records.

^h We have assumed that the respondent will take 2 hours two times per year to retrieve records/reports.

ⁱ Totals have been rounded to 3 significant

values. Figures may not add exactly due to rounding.

^j The labor and cost estimates are only for activities unique to the reporting and record keeping requirements and do not include other compliance costs under the Clean Air Act which provide data for the reporting and record keeping costs.

Table 2: Average Annual EPA Burden and Cost – NESHAP for Semiconductor Manufacturing (40 CFR Part 63, Subpart BBBBB) (Renewal)

Activity	(A) EPA person- hours per occurrence	(B) No. of occurrences per plant per year	(C) EPA person- hours per plant per year (C=AxB)	(D) Plants per year ^a	(E) Technical person- hours per year (E=CxD)	(F) Management person- hours per year (Ex0.05)	(G) Clerical person- hours per year (Ex0.1)	(H) Cost, \$ ^b
Review initial notification reports	8	1	8	0	0	0	0	\$0
Review notification of compliance status	10	1	10	0	0	0	0	\$0
Review semiannual summary reports ^c	15	2	30	1	30	1.5	3	\$1,570.20
Review notification of performance test ^d	4	1	4	0	0	0	0	\$0
Attend initial performance tests	120	1	120	0	0	0	0	\$0
Review test results ^e	10	1	10	0	0	0	0	\$0
TOTAL ANNUAL BURDEN AND COST^f						35		\$1,570

Assumptions:

^a We have assumed that there is approximately one existing sources currently subject to this rule. There will be no additional new source that will become subject to the rule each year over the three-year period of this ICR.

^b This cost is based on the following labor rates which incorporate a 1.6 benefits multiplication factor to account for government overhead expenses: \$62.90 for Managerial (GS-13, Step 5, \$39.81 x 1.6), \$46.67 for Technical (GS-12, Step 1, \$29.17 x 1.6), and \$25.25 Clerical (GS-6, Step 3, \$15.78 x 1.6). These rates are from the Office of Personnel Management (OPM) “2015 General Schedule” which excludes locality rates of pay.

^c We have assumed that the respondent will take 15 hours two times a year to review the semiannual summary reports.

^d We have assumed that it will take each respondent 4 hours one time a year to review notification of performance tests.

^e We have assumed that it will take each respondent 10 hours one time a year to review test results.

^f Totals have been rounded to 3 significant values. Figures may not add exactly due to rounding.