

**SUPPORTING STATEMENT
ENVIRONMENTAL PROTECTION AGENCY**

NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M), Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal)

1. Identification of the Information Collection

1(a) Title of the Information Collection

NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M), Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal), EPA ICR Number 1604.11, OMB Control Number 2060-0110.

1(b) Short Characterization/Abstract

Below is a brief characterization of the New Source Performance Standards (NSPS) for all the Subparts covered by this Information Collection Request (ICR):

Secondary Brass and Bronze

The NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) were proposed on June 11, 1973, promulgated on March 8, 1974, and amended most recently on October 17, 2000. These regulations apply to existing facilities and new facilities that commence construction or modification after June 11, 1973. These standards apply to the following facilities in secondary brass or bronze production plants: reverberatory and electric furnaces of 1,000 kg or greater production capacity and blast (cupola) furnaces of 250 kg/hr or greater production capacity. Furnaces from which molten brass or bronze are cast into the shape of finished products, such as foundry furnaces, are not considered to be affected facilities. New facilities include those that commenced construction, modification or reconstruction after the date of proposal. This information is being collected to assure compliance with 40 CFR Part 60, Subpart M.

It is estimated that there are 11 brass and bronze producers of brass and bronze ingots operating nationwide, of which many are small businesses. We have further assumed that only five of the brass and bronze producers are subject to these NSPS standards, and that no additional sources per year will become subject to these same standard in the next three years.

Primary Copper Smelters

The NSPS for Primary Copper Smelters (40 CFR Part 60, Subpart P) were proposed on

October 16, 1974, promulgated on January 15, 1976, and most-recently amended on October 17, 2000. These regulations apply to existing facilities and new facilities that commence construction or modification after October 16, 1974. These standards apply to the following facilities in primary copper smelters: dryer, roaster, smelting furnace, and copper converter. This information is being collected to assure compliance with 40 CFR Part 60, Subpart P.

It is estimated that there are seven copper smelters in the United States, of which six are engaged in the production of anode copper from copper ore concentrates using pyrometallic processes and would be subject to the NSPS standards. There is another copper smelter which uses a continuous flash furnace for converting matter copper to blister copper, but is not covered by this rule. We have further assumed that no additional sources will become subject to these same standards in the next three years.

Primary Zinc Smelters

The NSPS for Primary Zinc Smelters (40 CFR Part 60, Subpart Q) were proposed on October 16, 1974, promulgated on January 15, 1976, and most recently-amended on February 14, 1989. These regulations apply to existing facilities and new facilities that commence construction or modification after October 16, 1974. These standards apply to the following facilities in primary zinc smelters: roaster and sintering machines. This information is being collected to assure compliance with 40 CFR Part 60, Subpart Q.

It is estimated there is only one pyro-metallurgical zinc manufacturing facility operating nationwide that is subject to the NSPS standards. We have further assumed that no additional sources will become subject to these same standards in the next three years.

Primary Lead Smelters

The NSPS for Primary Lead Smelters (40 CFR Part 60, Subpart R) were proposed on October 16, 1974, promulgated on January 15, 1976, and most-recently amended on February 14, 1989. These regulations apply to existing facilities and new facilities that commence construction or modification after October 16, 1974. These standards apply to the following facilities in primary lead smelters: sintering machine, sintering machine discharge end, blast furnace, dross reverberatory furnace, electric smelting furnace, and converter. This information is being collected to assure compliance with 40 CFR Part 60, Subpart R.

There was only one lead smelter, DOE Run, that was subject to the NSPS standards. However, the sintering machine and blast furnace at DOE Run were shut down by April 2014 based on a consent decree. Therefore, no burden is expected for these units. We have further assumed that no additional sources will become subject to these same standards in the next three years.

Primary Aluminum Reduction Plants

The NSPS for Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) were proposed on October 23, 1974, promulgated on July 25, 1977, and amended most-recently on

February 14, 1989. These regulations apply to existing facilities and new facilities that commence construction or modification after October 23, 1974. These standards apply to the following facilities in primary aluminum reduction plants: potroom groups and anode bake plants. This information is being collected to assure compliance with 40 CFR Part 60, Subpart S.

It is estimated that there are 23 primary aluminum plants currently operating nationwide. The 23 plants are estimated to have 91 potlines that produce aluminum. Each plant has a paste production plant, and only 17 of these plants have anode bake furnaces. Of the total number of plants, we have assumed that five potlines at four primary aluminum plants are subject to the NSPS standards. However, the Agency has allowed sources to comply with the requirements for potroom groups and anode bake furnaces in 40 CFR Part 63, Subpart LL (“MACT standard”) as an alternative to the NSPS requirements. We have assumed that sources have elected to comply with the MACT requirements for anode bake furnaces and therefore, the burden for the NSPS standards would be associated with meeting the requirements for potrooms only. We have further assumed that any new source potentially subject to the NSPS standards will elect to comply with the MACT standard provisions and as a result no new sources will become subject to the same NSPS standards in the future.

Ferroalloy Production Facilities

The NSPS for Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) were proposed on October 21, 1974, promulgated on July 25, 1977, and amended most-recently on October 17, 2000. These regulations apply to existing facilities and new facilities that commence construction or modification after October 21, 1974. These standards apply to the following facilities in ferroalloy production plants: electric submerged arc furnaces which produce silicon metal, ferrosilicon, calcium silicon, silicomanganese zirconium, ferrochrome silicon, silvery iron, high-carbon ferrochrome, charge chrome, standard ferromanganese, silicomanganese, ferromanganese silicon, or calcium carbide; and dust-handling equipment. This information is being collected to assure compliance with 40 CFR Part 60, Subpart Z.

It is estimated that there are seven ferroalloy production facilities currently operating nationwide. Of the total number of facilities, we have assumed that two ferroalloy production facilities, Simcala and Globe Selma, are subject to these NSPS standards. We have further assumed that no additional sources per year will become subject to the same NSPS standards over the next three years since demand for domestic production of ferroalloys has declined.

Based on the information gathered from industry during the development of the NSPS rules, and from industry experts as specified in the individual descriptions of the industry sectors above, we have concluded that the production of domestic nonferrous metals has declined over the past decade resulting in no new plants being built and many plants permanently closing down operations.

In general, all NSPS standards require initial notifications, performance tests, and periodic reports by the owners/operators of the affected facilities. Owners /operators 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 NSPS.

Any owner/operator subject to the provisions of this part shall maintain a file containing these documents, and retain the file for at least two years following the generation date of such maintenance reports and records. All reports must be sent to the delegated state or local authority. In the event that there is no such delegated authority, the reports must be sent directly to the U.S. Environmental Protection Agency (EPA) regional office.

The “Affected Public” includes secondary brass and bronze production facilities, primary copper smelters, primary zinc smelters, primary lead smelters, primary aluminum reduction plants, and ferroalloy production facilities. The “burden” to the Affected Public may be found below in Tables 1a through 1d: Annual Respondent Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal), Primary Copper Smelters (40 CFR Part 60, Subpart P) (Renewal), Primary Zinc Smelters (40 CFR Part 60, Subpart Q) (Renewal), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal). The Federal Government’s “burden” is attributed entirely to work performed by either Federal employees or government contractors and is found below in Tables 2a through 2d: Average Annual EPA Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal), Primary Copper Smelters (40 CFR Part 60, Subpart P) (Renewal), Primary Zinc Smelters (40 CFR Part 60, Subpart Q) (Renewal), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal).

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 111 of the Clean Air Act (CAA), as amended, to establish standards of performance for new stationary sources that reflect:

... application of the best technological system of continuous emissions reduction which (taking into consideration the cost of achieving such emissions reduction, or any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.
Section 111(a)(1).

The Agency refers to this charge as selecting the best demonstrated technology (BDT). Section 111 also requires that the Administrator review and, if appropriate, revise such standards every eight years.

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, particulate matter (PM) and sulfur dioxide (SO₂) emissions from secondary brass and bronze, primary copper, lead and zinc smelter facilities, PM and total fluoride emissions from primary aluminum reduction plants, and carbon monoxide (CO) emissions from ferroalloy production facilities either cause or contribute to air pollution that may reasonably be anticipated to endanger public health and/or welfare. Therefore, the NSPS were promulgated for this source category at 40 CFR Part 60, Subparts M, P, Q, R, S, and Z.

2(b) Practical Utility/Users of the Data

The recordkeeping and reporting requirements in the 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 the 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 standards 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 60, Subparts M, P, Q, R, S, and Z.

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 (81 FR 26546) on May 3, 2016. 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 the Integrated Compliance Information System (ICIS). ICIS is EPA's database for the collection, maintenance, and retrieval of compliance data for industrial and government-owned facilities. 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 these standards as they were being developed and these same standards have been reviewed previously to determine the minimum information needed for compliance purposes. In developing this ICR, we contacted: 1) ASARCO, at (520) 798-7500; and 2) The Copper Alliance, at 212-251-7240.

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. In this case, no comments were received.

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.

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 these standards 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 brass and bronze production facilities, primary copper smelters, primary zinc smelters, primary lead smelters, aluminum reduction plants, and ferroalloy production facilities. The United States Standard Industrial Classification (SIC) codes for the respondents affected by the standards and the corresponding North American Industry Classification System (NAICS) codes are listed in the table below.

Standard (40 CFR Part 60, Subparts M, P, Q, R, S, and Z)	SIC Codes	NAICS Codes
Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	3341	331492
Primary Smelting and Refining of Copper	3331	331411
Primary Smelting and Refining of Nonferrous Metal (except Copper and Aluminum)	3339	331419
Primary Aluminum Production	3334	331312
Electrometallurgical Ferroalloy Product Manufacturing	3313	331112

4(b) Information Requested

(i) Data Items

In this ICR, all the data that is recorded or reported is required by the NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M), Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z).

A source must make the following reports:

Notifications	
Notification and application of construction or modification	60.7(a)(1)
Notification of actual startup	60.7(a)(3)
Notification of physical or operational change which may increase the emission rate	60.7(a)(4)
Notification of the date of demonstration of continuous monitoring system performance commencement (except for Subpart M)	60.7(a)(5)
Notification of the continuous opacity monitoring system data results will be used to determined compliance with the opacity standard	60.7(a)(7)
Notification of the anticipated date for conducting the opacity of observations (visible emissions observations)	60.7(a)(6) and 60.11(e)(1)
Notification of initial performance test	60.8(d)
Advance notification of each monthly performance test after the initial performance test (NSPS Subpart S only)	60.194(c)

Reports	
NSPS Subparts M, P, Q, R, S, and Z	
Performance test results	60.8(a)
Report of excess emissions of fluoride (between 1.0 kg/Mg and 1.3 kg/Mg) in any monthly performance test, under NSPS Subpart S	60.192(b)
NSPS Subparts P, Q, R, S, and Z [except for NSPS Subpart M which does not require sources to install a continuous monitoring system (CMS)]	
Semiannual reports of excess emissions and deviations from parameters established during the performance test if using a continuous monitoring device, as described below:	60.7(c)

Reports	
Excess emissions of opacity and sulfur dioxide under NSPS, Subpart P	60.165(d)
Excess emissions of opacity and sulfur dioxide under NSPS Subpart Q	60.175(c)
Excess emissions of opacity and sulfur dioxide under NSPS Subpart R	60.185(c)
Excess emissions of opacity, under NSPS Subpart Z	60.264(b)
NSPS Subpart Z	
Report of any product change no later than 30 days after implementation of product change	60.264(c)

A source must keep the following records:

Recordkeeping	
NSPS Subparts M, P, Q, R, S and Z	
Startups, shutdowns, malfunctions, periods where the continuous monitoring system, if required, is inoperative	60.7(b)
Emission test results, continuous monitoring system data, performance test results and other data needed to determine compliance with mass and visible emission limits.	60.7(d), 60.7(f)
Records are required to be retained for two years	60.7(f)
NSPS Subpart P	
Monthly records of the total smelter charge and the weight percent (dry basis) of arsenic, antimony, lead and zinc contained in the charge.	60.165(a)
NSPS Subparts Q and R	
Calculations of two-hour average sulfur dioxide concentrations that have been recorded daily for the 12 consecutive 2-hour periods of each operating day.	60.175(b), 60.185(b)
NSPS Subpart S	
Daily records of the weight of aluminum and anode produced; of production rates of aluminum and anodes; raw material feed rates; and cell or potline voltages.	60.194(a) 60.194(b)
NSPS Subpart Z	
Daily records of product produced; description of constituents of	60.265(a)

Recordkeeping	
furnace charge, including the quantity, by weight; time and duration of each tapping period and identification of material tapped; all furnace power input data obtained; all flow rate data or all fan motor power consumption and pressure drop data.	

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
Familiarization with the regulatory requirements.
With the exception of Subpart M, respondents shall install, calibrate, maintain, and operate a CMS. Subparts P, Q, R, and Z respondents shall use a CMS to monitor for opacity. In addition, subparts P, Q, and R respondents shall use a CMS to monitor sulfur dioxide emissions. Subpart S respondents shall use a CMS to daily weigh aluminum and anode produced. Subpart Z respondents also shall use a CMS to measure and record the furnace power input, the flow rate through each separately ducted hood of the capture system or, alternatively, measure and record all fan motor power consumption and pressure drop across the fan.
Perform initial and monthly/annual performance test, if applicable, repeat performance tests. Respondents shall use the following Reference Methods (RM): 1) RM 5 for particulate matter concentrations and volumetric flow rate of the effluent gas (all subparts); 2) RM 9 for visible emissions observations of opacity (all subparts); 3) RM 13A or 13B for ducts or stacks and RM 14 for roof monitors to determine the total fluoride concentration and volumetric flow rate of effluent gas (Subpart S); and 4) Use RM 3B integrated sampling procedure to determine the carbon monoxide concentration and determine the emission rate correction factor to determine the rate of particulate matter (Subpart Z).
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.

Respondent Activities
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
Observe initial performance tests and repeat performance tests if necessary.
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 the Enforcement and Compliance History Online (ECHO) and ICIS.

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, 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 two years.

5(c) Small Entity Flexibility

Many of the primary nonferrous facilities are operated by large corporations and there are not any estimated small entities at primary copper smelters that are currently subject to the NSPS. Given the small amount of total affected entities, this ICR renewal assumes zero small entities will be affected. In the development of the NSPS standards, the recordkeeping and reporting requirements were selected within the context of the specific subpart and the specific industry sector processes equipment and pollutants. These standards reflect the burden on small businesses.

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 below in Tables 1a through 1d: Annual Respondent Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal), Primary Copper Smelters (40 CFR Part 60, Subpart P) (Renewal), Primary Zinc Smelters (40 CFR Part 60, Subpart Q) (Renewal), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal).

6. Estimating the Burden and Cost of the Collection

Table 1 below documents the computation of individual burdens for the recordkeeping and reporting requirements applicable to the industry for each of the Subparts 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 neither conduct nor 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 3,880 (Total Labor Hours from Table 1). These hours are based on Agency studies and background documents from the development of the regulation, Agency knowledge and experience with the NSPS program, the previously approved ICR, and any comments received.

6(b) Estimating Respondent Costs

(i) Estimating Labor Costs

This ICR uses the following labor rates:

Managerial	\$138.43 (\$65.92+ 110%)
Technical	\$106.45 (\$50.69 + 110%)
Clerical	\$52.77 (\$25.13 + 110%)

These rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2015, “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.

Table 1 Index: Total Annual Respondent Burden and Cost			
Table	NSPS Standard(s)	Labor Hours	Annual Cost
Table 1a	NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M)	14	\$1,480
Table 1b	NSPS for Primary Copper Smelters (40 CFR Part 60, Subpart P); Primary Zinc Smelters (40 CFR Part 60, Subpart Q); and Primary Lead Smelters (40 CFR Part 60, Subpart R)	1,554	\$160,000
Table 1c	NSPS for Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S)	1,869	\$193,000
Table 1d	NSPS for Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z)	444	\$45,800
Total		3,880	\$400,000

Note: Total annual costs have been rounded to 3 significant figures.

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

The type of industry costs associated with the information collection activities in the subject standards 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 monitors 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	(F) Number of Respondents with O&M	(G) Total O&M, (E X F)
Subpart M						
None	N/A	0	\$0	N/A	0	\$0
Subparts P, Q, R ^a						
Opacity monitor	\$36,000	0	\$0	\$7,500	7	\$52,500
CMS that measures SO ₂ emissions	\$25,100	0	\$0	\$5,400	7	\$37,800
Subpart S						
CMS that weighs Al and anode produced daily	Unknown	0	\$0	\$5,000	4	\$20,000
Subpart Z						
Opacity monitor	\$36,000	0	\$0	\$7,500	2	\$15,000
CMS that measures furnace power input and flow rate or fan motor power consumption and pressure drop across fan	Gas flow - \$13,500 Pressure drop - \$1,300	0	\$0	\$900	2	\$1,800
TOTAL			\$0			\$127,000

a. It is estimated that six primary pyrometallurgical copper smelters (Subpart P), one primary pyrometallurgical zinc smelter (Subpart Q), and zero primary pyrometallurgical lead smelter (Subpart R) are currently subject to the NSPS standards, which totals 7 respondents.

Note: Totals have been rounded to 3 significant figures. 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 \$127,000. This is the total of column G.

The average annual cost for capital/startup and operation and maintenance costs to industry over the next three years of the ICR is estimated to be \$127,000. These are the 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 such activities 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 \$11,700.

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

Managerial	\$64.16 (GS-13, Step 5, \$40.10 + 60%)
Technical	\$47.62 (GS-12, Step 1, \$29.76 + 60%)
Clerical	\$25.76 (GS-6, Step 3, \$16.10 + 60%)

These rates are from the Office of Personnel Management (OPM), 2016 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 Tables 2a through 2d: Average Annual EPA Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal), Primary Copper Smelters (40 CFR Part 60, Subpart P) (Renewal), Primary Zinc Smelters (40 CFR Part 60, Subpart Q) (Renewal), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (Renewal).

Table 2 Index: Total Annual Burden and Cost for the Federal Government			
Table	NSPS Standard(s)	Labor Hours	Annual Cost
Table 2a	NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M)	0	\$0
Table 2b	NSPS for Primary Copper Smelters (40 CFR Part 60, Subpart P); Primary Zinc Smelters (40 CFR Part 60, Subpart Q); and Primary Lead Smelters (40 CFR Part 60, Subpart R)	64	\$2,990
Table 2c	NSPS for Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S)	156	\$7,810
Table 2d	NSPS for Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z)	18	\$854
Total Cost		238	\$11,700

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 18 existing respondents will be subject to these standards. It is estimated that no additional respondents per year will become subject to these same standards. The overall average number of respondents, as shown in the table below, is 18 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	(B) Number of	(C) Number of Existing	(D) Number of	(E) Number of

Number of Respondents					
	Respondents ¹	Existing Respondents	Respondents that keep records but do not submit reports	Existing Respondents That Are Also New Respondents	Respondents (E=A+B+C-D)
NSPS Subpart M					
1	0	0	5	0	5
2	0	0	5	0	5
3	0	0	5	0	5
Average					5
NSPS Subpart P, Q and R					
1	0	7	0	0	7
2	0	7	0	0	7
3	0	7	0	0	7
Average					7
NSPS Subpart S					
1	0	4	0	0	4
2	0	4	0	0	4
3	0	4	0	0	4
Average					4
NSPS Subpart Z					
1	0	2	0	0	2
2	0	2	0	0	2
3	0	2	0	0	2
Average					2
Total					18

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 18.

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
NSPS Subpart M				
N/A	0	0	5	5
NSPS Subpart P, Q and R				
Semiannual report	7	2	0	14
NSPS Subpart S				
Notification of annual performance test	2	1	0	2

Total Annual Responses				
Notification of monthly performance test	2	12	0	24
Report of annual performance test	2	1	0	2
Report of monthly performance test	2	12	0	24
Semiannual report	4	2	0	8
			Subpart S Total	60
NSPS Subpart Z				
Semiannual report	2	2	0	4
			Total (All Subparts)	83

The number of Total Annual Responses is 83.

The total annual labor costs are \$400,000. Details regarding these estimates may be found below in Table 1a through 1d. Annual Respondent Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M), Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (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 below in Tables 1 and 2, respectively, and summarized below as well.

(i) Respondent Tally

The total annual labor hours are 3,880 hours. Details regarding these estimates may be found below in Table 1a through 1d. Annual Respondent Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M), Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z) (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 47 hours per response.

The total annual capital/startup and O&M costs to the regulated entity are \$127,000. 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 238 labor hours at a cost of \$11,700. See below in Tables 2a through 2d: Average Annual EPA Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal), Primary Copper Smelters (40 CFR Part 60, Subpart P) (Renewal), Primary Zinc Smelters (40 CFR Part 60, Subpart Q) (Renewal), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal), Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal), and Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z).

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 an overall decrease in the respondent labor hours and costs compared to the estimated burden currently identified in the OMB Inventory of Approved Burdens. This decrease is not due to any program changes, but is a result of corrections. First, the previous ICR assumed all five secondary brass and bronze production sources subject to Subpart M would comply with the opacity standard using the Reference Method 9 performance test instead of continuous opacity monitoring (COM), and that the sources are not using any other continuous monitoring systems (CMS). However, the ICR included burden estimates for monitoring emissions and system performance associated with CMS and COM. Correcting this error consequently reduced the total labor hours for Subpart M.

Second, the previous ICR incorrectly estimated that all four primary aluminum reduction plants subject to Subpart S would need to submit performance test results every month. This estimate is incorrect because only two out of four sources are required to perform monthly performance tests, and the other two sources are allowed to perform an annual performance test. Therefore, the requirement to submit performance test results was reduced to once per year for two sources, which consequently reduced the total labor hours for Subpart S.

There is, however, a small adjustment increase in the total labor hours for Subparts P, Q, R, and Z due to a change in assumption; this ICR assumes all existing sources will need to re-familiarize with the regulation each year, even when the burden for Subpart R decreased to zero, as Doe Run is no longer a primary lead smelter.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information

is estimated to average 47 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-2013-0334. 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-2013-0334 and OMB Control Number 2060-0110 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 1a: Annual Respondent Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal)

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
1. Applications	N/A							
2. Surveys and Studies	N/A							
3. Reporting Requirements								
A. Read and understand rule requirements	1	1	1	5	5	0.25	1	\$593.24
B. Required activities								
Initial performance test ^c	24	1	24	0	0	0	0	\$0
Repeat of performance test ^d	24	0.2	4.8	0	0	0	0	\$0
Reference method 5 or 9 ^e	4	1.2	4.8	0	0	0	0	\$0
Monitoring of emissions and systems performance ^f	0.5	365	182.5	0	0	0	0	\$0
C. Create information	-----See 3B and 4E-----							
D. Gather existing information	-----See 3B and 4E-----							
E. Write Report								
Notification of actual startup ^c	2	1	2	0	0	0	0	\$0
Notification of initial performance test ^c	2	1	2	0	0	0	0	\$0
Notification of CMS ^{e, f}	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conducting the opacity of observations ^{e, f}	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^g	4	2	8	0	0	0	0	\$0
Subtotal for Reporting Requirements						6		\$593
4. Recordkeeping Requirements								
A. Read and understand rule requirements	-----See 3A-----							
B. Plan activities	-----See 3B-----							
C. Implement activities	-----See 3B-----							

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
D. Develop record system	N/A							
E. Time to enter and transmit information ^h								
Records of startups, shutdowns, malfunctions, etc.	1.5	1	1.5	5	7.5	0.38	0.75	\$889.86
Records of emissions and systems performance	----- See 3B-----							
F. Time to train personnel	N/A							
G. Time for audits	N/A							
Subtotal for Recordkeeping Requirements						9		\$890
TOTAL LABOR BURDEN AND COST (rounded)ⁱ						14		\$1,480
Total Capital/O&M Costs (rounded)ⁱ								\$0
Grand Total (Labor and Capital/O&M Costs) (rounded)ⁱ								\$1,480

Assumptions:

^a We have assumed that there are approximately 5 out of 11 secondary brass and bronze ingots production plants subject to NSPS Subpart M. We have further assumed that no new sources will become subject to the rule over the three-year period of this ICR.

^b The labor rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2015, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rate has been increased by 110% to account for the benefit packages available to those employed by private industry.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d We have assumed that 20 percent of initial performance tests must be repeated due to failure.

^e Sources are required to use the following Reference Methods (RM) in conducting performance tests, if applicable: 1) RM 5 for particulate matter concentrations and volumetric flow rate of the effluent gas (all subparts); 2) RM 9 for visible emissions observations of opacity.

^f Section 60.11 of the General Provisions allows sources to use a continuous opacity monitor (COM) in lieu of Method 9 to determine compliance with the opacity standard. However, we have assumed that all sources are complying with the standard using RM 9.

^g Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subpart M are not required to submit semiannual reports.

^h Sources are required to maintain records of startups, shutdowns and malfunctions including periods where the continuous monitoring system is inoperative, and of emission test results, continuous monitoring system data including, performance test results and other data needed to determine compliance with mass and visible emission limits.

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

Table 1b: Annual Respondent Burden and Cost – NSPS for Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal)

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
1. Applications	N/A							
2. Surveys and Studies	N/A							
3. Reporting Requirements								
A. Read and understand rule requirements	1	1	1	7	7.0	0.35	0.70	\$830.54
B. Required activities	-							
Initial performance test ^c	24	1	24	0	0	0	0	\$0
Repeat of performance test ^d	24	0.2	4.8	0	0	0	0	\$0
Reference Method 5 or 9 ^e	4	1.2	4.8	0	0	0	0	\$0
Monitoring of emissions and operations ^f	0.5	365	182.5	7	1277.5	63.88	127.75	\$151,573.46
C. Create information	-----See 3B and 4E-----							
D. Gather existing information	-----See 3B and 4E-----							
E. Write Report								
Notification of actual startup ^e	2	1	2	0	0	0	0	\$0
Notification of initial performance test ^c	2	1	2	0	0	0	0	\$0
Performance test results ^{c,f}	2	1	2	0	0	0	0	\$0
Notification of CMS ^{c,e,f}	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conduction the opacity of observations ^{c,e,f}	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^g	4	2	8	7	56	2.8	5.6	\$6,644.32
Process Change	2	2	4	0	0	0	0	\$0
Subtotal for Reporting Requirements					1,542			\$159,048
4. Recordkeeping Requirements								
A. Read and understand rule requirements	-----See 3A-----							
B. Plan activities	-----See 3B-----							

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
C. Implement activities	-----See 3B-----							
D. Develop record system	N/A							
E. Time to enter and transmit information: ^h Records of startups, shutdowns, malfunctions, etc.	1.5	1	1.5	7	10.5	0.53	1.05	\$1,245.81
Records of monitoring of emissions and operations	-----See 3B-----							\$0
F. Train personnel	N/A							
G. Audits	N/A							
Subtotal for Recordkeeping Requirements						12		\$1,246
TOTAL ANNUAL BURDEN AND COST (rounded)ⁱ						1,554		\$160,000
Total Capital/O&M Costs (rounded)ⁱ								\$90,300
Grand Total (Labor and Capital/O&M Costs)(rounded)ⁱ								\$250,000

Assumptions:

^a It is estimated that six primary pyrometallic copper smelters (Subpart P), one primary pyrometallurgical zinc smelter (Subpart Q), and zero primary pyrometallurgical lead smelter (Subpart R) are currently subject to the NSPS standards, which totals 7 respondents. However, the affected units at the primary lead smelter have been shutdown, and only 7 respondents will have burden associated with this rule. We have further assumed that no additional sources will become subject to the standard in the next three years.

^b The labor rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2015, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rate has been increased by 110% to account for the benefit packages available to those employed by private industry.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d We have assumed that 20 percent of initial performance tests must be repeated due to failure.

^e Sources are required to use the following Reference Methods (RM) in conducting performance tests, if applicable: 1) RM 5 for particulate matter concentrations and volumetric flow rate of the effluent gas (all subparts); 2) RM 9 for visible emissions observations of opacity. Sources are expected to conduct the visible emissions observation of opacity during the initial performance test.

^f Section 60.11 of the General Provisions allows sources to use a continuous opacity monitor (COM) in lieu of Method 9 to determine compliance with the opacity standard. We have assumed that all sources are complying with the standard using COMs. In addition, we assume the sources are using continuous monitoring systems (CMS) to monitor other parameters.

^g Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subparts P, Q, R and S are required to submit semiannual reports.

^h Sources are required to maintain records of monitoring of operations including startups, shutdowns and malfunctions including periods where the continuous monitoring system is inoperative, emission test results, continuous monitoring system data including, performance test results and other data needed to determine compliance with mass and

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
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visible emission limits.

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

Table 1c: Annual Respondent Burden and Cost – NSPS for Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal)

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x0.1)	(H) Total Labor Costs per Year ^b
1. Applications								
2. Survey and Studies								
3. Reporting Requirements								
A. Read instructions	1	1	1	4	4	0.2	0.4	\$474.59
B. Required activities	-							
Initial performance test ^c	24	1	24	0	0	0	0	\$0
Monthly performance test ^d	24	12	288	2	576	28.8	57.6	\$68,341.54
Annual performance test ^d	24	1	24	2	48	2.4	4.8	\$5,695.13
Repeat of performance test ^{c,d}	24	1.3	31.2	4	125	6.2	12.5	\$14,807.33
Reference Method 5 or 9 ^e	4	1.2	4.8	0	0	0	0	\$0
Monitoring of emissions and operations ^f	0.5	365	182.5	4	730	36.5	73	\$86,613.41
C. Create Information	-----See 3B and 4E-----							
D. Gather Existing Information	-----See 3B and 4E-----							
E. Write Report								
Notification of actual startup ^e	2	1	2	0	0	0	0	\$0
Notification of annual performance tests ^{d,f}	2	1	2	2	4	0.2	0.4	\$474.59
Notification of monthly performance tests ^{d,f}	2	12	24	2	48	2.4	4.8	\$5,695.13
Annual performance test results ^f	2	1	2	2	4	0.2	0.4	\$474.59
Monthly performance test results ^f	2	12	24	2	48	2.4	4.8	\$5,695.13
Notification of CMS ^{e,f}	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conduction the opacity of observations ^{e,f}	2	1	2	0	0	0	0	\$0

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x0.1)	(H) Total Labor Costs per Year ^b
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ⁸	4	2	8	4	32	1.6	3.2	\$3,796.75
Process Change	2	2	4	0	0	0	0	\$0
Subtotal for Reporting Requirements						1,862		\$192,068
4. Recordkeeping Requirements								
A. Read Instructions								
B. Plan Activities								
C. Implement Activities								
D. Develop Record System	N/A							
E. Time to Enter and Transmit Information: ^h								
Records of startups, shutdowns, malfunctions, etc.	1.5	1	1.5	4	6	0.3	0.6	\$711.89
Records of monitoring of emissions and operations								\$0
F. Train Personnel	N/A							
G. Audits	N/A							
Subtotal for Recordkeeping Requirements						7		\$712
TOTAL ANNUAL BURDEN AND COST (rounded)ⁱ						1,869		\$193,000
Total Capital/O&M Costs (rounded)ⁱ								\$20,000
Grand Total (Labor and Capital/O&M Costs) (rounded)ⁱ								\$213,000

Assumptions:

^a It is estimated that there are 23 primary aluminum plants are currently operating nationwide with 91 potlines that produce aluminum, each plant having a paste production plant, and only 17 of these plants having anode bake furnaces. However, only a total of 5 potlines at 4 plants are estimated to be subject to the NSPS standards. However, the Agency has promulgated new standards for the primary aluminum sector, MACT subpart LL. This rule allows sources to comply with the requirements for potroom groups and anode bake furnaces as an alternative to the NSPS requirements. In addition, the MACT rule requirements for anode bake plants are more stringent and superseded the NSPS requirements for such affected facility. Therefore, the burden for complying with the NSPS standard is associated with sources complying with the requirements for potroom groups only. We have further assumed that no additional sources per year will become subject to the NSPS standard in the next three years.

^b The labor rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2015, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rate has been increased by 110% to account for the benefit packages available to those employed by private industry.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d The rule requires sources to conduct a monthly performance test after the initial test and requires them to provide a 15 days advance notice of each test, except for the two sources specified in the rule that were allowed to conduct an annual performance test. We have further assumed that only 10 percent of the performance tests will have to be repeated.

^e Sources are required to use the following Reference Methods (RM) in conducting performance tests, if applicable: 1) RM 5 for particulate matter concentrations and volumetric flow rate of the effluent gas; and 2) RM 9 for visible emissions observations of opacity.

^f Section 60.11 of the General Provisions allows sources to use a continuous opacity monitor (COM) in lieu of Method 9 to determine compliance with the opacity standard. We have assumed that all

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x0.1)	(H) Total Labor Costs per Year ^b
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sources are complying with the standard using RM 9, however, the sources are using continuous monitoring systems (CMS) to monitor other parameters.

^g Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subpart S are required to submit semiannual reports.

^h Sources are required to maintain records of their operations including records of startups, shutdowns and malfunctions, periods where the continuous monitoring system is inoperative, emission test results, performance test results and other operational data needed to determine compliance with mass and visible emission standards.

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

BURDEN ITEMS	(A) Respondent Hours per Occurrence	(B) Number of Occurrences per Respondent per Year	(C) Hours per Respondent per Year (C=A x B)	(D) Number of Respondents per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Total Labor Costs per Year ^b
Records of startups, shutdowns, malfunctions, etc.	1.5	1	1.5	2	3	0.15	0.3	\$355.95
Records of monitoring of emissions and operations	-----See 3B-----							\$0
F. Train Personnel	N/A							
G. Audits	N/A							
Subtotal for Recordkeeping Requirements^j						3		\$356
TOTAL ANNUAL BURDEN AND COST (rounded)						444		\$45,800
Total Capital/O&M Costs (rounded)^j								\$16,800
Grand Total (Labor and Capital/O&M Costs (rounded)^j								\$62,600

Assumptions:

^a It is estimated that 2 out of 7 ferroalloy production facilities nationwide is subject to the NSPS Subpart Z standards. We have further assumed that no additional sources per year will become subject to the NSPS standard in the next three years.

^b The labor rates are from the United States Department of Labor, Bureau of Labor Statistics, September 2015, "Table 2. Civilian Workers, by occupational and industry group." The rates are from column 1, "Total compensation." The rate has been increased by 110% to account for the benefit packages available to those employed by private industry.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d We have assumed that 20 percent of initial performance tests must be repeated due to failure.

^e Sources are required to use the following Reference Methods (RM) in conducting performance tests, if applicable: 1) RM 5 for particulate matter concentrations and volumetric flow rate of the effluent gas; 2) RM 9 for visible emissions observations of opacity.

^f Section 60.11 of the General Provisions allows sources to use a continuous opacity monitor (COM) in lieu of Method 9 to determine compliance with the opacity standard. We have assumed that all sources are complying with the standard using COMs. In addition, we assume the sources are using continuous monitoring systems (CMS) to monitor other parameters.

^g We have assumed that neither source will not have a product change over the 3 year period of the ICR.

^h Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS Subpart Z are required to submit semiannual reports.

ⁱ Sources are required to maintain records of operations including startups, shutdowns and malfunctions, periods where the continuous monitoring system is inoperative, emission test results, and continuous monitoring system data including performance test results and other data needed to determine compliance with mass and visible emission limits.

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

Table 2a: Average Annual EPA Burden and Cost – NSPS for Secondary Brass and Bronze Production (40 CFR Part 60, Subpart M) (Renewal)

Activity	(A) EPA Hours per Occurrence (Technical hours)	(B) Number of Occurrences per Plant per Year	(C) EPA Hours per Year (C=A x B)	(D) Plants per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Costs per Year ^b
Notification of actual startup ^c	2	1	2	0	0	0	0	\$0
Notification of initial performance test	2	1	2	0	0	0	0	\$0
Report of performance test results	2	1	2	0	0	0	0	\$0
Notification of CMS	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conducting the opacity of observations	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^d	4	2	8	0	0	0	0	\$0
TOTAL ANNUAL BURDEN AND COST (rounded) ^e						0		\$0

Assumptions:

^a We have assumed that there are approximately five secondary brass and bronze producers subject to the NSPS subpart M standard and that no new sources will become subject to the NSPS standard in the next three years.

^b This cost is based on the following hourly labor rates times a 1.6 benefits multiplication factor to account for government overhead expenses: \$64.16 for Managerial (GS-13, Step 5, \$40.10 x 1.6), \$47.62 for Technical (GS-12, Step 1, \$29.76 x 1.6) and \$25.76 Clerical (GS-6, Step 3, \$16.10 x 1.6). These rates are from the Office of Personnel Management (OPM) "2016 General Schedule" which excludes locality rates of pay.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS Subpart M are not required to submit semiannual reports.

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

Table 2b: Average Annual EPA Burden and Cost – NSPS for Primary Copper Smelters (40 CFR Part 60, Subpart P), Primary Zinc Smelters (40 CFR Part 60, Subpart Q), Primary Lead Smelters (40 CFR Part 60, Subpart R) (Renewal)

Activity	(A) EPA Hours per Occurrence (Technical hours)	(B) Number of Occurrences per Plant per Year	(C) EPA Hours per Year (C=A x B)	(D) Plants per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Costs per Year ^b
Notification of actual startup ^c	2	1	2	0	0	0	0	\$0
Notification of initial performance test	2	1	2	0	0	0	0	\$0
Report of performance test results	2	1	2	0	0	0	0	\$0
Notification of CMS	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conducting the opacity of observations	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^d	4	2	8	7	56	2.8	5.6	\$2,990.62
TOTAL ANNUAL BURDEN AND COST (rounded)^e						64		\$2,990

Assumptions:

^a We have assumed that are approximately six primary copper smelters (subpart P), one primary zinc smelter (subpart Q), and one primary lead smelter (subpart R) subject to the NSPS standard for a total of eight respondents. However, we assume that the affected units at the one primary lead smelter facility has be shutdown, so only 7 facilities in total will have burden associated with this rule. We have further assumed that there will be no new sources in the next three years.

^b This cost is based on the following hourly labor rates times a 1.6 benefits multiplication factor to account for government overhead expenses: \$64.16 for Managerial (GS-13, Step 5, \$40.10 x 1.6), \$47.62 for Technical (GS-12, Step 1, \$29.76 x 1.6) and \$25.76 Clerical (GS-6, Step 3, \$16.10 x 1.6). These rates are from the Office of Personnel Management (OPM) "2016 General Schedule" which excludes locality rates of pay.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subparts P, Q and R are required to submit semiannual reports.

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

Table 2c: Average Annual EPA Burden and Cost – NSPS for Primary Aluminum Reduction Plants (40 CFR Part 60, Subpart S) (Renewal)

Activity	(A) EPA Hours per Occurrence (Technical hours)	(B) Number of Occurrences per Plant per Year	(C) EPA Hours per Year (C=A x B)	(D) Plants per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Costs per Year ^b
Notification of actual startup ^c	2	1	2	0	0	0	0	\$0
Notification of annual or monthly performance tests ^d	2	1	2	2	4	0.2	0.4	\$213.62
	2	12	24	2	48	2.4	4.8	\$2,563.39
Report of annual or monthly performance test results ^d	2	1	2	2	4	0.2	0.4	\$213.62
	2	12	24	2	48	2.4	4.8	\$2,563.39
Notification of CMS	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conducting the opacity of observations	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^e	4	2	8	4	32	1.6	3.2	\$1,708.93
TOTAL SALARY BURDEN						156		\$7,263
Travel Expenses: (1person x 1 plants/year x 3 d/plant x \$50 per diem) + (\$400 round trip/plant x 1 plant/yr) ^e								\$550.00
TOTAL ANNUAL BURDEN AND COST (rounded)^f								\$7,810

Assumptions:

^a It is estimated that there are 23 primary aluminum plants are currently operating nationwide with 91 potlines that produce aluminum, each plant having a paste production plant, and only 17 of these plants having anode bake furnaces. However, only a total of 5 potlines at 4 plants are estimated to be subject to the NSPS standards. However, the Agency has promulgated new standards for the primary aluminum sector, MACT subpart LL. This rule allows sources to comply with the requirements for potroom groups and anode bake furnaces as an alternative to the NSPS requirements. In addition, the MACT rule requirements for anode bake plants are more stringent and superseded the NSPS requirements for such affected facility. Therefore, the burden for complying with the NSPS standard is associated with sources complying with the requirements for potroom groups only. We have further assumed that no additional sources per year will become subject to the NSPS standard in the next three years.

^b This cost is based on the following hourly labor rates times a 1.6 benefits multiplication factor to account for government overhead expenses: \$64.16 for Managerial (GS-13, Step 5, \$40.10 x 1.6), \$47.62 for Technical (GS-12, Step 1, \$29.76 x 1.6) and \$25.76 Clerical (GS-6, Step 3, \$16.10 x 1.6). These rates are from the Office of Personnel Management (OPM) "2016 General Schedule" which excludes locality rates of pay.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subpart S are required to submit semiannual reports.

^e The time required to attend a performance test per plant is estimated to be approximately 24 hours (1 day).

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

Table 2d: Average Annual EPA Burden and Cost – NSPS for Ferroalloy Production Facilities (40 CFR Part 60, Subpart Z)

(Renewal)

Activity	(A) EPA Hours per Occurrence (Technical hours)	(B) Number of Occurrences per Plant per Year	(C) EPA Hours per Year (C=A x B)	(D) Plants per Year ^a	(E) Technical Hours per Year (E=C x D)	(F) Management Hours per Year (F= E x 0.05)	(G) Clerical Hours per Year (G= E x 0.1)	(H) Costs per Year ^b
Notification of actual startup ^c	2	1	2	0	0	0	0	\$0
Notification of initial performance test	2	1	2	0	0	0	0	\$0
Report of performance test results	2	1	2	0	0	0	0	\$0
Notification of CMS	2	1	2	0	0	0	0	\$0
Notification of anticipated date for conducting the opacity of observations	2	1	2	0	0	0	0	\$0
Notification of modification/reconstruction	2	1	2	0	0	0	0	\$0
Notification of product change	4	1	4	0	0	0	0	\$0
Semiannual reports of excess emissions and monitoring systems performance ^d	4	2	8	2	16	0.8	1.6	\$854.46
TOTAL ANNUAL BURDEN AND COST (rounded) ^f						18		\$854

Assumptions:

^a We have assumed that there are 2 ferroalloy production facilities subject to NSPS subpart Z and that no new sources will become subject to the NSPS standard in the next three years.

^b This cost is based on the following hourly labor rates times a 1.6 benefits multiplication factor to account for government overhead expenses: \$64.16 for Managerial (GS-13, Step 5, \$40.10 x 1.6), \$47.62 for Technical (GS-12, Step 1, \$29.76 x 1.6) and \$25.76 Clerical (GS-6, Step 3, \$16.10 x 1.6). These rates are from the Office of Personnel Management (OPM) "2016 General Schedule" which excludes locality rates of pay.

^c We have assumed that all existing sources are in compliance with the initial rule requirements.

^d Only existing sources using a continuous monitoring system (i.e., a COM or a continuous parameter monitoring system) are required to submit semiannual reports. Therefore, sources subject to NSPS subpart Z are required to submit semiannual reports.

^e The time required to attend a performance test per plant is estimated to be approximately 24 hours (1 day).

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