**SUPPORTING STATEMENT**

**NSPS for New Residential Hydronic Heaters and Forced-Air Furnaces**

**(40 CFR Part 60, Subpart QQQQ)**

**PART A**

**1.0 Identification of the Information Collection**

*(a) Title of the Information Collection.*

The title of the Information Collection Request (ICR) is NSPS for New Residential Hydronic Heaters and Forced-Air Furnaces (40 CFR Part 60, Subpart QQQQ) (Final Rule). This is a new ICR, and the U.S. Environmental Protection Agency (EPA) tracking number is 2442.02, Office of Management and Budget (OMB) Control Number 2060-0693.

*(b) Short Characterization.*

This ICR covers information collection requirements in the final rule, New Source Performance Standards (NSPS) for new residential hydronic heaters and forced-air furnaces (40 CFR part 60, subpart QQQQ). The information collected will be used by the EPA and delegated state and local agencies to determine the compliance status of sources subject to the rule. A residential hydronic heater is defined as a fuel burning device designed to burn wood or wood pellet fuel for the purpose of heating building space and/or water through the distribution, typically through pipes, of a fluid heated in the device, typically water or a water and antifreeze mixture. A residential forced-air furnace is defined as a fuel burning device designed to burn wood or wood pellet fuel that warms spaces other than the space where the furnace is located, by the distribution of air heated by the furnace through ducts.

The residential hydronic heater and forced-air furnace NSPS is based on similar design principles as the NSPS for new residential wood heaters (40 CFR part 60, subpart AAA). These NSPS establish a certification program instead of the usual NSPS requirement that each affected facility demonstrate compliance with emission limits through performance testing. Under this certification program, a single wood-heating appliance is tested to demonstrate compliance with particulate matter (PM) emission limits for an entire model line which could consist of thousands of stoves. The use of a certification approach significantly reduces the compliance burden, including information collection, for the manufacturers of hydronic heaters and forced-air furnaces. In order to minimize risks to the environment from intentional or accidental misuse of the certification approach, subpart QQQQ also includes several safeguards, some of which entail reporting and recordkeeping.

There are approximately 30 hydronic heater manufacturers, 7 forced-air furnace manufacturers and 4 laboratories (inclusive of both test labs and third-party certifiers) that would be subject to the final rule. Under subpart QQQQ, hydronic heater and forced-air furnace manufacturers, testing laboratories, and third-party certifiers are required to submit reports to the EPA and to maintain records for demonstrating compliance with the NSPS. The information supplied by the manufacturer to the EPA is used: (1) to ensure that the best system of emission reduction is being applied to reduce emissions from hydronic heaters and forced-air furnaces; (2) to ensure that the appliance tested for certification purposes is in compliance with the applicable emission standards; (3) to provide assurance that non-tested production model appliances have emission performance characteristics similar to tested models; and (4) to provide an indicator of continued compliance. Information supplied to the EPA by testing laboratories and third-party certifiers is used to grant or deny laboratory accreditation and to assist in enforcement and compliance activities. Information supplied to the EPA by testing laboratories and certifying bodies/entities is used to grant or deny laboratory accreditation, assure continued test lab proficiency and to assist in enforcement and compliance activities.

Subpart QQQQ does not require any reporting or recordkeeping requirements on hydronic heater or forced-air furnace owners or operators. However, the final rule specifies a list of prohibited fuel types and prohibited operations, as well as good operating and good burning practices (which are required to be included in the owner’s manual for certified models) that owners and operators are directed to follow when installing and operating their heating appliances.

The phased implementation schedule of the final rule along with the two-step PM emission standards approach (with phased compliance dates) results in differing recordkeeping and reporting impacts. For purposes of the supporting statement, we refer to these steps as Step 1 and Step 2. The compliance date for meeting Step 1 emission standards provided in the rule occurs in 2015, and the compliance date for meeting Step 2 emission standards provided in the rule occurs in 2020. The recordkeeping and reporting burden cost estimates as a result of the subpart QQQQ final rule for years 2018 to 2020 are presented in a memo to the docket.[[1]](#footnote-1) The recordkeeping and reporting burden estimates included in this supporting statement are for years 2015 to 2017 and the burden estimates outlined in the memo for years 2018 to 2020 are both included in cost impacts estimates included in a memo in the docket for the final rule.[[2]](#footnote-2)

The estimated burden to the “Affected Public” is listed in Table 1, “Three-Year and Annual Respondent Burden and Cost of Reporting and Recordkeeping Requirements of the Final Rule.” The federal government burden associated with the review of reports submitted by respondents is shown in Table 2, “Three-Year and Annual Burden and Cost to the Federal Government of the Final Rule.” (Tables 1 and 2 are located at the end of this supporting statement.) We do not anticipate any reporting or recordkeeping burden for state, local or tribal entities because we have only delegated ability to enforce the standards for residential hydronic heaters and forced-air furnaces sold or operated in their region. Under subpart QQQQ, partial delegations shall not include:

(1) Decisions on certification;

(2) Revocation of certification;

(3) Standards;

(4) Test methods;

(5) Laboratory and third-party certifier approvals and revocations;

(6) Enforcing provisions governing content of owner’s manuals; and

(7) Hearings and appeals procedures.

The information collection requirements for new sources subject to the NSPS for Residential Hydronic Heaters and Forced-Air Furnaces are listed in Attachment 1.

**2. Need For and Use of the Collection**

*(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 system of emission reduction which (taking into consideration the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. Section 111(a)(l). The agency refers to this charge as selecting the “best system of emission reduction.” Section 111 also requires that the Administrator review and, if appropriate, revise such standards every 8 years. Wood burning hydronic heaters and forced-air furnaces are part of the residential wood heating source category, pollutant emissions from which cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, in the Administrator's judgment. As part of the review process, the EPA has decided to expand the types of appliances regulated under the residential wood heating source category to include hydronic heaters and forced-air furnaces. Therefore, the NSPS was promulgated for these appliances at 40 CFR part 60,

subpart QQQQ.

The records and reports required under subpart QQQQ are necessary for the Administrator to confirm the compliance status of new residential hydronic heaters and forced-air furnaces sold in the United States. These recordkeeping and reporting requirements are specifically authorized by CAA section 114.

*(b) Practical Utility//Users of the Data.*

The control of pollution from new residential hydronic heaters and forced-air furnaces relies on the reduction of particulate matter emissions by proper appliance design. A representative unit for each model line is subjected to a certification test for particulate matter emissions for a range of operating conditions. The manufacturer also contracts with a third-party certifier, which reviews the test reports and quality assurance (QA) plan, and conducts periodic QA audits to ensure that hydronic heaters and forced-air furnaces manufactured subsequent to the initial certification test continue to comply with the NSPS. Manufacturers must renew or recertify their model lines every 5 years or when they make changes to the model line that would exceed specified parameters.

The required certification test notification is used to inform the EPA when a new model line is expected to be tested. The EPA may then observe the testing, if desired. Emission test reports are needed as these are the EPA’s record of a model line’s initial capability to comply with the emission standard, and serve as a record of the operating conditions under which compliance was achieved. The EPA compliance audit tests and QA annual audit reports are necessary to ensure continued compliance with the emission standards.

Adequate recordkeeping and reporting are necessary to ensure compliance with these standards as required by the CAA. The information collected from recordkeeping and reporting requirements is also used for targeting inspections and is of sufficient quality to be used as evidence in court.

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

*(a) Non-duplication.*

A computer search of the EPA’s ongoing ICRs revealed no duplication of information-gathering efforts.

Similar requirements to this NSPS are found in the requirements to 40 CFR part 60, subpart AAA, the NSPS for Residential Wood Heaters. Subpart AAA has a separate ICR undergoing OMB review. Although the requirements are similar, they are not duplicative because they apply to separate groups of appliances and their associated manufacturers. In the case of test laboratories and third-party certifiers, similar accreditation requirements are found in both subparts (40 CFR part 60, subparts AAA and QQQQ), but each has different test methods. Therefore, the requirements under each of these subparts are not duplicative because separate accreditation is required for each test method.

*(b) Public Notice Required Prior to ICR Submission to OMB.*

The preamble to the proposed rule (79 FR 6330, February 3, 2014) provided public notice of the proposed ICR. The EPA considered comments (see Docket ID No. EPA-HQ-OAR-2009-0734) when preparing this revised ICR. The preamble to the final rule provides public notice on this revised ICR.

*(c) Consultations.*

The final rule was developed using information obtained during extensive consultation with individual companies, trade associations and state agencies. Several of the key non-EPA persons consulted on the information collection activities are identified in Table 3. Additional meetings and contacts are documented in the project docket for this final rule, Docket No. EPA-HQ-OAR-2009-0734.

**TABLE 3. PERSONS CONSULTED ON THE INFORMATION**

**COLLECTION ACTIVITIES**

| **Contact** | **Organization** | **Telephone Number** |
| --- | --- | --- |
| Dennis Brazier | Central Boiler |  |
| John Crouch | Hearth, Patio, Barbecue Association (HPBA) | 916.536.2390 |
| Rick Curkeet | Intertek Testing Services | 608.836.4400 |
| Alice Edwards | Alaska Dept. Of Environmental Conservation | 907.465.5105 |
| Chuck Gagnor | Northwest Manufacturing |  |
| Stephen Hartsfield | National Tribal Air Association | 505.242.2175 |
| Frank Moore | Hardy Manufacturing | 601.656.5866 |
| Ben Myren | Myren Consulting, Inc. | 509.684.1154 |
| Scott Nichols | Tarm Biomass |  |
| Lisa Rector | Northeast States for Coordinated Air Use Measurement (NESCAUM) | 617.259.2095 |
| Rod Tinnemore | Washington State Department of Ecology | 360.407.6978 |

*(d) Effects of Less Frequent Collection.*

Less frequent information collection would decrease the margin of assurance that manufacturers are producing residential hydronic heaters and forced-air furnaces that (1) pass the initial certification test, and (2) continue to be manufactured in a way that ensures continuous compliance with the emission standards. If the information required by these standards were collected less frequently, the likelihood of detecting violations would be reduced.

*(e) General Guidelines.*

None of the guidelines in 5 CFR 1320.6 is being exceeded, with the exception of the requirement to retain records for 5 years (which exceeds the guideline requirement that records not be required to be retained for more than 3 years). The basis for the 5-year record retention is due to required emission standard model certifications being valid for 5 years prior to the need for renewal or recertification. During this time, the EPA needs to require the retention of model certification tests and QA compliance documentation to support initial and continued compliance with model certifications (e.g., certification tests, QA emissions tests, QA audit reports, biennial reports).

*(f) Confidentiality.*

All information submitted to the agency for which a claim of confidentiality is made will be safeguarded according to the EPA regulations set forth in 40 CFR 2.201 *et seq*., Chapter 1, Part 2, Subpart B—Confidentiality of Business Information.

*(g) Sensitive Questions.*

This section is not applicable because this ICR does not involve matters of a sensitive nature.

**4. The Respondents and the Information Requested**

*(a) Respondents/NAICS Codes.*

Potential respondents under subpart QQQQ are manufacturers of new residential hydronic heaters and forced-air furnaces. The North American Industry Classification System (NAICS) code for residential hydronic heating manufacturing facilities is 333414, Heating Equipment (Except for Warm Air Furnace Manufacturing). The NAICS code for forced-air furnaces is 333415, Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing. Subpart QQQQ also applies to laboratories that conduct or plan to conduct hydronic heater and forced-air furnace certification tests (referred herein as testing labs) and laboratories that plan to become third-party certifiers (referred herein as third-party certifiers) for manufacturers. The NAICS code for testing laboratories is 541380.

*(b) Information Requested.*

*(i) Data Items, Including Recordkeeping Requirements.* In this ICR, all the data recorded or reported is required by the NSPS for New Residential Hydronic Heaters and Forced-air Furnaces (40 CFR Part 60, subpart QQQQ). The reporting requirements for NSPS

subpart QQQQ were uniquely designed for the manufacturers, third-party certifiers and testing laboratories. The records required by this regulation must be retained by the manufacturer, third-party certifier and/or test laboratory for 5 years. A special table is attached that describes the reporting and recordkeeping requirements. See Attachment 1.

*(ii) Respondent Activities.* The respondent activities that will be required by the final rule are identified in Table 1 (located at the end of this supporting statement) and introduced in section 6(a).

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

*(a) Agency Activities.*

Attachment 2 is a summary of the reporting and recordkeeping requirements for the federal government. The agency activities associated with the final rule are provided in Table 2 (located at the end of this supporting statement) and are introduced in section 6(c).

*(b) Collection Methodology and Management*.

All reports are sent directly to the EPA electronically. Data obtained from reports submitted and records maintained by the respondents will be used in compliance and enforcement programs. Portions of the data obtained will be entered into a special database program maintained exclusively by the EPA and some of the data will be made available to the public on an EPA website.

The EPA provides public access to the list of certified appliances and their emissions ratings on line at <http://www.epa.gov/compliance/resources/publications/monitoring/caa/woodstoves/certifiedwood.pdf>.

*(c) Small Entity Flexibility.*

Most of the manufacturers, laboratories and commercial owners affected by the final rule are considered small businesses based on the definition used by the Small Business Administration. Additional efforts were taken by the EPA to reduce the burden imposed on the small businesses affected by this regulation. For instance, we have included provisions that allow models with existing certifications that meet Step 1 emission standards that meet specified (conditional) criteria to be automatically certified until the Step 2 emission standards effective date (2020). We believe that allowing this automatic conditional certification approval and including phased compliance dates in the final rule allows additional time for sources to come into compliance and helps to reduce the burden on small businesses by spreading out research and development (R&D) costs over several years. The final rule also includes QA program requirements that align with existing safety QA procedures, thus avoiding duplicative procedures. Additionally, the final rule allows currently EPA-accredited testing laboratories to be allowed to test as approved testing labs for subpart QQQQ for three years after the effective date of the rule. For forced-air furnaces, we have also deferred implementation of the requirement that third-party certifiers be accredited under subpart QQQQ until 6 months after the effective date of the final rule.

*(d) Collection Schedule*.

The specific frequency for each information collection activity within this request is shown in Table 1 for new residential hydronic heaters and forced-air furnaces, which is located at the end of this supporting statement.

**6. Estimating the Burden and Cost of the Collection**

*(a) Estimating Respondent Burden.*

The annual recordkeeping and reporting respondent burden estimates for subpart QQQQ are shown in Table 1, located at the end of this section. These numbers were derived from estimates based on EPA’s experience with implementing existing subpart AAA rule and other rules, and the EPA voluntary hydronic heater program.

*(b) Estimating Respondent Costs.*

(i) *Estimating Labor Costs*. Loaded labor rates have been calculated for 2013. We used May 2013 labor rates from the Bureau of Labor Statistics for the Ventilation, Heating, Air-Conditioning and Commercial Refrigeration Equipment Manufacturing (NAICS 333400).[[3]](#footnote-3) Loading factors (i.e., fringe benefits and overhead rates) were calculated using methodologies referenced in promulgated regulations and their accompanying ICRs, particularly those used in New Source Review regulations. Fringe benefits are calculated as 29 percent of hourly earnings, and overhead is calculated using a standard 110 percent above hourly earnings. Table 4 presents the labor rates used in the cost analysis.

**Table 4. 2013 LOADED LABOR RATES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Labor Category** | **Hourly earnings [$2013]** | **Fringe** | **Overhead** | **Loaded 2013 Hourly Earnings ($)** |
| Professional specialty and technical | 31.53 | 1.29 | 2.1 | $85.41 |
| Executive, admin, managerial | 54.89 | 1.29 | 2.1 | $148.70 |
| Admin support | 18.22 | 1.29 | 2.1 | $49.36 |

*(ii) Estimating Capital and Operations and Maintenance (O&M) Costs*. In this section we provide estimated capital costs and one-time start-up costs associated with complying with the NSPS over the 3-year ICR clearance period. These costs are summarized in Table 5 at the end of this section. Estimated capital costs included in Table 5 include fixed capital cost estimates provided by an analysis prepared by Ferguson, Andors & Company for the Hearth, Patio and Barbecue Association.[[4]](#footnote-4) See the manufacturer costs impacts memo[[5]](#footnote-5) and the unit cost memo[[6]](#footnote-6) for more information on assumptions used in this section.

As discussed in the manufacturer costs impacts memo, we estimate that there are currently 50 model lines of forced-air furnaces produced by 7 manufacturers and 120 model lines of hydronic heaters (about 10 percent of which are indoor hydronic heaters) produced by 30 manufacturers. We assume that of these 170 existing model lines, 47 models (approximately 5 forced air furnace models and 42 hydronic heater models) will meet EPA criteria as meeting

Step 1 emission standards and will qualify for conditional certification approval until 2020 and will not have to undergo certification testing during the three-year ICR period (2015-2017). We assume that a like number of models to replace existing models that currently do not meet the Step 1 emission standards (approximately 115 models (45 forced air furnace models and 70 hydronic heater models)) will be developed/tested and will apply to certify to meet Step 1 emission standards or Step 2 emission standards and would be required by the NSPS to arrange for certification testing during the three-year ICR period (2015-2017) at a cost of $55,000 per test (assumes EPA testing costs of $30,000, full safety cost of $22,500 and $2,500 in shipping costs).[[7]](#footnote-7)

The final rule requires a permanent label on each hydronic heater and forced-air furnace model, just as required under subpart AAA. To estimate the costs of permanent labels, we assumed the capital costs to be $1,250 per model certified (including those with conditional certification) and that all new models produced by manufacturers (170; 120 outdoor hydronic heater models, 50 forced-air furnace models) produced by all manufacturers will have a permanent label affixed. These costs are consistent with cost estimates provided in Ferguson’s analysis.[[8]](#footnote-8)

The final NSPS requires that each hydronic heater and forced-air furnace offered for sale by a commercial owner be accompanied by an owner’s manual that contains specified installation and operation and maintenance information required to be followed to minimize emissions. We have assumed an average fixed cost of $3,750 for owner's manual (revised or new, possibly bilingual) per model, assuming 170 model owner's manuals will need to be developed/revised to include subpart QQQQ requirements. These costs are consistent with cost estimates provided in Ferguson’s analysis.[[9]](#footnote-9)

The final rule includes the requirement for a QA program whereby the manufacturer contracts with a third-party certifier to conduct QA audits. The third-party certifier will be required to conduct regular (at least annual), unannounced audits (and prepare a report for submission to the EPA) of each certified model line to ensure that the manufacturer’s QA plan is implemented properly. For purposes of this ICR, we assume that the contracted third-party certifier will require one QA performance test and two QA audits for each of the hydronic heater and forced-air furnace manufacturers (37 manufacturers) under the QA program between 2015 and 2017.

Another category of capital costs includes costs that would be incurred if the EPA requests a compliance audit, which would be infrequent and sporadic. Under the final rule, we anticipate EPA conducting one audit test for one model that would affect one manufacturer during the period covered by this ICR (2015-2017). Costs assume the cost of one appliance (based on the average cost of three appliances:1 outdoor ($11,571) and 1 indoor ($11,543) hydronic heater and 1 forced-air furnace ($2,579)), plus $55,000 for one test (assumes EPA testing costs of $30,000, full safety cost of $22,500 and $2,500 in shipping costs).

The last category of capital costs relates to ISO accreditation costs for test labs and third-party certifiers seeking accreditation (at a cost of $75,000/accreditation).

**TABLE 5. ESTIMATED CAPITAL/START-UP COSTS FOR 3-YEAR**

**CLEARANCE PERIOD (2015-2017)**

|  |  |  |  |
| --- | --- | --- | --- |
| **(A)** | **(B)** | **(C)** | **(D)** |
| **Data Collection Device** | **Capital/Start-Up for One Respondent/Unit** | **Number of New Respondents/Models/Units** | **Total Capital/Start-Up Cost** |
|  |  |  | **(B X C)** |
| Certification Test a | $55,000 per respondent | 115 models | $6,325,000 |
| Cost of Permanent Label **b** | $1,250 per model | 170 models | $212,500 |
| QA Performance Test **c** | $55,000 per respondent | 37 respondents | $2,035,000 |
| EPA Compliance Audit Test d | $63,564 per respondent | 1 respondent | $63,564 |
| Owner’s Manuale | $3,750 per model | 170 models | $637,500 |
| ISO Accreditation – Test Laboratoriesf | $75,000 per respondent | 2 respondents | $150,000 |
| ISO Accreditation – Third-Party Certifiersg | $75,000 per respondent | 2 respondents | $150,000 |
| **Total** |  |  | $9,573,564 |
| **Annual Average** |  |  | $3,191,188 |

a Models certified by testing per manufacturer: Assumes that 42% of existing hydronic heater models (.42 X 120 models = 50) and 10% of existing forced air furnace models (.10 X 50 models= 5) will not need to test to certify to meet limits during the three-year ICR period (2015-2017). We assume that manufacturers will test (at a cost of $55,000 per test (includes EPA testing ($30,000), confirmation safety testing or full safety testing ($22,500), and shipping of prototype(s)($2,500) costs)) and apply to meet either Step 1 emission standards or Step 2 emission standard for 115 models (70 hydronic heater and 45 forced-air furnace models) during the three year ICR period (2015-2017) in order to replace old models that will not meet the 2015 and 2016/2017 (for forced-air furnaces) compliance emission standards.

b Total costs of permanent labels are estimated to be $1,250 per model (170 models) (2015-2017).

c Assumes each of the manufacturers (37 manufacturers) will be required to test one of their models under their QA program during the period covered by this ICR (2015-2017) at $55,000 per test ( includes EPA testing ($30,000), confirmation safety testing or full safety testing ($22,500), and shipping of prototype(s)($2,500) costs).

d Assumes one model line will be audited by EPA during the three-year ICR period (2015 – 2017). Costs assume the cost of one appliance (based on the average cost of three appliances: 1 outdoor ($11,571) and 1 indoor ($11,543) hydronic heater and 1 forced-air furnace ($2,579)) plus the cost of testing at $55,000 (assumes EPA testing costs of $30,000, full safety cost of $22,500 and $2,500 in shipping costs).

e Assumes an average fixed cost of $3,750 for owner's manual (revised or new, possibly bilingual) per model certified (assumes 170 model lines from 37 manufacturers).

f Assumes all test labs will be ISO accredited (that are going to choose be accredited) before 2018, a total of four labs between 2015 and 2017 and 0 occurrences between 2018 and 2020. We assume an average cost to obtain ISO accreditation is $75,000 based on cost estimates provided by manufacturers.

g Assumes all third-party certifiers will be ISO accredited (that are going to choose be accredited) before 2018, a total of four labs between 2015 and 2017 and 0 occurrences between 2018 and 2020. We assume an average cost to obtain ISO accreditation is $75,000 based on cost estimates provided by manufacturers.

*(iii) Annualizing Capital Costs*. The total annual capital/start-up costs are estimated to average $3,191,188 over the period of this ICR (2015-2017).

*(c) Estimating Agency Burden and Cost*.

The major costs to the EPA are those costs associated with reviewing applications for model certifications, testing lab and third-party certifier accreditations, and ongoing compliance verification QA functions. This is consistent with the overall EPA compliance and enforcement program, which 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 3 years of the ICR is estimated to be $28,630. See Table 2, located at the end of this supporting statement.

The agency labor rates are from the Office of Personnel Management 2014 General Schedule which excludes locality rates of pay. These rates can be obtained from Salary Table 2014-GS available on the OPM website, <http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/salhrl.pdf>. The government employee labor rates are $15.78/hour for clerical (GS-6, Step 3), $29.17 for technical (GS-12, Step 1) and $39.31/hr for management (GS-13, Step 5). These rates were increased by 60 percent to include fringe benefits and overhead. The fully-burdened wage rates used to represent agency labor costs are: clerical at $25.25; technical at $46.67 and management at $62.90.

*(d) Estimating the Respondent Universe and Total Burden and Costs*.

Subpart QQQQ requires hydronic heater and forced-air furnace manufacturers, test laboratories and third-party certifiers to submit reports to the EPA and/or to maintain records for demonstrating and documenting compliance with the NSPS. A third-party certification process is required under subpart QQQQ. Under this process, for all heaters/stoves subject to subpart QQQQ, after testing is completed by an approved test laboratory, a certification of conformity with the particulate matter emissions standards must be issued by a third-party certifier with whom the manufacturer has entered into contract for certification services. To avoid the potential for manufacturer model certification delays (and the potential for lost revenues), we are allowing automatic conditional certification for hydronic heaters and forced-air furnaces that meet Step 1 emission standards until the Step 2 emission standards compliance date (2020).

The third-party certifier is an independent third-party that is ISO accredited to perform certifications, inspections and audits by an accreditation body. The third-party certifier can certify conformity if the emission tests have been conducted per the appropriate guidelines; the test report is complete and accurate; the instrumentation used for the test was properly calibrated; the test report shows that the representative hydronic heater or forced-air furnace meets the applicable emission standards; and the QA plan prepared by the manufacturer is adequate to ensure that units within the model line will be similar in all material respects that would affect emissions to the wood heater submitted for certification testing. The third-party certifier is also required to conduct regular (at least annual) unannounced audits to ensure that the manufacturer’s QA plan is being implemented and must prepare a report for each audit that fully documents the results of the audit. The manufacturer must include in its contract with the third-party certifier the authorization and requirement to submit all such reports to the Administrator. The ISO accreditation and approval to be third-party certifiers will be required on the effective date for hydronic heaters and 6 months after the effective date of the rule for forced-air furnaces. We have assumed that two laboratories will be ISO-accredited and will apply to be third-party certifiers and two will seek to obtain accreditation and will apply to be third-party certifiers during the three-year ICR period (2015-2017).

Test laboratories that want to become approved test laboratories to conduct NSPS certification testing will need to apply for ISO accreditation as a test laboratory, conduct proficiency testing and report the results of all such testing. Accredited approved test laboratories must maintain records of all certification tests, proficiency tests and compliance audit test data. Approved test laboratories must be approved for hydronic heater and forced air furnace certification under subpart QQQQ or must be an independent third-party test laboratory that is accredited by a nationally recognized accrediting entity to perform testing using the test methods specified in subpart QQQQ. The final rule allows a three-year extension of current EPA accreditations of labs (as approved test laboratories). Laboratories not currently EPA-accredited will be required (as of the date 6 months after the effective date of the final rule) to register their credentials with the EPA and be approved by the EPA prior to conducting any certification testing or related work used as a basis for compliance with subpart QQQQ. Of the 4 labs, we assume that 2 will have ISO accreditation as test laboratories by the effective date of the final rule and 2 will obtain ISO accreditation as test laboratories during the three-year period covered by this ICR (2015-2017).

This ICR assumes that there is an overlap of laboratories that will obtain accreditation and approval as approved testing laboratories and as third-party certifiers under subpart QQQQ. The only subpart QQQQ final rule testing laboratory and third-party certifier recordkeeping and reporting burden costs not passed on to the manufacturer would be the burden associated with obtaining ISO accreditation, proficiency testing and reporting required for approved test laboratories to maintain accreditation and approval as test labs, and specified recordkeeping requirements (e.g., certification tests, proficiency tests, QA program inspections, audit test results).

There are an estimated 37 existing manufacturers that will be subject to the Residential Hydronic Heater and Forced-Air Furnace NSPS. We recognize that this value may be high. We obtained information on the number of existing manufacturers by appliance type, which may double count manufacturers that make more than one type of appliance. Also, there seems to be a certain amount of consolidation in the industry. However, the number of new manufacturers, particularly outside of the United States, is unknown. Therefore, we consider the total of 37 manufacturers to be a reasonable estimate of the number of new and existing manufacturers.

Manufacturers of new hydronic heaters and forced-air devices are required to submit applications for certification of model lines, to submit results of emissions tests conducted to demonstrate that the model lines would comply with the emission standards and produce certified units according to a QA plan approved by an independent third-party certifier. For hydronic heaters, compliance dates with Step 1 and Step 2 emission limits are 2015 and 2020, respectively. For forced-air furnaces, compliance with work practice/operational standards is required in 2015, and compliance with Step 1 emission limits for small (<65,000 BTU/hr models) and large furnaces (> 65,000 BTU/hr models) is required in 2016 and 2017, respectively. The final rule allows hydronic heater/forced-air heater models that meet specified EPA criteria that show compliance with the Step 1 emission standards to be automatically deemed as certified to meet the Step 1 emission standards under this final rule until the Step 2 emission standards compliance date (2020). Manufacturers must submit a notification of the initial test and biennial reports that each certified model line remains unchanged. They must also maintain records of all certification data, maintain results of QA program inspections and emissions test data, and seal and store the tested appliance.

Manufacturers are also required to apply permanent labels on each applicable unit prior to sale. These labels provide important compliance information to enforcement officials and important information to consumers for purchasing appliances.

For subpart QQQQ, the components of the total annual responses attributable to this ICR are test notifications, applications for certification, biennial reporting for certified models, applications for accreditation, test report submittals, QA audit reports and test lab proficiency reporting for the 41 respondents (37 manufacturers and 4 testing laboratories (including both approved test laboratories and third-party certifiers)) that will be subject to the rule. The number of total annual responses for subpart QQQQ is estimated at 199.

*(e) Bottom Line Burden Hours and Cost Tables.*

*(i) Respondent Tally.* The bottom line respondent burden hours and costs for the 3 years (2015-2017) covered by this ICR are presented in Table 1 (located at the end of this supporting statement). The average annual burden for the recordkeeping and reporting requirements in subpart QQQQ for the estimated 37 manufacturers and 4 laboratories (consisting of both third-party certifiers and test laboratories) that will be subject to subpart QQQQ is 2,337 person-hours, with an annual labor average labor cost of $191,904 (approximately $140,000 for manufacturers, $15,000 for third-party certifiers and $36,000 for test laboratories) and annualized capital/start-up costs of $3,191,188.

*(ii) The Agency Tally.* The average annual Federal Government cost is $28,630 for 629 hours for subpart QQQQ. The bottom line agency burden hours and costs for the 3 years covered by this ICR are presented in Table 2 (located at the end of this supporting statement).

*(iii) Variations in the Annual Bottom Line.* This section does not apply since no significant variation is anticipated.

*(f) Reasons for Change in Burden.*

We are requesting a burden of an estimated 2,337 hours and annualized capital/startup costs of $3,191,188 due to implementation of this new regulation.

*(g) Burden Statement*

The average annual respondent burden for the New Residential Hydronic Heaters and Forced-Air Furnaces NSPS is approximately 57 hours with an average annual burden per response of 12 hours.

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 currently valid OMB control number. The OMB control numbers for EPA’s regulations in 40 CFR part 60 are listed in 40 CFR part 9.

To comment on the agency’s need for this information the accuracy of the provided burden estimates, and any suggestions for minimizing respondent burden, including through the use of automated collection techniques, the EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-OAR-2009-0734, which is available for online viewing at <http://www.regulations.gov>, or in person viewing at the Air and Radiation Docket and Information Center in the EPA Docket Center (EPA/DC), EPA WJC West Building, 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 EPA Docket is (202) 566-1742. An electronic version of the public docket is available at <http://www.regulations.gov.> This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select “search,” then key in one of the Docket ID Numbers identified above. 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 relevant Docket ID Number (EPA-HQ-OAR-2009-0734) and OMB Control Number (2060-NEW) in any correspondence.

**PART B**

This section is not applicable because statistical methods are not used in data collection associated with the final rule.







**Attachment 1**

**Respondent Reporting and Recordkeeping Requirements**

**NSPS for New Residential Hydronic Heaters and Forced-Air Furnaces (40 CFR part 60, subpart QQQQ)**

| **Regulatory Reference**  **Title 40, Part 60** | **Regulated Entity** | **Reporting/Recordkeeping Requirement** | **Frequency/Other Comments** |
| --- | --- | --- | --- |
| 60.5475(b), 60.5475(f)(1) | Manufacturer | Report: Application for a certificate of compliance. Include results of certification test, model identification information, engineering drawings and component specifications (for components that may affect emissions), identification of any CBI (as necessary), warranty information, owner’s manual, documentation of contracts with an approved test laboratory and third-party certifier, quality assurance (QA) program and various affirmations of compliance. | Once for each model line. |
| 60.5475(g)\* | Manufacturer | Report: Request for waiver from submitting certification test results. | Once per model, if at all. |
| 60.5475(i) | Manufacturer | Report: Renewal of certification. Renewal of certificate allowed by reapplying or by affirming in writing that the wood heater has been subject to no changes that would impact emissions and requesting a waiver from certification testing. | Must renew or apply for recertification every 5 years. |
| 60.5475(k)\*\* | Manufacturer | Report: Recertification required whenever a change is heater design exceeds specified parameters. May request a waiver with adequate rationale that changes may not reasonably be anticipated to cause wood heaters in the model line to exceed the applicable emission limits. | Variable. |
| 60.5475(m) | Manufacturer | Report: Develop a QA program and submit with application for a certificate of compliance.  Report: Review third-party certifier QA audit report and submit corrective actions for any identified deficiencies. | Once per model line.  Variable. |
| 60.5475(n)\*\* | Manufacturer | Report: EPA compliance audit test results. EPA may select a hydronic heater or forced-air furnace for compliance audit testing. EPA may test or direct the manufacturer to test a selected model line; at manufacturer’s expense. | Variable and infrequent. |
| 60.5476(f) | Manufacturer | Report: Notification in advance of compliance certification test. | Once per model line, at least 30 days before the start of testing. |
| 60.5478(a)-(d) | Manufacturer | Produce and apply permanent label. | One per unit produced. |
| 60.5478(e)\*\*\* | Manufacturer | Optional requirement. Produce and apply temporary label. | Variable/optional.   * Each model that meets 2020 emission limits prior to the 2020 compliance date may display a temporary label indicating that the model meets the 2020 emission limits. * Each model certified to meet the 2020 cord wood alternative means of emissions limitation compliance option may display that the model meets the 2020 cord wood alternative compliance option. |
| 60.5478(f) | Manufacturer | Develop and publish owner’s manual. | One owner’s manual developed per model line; a copy accompanies each unit produced. |
| 60.5479(a) | Manufacturer | Maintain records of all certification test data, results of QA program inspections, emission test data. | Once per model for certification and test data. Periodically for all QA inspections and tests. |
| 60.5479(c) | Manufacturer | Retain sealed wood heater for 3 years after the certification test of the model. | One for each certified model. |
| 60.5479(d) | Manufacturer | Report: Certification that model line is unchanged and sales for each model by state. | Every 2 years following issuance of a certificate of compliance for each model line. |
| 60.5479(f) | Manufacturer | Report: Performance test data submitted electronically. | Within 60 days after completion of each performance test. |
| 60.5479(g) | Manufacturer | For each certified model line, post the non-CBI certification test report to the manufacturer’s website. | Once for each model lint, within 30 days of receiving the certificate of compliance. |
| 60.5481\*\* | Manufacturer | Various requests, submittals, motions, filings, etc., under hearing and appeal procedures. | Variable and infrequent, if at all. |
| 60.5477(a) | Test Laboratory | Report: After being accredited by a nationally recognized accrediting entity, application for EPA approval as a test lab. | Once (unless not renewed every 5 years by the EPA). |
| 60.5477(a), 60.5479(b) | Test Laboratory | Report: Proficiency test and documentation. Approved test labs must participate in a biennial proficiency testing program conducted by a nationally recognized accrediting entity. Each approved test laboratory must submit all proficiency test results to the EPA. | Biennially. |
| 60.5479(b) | Test Laboratory | Keep records of documentation pertaining to certification tests, QA audit tests, including the full test report and raw data sheets, technician notes, calculations and test results for all test runs. | Once for each certification test, QA audit test. |
| 60.539\*\* | Test Laboratory | Various requests, submittals, motions, filings, etc., under hearing and appeal procedures. | Variable and infrequent, if at all. |
| 60.5475(m), 60.5477(e)(2) | Third-Party Certifier | Report: Submit report of unannounced QA program audits to EPA and the manufacturer. | At least annually. |
| 60.5477(e) | Third-Party Certifier | Report: After being accredited by a nationally recognized accrediting entity, application for EPA approval as a third-party certifier. | Once, to be renewed every 5 years. |
| 60.5479(b) | Third-Party Certifier | Keep records of documentation pertaining to certification tests, QA inspections and audit tests, including the full test report and raw data sheets, technician notes, calculations and test results for all test runs. | Once for each certification test, QA inspection and audit test. |
| 60.5479(b) | Third-Party Certifier | Each certifier must submit each certification test, QA inspection report and ISO IEC accreditation credentials to the EPA. | Once for each certification test, QA inspection and audit test. |
| 60.539\*\* | Third-Party Certifier | Various requests, submittals, motions, filings, etc., under hearing and appeal procedures. | Variable and infrequent, if at all. |

\* This is associated with an exemption or waiver (which would eliminate other reporting and recordkeeping burdens) and therefore not counted as a burden in the calculation.

\*\* This is not a routine report or is a provision for an extraordinary circumstance and, therefore, is not included in the calculations because it is very unlikely to occur during the next 3 years.

\*\*\* This is an optional requirement and, therefore, is not included in the calculated burden estimates.

**Attachment 2**

**Federal Reporting and Recordkeeping Requirements**

**NSPS for New Hydronic Heaters and Forced-Air Furnaces (40 CFR part 60, subpart QQQQ)**

| **Regulatory Reference**  **Title 40, Part 60** | **Agency** | **Reporting/Recordkeeping** | **Frequency/Other Comments** |
| --- | --- | --- | --- |
| 60.5475(c)(1) or (2), 60.5475(f)(2) or (3) | EPA | Report: Review application for a certificate of compliance and issue the certificate or a notice of denial. | Once per model. |
| 60.5475(i)(2) or (3) | EPA | Report: Renewal or denial of certificate of compliance. | Every 5 years. |
| 60.5475(l)(2)\* | EPA | Report: Notice of revocation of certification. | Variable and infrequent, if at all. |
| 60.5475(n)(1)(ii) | EPA | Report: Notice to manufacturer that a model has been selected for an EPA compliance audit test. | Variable and infrequent. |
| 60.5475(n)(3)\* | EPA | Report: Issue notification of suspension or revocation of a model’s certification. | Variable and infrequent, if at all. |
| 60.5477(a) | EPA | Report: Review test laboratory application and provide the test laboratory with a certificate of approval if approval criteria are met. If approval not granted, provide written notice with rationale. | Test lab approval (unless revoked sooner) is valid for 5 years from the date of issuance. |
| 60.5477(b)\* | EPA | Report: Notice of revocation of test laboratory approval with basis for revocation and notice of opportunity for a hearing. | Variable and infrequent, if at all. |
| 60.5477(e) | EPA | Report: Review of third-party certifier application and provide a certificate of approval if approval criteria met. If approval not granted, provide a written notice with rationale. | Third-party certifier approval expires 5 years after being issued unless renewed. |
| 60.5477(f)\* | EPA | Report: Notice of revocation of third-party certifier approval with basis for revocation and notice of opportunity for a hearing. | Variable and infrequent, if at all. |
| 60.5479(b) | EPA | Evaluation of laboratory proficiency tests submitted by test laboratories. | Biennially. |
| 60.5481\* | EPA | Various requests, submittals, motions, filings, etc., under hearing and appeal procedures. | Variable and infrequent, if at all. |

\* This is not a routine occurrence. It is a provision for an extraordinary circumstance and, therefore, is not included in the calculations because it is very unlikely to occur during the next 3 years.

1. Memorandum to Docket ID Number EPA-HQ-OAR-2009-0734 from EC/R, Inc. *40 CFR Part 60, Subparts AAA and QQQQ Estimated Three-Year and Annual Respondent Burden Cost of Reporting and Recordkeeping Requirements (Years 2018 to 2020)*. January 2015. [↑](#footnote-ref-1)
2. Memorandum to USEPA from EC/R, Inc. *Estimated Wood Heater Manufacturer Cost Impacts*. January 2015. [↑](#footnote-ref-2)
3. May 2013 *National Industry-Specific Occupational Employment and Wage Estimates*. Located <http://www.bls.gov/oes/current/naics4_333400.htm>. [↑](#footnote-ref-3)
4. Ferguson, Robert (Ferguson, Andors & Company), prepared for the Hearth, Patio & Barbecue Association. *Proposed Wood Heater NSPS Incremental Cost Effectiveness Analyses*, Appendix A: Woodstove Cost Modeling. (Available at http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OAR-2009-0734-1643). [↑](#footnote-ref-4)
5. Memorandum to USEPA from EC/R, Inc. *Estimated Wood Heater Manufacturer Cost Impacts*. January 2015. [↑](#footnote-ref-5)
6. Memorandum to USEPA from EC/R, Inc. *Unit Cost Estimates of Residential Wood Heating Appliances*. January 2015. [↑](#footnote-ref-6)
7. Ferguson, Robert (Ferguson, Andors & Company), prepared for the Hearth, Patio & Barbecue Association. *Proposed Wood Heater NSPS Incremental Cost Effectiveness Analyses*, Appendix A: Hydronic Heater Cost Modeling. (Available at <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OAR-2009-0734-1643>); Page 7, Table 6. Fixed Costs per Model - Certification). May 2014. [↑](#footnote-ref-7)
8. Ferguson, Robert (Ferguson, Andors & Company), prepared for the Hearth, Patio & Barbecue Association. *Proposed Wood Heater NSPS Incremental Cost Effectiveness Analyses*, Appendix A: Hydronic Heater Cost Modeling. (Available at <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OAR-2009-0734-1643>); Page 7, Table 6. Fixed Costs per Model - Certification). May 2014. [↑](#footnote-ref-8)
9. Ferguson, Robert (Ferguson, Andors & Company), prepared for the Hearth, Patio & Barbecue Association. *Proposed Wood Heater NSPS Incremental Cost Effectiveness Analyses*, Appendix A: Hydronic Heater Cost Modeling. (Available at <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OAR-2009-0734-1643>); Page 7, Table 6. Fixed Costs per Model - Certification). May 2014. [↑](#footnote-ref-9)