ICR covers years **2019-2021**

	2015 ICR	2015 Memo Assumptions (2018-2020)	5/1/2018 Data
Total manufacturers	66	66	83
Total models certified	126	270	546
Total models discontinued from 2015-2018			48
Total models certified and in production (certified - discontinued)			498
Manufacturers w/ Models Certified to Step 1	**66**	**66**	**70**
Total Models Meeting Step 1 (Deemed Certified + Certified Post-Final):	-	-	**418**
Manufacturers w "Deemed Certified" Models thru 2020	66	66	64
Models "Deemed Certified" thru 2020	144	270	347
Step 1 models that may meet step 2 standards			118
Manufacturers w Models Certified to Step 1 fr May 2015-May 2018	-		**24**
Models Certified to Step 1 fr May 2015-current [2]	126		**71**
Model lines/manufacturers certified from 2015-2018 for Step 1:	*4.1*	*4.1*	*3.0*
Manufacturers w/ Models Meeting Step 2	**66**		**36**
Models Certified for Step 2 between 2015-2018	270		**80**
Model lines/manufacturers certified from 2015-2018 for Step 2:	*4.1*		*2.2*
Anticipated # of Manufacturers to Certify to Step 2 prior to 2020			**30**
Anticipated # of Models Certified to Step 2 prior to 2020			**75**
Test Laboratories Accredited	6		**6**
Third-Party Certifiers Accredited	6		**7**

[1] 2018 Certification Data based on EPA's List of Certified Wood Heaters: https://www.epa.gov/sites/production/files/2017-08/u

[2] Based on a count of models not included on EPA's Historical List of Certified Heaters: https://www.epa.gov/compliance/histo

Findings:

As of June 2018, there are a total of 88 manufacturers and 568 model lines. Of these, 75 manufacturers have 425 model lines th

Of the current model lines that were automatically certified (lines that met the 2015 PM standard at the time of the compliance standards (meeting the PM standard of <= 2.5). At least 46 lines (owned by an additional 6 manufacturers) certified to Step 1 be manufacturers who choose to discontinue model lines. Based on industry trends of consolidation and decreasing market size, it have certified 83 new models to step 1 between 2015-2018 (~28 models/year), and only 37 manufacturers have certified 88 new certified to Step 1 in 2019, due to the impending 2020 standards.

Based on the number of manufacturers and models certified following 2015 and industry consultations, and it is assumed that a

Based on current EPA data, there are 8 EPA-approved testing laboratories and 8 EPA-approved third-party certifiers. There are

6/21/2018 Data[1]	
88	Note: One manufacturer carries a single discontinued line and has not submitted new certifications
568	
55	
513	
75	
425	
66	
342	
118	(includes 35 manufactures)
29	
83	(includes 46 lines that could meet Step 2 standards)
2.9	
37	
88	
2.4	
33	# of Manufacturers
85	# Models
8	# Test Labs
8	# 3rd Party Certifiers
49	Total Respondents

ısepa-certified-wood-heater-list.xlsx (June 2018)

ırical-list-epa-certified-wood-heaters (April 2015)

at are deemed certified through 2020. All model lines must be recertified for the 2020 PM standards.

date of the final rule), there are 35 manufacturers with 118 lines that could potentially be certified to Step 2 etween 2015-2018 could also be recertified under Step 2 for 2020. However, this does not account for is anticipated that the number of manufacturers and market orders are in decline. Only 29 manufacturers v models to step 2 between 2015-2018 (~29 models/year). It is not anticipated that additional models will be

n average of 85 model lines could be recertified by 33 manufacturers over the three-year period of this ICR.

a total of 12 testing laboratories and third-party certifiers due to overlap between approvals.

s since prior to 2015.

Table 1: Annual Respondent Burden and Cost - NSPS for New Residential Wood Heaters (40

Burden Item	(A) Person-hours per occurrence	(B) No. of occurrences per respondent per year	(C) Person-hours per respondent (C=AxB)
Reporting Requirements			
Manufacturers			
1. Certification test notification [c]	2.00	0.9	1.7
2. Application for certification [d]	8.00	0.9	6.9
3. Biennial reporting [e]	2.00	1.7	3.4
4. EPA compliance audit testing [f]	8.00	0.3	2.7
5. QA performance test results [g]	2.00	0.3	0.7
6. QA annual audit reports [h]	20.00	10.6	212.5
7. Review annual QA audit report [i]	4.00	1.0	4.0
Test Laboratories	.		
1. Application for test lab approval [j]			
a. Already has ISO accreditation	20.00	0.0	0.0
b. Needs to obtain ISO accreditation	80.00	0.0	0.0
2. Biennial profiency testing and report development [k]	150.00	0.7	100.0
Third-Party Certifier			
1. Application for approval as a third-party certifier [l]			
a. Already has ISO accreditation	20.00	0.0	0.0
b. Needs to obtain ISO accreditation	80.00	0.0	0.0
Subtotal for Reporting Requirements			
Recordkeeping Requirements			
Manufacturers			
1. Test documentation [m]	1.00	0.9	0.9
2. QA parameter inspections [n]	2.00	4.0	8.0
3. Retained (sealed) stoves [o]	1.00	0.9	0.9
Test Laboratories			
1. Certification test, proficiency test, and audit test results [p]	2.00	12.0	24.0
Third-Party Certifier			
1. Certification test, QA program inspection and audit tests [q]	2.00	12.0	24.0
Subtotal for Recordkeeping Requirements			
TOTAL BURDEN AND COSTS (rounded)[r]			
TOTAL CAPITAL AND O&M COST (rounded)[r]			
GRAND TOTAL (rounded)[r]			

[a] Management person-hours and clerical person-hours are assumed to be 5 percent and 10 percent

[b] Costs are based on the following hourly rates: technical at $112.98, management at $149.35 and

[c] Assumes that 85 models will require new certification to meet 2020 emission standards or will rece

[d] Assumes that 85 models will require new certification due to meet 2020 emission standards or will certifications over the period of the ICR.

[e] For the three-year period of this ICR, we assume 2 biennial reports per manufacturer for each of th responses per year at 2 hrs per report.

[f] Assumes that one of the 33 manufacturers will be required to undergo an EPA compliance audit te

[g] Assumes that there will be one QA audit performance test per manufacturer (33 manufacturers) ur that each of the 33 manufacturers will be required to test one model and report results to the EPA u

[h] Assumes there will be three QA audits by third-party certifiers for each of the 33 manufacturers ov reviewed by the manufacturer (in all cases) and may require preparing a response to the audit (in ca

[i] It is assumed that the third-party certifier will audit multiple manufacturer models when they conduc and their associated models).

[j] Assumes 0 occurances for the three-year ICR period.

[k] Assumes that each of the 8 test laboratories will conduct two biennial proficiency tests and prepare

[l] Assumes 0 occurances for the three-year ICR period.

[m] Assumes that manufacturers will spend one hour per certification test (for 85 models) to keep the

[n] Parameter inspections are part of the existing safety inspection program. We have assumed each additional 2 hours per quarter to document results.

[o] Assumes that one stove is sealed and retained for each certification test (for 85 models) required c

[p] We expect the required recordkeeping to be highly automated and have assumed that test laborat

[q] We expect the required recordkeeping to be highly automated and have assumed that third-party c

[r] Totals have been rounded to three significant values. Figures may not add exactly due to rounding

CFR Part 60, Subpart AAA) (Renewal)

(D) Respondents per year	(E) Technical hours per year (E=CxD)	(F) Management hours per year[a] (F=Ex0.05)	(G) Clerical person-hours per year[a] (G=Ex0.1)	(H) Total Cost per year,$ [b]
33	56.7	2.8	5.7	$7,135.95
33	226.7	11.3	22.7	$28,543.79
33	113.3	5.7	11.3	$14,271.90
1	2.7	0.1	0.3	$335.81
33	22.0	1.1	2.2	$2,770.43
8	1700.0	85.0	170.0	$214,078.45
33	132.0	6.6	13.2	$16,622.56
8	0.0	0.0	0.0	$0
0	0.0	0.0	0.0	$0
8	800.0	40.0	80.0	$100,742.80
8	0.0	0.0	0.0	$0
0	0.0	0.0	0.0	$0
	3,511			*$384,502*
33	28.3	1.4	2.8	$3,567.97
33	264.0	13.2	26.4	$33,245.12
33	28.3	1.4	2.8	$3,567.97
8	192.0	9.6	19.2	$24,178.27
8	192.0	9.6	19.2	$24,178.27
	810			*$88,738*
	4,320			**$473,000**
				$740,000
				$1,210,000

112.98 Technical
149.35 Managerial
54.81 Clerical

17 hr/respons

t of technical person-hours, respectively.

clerical at $54.81.

rtify their current compliance certifications over the period of the ICR..

recertify or renew (where a test waiver is obtained) compliant

heir models 85 models/33 manufacturers x 2 reports = 5.2 reports), or 1.7

st for one of their models during the three-year ICR period.

nder the QA program during the period covered by this ICR. We assume
nder their QA program.

er the three-year ICR period and that each of these audit reports will be
ases where deficiencies are identified).

t their audits (thereby reducing the time needed to audit manufacturers

e two reports during the three-year ICR period.

required records.

of the 33 wood stove manufacturers with certified models will spend an

of the 33 manufacturers over the three-year ICR period.

ories will spend 2 hours per month to maintain records.

certifiers will spend 2 hours per month to maintain records.

.

e

Table 2: Average Annual EPA Burden and Cost - NSPS for New Residential Wood Heaters (40 CFR Part 60, Subpart AAA) (Renewal)

Burden Activity	(A) EPA person-hours per occurrence	(B) No. of occurrences per year	(C) EPA person-hours per year (C=AxB)	(D) Respondents per year
1. Certification test notification [c]	0.5	0.9	0.4	33
2. Certification test [d]	20.0	0.9	17.2	4
3. Application for certification of model line [e]	8.0	0.9	6.9	33
4. Biennial reporting for certified models [f]	1.0	0.9	0.9	33
5. Review and approval of test lab credentials [g]	4.0	1.0	4.0	0
6. Review test lab biennial proficiency test reports [h]	10.0	0.7	6.7	8
7. Review QA performance test results [i]	2.0	0.3	0.7	33
8. Review QA audit report [j]	2.0	1.0	2.0	8
9. EPA Compliance Audit [k]	40.0	0.3	13.3	1
10. Review and approval of third-party certifier credentials [l]	8.0	1.0	8.0	0
TOTAL (rounded)[m]				

[a] Management person-hours and clerical person-hours are assumed to be 5 percent and 10 percent of technica

[b] Costs are based on the following hourly rates: technical at $48.08, management at $64.80, and clerical at $2

[c] Models certified by testing per manufacturer: Assumes that 85 models will require new certification to meet 20 compliance certifications between the 2018-2020 time period, and that roughly 1/3 of models are recertified ea

[d] Assumes that EPA will observe 5 percent of certification tests (85 X .05) conducted during the ICR reporting p

[e] Assumes that EPA will review and approve certification applications for 85 models which will require new cert or renew (where a test waiver is obtained) compliant certifications.

[f] Assumes that the EPA will receive one biennial report for 85 models (33 manufacturers) over the 3-year ICR p

[g] Assumes 0 occurances for the three-year period.

[h] Assumes that each of the 8 test laboratories will conduct two biennial proficiency tests and prepare two repor

[i] Assumes that there will be 33 QA emissions test results submitted under the QA program and reviewed by the each of the 33 manufacturers will be required to test one model and report results to the EPA under their QA p

[j] Assumes there will be three QA audits by the third-party certifiers reviewed by the EPA for each of the 33 mar

[k] Assumes that one model line for one of the 33 manufacturers will be audited by the EPA during the ICR three

[l] Assumes 0 occurances for the three-year ICR period.

[m] Totals have been rounded to three significant values. Figures may not add exactly due to rounding.

(E) Technical person-hours per year (E=CxD)	(F) Management person-hours [a] per year(F=Ex0.05)	(G) Clerical person-hours [a] per year (G=Ex0.1)	(H) Total Cost per year,$ [b]
14.2	0.7	1.4	$763.90
73.0	3.6	7.3	$3,935.22
226.7	11.3	22.7	$12,222.32
28.3	1.4	2.8	$1,527.79
0.0	0.0	0.0	$0
53.3	2.7	5.3	$2,875.84
22.0	1.1	2.2	$1,186.28
16.0	0.8	1.6	$862.75
13.3	0.7	1.3	$718.96
0.0	0.0	0.0	$0
514			$24,100

$	48.08	technical
$	64.80	management
$	26.02	clerical

al person-hours, respectively.

6.02.

020 emission standards or will recertify their current
ch year over the three-year period.

period, which is rounded to 4 tests per year.

ification due to meet 2020 emission standards or will recertify

period.

ts during the three-year ICR period.

e EPA during the period covered by this ICR. We assume that
rogram between 2018 and 2020.

nufacturers over the three-year ICR period.

-year period.

(A) Data Collection Device	(B) Capital/Start-Up for One Respondent/Unit	(C) Number of New Respondents/Models/Units
Certification Test [a]	$16,750 per respondent	85 models
Cost of Permanent Label [b]	$400 per model	85 models
QA Performance Test [c]	$16,750 per respondent	33 respondents
EPA Compliance Audit Test [d]	$17,815 per respondent	1 respondent
Owners Manual[e]	$2,250 per model	85 models
ISO Accreditation-Test Laboratories[f]	$75,000 per respondent	0 respondents
ISO Accreditation-Third-Party Certifiers[g]	$75,000 per respondent	0 respondents
Totals		
Annual average		

[a] Models certified by testing per manufacturer: We assume that manufacturers will test (a testing ($11,000), confirmation safety testing or full safety testing ($5,000), and shipping meet emission standards for 85 models during the three-year ICR period in order to rep 2 emission standards.

[b] Total costs of permanent labels are estimated to be $400 per model. We estimate that th by all manufacturers (33 manufacturers) during the period covered by this ICR that woul requirements.

[c] Assumes that there will be 33 QA performance tests (at a cost of $16,750 per test (inclu safety testing or full safety testing ($5,000), and shipping of prototype(s)($750) costs)) u period covered by this ICR. We assume that each of the 33 manufacturers will be require program between 2019 and 2020.

[d] Assumes that there will be EPA compliance audit testing for one model affecting one m this ICR. Costs for EPA compliance audit testing of one model assumes the cost of one a models: 1 adjustable burn rate model ($848 each) and 1 pellet ($1,281 each) stove model testing ($11,000), confirmation safety testing or full safety testing ($5,000), and shipping

[e] Assumes an average fixed cost of $2,250 for owner's manual (revised or new, possibly l need to be developed/revised to include subpart AAA requirements.

[f] Assumes all test labs are ISO accredited (that are going to choose be accredited), a total

[g] Assumes all third-party certifiers are ISO accredited (that are going to choose to be acc

(D) Total Capital/Start-Up Cost (B X C)
$1,423,750
$34,000
$552,750
$17,815
$191,250
$0
$0
$2,220,000
$740,000

at a cost of $16,750 per test (includes EPA
g of prototype(s)($750) costs)) and apply to
lace old models that will not meet the Step

here will be 85 certified models produced
ld be subject to permanent labeling

ides EPA testing ($11,000), confirmation
nder the QA program during the three-year
ed to test one model under their QA

manufacturer during the period covered by
appliance (based on the average cost of two
l)) plus $16,750 for the test (includes EPA
g of prototype(s) ($750) costs).

bilingual) per model (85 models) that will

of 6 labs.

redited).