

Department of Transportation
Office of the Chief Information Officer

Supporting Statement

Recordkeeping for Gas Pipelines

Introduction

The Pipeline and Hazardous Materials Safety Administration (PHMSA) requests approval from the Office of Management and Budget (OMB) for an extension and amendment of a currently approved collection entitled, “Recordkeeping Requirements for Gas Pipeline Operators.” (OMB Control No. 2137-0049). The current expiration date for this information collection is September 30, 2021. The amendment of this information collection is necessary due to the following PHMSA action that will affect the current collection of information:

- Docket No. PHMSA-2011-0023 - Pipeline Safety: Safety of Gas Transmission Pipelines
- Adds 24,609 responses and 3, 740 burden hours for recordkeeping.

Part A. Justification.

1. Circumstances that make collection of information necessary.

Part 192 recordkeeping requirements currently apply to operators transporting natural and other gas by pipeline. There is a continuing need for gas pipeline operators subject to 49 CFR Part 192 to comply with the requirements for recordkeeping as presented below.

49 USC 60117 requires that:

“To enable the Secretary to decide whether a person transporting gas or hazardous liquid or operating a pipeline facility is complying with this chapter and standards prescribed or orders issued under this chapter, the person shall –

- (1) maintain records, make reports, and provide information the Secretary requires; and
- (2) make the records, reports and information available when the Secretary requests.”

The regulations set forth in 49 CFR 192 require operators to maintain a series of test, inspection, and maintenance records. These recordkeeping requirements are necessary to prevent a gas pipeline incident from occurring to the extent possible, to ascertain compliance with gas pipeline safety regulations, and to provide a background for incident investigations.

Section 192.5(d) requires that operators maintain records documenting the current class location of transmission pipelines.

Section 192.14 pertains to the conversion to service of steel pipeline, previously used in service not subject to Part 192, and qualifying for use in gas service under Part 192 without meeting new pipeline requirements. Section 192.14(b) requires these operators to record and maintain a record of the investigations, tests, repairs, replacements, and alterations made under § 192.14(a).

Section 192.67 requires operators to record and maintain a record of tests, inspections, and attributes required by manufacturing specifications at the time the pipe was manufactured (including yield strength, ultimate tensile strength, wall thickness, and other attributes).

Section 192.127 requires that operators of steel transmission pipelines to make and retain, for the life of the pipeline, records that document pipe design to withstand anticipated external pressures and loads (in accordance with § 192.103) and determination of design pressure (in accordance with § 192.105).

Section 192.205 requires operators to make and retain records documenting the manufacturing standards and pressure ratings to which each valve was manufactured and tested.

Section 192.225(b) requires the procedures used in welding gas pipelines be recorded and retained.

Section 192.227 requires steel transmission pipeline operators to retain, for 5 years, records of welders' qualifications at the time of pipeline installation.

Section 192.243(f) requires gas pipeline operators to retain records of non-destructive testing if and when required under § 192.241(b).

Section 192.273(b) requires a written procedure proven to produce strong gastight joints when a gas pipeline is to be joined with methods other than welding.

Section 192.283(c) requires a copy of each written procedure being used for joining plastic pipe be made available to the persons making and inspecting joints.

Section 192.285 requires plastic transmission pipeline operators to retain, for 5 years, records of pipe joiners' qualifications at the time of pipeline installation.

Section 192.303 requires that each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

Section 192.491(a) requires gas pipeline operators maintain records or maps of cathodically protected pipe, cathodic protection facilities other than unrecorded galvanic anodes installed before August 1, 1971, and structures bonded to the cathodic protection system.

Section 192.491(c) requires gas pipeline operators maintain for the life of the pipe:

1. The records required in § 192.491(a).
2. Records of each test, survey, or inspection required to determine the adequacy of corrosion control measures and that a corrosive condition does not exist.

Section 192.517 requires gas pipeline operators retain records of all tests required under § 192.505 (strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of specified minimal yield strength), § 192.506 (spike hydrostatic test requirement for transmission lines), and § 192.507 (test requirements for steel pipeline to operate at a hoop stress less than 30 percent of specified minimal yield strength and at or above 100 psig.) for the life of the pipeline.

Section 192.553(c) requires a written procedure to ensure all applicable requirements are met when a gas pipeline operator intends to uprate his pipeline. Section 192.553(b) requires all records related to the uprating procedure be retained.

Sections 192.603(b) requires that operators maintain records of a procedural manual for operations, maintenance, and emergencies.

Section 192.607(b) requires operators to retain records documenting pipe diameter, wall thickness, seam type, and grade.

Section 192.614 requires gas pipeline operators establish and maintain a written damage prevention program.

Section 192.615 requires gas pipeline operators establish written emergency procedures.

Section 192.619(a)(4)(f) requires operators of onshore steel transmission pipelines to make and retain records necessary to establish and document the maximum allowable operating pressure (MAOP), as determined under §§ 192.619(c), (d), or (e).

Section 192.624(d) requires operators of onshore steel transmission pipelines to maintain records of investigations, tests, analyses, assessments, repairs, replacements, alterations, and other actions made to reconfirm MAOP in accordance with § 192.624.

Section 192.707(d) requires line markers for mains and transmissions lines.

Section 192.709 requires transmission line operators keep records of each leak detected, repair made, transmission line break, leakage survey, line patrol, and inspection for as long as the segment of transmission line involved remains in service.

Section 192.712(g) requires operators to retain records of analyses, investigations, and other actions related to predicted failure pressure, critical strain levels, or injurious anomalies or defects.

2. How, by whom, and for what purpose is the information used.

The information is used to assist Federal pipeline safety inspectors and State pipeline safety inspectors participating in the gas pipeline safety program. From these records, inspectors will be able to ascertain compliance with regulations. The information will also help to ensure safe pipeline construction, operation, and maintenance, and it will provide important information needed in incident investigations. Further, the information retained will form a record of pipe materials and characteristics that will assist in pipe maintenance and repair efforts by operators.

3. Extent of automated information collection.

Operators are permitted to keep records in any retrievable form. They may use the latest information technology to reduce the additional information collection burden.

4. Efforts to identify duplication.

No similar information is known to exist. Every gas pipeline system is particularly unique in its location, its type of design, and its operation. Therefore, the regulations set forth certain requirements so that each operator produces a record for their unique system.

5. Efforts to minimize the burden on small businesses.

There are no efforts to minimize the burden for small businesses. Records are a necessary to ascertain compliance with the regulations, and to ensure safe construction, operation, and maintenance of pipelines.

6. Impact of less frequent collection of information.

The frequency of the collection of information is one time for the written procedures required under §§ 192.67, 192.127, 192.205, 192.225(b), 192.227, 192.273(c), 192.283(c), 192.285, 192.303, 192.553(c), 192.603(b), 192.607(b), 192.619(a)(4)(f), 192.624(d), and 192.707(d).

The frequency of recordkeeping is on an even basis for §§ 192.14(b), 192.243(f), 192.491(c), 192.517, 192.553(b), and 192.709. This information could not be collected less frequently.

Retaining records under § 192.5(d) is necessary to ensure appropriate class location designation.

Maintenance of records required in §§ 192.491(a) and 192.475 is necessary to properly monitor corrosion in pipelines. Leaks, safety-related conditions, and incidents could result if the collection were conducted less frequently.

Maintenance of records required in § 192.614 is necessary to allow a damage prevention program to remain effective. Pipeline damage due to excavation could result if the collection were conducted less frequently.

Maintenance of records required in § 192.615 is necessary to minimize hazards resulting from

gas pipeline emergencies. Valuable time could be lost during an emergency if the collection were conducted less frequently, potentially resulting in loss of property and lives.

Maintenance of records required under § 192.712(g) is necessary to minimize hazards associated with anomalies and defects in pipelines.

7. Special circumstances.

It is essential the above records be kept for the life of the gas pipeline in order to establish a history for accident investigation purposes or to trace the origin of a safety-related problem.

a. Section 192.14(b) requires gas pipeline operators retain for the life of the pipeline a record of the investigations, tests, repairs, replacements, and alterations made in converting the steel pipeline to service.

b. Section 192.243(f) requires gas pipeline operators retain records of all nondestructive testing required under § 192.241(b) for as long as the pipeline concerned is in use.

c. Section 192.491(b) requires gas pipeline operators retain maps and records required for corrosion control for as long as the pipeline remains in service.

d. Section 192.517 requires gas pipeline operators retain for the life of the pipeline a record of each test performed under §§ 192.505 and 192.507.

e. Section 192.553(b) requires gas pipeline operators retain records of all work, pressure tests, and investigations required to uprate a segment of pipe for as long as the segment of pipe is in service.

f. Section 192.709 requires transmission operators retain a record of all leaks, repairs, transmission line breaks, leakage surveys, line patrols, and inspections for as long as that segment of transmission pipeline remains in service. PHMSA determined that record retention for the life of the pipeline system under §§ 192.491(c) and 192.709(f) is not necessary for reasons of safety and modified the requirement to 5 years.

g. Section 192.712(g) requires operators to retain records of analyses, investigations, and other actions related to predicted failure pressure, critical strain levels, or injurious anomalies or defects. Operators must maintain such records for the life of the pipeline.

8. Compliance with 5 CFR 1320.8(d).

On April 8, 2016, PHMSA published a Notice of Proposed Rulemaking (NPRM) to seek public comments on the gas transmission pipeline safety regulations (81 FR 20722). During the comment period, PHMSA received 2 comments from trade associations regarding the information collection requirements of the rule. One of those trade associations also provided comments regarding the recordkeeping requirements and burden. See the preamble for the final rule (84 FR 52180) for a summary of the comments and PHMSA's response.

9. Payments or gifts to respondents.

There is no payment or gift provided to respondents associated with this collection of information.

10. Assurance of confidentiality.

PHMSA does not have the authority to grant confidentiality.

11. Justification for collection of sensitive information.

The recordkeeping requirements of Part 192 do not involve questions of a sensitive nature.

12. Estimate of burden hours for information requested.

Based on annual reports submitted by operators, PHMSA estimates the total number of gas pipeline operators to be 7,695 operators consisting of 1,092 gas distribution operators, 1,015 gas transmission/gathering operators, 218 operators with both distribution and transmission/gathering pipelines, and 5,370 master meter system operators. As detailed further in the subsections below, the total annual burden to gas pipeline industry due to the above recordkeeping requirements of Part 192 is 1,674,810 hours annually across all operators.

Table 1 shows the annual burden hours broken out by provision. The following subsections describe the estimates in more detail. For transmission, gathering, and distribution mileage and number of operators used in the burden estimates, PHMSA relied on data provided by operators in 2017 annual reports.¹ PHMSA estimated the number of master meter systems based on FEDSTAR data. For all annual industry burden estimates, PHMSA rounded up to the nearest 10 hours. The appendix provides a detailed breakout of the costs for each provision.

Regulation Section	Annual Burden Hour to the Industry
192.5(d)	70
192.14(b)	40
192.67	90
192.127	90
192.205	90
192.225(b)	650
192.227	10
192.243(f)	63,520
192.273(b)	110
192.283(c)	110
192.285	10
192.303	10

¹ Form PHMSA F 7100.2-1 for transmission and gathering line operators, and Form PHMSA F 7100.1-1 for distribution line operators.

Table 1: Summary of Annual Burden Hours to Industry	
Regulation Section	Annual Burden Hour to the Industry
192.491(a)	31,640
192.491(c)1	576,970
192.5172	1,800
192.553(b)&(c)	160
192.603(b)3	414,090
192.607(b)	40
192.614	272,480
192.6154	291,630
192.619(a)(4)(f)	230
192.624(d)	450
192.707(d)	650
192.709	18,040
192.712(g)	1,830
Total	1,674,810

1. See Table 2 for detail.
2. Includes 970 hours for strength tests for new pipelines and 830 hours for spike hydrostatic test.
3. Includes 123,300 hours for transmission and gathering operators, 49,140 hours for distribution operators, and 241,650 hours for master meter system operators.
4. Includes 162,750 hours for transmission, gathering, and distribution operators, and 128,880 master meter system operators.

Section 192.5(d)

Section 192.5 classifies pipe locations based on the number of buildings (or other occupied areas) in proximity to the pipeline and whether it is onshore or offshore. § 192.5(d) clarifies that operators are required to maintain records documenting the current class location of transmission pipelines.

Based on annual report data from the most recent three years, 2,074 miles of transmission pipelines are constructed annually. PHMSA estimates the average length of a pipeline segment based on the typical distance between compressor stations (50 miles), which means that operators make reports for approximately 41 new segments of pipelines annually. PHMSA estimates that it takes each operator approximately 10 minutes to retain class location documentation for each segment of new pipe. Therefore, the annual cost to industry due to this recordkeeping requirement for new pipes is approximately 10 hours.

Additionally, § 192.609 requires that existing pipeline operators make a study to determine the present class location when an increase in population density indicates a change in class location. PHMSA estimates that 5% of existing transmission pipelines (15,033 out of 300,653, or 301 segments) will change class location annually. Assuming

it takes operators 10 minutes to retain the associated documentation, the annual cost to industry due to this recordkeeping requirement for existing pipes is approximately 60 hours.

Section 192.14(b)

Section 192.14(b) requires gas pipeline operators to maintain all conversion to service records for the life of the pipeline. Annually, less than one percent of gas pipeline operators are subject to § 192.14(b). PHMSA estimated that this requirement takes 80 operators (total number of operators times one percent) approximately 30 minutes each year to maintain this records requirement. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 40 hours.

Section 192.67

This section requires that operators of steel transmission pipelines make and retain, for the life of the pipeline, records that document tests, inspections, and attributes required by the manufacturing specification at the time the pipe was manufactured. These records include yield strength, ultimate tensile strength, wall thickness, seam type, chemical composition, and other attributes.

Based on annual report data from the most recent three years, 2,074 miles of transmission pipelines are constructed annually. Annual report data also indicates that 99% of transmission pipelines are steel; as such, PHMSA assumes that 2,063 miles of steel transmission pipelines are constructed or replaced annually. PHMSA estimates the average length of a pipeline segment based on the typical distance between compressor stations (50 miles), which means that operators make reports for approximately 41 new segments of pipelines annually. PHMSA estimates that it takes each operator approximately 2 hours to make and retain documentation for each segment of pipe. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 90 hours.

This section also requires operators of existing steel transmission pipelines to retain any such records that they already have. PHMSA assumes that there is no additional burden associated with this requirement since it codifies an existing practice.

Section 192.127

This section requires that operators of steel transmission pipelines to make and retain, for the life of the pipeline, records that document pipe design to withstand anticipated external pressures and loads (in accordance with § 192.103) and determination of design pressure (in accordance with § 192.105).

As described above, PHMSA estimates that operators construct approximately 41 new steel transmission pipeline segments annually.² PHMSA estimates that it takes each operator approximately 2 hours to make and retain documentation for each segment. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 90 hours.

This section also requires operators of existing steel transmission pipelines to retain any such records that they already have. PHMSA assumes that there is no additional burden associated with this requirement since it codifies an existing practice.

Section 192.205

Under §192.205, operators of steel transmission pipelines must make and retain records documenting the manufacturing standard and pressure rating to which each valve was manufactured and tested. Flanges, fittings, branch connections, extruded outlets, anchor forgings, and other components with material yield strength grades of 42,000 psi or greater and with nominal diameters of greater than 2-inches must have records documenting the manufacturing specification in effect at the time of manufacture, including, but not limited to, yield strength, ultimate tensile strength, and chemical composition of materials.

As described above, PHMSA estimates that operators construct approximately 41 new steel transmission pipeline segments annually.³ PHMSA estimates that it takes each operator approximately 2 hours to make and retain documentation for each segment of pipe. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 90 hours.

This section also requires operators of existing steel transmission pipelines to retain any such records that they already have. PHMSA assumes that there is no additional burden associated with this requirement since it codifies an existing practice.

Section 192.225(b)

Section 192.225(b) requires procedures used for the welding of gas pipelines be recorded in detail, including the results of the qualifying tests. These procedures are recorded one time and are only updated if a change in a welding procedure occurs. Consequently, the annual cost to industry due to this recordkeeping requirement is minimal. PHMSA estimates that each of the 7,695 operators spends 5 minutes meeting this requirement per year, for a total of approximately 650 hours.

Section 192.227

Steel transmission pipeline operators are required to retain, for at least 5 years, records of each welder's qualifications at the time of the pipeline installation.

² See description of burden for Section 192.67.

As described above, PHMSA estimates that operators construct approximately 41 new steel transmission pipeline segments annually.³ PHMSA estimates that it takes each operator approximately 10 minutes to file the required documentation for each segment of pipe. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 10 hours.

Section 192.243(f)

Section 192.243 contains requirements for nondestructive testing of welds, and §192.243(f) requires that operators must retain records of the tests for the life of the pipeline. Current practice is for operators to test 100% of newly constructed pipeline with welds. Based on annual report data from 2010 through 2017, 2,406 miles of transmission and gathering pipelines are constructed annually on average (including new construction and replacements). PHMSA assumes that newly constructed distribution lines are primarily constructed of plastic with no welds. As such, PHMSA estimates that approximately 2,406 miles of gas pipelines are nondestructively tested per year.

PHMSA estimates that there is one weld every 40 feet, resulting in approximately 132 welds per mile of pipeline. Therefore, approximately 317,594 welds are nondestructively tested per year. Operators spend approximately 0.2 hours per weld meeting the paperwork requirements, resulting in an annual industry burden of 63,520 hours.

Section 192.273(b)

Section 192.273(b) requires operators to make each joint in accordance with written procedures proven to produce gastight joints. The pipeline manufacturer normally provides these written procedures. Consequently, there is minimal incremental recordkeeping cost to the gas pipeline operators to acquire and retain these written procedures. PHMSA estimates that 1,310 distribution pipeline operators (including those with both distribution and transmission pipelines) spend an incremental 5 minutes per year meeting the requirements, for a total burden of approximately 110 hours.

Section 192.283(c)

Section 192.283(c) requires gas pipeline operators to make a copy of each written procedure used for joining plastic pipe to be made available to the persons making and inspecting joints. The recordkeeping costs to provide these plans to inspectors are minimal. PHMSA estimates that 1,310 distribution pipeline operators (including those with both distribution and transmission pipelines) spend 5 minutes per year meeting the requirements, for a total burden of approximately 110 hours.

Section 192.285

Plastic transmission pipeline operators are required to retain, for at least 5 years, records of each plastic pipe joiner's qualifications at the time of the pipeline installation.

Based on annual report data, 2,074 miles of transmission pipelines are constructed annually on average (including new construction and replacements). Annual report data also indicates that 99% of transmission pipelines are steel; as such, PHMSA assumes that there are 11 miles of new plastic pipeline annually. Operators own and operate an average of 1.1 miles of plastic pipe (based data from 2017 annual reports submitted by operators). As such, PHMSA estimates that operators will retain reports on 10 new plastic pipeline segments annually. PHMSA estimates that it takes each operator approximately 10 minutes to file the required documentation for each segment of pipe. Therefore, the annual cost to industry due to this recordkeeping requirement is 10 hours.

Section 192.303

Section 192.303 requires that operators must construct transmission lines and mains in accordance with written procedures. As described above, PHMSA estimates that there are 2,063 miles of new transmission lines constructed each year, with an average segment length of 50 miles.³ As such, PHMSA assumes that operators will construct 41 new segments annually. PHMSA estimates that operators spend an incremental 5 minutes per year meeting the requirements, for an annual burden to industry of 10 hours.

Section 192.491(a)

Section 192.491(a) requires operators maintain records or maps to show the location of their cathodic protection system. These maps and records are created one time and are updated as changes to the cathodic protection system occur. Based on 2017 annual reports submitted by transmission and distribution pipeline operators, 298,251 miles of transmission lines, 17,026 miles of gathering lines, and 475,356 miles of distribution main miles are cathodically protected steel pipelines subject to the recordkeeping requirements.

PHMSA assumes that operators will create and maintain records for 25-mile segments, and spend an estimated one hour per record updating corrosion control records. This results in an annual burden of 12,620 hours for transmission and gathering pipelines and 19,020 hours for distribution pipelines.

Due to the small size of the systems, master meter operators spend limited time updating corrosion control records. Consequently, the annual cost to master meter systems due to this recordkeeping requirement is minimal.

Section 192.491(c)

Section 192.491(c) requires a gas pipeline operator to maintain certain corrosion control records for five years. These records are required to determine the adequacy of corrosion control measures or that a corrosive condition does not exist.

³ See description of burden estimate for Section 192.67.

Section 192.491(c) requires records of tests, surveys, and inspections to be kept for the following:

Section 192.455: External corrosion control – Buried or submerged pipelines installed after July 31, 1971.

Section 192.457: External corrosion control – Buried or submerged pipelines installed before August 1, 1971.

Gas pipeline operators spend a minimal amount of time annually performing the recordkeeping requirements which result from this regulation. PHMSA estimates that 7,695 operators spend 5 minutes per year meeting the requirements, for a total burden of approximately 650 hours.

Section 192.459: External corrosion control – Examination of buried pipeline when exposed.

The frequency of examinations conducted under § 192.459 depends on the operator and the status of the pipeline. One operator reported that excavations are done only as needed, with a frequency of approximately 2 times a year, and another reported that the frequency is approximately once a year for every 15 miles of pipeline. PHMSA estimates that each transmission and gathering pipeline operator examines exposed gas pipeline approximately once every 2 weeks or 26 surveys annually per operator. This carries forward the frequency assumption from the previous burden estimate, which one operator supported. Operators spend an estimated 0.2 hours per survey meeting the paperwork requirements. 1,233 gas transmission and/or gathering line operators submitted annual reports in 2017, and all are subject to this requirement. As such, the annual burden to transmission/gathering operators is approximately 6,420 hours.

As with transmission and gathering operators, the frequency of excavations of distribution lines is variable. PHMSA estimates that each operator that has distribution mileage (1,310 operators, including 218 operators that also have transmission and/or gathering lines) examines exposed gas pipeline approximately once every week or 52 surveys annually. An estimated 0.2 hours per survey is spent meeting the paperwork requirements, resulting in an annual burden of 13,630 hours.

Section 192.461: External corrosion control – Protective coating.

Gas pipeline operators spend a minimal amount of time annually performing the recordkeeping requirements which result from this regulation. PHMSA estimates that 7,695 operators spend 5 minutes per year meeting the requirements, for a total burden of approximately 650 hours.

Section 192.465: External corrosion control – Monitoring;
Section 192.481: Atmospheric corrosion control – Monitoring.

a. Section 192.465(a) regulates gas pipeline operators test cathodically protected pipeline each calendar year, but with intervals not exceeding 15 months. According to 2017 annual report data, 298,251 miles of transmission lines, 17,026 miles of gathering lines, and 475,356 miles of distribution mains are cathodically protected.

Transmission and gathering pipelines are tested for corrosion control at roughly one mile intervals resulting in 315,277 tests per year. These operators spend an estimated 0.1 hours per test meeting the recordkeeping requirements for an annual burden of 31,530 hours.

Distribution pipeline is tested roughly 5 times per mile for 2.4 million tests per year. PHMSA estimates that distribution operators spend an estimated 10 minutes per test meeting the recordkeeping requirements for an annual burden of 396,140 hours.

Master meter systems average 2 corrosion control tests per system for 10,740 tests per year. These operators spend an estimated 0.17 hours (10 minutes) per test meeting the recordkeeping requirements for an annual burden of 1,790 hours.

b. Section 192.465(b) requires each cathodic protection rectifier or other impressed current power source be inspected six times per calendar year, but with intervals not exceeding two and one-half months. An estimated 29,540 rectifiers and impressed current power sources are subject to § 192.465(b), resulting in 177,240 inspections annually. Operators spend approximately 0.2 hours per inspection meeting the recordkeeping requirements for an annual burden to industry of approximately 35,450 hours.

c. Section 192.465(c) requires that operators inspect each reverse current switch, diode, and interference bond, the failure of which would jeopardize structure protection, 6 times per calendar year, but with intervals not exceeding two and one-half months. A reverse current switch, diode, or interference bond may be found approximately once every 50 miles of cathodically protected pipeline, for a total of 15,813 (315,227 cathodically protected transmission and gathering lines, plus 475,356 cathodically protected distribution lines, divided by 50). This results in 94,878 inspections annually. Operators spend an estimated 0.2 hours per inspection meeting the recordkeeping requirements. for an annual burden of 18,980 hours.

d. Section 192.465(e) requires operators inspect all unprotected pipeline at intervals not exceeding three years. Section 192.481 requires operators inspect all onshore pipeline exposed to the atmosphere at intervals not exceeding three years. According to 2017 annual report data, 54,705 miles of distribution main miles are

unprotected steel miles subject to §§ 192.465 (e) and 192.481. Less than 1,000 miles of transmission and 300 miles of gathering pipelines are unprotected steel.

Distribution pipeline is tested for corrosion roughly 5 times per mile, resulting in 273,523 tests per year. PHMSA estimated that operators spend an estimated 0.25 hours per test meeting the recordkeeping requirements for an annual burden of 68,390 hours.

Master meter systems average two corrosion tests per system for 10,740 tests per year. Based on feedback from an operator, PHMSA assumes that master meter operators spend an estimated 0.25 hours per test meeting the recordkeeping requirements for an annual burden of 2,690 hours.

Section 192.475: Internal Corrosion Control – General

Gas pipeline operators spend a minimal amount of time annually performing the recordkeeping requirements which result from this regulation. PHMSA estimates that 7,695 operators spend 5 minutes per year meeting the requirements, for a total burden of 650 hours.

Table 2 breaks out the annual industry burden hours pursuant to the recordkeeping requirements of § 192.491(c).

Table 2: Annual Industry Burden Hours for Recordkeeping under § 192.491(c)	
Regulation Section Requiring Corrosion Control Action	Annual Industry Burden Hours for Recordkeeping
192.455&457	650
192.459 *1	20,050
192.461	650
192.465(a) *2	429,460
192.465(b)	35,450
192.465(c)	18,980
192.465(e) *3	71,080
192.475	650
Total	576,970
*1. includes 6,420 hours for transmission and gathering operators, and 13,630 for distribution operators. *2. Includes 31,530 hours for transmission and gathering operators, 396,140 for distribution operators, and 1,790 hours for master meter system operators. *3. Includes 68,390 hours for distribution operators and 2,690 hours for master meter system operators.	

Section 192.517

Section 192.517 requires gas pipeline operators maintain all records required under §§ 192.505 and 192.507 (which cover strength tests for steel pipelines) for the life of the pipeline. Based on annual report data from the most recent three years, 2,074 miles of transmission pipelines are constructed annually on average (including new construction and replacements). Additionally, based on 2017 annual report data, 2,657 miles of gathering pipelines were constructed since 2010, for an annual average 332 miles.⁴

Strength testing, on an average, is performed at 5 mile intervals, resulting in 481 tests performed annually. Operators spend an estimated 2 hours per test meeting the paperwork requirements for an annual burden of 970 hours to meet the paperwork requirements associated with strength tests.

Section 192.517 additionally requires that operators make and retain associated records for the life of the pipeline for each spike hydrostatic test performed on transmission lines under § 192.506.

Spike hydrostatic tests are also performed at 5 mile intervals, for a total of 413 tests per year on 2,063 miles of new steel transmission pipelines. An estimated 2 hours per test is spent by operators meeting the paperwork burden for an annual burden of 830 hours to meet the paperwork burdens associated with this requirement.

Section 192.553(b and c)

Section 192.553(b) requires gas pipeline operators maintain all records associated with uprating of a section of pipe for the life of that segment. Section 192.553(c) requires operators establish a written procedure to insure all uprating requirements are met. Fewer than one percent of all operators are subject to § 192.553 (b and c). Thus, the annual cost to industry due to this recordkeeping requirement is minimal. PHMSA estimates that this requirement takes 77 operators (total number of operators times one percent) 2 hours each year to maintain records requirement. Therefore, the annual cost to industry due to this recordkeeping requirement is approximately 160 hours.

Sections 192.603(b)

Section 192.605 requires gas pipeline operators establish and administer a written operation and maintenance program, and § 192.603(b) requires that they maintain all records necessary to demonstrate compliance with the requirements. This written program is created one time and is updated as changes occur.

PHMSA estimates that each operator that has transmission and/or gathering lines spends approximately 100 hours meeting the minimum requirements of § 192.603(b), and that distribution and master meter system operators spend approximately 45 hours. There are

⁴ PHMSA assumes that newly constructed distribution lines are primarily plastic, not subject to this requirement.

1,233 operators that have transmission and/or gathering pipelines (including 218 that also have distribution lines), 1,092 operators that have only distribution lines, and 5,370 master meter systems. This results in 123,300 hours for transmission/gathering line operators, 49,140 hours for distribution line operators, and 241,650 hours for master meter system operators.

Section 192.607(b)

For onshore steel transmission pipelines, this section requires operators to retain, for the life of the pipeline, records documenting pipe diameter, wall thickness, seam type, or grade.

Based on 2017 annual reports data, PHMSA estimates that approximately 6,290 miles of pipelines may have incomplete records of pipeline characteristics, requiring verification. Assuming even distribution over the 15-year compliance period, this equates to 419 miles requiring records annually. Additionally, PHMSA assumes that operators typically maintain such records for 10,000-foot segments, or 1.89 miles. As such, PHMSA estimates that operators will make records for approximately 222 segments annually at a burden of 10 minutes per record. This results in a total burden estimate of 40 hours per year.

Section 192.614

Section 192.614 requires gas pipeline operators establish written programs to prevent pipeline damage due to excavation. PHMSA assumes that 1,310 distribution operators (including 218 that also have transmission or gathering lines) are subject to these recordkeeping requirements, with each spending an estimated 4 hours per week meeting the paperwork burden. PHMSA assumes the remaining operators participate in a “one-call” system meeting the requirements of this section. As such, the total burden for this requirement is approximately 272,480 hours.

Section 192.615

Section 192.615 requires gas pipeline operators establish written procedures to minimize the hazards resulting from a gas pipeline emergency. This written plan is created one time and is updated as changes occur. PHMSA estimates that transmission, distribution, and gathering operators spend 70 hours per year meeting the recordkeeping requirements, and that master meter operators spend 24 hours per year.

There are 2,325 operators with transmission, gathering, and/or distribution pipeline miles, and 5,370 operators with master meter systems. The total burden for this requirement is approximately 162,750 hours for transmission, gathering, and distribution pipeline operators and 128,880 hours for master meter system operators.

Section 192.619(a)(4)(f)

Under this section, operators of onshore steel transmission pipelines must make and retain records necessary to establish and document the maximum allowable operating pressure (MAOP), as determined under §§ 192.619(c), (d), or (e). For existing pipes, this entails continuing to retain existing records for the life of the pipeline (§192.617(a)(4)(f)(1)) or creating and maintaining, for the remaining life of the pipeline, records of new tests to reconfirm MAOP (§192.617(a)(4)(f)(1)).

For operators that already have such records, PHMSA assumes that the burden to continue to retain them is minimal. As described above,⁵ PHMSA assumes that there are 222 pipeline segments that will address incomplete records each year (over a 15-year compliance period). For these segments, operators will need to create and retain records of MAOP for each segment. PHMSA assumes that the recordkeeping component of this requirement will take approximately ten minutes of labor, for an industry burden of 40 hours annually.

For new pipelines, this section requires operators to retain MAOP records for the life of the pipeline. As described above,⁶ approximately 2,063 miles of new steel transmission pipelines are constructed annually; assuming operators establish MAOP for these pipelines in 1.89-mile segments, there will be 1,091 records annually. Assuming the recordkeeping burden is 10 minutes per record, the annual burden to industry for new pipelines is 190 hours.

Given a total industry burden of 40 hours for existing pipelines and 190 hours for new pipelines, the total industry burden for this requirement is 230 hours.

Section 192.624(d)

This section requires operators to maintain, for the life of the pipeline, records of investigations, tests, analyses, assessments, repairs, replacements, alterations, and other actions made to reconfirm MAOP in accordance with § 192.624, which applies to onshore steel transmission pipelines in high consequence areas and Class 3 or 4 locations.

As described above, there are approximately 6,290 pipeline miles with incomplete records,⁶ for which operators will need to reconfirm MAOP and create and retain associated records. PHMSA assumes that operators will reconfirm MAOP for 1.89-mile segments, and that these tests will be spread evenly over the 15-year compliance period. As such, there will be approximately 222 reports annually pursuant to this requirement, and, PHMSA estimates that the associated recordkeeping burden will be 2 hours per report. The total burden to industry is 450 hours.

⁵ See description of burden estimate for Section 192.607(b).

⁶ See description of burden for Section 192.67.

Section 192.707(d)

This requirement for warning labels on pipelines reflects a common practice in the industry. As such, gas pipeline operators spend a minimal amount of time annually performing the recordkeeping requirements which result from this regulation. PHMSA estimates that 7,695 operators spend an incremental 5 minutes per year on recordkeeping, for a total burden of 650 hours.

Section 192.709

The recordkeeping requirements of § 192.709, which requires transmission pipeline operators maintain records of each leak discovered, repair made, transmission line break, leakage survey, line patrol, and inspection for the life of that segment of pipeline, apply to approximately 300,653 miles of pipeline. Operators spend an estimated 6 hours per 100 miles of pipeline is recording leakage surveys, line patrols, and inspections. This results in an annual burden of approximately 18,040 hours.

Section 192.712(g)

When operators identify an anomaly or defect on a pipeline, this section requires them to retain records of investigations, analyses, or other actions related to required tests for predicted failure pressure, critical strain levels, and the remaining life of the pipeline. These records must document:

- Technical approach for the analysis;
- All data used and analyzed;
- Pipe and weld properties;
- Procedures, evaluation methodology, and models used;
- Direct *in situ* examination data;
- In-line inspection tool run info evaluated, including any multiple in-line inspection tool runs;
- Pressure test data and results;
- In-the-ditch assessments;
- All measurement tool, assessment, and evaluation accuracy specifications and tolerance used in technical and operational results;
- All finite element analysis results;

- Number of pressure cycles to failure, the equivalent number of annual pressure cycles, and the pressure cycle counting method;
- Predicted fatigue life and predicted failure pressure from the required fatigue life models and fracture mechanics evaluation methods;
- Safety factors used for fatigue life and/or predicted failure pressure calculations;
- Reassessment time interval and safety factors;
- Review date;
- Confirmation of the results by a qualified technical subject matter expert; and
- Approval by responsible operator management personnel.

Based on the number of anomalies discovered through integrity assessment (as reported in annual reports from 2017), PHMSA estimates that there are 21,923 anomalies requiring reports annually. The burden to operators to retain records of associated investigations is likely minimal, in the range of 5 minutes per report. As such, the total burden to industry associated with the recordkeeping requirement is approximately 1,830 hours.

13. Estimate of total annual costs to respondents.

Based on the industry-specific occupational and wage estimates provided by the U.S. Department of Labor’s Bureau of Labor Statistics, median hourly wage of an engineering manager (for NAICS 486000 – pipeline transportation)⁷ is estimated as \$77.50. Using an estimated fringe benefit of approximately 35 percent, the recordkeeping requirements for the gas operators are prepared at the average rate of \$104.63 per hour.

The total cost to the industry is 1,674,810 hours x \$104.63/hour = \$175,235,370.

14. Estimate of cost to the Federal Government.

PHMSA estimates that 100 Federal inspectors spend an estimated 10 percent of their time reviewing records retained by gas pipeline operators. The average salary of a Federal transportation inspector is \$107,630. This calculates to an estimated annual cost to the Federal Government of:

$$100 \text{ (Federal inspectors)} \times \$107,630 \text{ (mean salary)} \times 0.10 \text{ (time)} = \$1,076,300.$$

15. Explanation of program changes or adjustments.

This ICR is revised to include new recordkeeping requirements in the Safety of Gas

⁷ https://www.bls.gov/oes/current/naics3_486000.htm

Transmission Pipelines Rule, including the requirements under §§ 192.5(d), 192.67, 192.127, 192.205, 192.227, 192.285, 192.517, 192.607(b), 192.619(a)(4)(f), 192.624(d), and 192.712(g). Table 3 summarizes the industry burden hours and number of responses for provisions in the previous version of the ICR and those that have been added pursuant to the final rule.

Regulation Section	Existing Burden	Rule Burden	Existing Responses	Rule Responses
192.5(d)	0	70	0	342
192.14(b)	40	0	77	0
192.67	0	90	0	41
192.127	0	90	0	41
192.205	0	90	0	41
192.225(b)	650	0	7,695	0
192.227	0	10	0	41
192.243(f)	63,520	0	317,594	0
192.273(b)	110	0	1,310	0
192.283(c)	110	0	1,310	0
192.285	0	10	0	10
192.303	10	0	41	0
192.491(a)	31,640	0	31,625	0
192.491(b)	576,970	0	3,382,441	0
192.517	970	830	481	413
192.553(b&c)	160	0	77	0
192.603(b)	414,090	0	7,695	0
192.607(b)	0	40	0	222
192.614	272,480	0	68,120	0
192.615	291,630	0	7,695	0
192.619(a)(4)(f)	0	230	0	1,313
192.624(d)	0	450	0	222
192.707(d)	650	0	7,695	0
192.709	18,040	0	3,007	0
192.712(g)	0	1,830	0	21,923
Total	1,671,070	3,740	3,836,863	24,609

16. Publication of results of data collection.

The information will not be published.

17. Approval for not displaying the expiration date for OMB approval.

OPS is not seeking approval to not display the expiration date.

18. Exceptions to certification statement.

There is no exception to PHMSA's certification of this request for information collection approval.

Appendix: Burden Estimate Detail

Regulation Section	Applicability	Operators or Miles	Records/Year per Operator or Mile	Hours per Record	Records per Year	Annual Burden Hours to Industry¹
192.5(d)	miles of new transmission pipelines	2,074	0.02	0.17	41	10
192.5(d)	miles of existing transmission pipelines with class location change	15,033	0.02	0.17	301	60
192.14(b)	number of operators who convert to service	77	1.00	0.50	77	40
192.67	miles of new steel transmission pipelines	2,063	0.02	2.00	41	90
192.127	miles of new steel transmission pipelines	2,063	0.02	2.00	41	90
192.205	miles of new steel transmission pipelines	2,063	0.02	2.00	41	90
192.225(b)	number of operators	7,695	1.00	0.08	7,695	650
192.227	miles of new steel transmission pipelines	2,063	0.02	0.17	41	10
192.243(f)	miles of pipe with welds tested with non-destructive testing	2,406	132.00	0.20	317,594	63,520
192.273(b)	number of operators with distribution pipelines	1,310	1.00	0.08	1,310	110
192.283(c)	number of operators with distribution pipelines	1,310	1.00	0.08	1,310	110
192.285	miles of new plastic transmission lines	11	0.91	0.17	10	10
192.303	miles of new transmission pipelines	2,074	0.02	0.08	41	10
192.491(a)	miles of cathodically protected transmission and gathering lines	315,277	0.04	1.00	12,611	12,620
192.491(a)	miles of cathodically protected distribution main lines	475,356	0.04	1.00	19,014	19,020
192.455&457	number of operators	7,695	1.00	0.08	7,695	650
192.459	number of transmission and gathering line operators	1,233	26.00	0.20	32,058	6,420
192.459	number of distribution line operators and distribution + transmission line operators	1,310	52.00	0.20	68,120	13,630
192.461	number of operators	7,695	1.00	0.08	7,695	650
192.465(a)	miles of cathodically protected transmission and gathering lines	315,277	1.00	0.10	315,277	31,530
192.465(a)	miles of cathodically protected distribution main lines	475,356	5.00	0.17	2,376,780	396,140
192.465(a)	number of master meter systems	5,370	2.00	0.17	10,740	1,790

Regulation Section	Applicability	Operators or Miles	Records/Year per Operator or Mile	Hours per Record	Records per Year	Annual Burden Hours to Industry ¹
192.465(b)	number of rectifiers and impressed current power sources	29,540	6.00	0.20	177,240	35,450
192.465(c)	number of reverse current switches, diodes, and interface bonds	15,813	6.00	0.20	94,878	18,980
192.465(e)	miles of unprotected steel distribution main lines	54,705	5.00	0.25	273,523	68,390
192.465(e)	number of master meter systems	5,370	2.00	0.25	10,740	2,690
192.475	number of operators	7,695	1.00	0.08	7,695	650
192.517	miles of new pipeline construction	2,406	0.20	2.00	481	970
192.517	miles of new steel transmission pipeline construction	2,063	0.20	2.00	413	830
192.553(b) & (c)	number of operators who uprate pipelines	77	1.00	2.00	77	160
192.603(b)	number of transmission operators and distribution + transmission operators	1,233	1.00	100.00	1,233	123,300
192.603(b)	number of distribution only operators	1,092	1.00	45.00	1,092	49,140
192.603(b)	number of master meter systems	5,370	1.00	45.00	5,370	241,650
192.607(b)	miles of onshore steel transmission pipelines with incomplete records	6,290	0.04	0.17	222	40
192.614	number of distribution line operators and distribution + transmission line operators	1,310	52.00	4.00	68,120	272,480
192.615	number of transmission, gathering, distribution operators	2,325	1.00	70.00	2,325	162,750
192.615	number of master meter systems	5,370	1.00	24.00	5,370	128,880
192.619(a)(4)(f)	miles of existing onshore steel transmission pipelines with incomplete records	6,290	0.04	0.17	222	40
192.619(a)(4)(f)	miles of new steel transmission pipelines	2,063	0.53	0.17	1,091	190
192.624(d)	miles of onshore steel transmission pipelines	6,290	0.04	2.00	222	450
192.707(d)	number of operators	7,695	1.00	0.08	7,695	650
192.709	miles of transmission pipelines	300,653	0.01	6.00	3,007	18,040
192.712(g)	number of anomalies	21,923	1.00	0.08	21,923	1,830
Total					3,861,472	1,674,810

1. Detail may not sum to total due to rounding.