DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 192

[Docket No. PHMSA–2014–0098]

RIN 2137–AE93

Pipeline Safety: Plastic Pipe Rule

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: PHMSA is proposing to amend the natural and other gas pipeline safety regulations (49 CFR part 192) to address regulatory requirements involving plastic piping systems used in gas services. These proposed amendments are intended to correct errors, address inconsistencies, and respond to petitions for rulemaking. The requirements in several subject matter areas are affected, including incorporation of tracking and traceability provisions; design factor for polyethylene (PE) pipe; more stringent mechanical fitting requirements; updated and additional regulations for risers; expanded use of Polyamide-11 (PA–11) thermoplastic pipe; incorporation of newer Polyamide-12 (PA–12) thermoplastic pipe; and incorporation of updated and additional standards for fittings.

DATES: Submit comments on or before July 31, 2015.

ADDRESSES: Comments should reference Docket No. PHMSA–2014–0098 and may be submitted in the following ways:

- *E-Gov Web site: http://www.regulations.gov.* This Web site allows the public to enter comments on any **Federal Register** notice issued by any agency. Follow the instructions for submitting comments.
- *Fax:* 1–202–493–2251.
- *Mail:* Docket Management System: U.S. Department of Transportation, Docket Operations, M–30, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.
- *Hand Delivery:* DOT Docket Management System, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001 between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: If you submit your comments by mail, please submit two copies. To receive confirmation that PHMSA received your comments, include a self-addressed stamped postcard.

Note: Comments are posted without changes or edits to *http://www.regulations.gov,* including any personal information provided. There is a privacy statement published on *http://www.regulations.gov.*

Privacy Act Statement

In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

FOR FURTHER INFORMATION CONTACT:

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Technical Questions: Max Kieba, General Engineer, by telephone at 202–493–0595, or by electronic mail at *max.kieba@dot.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

The use and availability of plastic pipe have changed over the years with technological innovations in the products and best practices used in plastic pipe installations. Progress in the design and manufacture of plastic pipe and components has resulted in materials with higher strength characteristics. Manufacturers are instituting new practices related to traceability. Operators are incorporating best practices. Together, these measures have the potential to improve with pipeline safety and integrity. Some of these strides have been highlighted in petitions that are detailed below. The pipeline safety regulations have not stayed current with some of these products; this rulemaking is an effort to propose a number of revisions to incorporate these changes in the interest of pipeline safety.

PHMSA has received several rulemaking petitions involving plastic pipe. Copies of these petitions have been placed in the docket (PHMSA–2014–0098) for this rulemaking in addition to the docket that may have been initially established for the petition. This proposed rule will address the following petitions:

- American Gas Association (AGA)—(Docket No. PHMSA 2010–0011)—Petition to increase design factor 0.32 to 0.4 and incorporate updated ASTM D2513 (standard for Polyethylene (PE) pipe).
- Evonik Industries (Evonik) and UBE Industries (UBE)—(Docket No. PHMSA 2010–0009)—Petition to allow use of Polyamide (PA–12) pipe.
- Arkema—(Docket No. PHMSA 2013–0227)—Petition to allow use of Polyamide (PA–11) pipe at higher pressures.
- Gas Piping Technology Committee (GPTC)—Petition to allow above-ground, encased plastic pipe for regulator and metering stations.

While there has been much progress, both Federal and State inspectors, have noticed some issues related to the installation of plastic pipe that should be addressed in the pipeline safety regulations. In an effort to address these issues, respond to petitions and update the regulations with respect to the products and practices used in plastic pipe system without compromising safety, PHMSA is proposing revisions to the Federal Pipeline Safety Regulations (PSR) in 49 CFR part 192. This focus will limit these proposals to plastic pipelines in gas service and subsequently to new, repaired, and replaced pipes. These issues are addressed and detailed below as follows:

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B. Design Factor for PE
C. Expanded use of PA–11
D. Incorporation of PA–12
E. Risers
F. Fittings
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  G.2.—Joining Plastic Pipe (§ 192.281)
  G.3.—Qualifying Joining Procedures (§ 192.283)
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I.9.—Test Requirements for Plastic Pipelines (§ 192.513)

A. Traceability and Tracking

In many cases, the lack of adequate traceability for plastic pipe (*i.e.,* appropriate markings that help identify the location of manufacture, lot information, size, material, pressure rating, temperature rating and, as appropriate, type, grade, and model, etc., of the pipe and components) and tracking of pipe location (*i.e.,* a means of identifying the location of pipe and components within the pipeline) prevents operators from having enough information to identify systemic issues related to incidents involving plastic pipe. Further, the lack of this information makes it difficult for operators and regulators to determine whether plastic pipe or component failures are related to a certain type or vintage of material, specific product defect or design, heat/lot of the product, or whether it was produced by a certain manufacturer at a certain time.

In addition, the issue can result in excessive pipe excavations due to an inability to locate the affected sections of pipe or fittings when responding to plastic pipe or component manufacturer recalls. In 2001, the National Association of Pipeline Safety Representatives (NAPSR), a non-profit organization of State pipeline safety personnel that promotes pipeline safety in the United States and its territories, also noted this issue in its RESOLUTION NO. 2001–2–SR–2–01 (Resolution SR–2–01). In its Resolution, NAPSR referred to accident investigations where insufficient data regarding the pipe material (*i.e.,* date of manufacture and other relevant information) had proven to be an obstacle in determining the cause or origin of an incident. NAPSR also recognized that existing pipe, fittings, and components often do not maintain their markings for a sufficient period of time to provide useful tracking and traceability information. Therefore, NAPSR requested that PHMSA revise § 192.63 (''Marking of Materials'') to require the marking of all pipe and components to ensure identification for a period of 50 years or the life of the pipeline. NAPSR also expressed the view that the marking of plastic pipe, fittings, and components will benefit the industry and public by allowing the identification of problems and proactively mitigating future problems through such identification.

In an effort to address the concerns mentioned above and to address the resolution from NAPSR, PHMSA proposes new requirements for tracking and traceability of plastic pipe and components that extend beyond marking alone. To set the framework for tracking and traceability, PHMSA proposes to revise § 192.3 by adding definitions for ''traceability information'' and ''tracking information.'' It is PHMSA's intent that all operators have methods to identify the location of pipe, the person who joined the pipe, and components within the pipeline (*i.e.,* tracking). PHMSA also proposes that operators be required to identify and document the location of pipe manufacture, production, lot information, size, material, pressure rating, temperature rating, and, as appropriate, other information such as type, grade, and model (*i.e.,* traceability). In order to facilitate compliance, PHMSA proposes to revise § 192.63 to require operators to adopt the tracking and traceability requirements in ASTM F2897–11a, ''Standard Specification for Tracking and Traceability Encoding System of Natural Gas Distribution Components (Pipe, Tubing, Fittings, Valves, and Appurtenances)'' (Standard). Note that the Standard only specifies requirements for information that marks pipe and components with a 16-digit code to help identify characteristics such as manufacturer, material type, lot code, etc. While the Standard gives some examples of the types of markings, such as barcodes, 2D-Data matrix, or a more conventional print line, it does not provide the actual means of marking or affixing the code to the components, the means of reading and transferring the data or codes, and the durability of the markings.

In response to the 2001 NAPSR Resolution, PHMSA also proposes to clarify § 192.63 by expressly providing that specification and traceability markings on plastic pipe be legible, visible, and permanent in accordance with the pipe's listed specification. The proposed revisions in § 192.63 also reference the recordkeeping requirements for these markings in §§ 192.321(k) and 192.375(d). Section 192.321 applies to the installation of plastic pipe used for transmission lines and mains, and § 192.375 contains requirements for plastic service lines.

PHMSA further proposes to add a new paragraph (k) to § 192.321 and a new paragraph (d) to § 192.375 to require operators to maintain tracking and traceability information (as defined in § 192.3) records for the life of the pipeline. PHMSA believes this performance-based approach will allow for the use of other methods and technologies. For instance, during construction or repair, operators may choose to use a Global Positioning System (GPS) in combination with a barcode reader to help mark the location or identify other features of the pipe or component. Other operators without the means to purchase such equipment may choose to collect and store the information manually or electronically. The purpose of these proposed revisions is to enable operators to accurately locate and quickly identify the installed pipe and components in their systems when handling recalls and conducting failure investigations. The revisions also support the requirements in the distribution integrity management programs for capturing and retaining certain information on new pipelines for the life of the lines (§ 192.1007(a)(5)). In addition, the proposed requirement would also support the current plastic pipe-joiner qualification requirements in § 192.285.

B. Design Factor of PE

PHMSA received petitions from the American Gas Association (AGA) and the Gas Piping Technology Committee (GPTC) to increase the design factor for PE pipe from 0.32 to 0.40 in § 192.121. The allowable design pressure for plastic is based on a number of factors, including the stress rating of the material (interpolated from a Hydrostatic Design Basis (HDB) rating), wall thickness and diameter or standard dimension ratio (SDR), and design factor. The allowable design factor is currently 0.32 for plastics. The exception to this design factor limitation applies to Polyamide-11 pipe (PA–11) produced after January 23, 2009, meeting certain conditions, which would allow the design factor to increase to 0.40. The petitions to allow for a 0.40 design factor for PE pipe are based on research and technical justifications performed by the Gas Technology Institute (GTI) and include certain limitations by type of material and wall thickness. Since design pressure for plastic pipe is based on a number of variables, including design factor and wall thickness, an increase in design factor would allow for the use of PE pipe with smaller wall thicknesses while limited to the allowable pressures determined in § 192.121 if the pipe is made from higher quality material and meets other limitations mentioned in the petitions. Furthermore, a design factor of 0.40 is already allowed in § 192.121 for PA–11 pipe with certain limitations. Upon review, PHMSA proposes to adopt this provision into the PSR. The details of the proposal are

specified below under ''G. *Plastic Pipe Installation.''*

C. Expanded Use of PA–11

Polyamide-11, also referred to as Nylon 11, is a relatively newer type of plastic material with a different structure (nylon- or amide-based) compared to other common plastic materials in use such as Polyethylene (ethylene-based). Similar to PE materials with different types, names, or material designation codes such as PE3408 and PE4710, Polyamides or Nylon materials have different types such as PA–6 or Nylon 6, or relatively newer types discussed in this rulemaking like PA–11 or PA–12, with material designation codes such as PA32312 or PA32316. There are a number of differences amongst the kinds of plastics and pros and cons for each, but, at a high level, Polyamides such as PA–11 have a higher strength or hydrostatic design basis (HDB) rating compared to PE materials. The HDB is a reflection of a plastic pipe's ability to resist internal pressure over long periods of time. The Hydrostatic Stress Board of the Plastics Pipe Institute (PPI) recommends and lists a HDB for a plastic pipe material based on testing of the material using the industry accepted test methods published by ASTM International. As a result of a higher HDB rating, materials like PA–11 can typically be designed and operated at higher pressures. On December 24, 2008 (73 FR 79005), PHMSA issued a final rule to allow the use of a new thermoplastic pipe made from Polyamide-11 (PA–11) with certain limitations for pressure (up to 200 psig), diameter (up to 4-inch nominal pipe size), and an SDR of 11 and below (*i.e.,* thicker wall pipe). This final rule was in response to a petition from Arkema, a manufacturer of PA–11 pipe. On November 11, 2013, Arkema, the sole current producer of PA–11, sent a petition (Docket No. PHMSA–2013–0262) to PHMSA to allow PA–11 to be used for pressures up to 250 psig and pipe diameters up to 6-inch nominal pipe size, with limitations on wall thickness depending on diameter. Arkema is also petitioning PHMSA to allow for arithmetic interpolation in the allowable pressure equation for PA–11 pipe by removing the note in § 192.121 that currently does not allow arithmetic interpolation for PA–11 pipe. Arkema further petitioned PHMSA to incorporate the following standards related to PA–11:

- ASTM F2945–12a, Standard Specification for (PA–11) Gas Pressure Pipe, Tubing and Fittings;
- ASTM/ANSI F2600–09, Standard Specification for Electrofusion Type PA–11 Fittings for Outside Diameter Controlled PA–11 Pipe and Tubing;
- ASTM/ANSI F1973–13, Standard Specification for Factory Assembled Anodeless Risers and Transition Fittings in PE and PA–11 and PA–12 Fuel Gas Distribution Systems;
- ASTM/ANSI F2145–13, Standard Specification for PA–11 and PA–12 Mechanical Fittings for Use on Outside Diameter Controlled PA–11 and PA–12 Pipe and Tubing;
- ASTM/ANSI F1948–12, Standard Specification for Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing; and
- ASME/ANSI B16.40–08, Manually Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems.

As justification for its petition, Arkema points to the many years of testing and evaluation of PA–11 at operating pressures greater than 100 psig on projects under special permit and non-DOT jurisdictional pipelines that date back to 1999. Arkema also references the successful implementation of § 192.123(f), which allows for the use of PA–11 produced after January 23, 2009, at design pressures up to 200 psig under certain conditions. Although Arkema did not reference any projects that utilize PA–11 between 200 and 250 psig, Arkema believes an increase in allowable pressures up to 250 psig is justified through interpolation of a Hydrostatic Design Basis (HDB) of 3,150 psi for PA–11, as listed in Plastics Pipe Institute (PPI) TR4 (previous code limitations were based on an HDB of 2,500 psi for PA–11).

PHMSA agrees with Arkema's rationale of using the interpolation of the HDB listings for PA–11 to substantiate design pressures up to 250 psig. HDB listings are established in accordance with PPI TR–3, ''Policies and Procedures for Developing Hydrostatic Design Basis (HDB), Strength Design Basis (SDB), Pressure Design Basis (PDB) or Minimum Required Strength (MRS) Ratings for Thermoplastic Piping Materials or Pipe,'' which is incorporated by reference in § 192.7. As detailed in § 192.121, the design pressure (P) can be calculated by the equation $P = (2S/(SDR - 1)) \times (DF)$, where S is the HDB rating, SDR is the standard dimension ratio (the ratio of the average specified outside diameter to wall thickness), and DF is the design factor. If an HDB rating of 2,500 psi (basis for current limitation using previous vintage PA–11 pipe with material designation code PA32312) is used along with an SDR of 11 (a common value for mid-range pipe diameters) and a DF of 0.4 (which is currently allowed for PA–11), the resulting design pressure (P) would equal 200 psi, which is the current maximum allowable design pressure for PA–11 in part 192. If the HDB is changed to 3,150 psi (newer vintage PA–11 pipe with material designation code PA32316), and both the SDR and DF remain the same, the resulting design pressure would equal 252 psi, rounded down to 250 psi for a maximum allowable design pressure. Therefore, PHMSA proposes to revise the PSR to allow PA–11 pipe (PA32316) for pressures up to 250 psi, diameters up to 6 inches, and additional limitations on wall thickness as listed in the petition. PHMSA also proposes to specify that both PA32312 and PA32316 can be used for pressures up to 200 psi. Regarding standards relevant to PA–11 that Arkema petitioned to be incorporated by reference, PHMSA proposes to incorporate them as requested. Incorporating these newer standards specific to PA–11 will also allow PHMSA to phase out older standards incorporated by reference like ASTM D2513–87 and ASTM D2513–99, which covered multiple plastic materials including PA, PE, and others, up until ASTM D2513–09a when it became a PE-only standard. Another rulemaking by PHMSA incorporated ASTM D2513–09a for PE but continued to reference ASTM D2513–87 and ASTM D2513–99 for plastics other than PE while these other product specific standards were being developed. Having multiple versions of the same standard in this interim period has created some confusion.

D. Incorporation of PA–12

On January 6, 2011, PA–12 pipe manufacturers (Evonik and UBE; Petitioners) submitted a petition to amend the PSR to allow the use of PA–12 pipe. Specifically, Evonik and UBE petitioned (Docket No. PHMSA–2010–0009) PHMSA to revise §§ 192.121 and 192.123 to:

- Allow for the use of PA–12 piping systems with a 0.40 design factor;
- Include maximum design pressure limitations for PA–12 piping systems of 250 psig;
- Allow a nominal pipe size of 6-inch diameters or less;
- Allow a minimum wall thickness of at least 0.90 inches, with additional limitations on the wall thickness, depending on diameter;
- Require unplasticized material;
- Limit PA–12 pipe materials to those specified in ASTM F2785; and
- Require PA–12 to comply with the rest of the part 192 requirements related

to joining, pressure testing, and appurtenances, as detailed in §§ 192.281, 192.283, 192.285, and 192.513.

In their petition, Evonik and UBE state that PA–12 material has been tested more than any other pipe material prior to its use and approval. The Petitioners also stated that the results ''amply validated'' the overall strength and durability of the PA–12 material and piping systems against known threats and failure mechanisms. Evonik and UBE noted in their petition that PA–12 has been granted for use under a special permit in the States of Montana and Mississippi. The petitioners also noted the development of a performance-based standard (ASTM F2785–09) for PA–12. The petitioners assert that this standard contains comprehensive performance-based requirements that would ensure the safe long-term performance of PA–12 pipe, tubing, and fittings.

Upon review of the petition, PHMSA proposes to revise the PSR to allow the use of PA–12 pipe at pressures up to 250 psig for pipe up to 6 inches in diameter, and to impose additional limitations on wall thickness as listed in the petition. These limitations would also be consistent with the PA–11 consideration described above. PHMSA also proposes to incorporate by reference ASTM F2785–12, ''Standard Specification for Polyamide 12 Gas Pressure Pipe, Tubing, and Fittings,'' along with other standards applicable to both PA–11 and PA–12 that are described immediately above in the section related to PA–11 considerations and the PA–11 petition.

E. Risers

In general, a pipeline riser is a vertical pipe that connects buried pipe to an aboveground component, such as a meter. In many cases, the riser is a transitional component that attaches a buried plastic pipe to a metal or a metal-encased plastic pipe (anodeless riser), which is connected to a gas meter. While risers are most commonly found connecting service lines to meter sets, risers are also used within distribution mains and transmission systems when entering or exiting small regulator stations or whenever a transition between buried and unburied pipe is necessary.

The PSR do not contain specific design, construction, or installation requirements for risers. In 2014, the GPTC petitioned PHMSA to allow above-ground, encased plastic pipe at the inlet and outlet of regulator and metering stations if (1) the above-ground level part of the plastic pipe is protected against deterioration and external damage; (2) the plastic pipe is not used to support external loads; and (3) the plastic pipe is not allowed to exceed the pipe temperature limits at § 192.123. Therefore, PHMSA proposes specific requirements for the design (§ 192.204) and construction of risers (§§ 192.321(j) and 192.375(a)(2)) associated with plastic pipe. Further, PHMSA proposes to incorporate by reference ASTM F1973, ''Standard Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide 12 (PA12) Fuel Gas Distribution Systems'' in these new sections. ASTM F1973 addresses various issues such as the removal of burrs on metal components prior to the insertion of plastic pipe and other riser assembly provisions.

F. Fittings

PHMSA and others (*e.g.,* NTSB and certain States) have observed problems with mechanical fittings or joints becoming loose or pipe being pulled out from fittings, leading to leaks and, in certain cases, incidents. Failures can occur when there is inadequate restraint for the potential stresses on the two fitted pipes, when the couplings are incorrectly installed or supported, or when the coupling components (*e.g.,* elastomers) degrade over time. More details on these issues are available in PHMSA Advisory Bulletin ADB–08–02, issued in March 2008, titled ''Pipeline Safety: Issues Related to Mechanical Couplings Used in Natural Gas Distribution Systems.'' Therefore, PHMSA is proposing the incorporation of a requirement to use only mechanical fittings or joints that are designed and tested to provide a seal plus resistance to lateral forces so that a large force on the connection would cause the pipe to yield before the joint does.

More specifically, ASTM D2513, currently incorporated by reference in part 192, provides categorizations for the different mechanical joints, including ''[s]eal plus resistance to a force on the pipe end equal to or greater than that which will cause permanent deformation of the pipe'' (Category 1), seal only (Category 2), and seal plus pipe restraint to account for thermal stresses (Category 3). The Category 1 joint is generally considered the most stringent of the three categories. ASTM D2513 is now a polyethylene-only standard, but other standards being proposed for incorporation in this NPRM and that are applicable to other materials, (*i.e.,* ASTM F1924, ASTM F1948, and ASTM F1973) have Category 1 definitions. The definitions in each of these standards are slightly different in language but are still consistent with each other and the performance language in ASTM D2513. Some of these standards also point back to ASTM D2513 for PE-specific considerations. The regulation, as proposed, would require mechanical fittings, joints, or connections to provide a Category 1 joint as defined in ASTM F1924, ASTM F1948, and ASTM F1973 for the applicable material. In an effort to have consistency in language given the slightly different definitions in the various standards, PHMSA is proposing ''a seal plus resistance to a force on the pipe joint equal to or greater than that which will cause no less than 25% elongation of pipe, or the pipe fails outside the joint area if tested in accordance with the applicable standard.'' These revisions for Category 1 apply in sections such as § 192.281(e) for plastic pipe joining and § 192.367 for service lines and connections to main piping and are described in further detail elsewhere in this document.

In light of the proposed revisions of the PA–11 and PE regulations, and the introduction of PA–12, PHMSA proposes to also consider recently developed standards for incorporation by reference that further enhance pipeline safety in order to address potential safety risks. These proposed standards to be incorporated by reference are listed in ''Section I. *General Provisions*.''

Electrically Isolated Metal Alloy Fittings in Plastic Pipe (Section 192.455)

Section 192.455 details external corrosion control requirements for buried or submerged pipe installed after July 31, 1971. Paragraph (a) currently requires such pipelines to have external protective coatings meeting the requirements of § 192.461 and a cathodic protection system placed in operation within 1 year after construction is completed. However, paragraph (a) contains certain exceptions. One is detailed in paragraph (f) and applies to electrically isolated, metal alloy fittings in plastic pipelines where an operator can show by test, investigation, or experience in the area of application, that adequate corrosion control is provided by the alloy composition, and the fitting is designed to prevent leakage caused by corrosion pitting. For those fittings that do not meet the requirements of paragraph (f), cathodic protection and cathodic protection monitoring is required. PHMSA proposes to add a new paragraph (g) to require such fittings used within plastic pipelines be cathodically protected and monitored in

accordance with §§ 192.455 and 192.465(a).

G. Plastic Pipe Installation

PHMSA is proposing several revisions with regard to the installation of plastic pipe, organized topically as follows:

G.1.—Installation by Trenchless Excavation (Sections 192.3, 192.329 and 192.376)

The PSR do not contain detailed requirements for the installation of plastic pipe by trenchless excavation. PHMSA and the States are aware of a number of incidents related to cross-boring, where plastic pipe installed via trenchless excavation (*e.g.,* directional drilling) has come in contact with or been installed right through another underground utility such as a sewer line. In an effort to improve pipeline and public safety and implement a consistent approach to this method of installation while considering industry best practices in use today, PHMSA proposes to add new §§ 192.329 and 192.376 to detail some basic requirements. These proposals include requiring each operator to ensure that the path of the excavation will provide sufficient clearance for installation and maintenance activities from other underground utilities and structures. Additionally, PHMSA proposes to require plastic pipe and components that are pulled through the ground to incorporate the use of a ''weak link.'' PHMSA is proposing the definition of ''weak link'' in § 192.3. A weak link is used to prevent damage to the pipeline that could be caused by excessive forces during the pulling process.

G.2.—Joining Plastic Pipe (Section 192.281)

Section 192.281 details the requirements for joining plastic pipe. In an effort to reduce confusion and promote safety, PHMSA is proposing several revisions to § 192.281.

Section 192.281(b) contains requirements for solvent cement joints. PHMSA proposes to revise § 192.281(b)(2) to specify that the solvent cement requirements in ASTM D2564–12 apply only to polyvinyl chloride (PVC) pipe. This is a clarifying revision, since PVC is the only material that is allowed by PSR to be joined by solvent cement.

Section 192.281(c) contains requirements for heat-fusion joints. Currently, these requirements refer to only the ''pipe'' that is being joined. PHMSA proposes to clarify paragraph (c) to specify that the joining requirements apply to both the pipe and the components that are joined to the pipe.

Section 192.281(e) contains requirements for mechanical joints but does not clearly list specific standards for the requirements. This has led to some inconsistencies in practices used, or the requirements were incorporated indirectly via another referenced standard and were not always clear. PHMSA proposes to add a new paragraph (e)(3) to require that each fitting used to make a mechanical joint meets a listed specification. With this requirement, PHMSA hopes to make it clearer that fittings and joints must meet a standard specification listed in the code. The standards that would apply are among the ''Other Listed Specifications for Components'' that are being proposed through revisions to Appendix B and described in more detail elsewhere in this document.

G.3.—Qualifying Joining Procedures (Section 192.283)

Section 192.283 details the requirements for qualifying plastic pipe joining procedures. Currently, § 192.283(a) specifies that heat fusion joints for thermoplastic pipe must be tested in accordance with ASTM D2513–99 for plastics other than polyethylene or with ASTM D2513–09a for polyethylene plastic materials. In this proposed rule, PHMSA is proposing to incorporate a newer version of ASTM D2513 for PE-only materials and incorporate standards applicable to other types of thermoplastic pipe (*i.e.,* PA–11, and PA–12). Therefore, PHMSA proposes to revise § 192.283(a) to refer operators to the appropriate listed specification. Listed specifications are detailed in Appendix B to Part 192.

PHMSA also proposes to remove the current § 192.283(d), which allows the use of pipe or fittings manufactured before July 1, 1980, if they are joined in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. As a number of advancements have been made in standards related to pipe and fittings since 1980, the use of newer materials manufactured in accordance with more current standards should be encouraged. Pipe and fittings that are newly installed, repaired, or replaced after the effective date of the rule will be required to meet newer standards. This proposed revision would not preclude the use of pipe or fittings manufactured prior to July 1, 1980, which were already installed prior to the effective date of the rule.

G.4.—Qualifying Persons To Make Joints (Section 192.285)

Section 192.285 details the requirements for qualifying persons to make joints. PHMSA proposes to revise § 192.285 to incorporate several revisions. Section 192.285(a)(2) currently specifies that a person must make a specimen joint that is subjected to the testing detailed in § 192.285(b). PHMSA proposes to remove the testing details in § 192.285(b) and reference ASTM F2620–12 (Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings). PHMSA also proposes to require operators to maintain records detailing the location of each joint and the person who made the joint.

G.5.—Bends (Section 192.313)

Section 192.313 details requirements for bends and elbows, but currently only for steel pipe. To address bends in plastic pipe, PHMSA proposes to add a paragraph (d) to specify that installed plastic pipe may not contain bends that exceed the maximum radius specified by the manufacturer for the diameter of the pipe.

G.6.—Installation of Plastic Pipe (Section 192.321)

Section 192.321 details requirements for the installation of plastic pipe transmission lines and mains. PHMSA is proposing several revisions to this section. Currently, § 192.321(d) specifies that non-encased thermoplastic pipe must have a minimum wall thickness of 0.090 inches, except for pipe with an outside diameter of 0.875 inches or less, which must have a minimum wall thickness of 0.062 inches. PHMSA proposes to require all plastic pipe to have a minimum wall thickness of 0.090 inches.

Section 192.321(f) specifies that plastic pipe being encased must be inserted into the casing pipe in a manner that will protect the plastic, and that the leading edge of the inserted pipe must be closed before insertion. PHMSA proposes to specify that the plastic pipe must be protected from damage at both the entrance and exit of the casing during the installation process.

Section 192.321(h) specifies requirements for plastic pipe installed on bridges. Paragraph (h)(3) contains a reference to § 192.123. Based on the proposed merging of § 192.123 into § 192.121, PHMSA proposes to revise paragraph (h)(3) to replace the currently referenced § 192.123 with § 192.121.

Although part 192 contains some requirements for backfill materials,

there are no explicit requirements for backfill material used in the installation of plastic pipe. PHMSA recognizes that plastic pipe subjected to improper backfill materials or practices could be at risk to damage that could impact pipeline integrity. In line with best practices in use today, PHMSA proposes to add a new paragraph (i) to § 192.321 and a new paragraph (c) to § 192.375 to include specific provisions for backfill material for plastic pipe. These provisions would specify that backfill material not include materials that could be detrimental to the pipe, such as rocks of a size exceeding those established through sound engineering practices. The provisions would also require the ground to be properly compacted underneath, along the sides, and for a predetermined distance above the installed pipe.

PHMSA understands that there are applications that may require plastic mains to terminate aboveground for permanent installations. Currently, § 192.321 does not address plastic mains which terminate above ground. Therefore, PHMSA proposes a new paragraph (j) to allow for the aboveground level termination of plastic mains under certain conditions.

G.7.—Service Lines; General Requirements for Connections to Main Piping (Section 192.367)

Section 192.367(b) specifies requirements for compression–type connections to a main. As described further in the Fittings section above, PHMSA and others (*e.g.,* NTSB and certain States) have observed problems with mechanical fittings or joints becoming loose or pipe being pulled out from fittings, leading to leaks and, in certain cases, incidents. Similar to revisions being proposed in § 192.281(e) related to plastic pipe joining, PHMSA is proposing the incorporation of a requirement that connections are a Category 1 joint per applicable standards for different plastic materials, which is generally considered the most stringent of the three categories. PHMSA proposes to add a new paragraph (b)(3) to require mechanical connections on plastic pipe to be a Category 1 connection as defined by ASTM F1924, ASTM F1948, or ASTM F1973 for the applicable material, providing a seal plus resistance to a force on the pipe joint equal to or greater than that which will cause no less than 25% elongation of pipe, or the pipe fails outside the joint area if tested in accordance with the applicable standard.

G.8.—Equipment Maintenance; Plastic Pipe Joining (Section 192.756)

Due to the difficulty in assessing the quality of field joints, it is very important for operators to use properly calibrated and maintained equipment. Currently, the PSR do not contain detailed minimum provisions for maintaining equipment used in joining plastic pipe. Therefore, PHMSA proposes to add a new § 192.756 to include such requirements. These provisions would require each operator to maintain the applicable equipment, including measuring devices for joining plastic pipe, in accordance with the manufacturers' recommended practices or alternative procedures that have been proven by testing and experience. Operators would also be required to calibrate and test such equipment and devices and maintain records that substantiate these calibrations and tests. The equipment subject to these requirements would include, but not be limited to, fusion equipment, alignment equipment, facing and adaptor equipment, heater plates, and gauging devices. PHMSA proposes that records of all tests and calibrations, except those that might occur through daily verifications and adjustments, be maintained for the life of the pipeline.

H. Repairs

H.1.—Repair of Plastic Pipe (Gouges)

Section 192.311 currently specifies that, for plastic pipe, each imperfection or damage that would impair the serviceability of plastic pipe must be repaired or removed. For consistency with industry best practices, PHMSA proposes to include a requirement for all plastic pipe and or components to be replaced if they have a scratch or gouge exceeding 10 percent of the wall thickness.

H.2.—Leak Repair Clamps

PHMSA and States have observed issues where some operators have used stainless steel band clamps, intended and designed for temporary repairs on plastic pipe used in gas distribution, as a permanent repair solution. While clamps can be an effective temporary solution in certain situations, such as during an incident to stop the release of gas, PHMSA believes that these clamps should be used only as a temporary repair measure until the pipe can be replaced. PHMSA is also aware of at least one manufacturer that has issued a letter saying its repair clamps are intended for temporary repairs only and should be replaced with a more permanent solution. Therefore, PHMSA proposes the incorporation of a new section (§ 192.720) to prohibit the use of leak-repair clamps as a means for permanent repair on gas pipe used in distribution service.

I. General Provisions

PHMSA is proposing a number of general revisions to the PSR as follows:

I.1. Incorporation by Reference (Section 192.7)

Consistent with the proposed amendments in this document, PHMSA proposes to incorporate by reference several standards. The standards are identified as follows:

- ASTM D2513–12ael ''Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings''—This specification covers requirements and test methods for material dimensions and tolerances, hydrostatic burst strength, chemical resistance, and rapid crack resistance of polyethylene pipe, tubing, and fittings for use in fuel gas mains and services for direct burial and reliner applications. The pipe and fittings covered by this specification are intended for use in the distribution of natural gas. Requirements for the qualifying of polyethylene systems for use with liquefied petroleum gas are also covered.
- ASTM F2785–12 ''Standard Specification for Polyamide 12 Gas Pressure Pipe, Tubing, and Fittings''—This specification covers requirements and test methods for the characterization of polyamide 12 pipe, tubing, and fittings for use in fuel gas mains and services for direct burial and reliner applications. The pipe and fittings covered by this specification are intended for use in the distribution of natural gas.
- ASTM F2945–12a ''Standard Specification for Polyamide 11 Gas Pressure Pipe, Tubing, and Fittings'' 11/27/2012.—This specification covers requirements and test methods for the characterization of polyamide 11 pipe, tubing, and fittings for use in fuel gas piping.
- ASTM F2620–12 ''Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings'' 11/01/2013.—This practice describes procedures for making joints with polyethylene (PE) pipe and fittings by means of heat fusion joining in, but not limited to, a field environment. The parameters and procedures are applicable only to joining PE pipe and fittings of related polymer chemistry.
- ASTM D2564–12 ''Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems'' 08/01/2012.—This specification covers requirements for

poly (vinyl chloride) (PVC) solvent cements to be used in joining poly (vinyl chloride) piping systems.

• ASTM F2817–10 ''Standard Specification for Poly (Vinyl Chloride) (PVC) Gas Pressure Pipe and Fittings For Maintenance or Repair'' (PVC components only) 08/01/2013—This specification covers requirements for PVC pipe and tubing for use only to maintain or repair existing PVC gas piping.

• ASTM F2897–11a ''Standard Specification for Tracking and Traceability Encoding System of Natural Gas Distribution Components (Pipe, Tubing, Fittings, Valves, and Appurtenances)'' 11/01/2011—This specification defines requirements for the data used in the tracking and traceability base-62 encoding system and the format of the resultant code to characterize various components used in fuel gas piping systems.

• ASTM/ANSI F2600–09 ''Standard Specification for Electrofusion Type Polyamide-11 Fittings for Outside Diameter Controlled Polyamide-11 Pipe and Tubing'' 4/1/2009.—This specification covers polyamide-11 electrofusion fittings for use with outside diameter-controlled polyamide-11 pipe, covered by Specification D2513. Requirements for materials, workmanship, and testing performance are included.

• ASTM F2767–12 ''Specification for Electrofusion Type Polyamide-12 Fittings for Outside Diameter Controlled Polyamide-12 Pipe and Tubing for Gas Distribution'' 10/15/2012.—This specification applies to polyamide-12 electrofusion fittings for use with outside diameter-controlled polyamide-12 pipes, addressed by Specification F2785.

• ASTM/ANSI F2145–13 ''Standard Specification for Polyamide 11 (PA 11) and Polyamide 12 (PA12) Mechanical Fittings for Use on Outside Diameter Controlled Polyamide 11 and Polyamide 12 Pipe and Tubing'' 05/01/2013.—This specification describes requirements and test methods for the qualification of Polyamide 11 (PA 11) bodied mechanical fittings for use with outside diameter controlled PA 11, nominal 2 pipe size (IPS) and smaller complying with Specification D2513. The requirements and test methods for the qualification of Polyamide 12 (PA12) bodied mechanical fittings for use with outside diameter controlled Polyamide 11 (PA11), nominal 2 in pipe size (IPS) and smaller complying with Specification D2513 and outside diameter controlled PA12, nominal 2 in pipe size (IPS) and smaller complying with Specification F2785. In addition, it specifies general requirements of the material from which these fittings are made.

• ASTM/ANSI F1948–12 ''Standard Specification for Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing'' 04/01/2012.—This specification covers requirements and test methods for the qualification of metallic mechanical fittings for use with outside diameter controlled thermoplastic gas distribution pipe and tubing as specified in Specification D2513.

• ASTM F1973–13 ''Standard Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide 12 (PA12) Fuel Gas Distribution Systems'' 05/01/2013.—This specification covers requirements and test methods for the qualification of factory assembled anodeless risers and transition fittings, for use in polyethylene (PE), in sizes through NPS 8, and Polyamide 11 (PA11) and Polyamide 12 (PA12), in sizes through NPS 6, gas distribution systems.

• ASME/ANSI B 16.40–08 ''Manually Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems'' 04/30/2008.—This standard covers manually operated thermoplastic valves in nominal valve sizes ½ through 12 intended for use below ground in thermoplastic fuel gas distribution mains and service lines.

• PPI TR–4/2012 ''PPI Listing of Hydrostatic Design Basis (HDB), Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Rating For Thermoplastic Piping Materials or Pipe.''—This report lists thermoplastic piping materials with a Plastics Pipe Institute (PPI) recommended Hydrostatic Design Basis (HDB), Strength Design Basis (SDB), Pressure Design Basis (PDB) or Minimum Required Strength (MRS) rating for thermoplastic piping materials or pipe. These listings have been established in accordance with PPI TR–3.

PHMSA also proposes to update the following standards which are summarized below:

• ASTM F1055–98 (2006) ''Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing'' This specification covers electrofusion polyethylene fittings for use with outside diameter-controlled polyethylene pipe, covered by Specifications D 2447, D 2513, D 2737, D 3035, and F 714. This specification is a 2006 reaffirmed version of the 1998 version, meaning the technical content of the standard itself hadn't changed but as a matter of process had to be reviewed by the ASTM technical committee to keep it active. It should be noted there is a more current version of the F1055 standard (ASTM F1015–13) but PHMSA has chosen not to propose that version as the name and scope have expanded to include Crosslinked Polyethylene (PEX) Pipe and Tubing, a material not otherwise recognized in the 49 CFR part 192. PHMSA is open to comments on whether or not the latest version should be considered; and

• PPI TR–3/2012 ''Policies and Procedures for Developing Hydrostatic Design Basis (HDB), Hydrostatic Design Stresses (HDS), Pressure Design Basis (PDB), Strength Design Basis (SDB), Minimum Required Strength (MRS) Ratings, and Categorized Required Strength (CRS) for Thermoplastic Piping Materials or Pipe''—This report presents the policies and procedures used by the HSB (Hydrostatic Stress Board) of PPI (Plastics Pipe Institute, Inc.) to develop recommendations of long-term strength ratings for commercial thermoplastic piping materials or pipe. This version is an update to the 2008 version currently incorporated by reference. A more detailed summary of updates to the 2010 version (successor to the 2008 version) is available in the 2012 document itself. Recommendations are published in PPI TR–4.

I.2. Plastic Pipe Material

Section 192.59 specifies requirements for plastic pipe materials. Paragraph (a) details the qualification-for-use requirements for new plastic pipe. PHMSA proposes to add a new paragraph (a)(3) to require new plastic pipe be free from visible defects, a requirement consistent with a similar requirement already in place for used plastic pipe as detailed in paragraph (b)(5). At this time, non-destructive evaluation technologies have not been proven to be reliable and effective for inspecting plastic pipe. Therefore, visual inspection continues to be the primary method for detecting and evaluating defects.

In § 192.59, paragraph (b) details specific qualification requirements for used plastic pipe. Section 192.59(b)(3) specifies that used plastic pipe is qualified for use if it has been used only in natural gas service. PHMSA believes that used plastic pipe should not be limited to ''natural gas'' service but in any ''gas'' service as defined in § 192.3. This is consistent with the applicability provisions in § 192.1, which specifies

that part 192 prescribes minimum safety requirements for the transportation of ''gas.'' Therefore, PHMSA proposes to revise § 192.59(b)(3) to replace ''natural gas'' with ''gas.''

PHMSA is also looking to address some issues surrounding PVC pipe and components used for repair situations. Historically, PVC pipe and components have technically been allowed by code, including for repair, but industry has slowly been phasing out the installation and use of PVC piping, including for repair, in favor of other newer and better-performing plastic materials. PVC components are still used to a larger extent, however, as they are not as susceptible to the same issues of brittle-like cracking as PVC piping. To align with this shift, PHMSA is proposing to add a new § 192.59(e) to explicitly prohibit the use of PVC pipe for new installations after the effective date of the rule, including for repairs. This new requirement would not prevent the use of previously installed PVC pipe, nor would it preclude the use of PVC components for the repair of existing PVC pipe. Requirements for PVC were previously addressed under ASTM D2513–99, but following the change to make ASTM D2513 a PE-only standard, there is now a standalone ASTM standard for PVC. For PVC components used to repair existing PVC pipe, PHMSA is proposing to incorporate ASTM F2817–10, ''Standard Specification for Poly (Vinyl Chloride) (PVC) Gas Pressure Pipe and Fittings For Maintenance or Repair.''

I.3. Plastic Pipe Storage and Handling

Currently, the PSR do not directly address the storage and handling of plastic pipe other than through standards incorporated by reference. In an effort to reduce any confusion regarding the proper storage and handling of plastic pipe, PHMSA proposes a new § 192.67. The proposed new section would require operators to have written procedures for storage and handling that meets the applicable listed specification.

I.4. Gathering Lines

Section 192.9 currently details the requirements applicable to gathering lines. In particular, § 192.9(d) specifies the requirements for Type B regulated onshore gathering lines. Currently, as specified under § 192.9(d)(1), gathering line operators are required to comply with the design, installation, construction, initial inspection, and initial testing requirements in part 192 applicable to transmission lines. This would include plastic pipe requirements such as for design (§ 192.121), joining (§§ 192.281 and 192.283), and installation (§ 192.321). PHMSA believes that this information may not be clear since most transmission lines do not consist of plastic pipe. Therefore, PHMSA proposes to add a new paragraph (d)(7) to specify that such pipelines, if containing plastic pipe or components, must comply with all requirements of part 192 applicable to plastic pipe.

I.5. Merge Sections 192.121 and 192.123

Currently, § 192.121 specifies the calculations for determining the design pressure for plastic pipe, while § 192.123 specifies the design limitations for plastic pipe. In an effort to make the PSR easier to follow and to increase clarity, PHMSA proposes to merge the § 192.123 design limitations into § 192.121. PHMSA also proposes to increase the maximum design factor for PE pipe, increase the design pressure limitations of PA–11 pipe, and add design factor and pressure limitations for the use of PA–12 plastic pipe. These proposals would apply to materials produced after the effective date of the final rule.

I.6. General Design Requirements for Components (Section 192.143)

Section 192.143 contains general design provisions for pipeline components. For clarification purposes, PHMSA proposes the addition of a new paragraph (c) to specify that components used for plastic pipe must be able to withstand operating pressures and anticipated loads in accordance with a listed specification. Currently, § 192.191 specifies design pressure requirements for plastic fittings. With the addition of § 192.143(c), § 192.191 would be redundant; therefore, PHMSA proposes its removal.

I.7. General Design Requirements for Valves (Section 192.145)

Section 192.145 contains general design provisions for pipeline valves. For clarification purposes, PHMSA proposes the addition of a new paragraph (f) to specify that plastic valves must meet a ''listed specification'' as defined in § 192.3. PHMSA also proposes to clarify that plastic valves must not be used in operating conditions that exceed the applicable pressure or temperature ratings detailed in the applicable listed specification, consistent with language in § 192.145(a).

I.8. General Design Requirements for Standard Fittings (Section 192.149)

Section 192.149 contains general design provisions for pipeline fittings. For clarification purposes, PHMSA proposes the addition of a new paragraph (c) to specify that a plastic fitting may only be used if it meets a listed specification.

I.9. Test Requirements for Plastic Pipelines

Section 192.513(c) currently states that the test pressure for plastic pipelines must be at least 150 percent of the maximum operating pressure or 50 psig, whichever is greater, and that the maximum test pressure may not be more than 3 times the pressure determined under § 192.121. Given the other design limitations in the current § 192.123 for PE and PA–11, and the revisions being proposed in this rule for PE, PA–11, and PA–12, PHMSA believes that plastic pipe will potentially be overstressed if tested to 3 times the pressure determined under § 192.121. Therefore, PHMSA proposes to revise § 192.513(c) so that the maximum limit for test pressure is 2.5 times the pressure determined under § 192.121.

II. Availability of Standards Incorporated by Reference

PHMSA currently incorporates by reference into 49 CFR parts 192, 193, and 195 all or parts of more than 60 standards and specifications developed and published by standard developing organizations (SDOs). In general, SDOs update and revise their published standards every 3 to 5 years to reflect modern technology and best technical practices.

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104–113) directs Federal agencies to use voluntary consensus standards in lieu of government-written standards whenever possible. Voluntary consensus standards are standards developed or adopted by voluntary bodies that develop, establish, or coordinate technical standards using agreed-upon procedures. In addition, Office of Management and Budget (OMB) issued OMB Circular A–119 to implement Section 12(d) of Public Law 104–113 relative to the utilization of consensus technical standards by Federal agencies. This circular provides guidance for agencies participating in voluntary consensus standards bodies and describes procedures for satisfying the reporting requirements in Public Law 104–113.

In accordance with the preceding provisions, PHMSA has the responsibility for determining, via petitions or otherwise, which currently referenced standards should be updated, revised, or removed, and which standards should be added to 49 CFR parts 192, 193, and 195. Revisions to

incorporated by reference materials in 49 CFR parts 192, 193, and 195 are handled via the rulemaking process, which allows for the public and regulated entities to provide input. During the rulemaking process, PHMSA must also obtain approval from the Office of the Federal Register to incorporate by reference any new materials.

On January 3, 2012, President Obama signed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, Public Law 112–90. Section 24 states: ''Beginning 1 year after the date of enactment of this subsection, the Secretary may not issue guidance or a regulation pursuant to this chapter that incorporates by reference any documents or portions thereof unless the documents or portions thereof are made available to the public, free of charge, on an Internet Web site.'' 49 U.S.C. 60102(p).

On August 9, 2013, Public Law 113–30 revised 49 U.S.C. 60102(p) to replace ''1 year'' with ''3 years'' and remove the phrases ''guidance or'' and '',on an Internet Web site.'' This resulted in the current language in 49 U.S.C. 60102(p), which now reads as follows:

''Beginning 3 years after the date of enactment of this subsection, the Secretary may not issue a regulation pursuant to this chapter that incorporates by reference any documents or portions thereof unless the documents or portions thereof are made available to the public, free of charge.''

Further, the Office of the Federal Register issued a November 7, 2014, rulemaking (79 FR 66278) that revised 1 CFR 51.5 to require that agencies detail in the preamble of a proposed rulemaking the ways the materials it proposes to incorporate by reference are reasonably available to interested parties, or how the agency worked to make those materials reasonably available to interested parties. In relation to this proposed rulemaking, PHMSA has contacted each SDO and has requested a hyperlink to a free copy of each standard that has been proposed for incorporation by reference. Access to these standards will be granted until the end of the comment period for this proposed rulemaking. Access to these documents can be found on the PHMSA Web site at the following URL: *http://www.phmsa.dot.gov/pipeline/regs* under ''Standards Incorporated by Reference.''

III. Regulatory Analyses and Notices

Summary/Legal Authority for This Rulemaking

This NPRM is published under the authority of the Federal pipeline safety law (49 U.S.C. 60101 *et seq.*). Section 60102 authorizes the Secretary of Transportation to issue regulations governing design, installation, inspection, emergency plans and procedures, testing, construction, extension, operation, replacement, and maintenance of pipeline facilities. Further, Section 60102(l) of the Federal pipeline safety law states that the Secretary shall, to the extent appropriate and practicable, update incorporated industry standards that have been adopted as a part of the PSR. If adopted as proposed, this NPRM would modify the PSR applicable to plastic pipe.

Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

This NPRM is not a significant regulatory action under section 3(f) of Executive Order 12866 (58 FR 51735) and therefore was not reviewed by the Office of Management and Budget. This NPRM is not significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

Executive Orders 12866 and 13563 require agencies to regulate in the ''most cost-effective manner,'' to make a ''reasoned determination that the benefits of the intended regulation justify its costs,'' and to develop regulations that ''impose the least burden on society.'' PHMSA proposes to amend the PSR with regards to plastic pipe to improve compliance with these regulations by updating and adding references to technical standards and providing clarification. PHMSA anticipates that the amendments contained in this NPRM will have economic benefits to the regulated community by increasing the clarity of its regulations and reducing compliance costs. A copy of the regulatory evaluation is available for review in the docket.

Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This proposed rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

While PHMSA does not collect information on the number of employees or revenues of pipeline operators, it does continuously seek information on the number of small pipeline operators to more fully determine any impacts PHMSA's proposed regulations may have on small entities. This NPRM proposes to require small and large operators to comply with these requirements. A copy of the Initial Regulatory Flexibility Analysis has been placed in the docket.

Executive Order 13175

PHMSA has analyzed this NPRM according to the principles and criteria in Executive Order 13175, ''Consultation and Coordination with Indian Tribal Governments.'' Because this NPRM does not significantly or uniquely affect the communities of the Indian tribal governments or impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

Paperwork Reduction Act

This NPRM does not impose any new information collection requirements.

Unfunded Mandates Reform Act of 1995

This NPRM does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It would not result in costs of $100 million, adjusted for inflation, or more in any one year to either State, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the NPRM.

National Environmental Policy Act

PHMSA analyzed this proposed rule in accordance with section 102(2)(c) of the National Environmental Policy Act (42 U.S.C. 4332), the Council on Environmental Quality regulations (40 CFR parts 1500–1508), and DOT Order 5610.1C, and has preliminarily determined that this action will not significantly affect the quality of the human environment. A preliminary environmental assessment of this rulemaking is available in the docket, and PHMSA invites comment on environmental impacts of this rule, if any.

Privacy Act Statement

Anyone may search the electronic form of all comments received for any of our dockets. You may review DOT's

complete Privacy Act Statement published in the **Federal Register** on April 11, 2000 (70 FR 19477).

Executive Order 13132

PHMSA has analyzed this NPRM according to Executive Order 13132 (''Federalism''). The NPRM does not have a substantial direct effect on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. This NPRM does not impose substantial direct compliance costs on State and local governments. This NPRM does not preempt State law for intrastate pipelines. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

Executive Order 13211

This NPRM is not a ''significant energy action'' under Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use). It is not likely to have a significant adverse effect on supply, distribution, or energy use. Further, the Office of Information and Regulatory Affairs has not designated this NPRM as a significant energy action.

List of Subjects in 49 CFR Part 192

Incorporation by reference, Pipeline safety, Plastic pipe, Security measures.

In consideration of the foregoing, PHMSA proposes to amend 49 CFR Chapter I as follows:

PART 192—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS

■ 1. The authority citation for part 192 continues to read as follows:

Authority: 49 U.S.C. 5103, 60102, 60104, 60108, 60109, 60110, 60113, 60116, and 60118; and 49 CFR 1.97.

■ 2. Section 192.3 is revised to add the following definitions in appropriate alphabetical order as follows:

§ 192.3 Definitions.

* * * * *

Traceability information means data that is provided within ASTM F2897–11a (incorporated by reference, *see* § 192.7) that indicates within the unique identifier, at a minimum, the location of manufacture, production, lot information, size, material, pressure rating, temperature rating and, as appropriate, type, grade and model of pipe and components.

Tracking information means data that provides for the identification of the location of pipe and components, the date installed, and the person who made the joints in the pipeline system.

* * * * *

Weak Link means a device used when pulling polyethylene pipe, typically through methods such as horizontal directional drilling, to ensure that damage will not occur to the pipeline by exceeding the maximum tensile stresses allowed.

■ 3. Amend § 192.7 as follows:

■ a. Remove paragraphs (d)(11), (d)(12), (d)(13), (d)(15), (j)(1),

■ b. Redesignate paragraphs (c)(3) through (c)(9) as paragraphs (c)(4)–(10) and redesignate paragraph (d)(14) as (d)(12).

■ c. Add paragraphs (c)(3), (d)(11), (d)(13) through (d)(25), (j)(1), and (j)(2) to read as follows.

§ 192.7 What documents are incorporated by reference partly or wholly in this part?

* * * * *

(c) * * *

(3) ASME/ANSI B 16.40–08, ''Manually Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems,'' (ASME/ANSI B16.40–08), IBR approved for Item I, Appendix B to Part 192.

* * * * *

(d) * * *

(11) ASTM D2513–12ae1, ''Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings,'' (ASTM D2513–12ae1), IBR approved for Item I, Appendix B to Part 192.

* * * * *

(13) ASTM D2564–12, ''Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems,'' (ASTM D2564–12), IBR approved for § 192.281(b)(2).

(14) ASTM F1055–98 (2006), ''Standard Specification for Electro fusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing,'' (ASTM F1055–98), IBR approved for Item I, Appendix B to Part 192.

(15) ASTM F1924–12, ''Standard Specification for Plastic Mechanical Fittings for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing,'' (ASTM F1924–12), IBR approved for §§ 192.281(e); 192.367(b)(3); and Item I, Appendix B to Part 192.

(16) ASTM F1948–12, ''Standard Specification for Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing,'' (ASTM F1948–12), IBR approved for §§ 192.281(e); 192.367(b)(3); and Item I, Appendix B to Part 192.

(17) ASTM F1973–13, ''Standard Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA 11) and Polyamide 12 (PA 12) Fuel Gas Distribution Systems,'' (ASTM F1973–13), IBR approved for §§ 192.204(b); 192.281(e); 192.367(b)(3); and Item I, Appendix B to Part 192.

(18) ASTM/ANSI F2145–13, ''Standard Specification for Polyamide 11 (PA–11) and Polyamide 12 (PA–12) Mechanical Fittings for Use on Outside Diameter Controlled Polyamide 11 and Polyamide 12 Pipe and Tubing,'' (ASTM/ANSI F2145–13), IBR approved for Item I, Appendix B to Part 192.

(19) ASTM/ANSI F2600–09, ''Standard Specification for Electrofusion Type Polyamide-11 Fittings for Outside Diameter Controlled Polyamide-11 Pipe and Tubing,'' (ASTM/ANSI F2600–09), IBR approved for Item I, Appendix B to Part 192.

(20) ASTM F2620–12, ''Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings,'' (ASTM F2620–12), IBR approved for §§ 192.281(c) and 192.285(b)(2)(i).

(21) ASTM F2767–12, ''Specification for Electrofusion Type Polyamide-12 Fittings for Outside Diameter Controlled Polyamide-12 Pipe and Tubing for Gas Distribution,'' (ASTM F2767–12), IBR approved for Item I, Appendix B to Part 192.

(22) ASTM F2785–12, ''Standard Specification for Polyamide 12 Gas Pressure Pipe, Tubing, and Fittings'' PA–12, (ASTM F2785–12), IBR approved for Item I, Appendix B to Part 192.

(23) ASTM F2817–10, ''Standard Specification for Poly (Vinyl Chloride) (PVC) Gas Pressure Pipe and Fittings For Maintenance or Repair,'' (ASTM F2817–10), IBR approved for Item I, Appendix B to Part 192.

(24) ASTM F2897–11a, ''Standard Specification for Tracking and Traceability Encoding System of Natural Gas Distribution Components (Pipe, Tubing, Fittings, Valves, and Appurtenances),'' (ASTM F2897–11a), IBR approved for §§ 192.3 and 192.63(e).

(25) ASTM F2945–12a ''Standard Specification for Polyamide 11 Gas Pressure Pipe, Tubing, and Fittings,'' PA–11, (ASTM F2945–12a), IBR approved for Item I, Appendix B to Part 192.

* * * * *

(j) * * *

(1) PPI TR–3/2012, ''Policies and Procedures for Developing Hydrostatic Design Basis (HDB), Hydrostatic Design

Stresses (HDS), Pressure Design Basis (PDB), Strength Design Basis (SDB), Minimum Required Strength (MRS) Ratings, and Categorized Required Strength (CRS) for Thermoplastic Piping Materials or Pipe,'' (PPI TR–3/2012), IBR approved for § 192.121.

(2) PPI TR–4/2012, ''PPI Listing of Hydrostatic Design Basis (HDB), Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Rating For Thermoplastic Piping Materials or Pipe,'' (PPI TR–4/2012), IBR approved for § 192.121.

■ 4. In § 192.9, paragraphs (d)(5) and (d)(6) are revised and paragraph (d)(7) is added to read as follows:

§ 192.9 What requirements apply to gathering lines?

* * * * *

(d) * * *

(5) Establish the MAOP of the line under § 192.619;

(6) Install and maintain line markers according to the requirements for transmission lines in § 192.707; and

(7) If the pipeline contains plastic pipe or components, the operator must comply with all applicable requirements of this part for plastic pipe and components.

* * * * *

■ 5. In § 192.59, paragraphs (a)(1), (a)(2), and (b)(3) are revised and paragraphs (a)(3) and (e) are added to read as follows:

§ 192.59 Plastic pipe.

(a) * * *

(1) It is manufactured in accordance with a listed specification;

(2) It is resistant to chemicals with which contact may be anticipated; and

(3) It is free of visible defects.

(b) * * *

(3) It has been used only in gas service;

* * * * *

(e) Except for PVC fittings used for repairs on existing PVC pipelines with materials manufactured in accordance with the listed specification, PVC pipe cannot be used.

■ 6. In § 192.63, paragraph (a) is revised and paragraph (e) is added to read as follows:

§ 192.63 Marking of materials.

(a) Except as provided in paragraph (d) of this section, each valve, fitting, length of pipe, and other component must be marked as prescribed in the specification or standard to which it was manufactured.

* * * * *

(e) Additional requirements for plastic pipe and components.

(1) All markings on plastic pipe prescribed in the listed specification and the requirements of paragraph (e)(2) shall be repeated at intervals not exceeding 2 feet.

(2) Plastic pipe and components manufactured after [INSERT EFFECTIVE DATE OF FINAL RULE], must be marked in accordance with ASTM F2897 (incorporated by reference, see § 192.7) in addition to the listed specification.

(3) All markings on plastic pipelines prescribed in the specification and paragraph (e)(2) shall be legible, visible, and permanent in accordance with the listed specification. Records of markings prescribed in the specification and paragraph (e)(2) shall be maintained for the life the pipeline per the requirements of §§ 192.321(k) and 192.375(d).

■ 7. Section 192.67 is added to read as follows:

§ 192.67 Storage and handling for plastic pipelines.

Each operator must develop and follow written procedures for the storage and handling of plastic pipe and/or associated components that meet the applicable listed specifications.

■ 8. Section 192.121 is revised to read as follows:

§ 192.121 Design of plastic pipe.

(a) *Design formula.* Design formulas for plastic pipe are determined in accordance with either of the following formulas:

$$P = 2S\frac{t}{(D-t)}(DF)$$

$$P = \frac{2S}{(SDR-1)}(DF)$$

P = Design pressure, gage, psi (kPa).

S = For thermoplastic pipe, the HDB is determined in accordance with the listed specification at a temperature equal to 73 °F (23 °C), 100 °F (38 °C), 120 °F (49 °C), or 140 °F (60 °C). In the absence of an HDB established at the specified temperature, the HDB of a higher temperature may be used in determining a design pressure rating at the specified temperature by arithmetic interpolation using the procedure in Part D.2 of PPI TR–3, (incorporated by reference, *see* § 192.7). For reinforced thermosetting plastic pipe, 11,000 psig (75,842 kPa).

t = Specified wall thickness, inches (mm).

D = Specified outside diameter, inches (mm).

SDR = Standard dimension ratio, the ratio of the average specified outside diameter to the minimum specified wall thickness, corresponding to a value from a common numbering system that was derived from the American National Standards Institute (ANSI) preferred number series 10.

DF = Design Factor, a maximum of 0.32 unless otherwise specified for a particular material in this section.

(b) *General requirements for plastic pipe and components.* (1) Except as provided in paragraphs (c) through (f) of this section, the design pressure for plastic pipe may not exceed a gauge pressure of 100 psig (689 kPa) for pipe used in:

(i) Distribution systems; or

(ii) Transmission lines in Class 3 and 4 locations.

(2) Plastic pipe may not be used where operating temperatures of the pipe will be:

(i) Below −20 °F (−29 °C), or −40 °F (−40 °C) if all pipe and pipeline components whose operating temperature will be below −20 °F (−29 °C) have a temperature rating by the manufacturer consistent with that operating temperature; or

(ii) Above the temperature at which the HDB used in the design formula under this section is determined.

(3) Unless specified for a particular material in this section, the wall thickness for plastic pipe may not be less than 0.062 inches (1.57 millimeters).

(4) All plastic pipe must have a listed HDB in accordance with PPI TR–4 (incorporated by reference, *see* § 192.7).

(c) *Polyethylene (PE) pipe requirements.* (1) For PE pipe produced between July 14, 2004, and [INSERT EFFECTIVE DATE OF FINAL RULE], a design pressure of up to 125 psig may be used, provided:

(i) The material designation code is a PE2406 or PE3408.

(ii) The pipe has a nominal size (IPS or CTS) of 12 inches or less (above nominal pipe size of 12 inches, the design pressure is limited to 100 psig); and

(iii) The wall thickness is not less than 0.062 inches (1.57 millimeters).

(2) For PE pipe produced after [INSERT EFFECTIVE DATE OF FINAL RULE], a DF of 0.40 may be used in the design formula, provided:

(i) The design pressure is limited to 125 psig;

(ii) The material designation code is PE2708 or PE4710;

(iii) The pipe has a nominal size (IPS or CTS) of 12 inches or less; and

(iv) The wall thickness for a given outside diameter is not less than that listed in the following table:

Pipe size in inches	Minimum wall thickness in inches	Corresponding DR values
½″ CTS ..	0.090	7

Pipe size in inches	Minimum wall thickness in inches	Corresponding DR values
¾″ CTS ..	0.090	9.7
½″ IPS	0.090	9.3
¾″ IPS	0.095	11
1″ IPS	0.119	11
1¼″ IPS ..	0.151	11
1½″ IPS ..	0.173	11
2″	0.216	11
3″	0.259	13.5
4″	0.265	17
6″	0.315	21
8″	0.411	21
10″	0.512	21
12″	0.607	21

(d) *Polyamide (PA–11) pipe requirements.* (1) For PA–11 pipe produced between January 23, 2009, and [INSERT EFFECTIVE DATE OF FINAL RULE], a DF of 0.40 may be used in the design formula, provided:

(i) The design pressure is limited to 200 psig;

(ii) The material designation code is PA32312 or PA32316;

(iii) The pipe has a nominal size (IPS or CTS) of 4 inches or less; and

(iv) The pipe has a standard dimension ratio of SDR–11 or less (*i.e.,* thicker-wall pipe).

(2) For PA–11 pipe produced on or after [INSERT EFFECTIVE DATE OF FINAL RULE], a DF of 0.40 may be used in the design formula, provided:

(i) The design pressure is limited to 250 psig;

(ii) The material designation code is PA32316;

(iii) The pipe has a nominal size (IPS or CTS) of 6 inches or less; and

(iv) The minimum wall thickness for a given outside diameter is not less than that listed in the following table:

Pipe size (inches)	Minimum wall thickness (inches)	Corresponding DR (values)
1″ IPS	0.119	11
1¼″ IPS ..	0.151	11
1½″ IPS ..	0.173	11
2″	0.216	11
3″	0.259	13.5
4″	0.333	13.5
6″	0.491	13.5

(e) *Polyamide (PA–12) pipe requirements.* For PA–12 pipe produced after [INSERT EFFECTIVE DATE OF FINAL RULE], a DF of 0.40 may be used in the design formula, provided:

(1) The design pressure is limited to 250 psig;

(2) The pipe has a nominal size (IPS or CTS) of 6 inches or less; and

(3) The minimum wall thickness for a given outside diameter is not less than that listed in the following table.

Pipe size (inches)	Minimum wall thickness (inches)	Corresponding SDR (values)
1″ IPS	0.119	11
1¼″ IPS	0.151	11
1½″ IPS	0.173	11
2″	0.216	11
3″	0.259	13.5
4″	0.333	13.5
6″	0.491	13.5

(f) Reinforced thermosetting plastic pipe requirements.

(i) Reinforced thermosetting plastic pipe may not be used at operating temperatures above 150 °F (66 °C).

(ii) The wall thickness for reinforced thermosetting plastic pipe may not be less than that listed in the following table:

Nominal size in inches (millimeters).	Minimum wall thickness inches (millimeters).
2 (51)	0.060 (1.52)
3 (76)	0.060 (1.52)
4 (102)	0.070 (1.78)
6 (152)	0.100 (2.54)

§ 192.123 [Removed and Reserved].

■ 9. Section 192.123 is removed and reserved.

■ 10. In § 192.143, paragraph (c) is added to read as follows:

§ 192.143 General requirements.

* * * * *

(c) Each plastic component of a pipeline must be able to withstand operating pressures and other anticipated loads in accordance with a listed specification.

■ 11. In § 192.145, paragraph (f) is added to read as follows:

§ 192.145 Valves.

* * * * *

(f) Plastic valves must meet the minimum requirements stipulated in a listed specification. A valve may not be used under operating conditions that exceed the applicable pressure and temperature ratings contained in those requirements.

■ 12. In § 192.149, paragraph (c) is added to read as follows:

§ 192.149 Standard fittings.

* * * * *

(c) Plastic fittings must meet a listed specification.

§ 192.191 [Removed and Reserved].

■ 13. Section 192.191 is removed and reserved.

■ 14. Section 192.204 is added to read as follows:

§ 192.204 Risers.

(a) The design shall be tested to ensure safe performance under anticipated external and internal loads acting on the assembly.

(b) Risers shall be designed and tested in accordance with ASTM F1973 (incorporated by reference, *see* § 192.7).

(c) All risers connected to plastic mains and used on regulator stations must be rigid and have a minimum 3 ft. horizontal base leg designed to provide adequate support and resist lateral movement. Riser design shall be tested and accepted in accordance with ASTM F1973 (incorporated by reference, *see* § 192.7).

■ 15. In § 192.281, paragraphs (b)(2),(b)(3), and (c) are revised and paragraphs (e)(3) and (e)(4) are added to read as follows:

§ 192.281 Plastic Pipe.

* * * * *

(b) * * *

(2) The solvent cement must conform to ASTM D2564–12 for PVC (incorporated by reference, *see* § 192.7).

(3) The joint may not be heated or cooled to accelerate the setting of the cement.

(c) *Heat-fusion joints.* Each heat fusion joint on a plastic pipe and/or component must comply with ASTM 2620–12 (incorporated by reference in § 192.7) and the following:

(1) A butt heat-fusion joint must be joined by a device that holds the heater element square to the ends of the pipe and/or component, compresses the heated ends together, and holds the pipe in proper alignment in accordance with the qualified procedures.

(2) A socket heat-fusion joint equal to or less than 1¼-inches must be joined by a device that heats the mating surfaces of the pipe and/or component, uniformly and simultaneously, to establish the same temperature. The device used must be the same device specified in the operator's joining procedure for socket fusion. A socket heat-fusion joint may not be joined on a pipe and/or component greater than 1¼ inches.

(3) An electrofusion joint must be made utilizing the equipment and techniques prescribed by the fitting manufacturer, or utilizing equipment and techniques shown, by testing joints to the requirements of § 192.283(b) to be equivalent to or better than the requirements of the fitting manufacturer.

(4) Heat may not be applied with a torch or other open flame.

* * * * *

(e) * * *

(3) All mechanical fittings must meet a listed specification based upon the pipe material.

(4) All mechanical joints or fittings shall be Category 1 as defined by ASTM F1924, ASTM F1948, or ASTM F1973 (incorporated by reference, *see* § 192.7) for the applicable material, providing a seal plus resistance to a force on the pipe joint equal to or greater than that which will cause no less than 25% elongation of pipe, or the pipe fails outside the joint area if tested in accordance with the applicable standard.

■ 16. Section 192.283 is revised to read as follows:

§ 192.283 Plastic pipe: Qualifying joining procedures.

(a) *Heat fusion, solvent cement, and adhesive joints.* Before any written procedure established under § 192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests as applicable:

(1) The test requirements of—

(i) In the case of thermoplastic pipe, based upon the pipe material, the Sustained Pressure Test or the Minimum Hydrostatic Burst Test per the listed specification requirements. Additionally, for electrofusion joints, based upon the pipe material, the Tensile Strength Test or the Joint Integrity Test per the listed specification.

(ii) In the case of thermosetting plastic pipe, paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517 (incorporated by reference, *see* § 192.7).

(2) For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use.

(3) For procedures intended for non-lateral pipe connections, perform testing in accordance to a listed specification. If elongation of the test specimen of no more than 25% or failure initiates outside the joint area, the procedure qualifies for use.

(b) Mechanical joints. Before any written procedure established under § 192.273(b) is used for making mechanical plastic pipe joints, the procedure must be qualified in accordance with a listed specification, based upon the pipe material.

(c) A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints.

■ 17. In § 192.285, paragraph (b)(2)(i) is revised to read as follows:

§ 192.285 Plastic pipe: Qualifying persons to make joints.

* * * * *

(b) * * *

(2) * * *

(i) Tested under any one of the test methods listed under § 192.283(a) or the inspection and test set forth in accordance with ASTM F2620–12 (incorporated by reference, *see* § 192.7) applicable to the type of joint and material being tested;

* * * * *

■ 18. Section 192.311 is revised to read as follows:

§ 192.311 Repair of plastic pipelines.

(a) Each imperfection or damage that would impair the serviceability of plastic pipe must be repaired or removed.

(b) All scratches or gouges exceeding 10% of wall thickness of pipe and/or components shall be repaired or removed.

■ 19. In § 192.313, a new paragraph (d) added to read as follows:

§ 192.313 Bends and elbows.

* * * * *

(d) Plastic pipe may not be installed containing bends that exceed the maximum radius specified by the manufacturer for the diameter of the pipe being installed.

■ 20. In § 192.321, paragraphs (a), (d), (f), and (h)(3) are revised and paragraphs (i), (j), and (k) are added to read as follows:

§ 192.321 Installation of plastic pipelines.

(a) Plastic pipe must be installed below ground level except as provided by paragraphs (g), (h), and (j) of this section.

* * * * *

(d) Plastic pipe must have a minimum wall thickness of 0.090 inches (2.29 millimeters).

* * * * *

(f) Plastic pipe that is being encased must be inserted into the casing pipe in a manner that will protect the plastic. Plastic pipe that is being encased must be protected from damage at all entrance and all exit points of the casing. The leading end of the plastic must be closed before insertion.

* * * * *

(h) * * *

(3) Not allowed to exceed the pipe temperature limits specified in § 192.121.

(i) Backfill material must:

(1) Not contain materials that could be detrimental to the pipe, such as rocks of a size exceeding those established through sound engineering practices; and

(2) Be properly compacted underneath, along the sides, and for predetermined distance above the pipe.

(j) Plastic mains may terminate above ground level provided they comply with the following:

(1) The aboveground level part of the plastic main is protected against deterioration and external damage.

(2) The plastic main is not used to support external loads.

(3) Installations of risers at regulator stations must meet the design requirements of § 192.204.

(k) Tracking and Traceability. Each operator must maintain records for tracking and traceability information (as defined in § 192.3) for the life of the pipeline.

■ 21. Section 192.329 is added to read as follows:

§ 192.329 Installation of plastic pipelines by trenchless excavation.

Plastic pipelines installed by trenchless excavation must comply with the following:

(a) Each operator shall ensure that the path of the excavation will provide sufficient clearance for installation and maintenance activities from other underground utilities and/or structures.

(b) For each pipeline section, plastic pipe and/or components that are pulled through the ground must have a weak link, as defined by § 192.3, installed to ensure the pipeline will not be damaged

by any excessive forces during the pulling process.

■ 22. In § 192.367, paragraphs (b)(1) and (b)(2) are revised and paragraph (b)(3) is added to read as follows:

§ 192.367 Service lines: General requirements for connections to main piping.

* * * * *

(b) * * *

(1) Be designed and installed to effectively sustain the longitudinal pull-out or thrust forces caused by contraction or expansion of the piping, or by anticipated external or internal loading;

(2) If gaskets are used in connecting the service line to the main connection fitting, have gaskets that are compatible with the kind of gas in the system; and

(3) If used on pipelines comprised of plastic, be a Category 1 connection as defined by ASTM F1924, ASTM F1948, or ASTM F1973 (incorporated by reference, *see* § 192.7) for the applicable material, providing a seal plus resistance to a force on the pipe joint equal to or greater than that which will cause no less than 25% elongation of pipe, or the pipe fails outside the joint area if tested in accordance with the applicable standard.

■ 23. In § 192.375, paragraph (a)(2) is revised and paragraphs (c) and (d) are added to read as follows:

§ 192.375 Service lines: Plastic.

(a) * * *

(2) It may terminate above ground level and outside the building, if—

(i) The aboveground level part of the plastic service line is protected against deterioration and external damage;

(ii) The plastic service line is not used to support external loads; and

(iii) The riser portion of the service line meets the design requirements of § 192.204.

* * * * *

(c) Backfill material must:

(1) Not contain materials that could be detrimental to the pipe, such as rocks of a size exceeding those established through sound engineering practices; and

(2) Be properly compacted underneath, along the sides, and for predetermined distance above the pipe.

(d) Tracking and Traceability. Each operator must maintain records for tracking and traceability information (as defined in § 192.3) for the life of the pipeline.

■ 24. Section 192.376 is added to read as follows:

§ 192.376 Installation of plastic service lines by trenchless excavation.

Plastic service lines installed by trenchless excavation must comply with the following:

(a) Each operator shall ensure that the path of the excavation will provide sufficient clearance for installation and maintenance activities from other underground utilities and/or structures.

(b) For each pipeline section, plastic pipe and/or components that are pulled through the ground must have a weak link, as defined by § 192.3, installed to ensure the pipeline will not be damaged by any excessive forces during the pulling process.

■ 25. In § 192.455, paragraph (g) is added to read as follows:

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

* * * * *

(g) Electrically isolated metal alloy fittings in plastic pipelines under this section not meeting the criteria contained in paragraph (f) must be cathodically protected and monitored in accordance with this section and § 192.465(a).

■ 26. In § 192.513, paragraph (c) is revised to read as follows:

§ 192.513 Test requirements for plastic pipelines.

* * * * *

(c) The test pressure must be at least 150 percent of the maximum operating pressure or 50 p.s.i. (345 kPa) gage, whichever is greater. However, the maximum test pressure may not be more than 2.5 times the pressure determined under § 192.121 at a temperature not less than the pipe temperature during the test.

* * * * *

■ 27. Section 192.720 is added to read as follows:

§ 192.720 Distribution systems: Leak repair.

A leak repair clamp may not be used as a permanent repair method for plastic pipe.

■ 28. Section 192.756 is added to read as follows:

§ 192.756 Joining plastic pipe by heat fusion; equipment maintenance and calibration.

(a) Each operator must maintain equipment used in joining plastic pipe in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints.

(b) Each operator must calibrate and test all equipment used to join plastic pipe in accordance with paragraph (a) of this section. The calibration must be appropriate for the use of the equipment and/or is within the acceptable tolerance limit of that equipment as stated by the manufacturer.

(c) The term ''equipment,'' as specified in this section, includes, but is not limited to, fusion equipment, alignment equipment, facing and adaptor equipment, heater plates, and gauging devices.

(d) The operator must maintain records of these tests and calibrations (other than daily verifications and adjustments) for the life of the pipeline.

■ 29. In Appendix B to Part 192, the title of Appendix B and the list under ''I.'' is revised to read as follows:

Appendix B to Part 192—Qualification of Pipe and Components

I. List of Specifications

A. Listed Pipe Specifications

API 5L—Steel pipe, ''API Specification for Line Pipe'' (incorporated by reference, *see* § 192.7).

ASTM A53/A53M—Steel pipe, ''Standard Specification for Pipe, Steel Black and Hot-Dipped, Zinc-Coated, Welded and Seamless'' (incorporated by reference, *see* § 192.7).

ASTM A106—Steel pipe, ''Standard Specification for Seamless Carbon Steel Pipe for High Temperature Service'' (incorporated by reference, *see* § 192.7).

ASTM A333/A333M—Steel pipe, ''Standard Specification for Seamless and Welded Steel Pipe for Low Temperature Service'' (incorporated by reference, *see* § 192.7).

ASTM A381—Steel pipe, ''Standard Specification for Metal-Arc-Welded Steel Pipe for Use with High-Pressure Transmission Systems'' (incorporated by reference, *see* § 192.7).

ASTM A671—Steel pipe, ''Standard Specification for Electric-Fusion-Welded Pipe for Atmospheric and Lower Temperatures'' (incorporated by reference, *see* § 192.7).

ASTM A672—Steel pipe, ''Standard Specification for Electric-Fusion-Welded Steel Pipe for High-Pressure Service at Moderate Temperatures'' (incorporated by reference, *see* § 192.7).

ASTM A691—Steel pipe, ''Standard Specification for Carbon and Alloy Steel Pipe, Electric-Fusion-Welded for High Pressure Service at High Temperatures'' (incorporated by reference, *see* § 192.7).

ASTM D2513–12ae1, ''Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings'' (incorporated by reference, see § 192.7).

ASTM D2517—Thermosetting plastic pipe and tubing, ''Standard Specification for Reinforced Epoxy Resin Gas Pressure Pipe and Fittings'' (incorporated by reference, *see* § 192.7).

ASTM F2785–12, ''Standard Specification for Polyamide 12 Gas Pressure Pipe, Tubing, and Fittings'' (PA–12) (incorporated by reference, *see* § 192.7).

ASTM F2945–12a, ''Standard Specification for Polyamide 11 Gas Pressure Pipe, Tubing, and Fittings'' (PA–11) (incorporated by reference, *see* § 192.7).

B. Other Listed Specifications for Components

ASME/ANSI B16.40–08, ''Manually Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems'' (incorporated by reference, *see* § 192.7).

ASTM D2513–12ae1, ''Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings'' (incorporated by reference, see § 192.7).

ASTM D2517—Thermosetting plastic pipe and tubing, ''Standard Specification for Reinforced Epoxy Resin Gas Pressure Pipe and Fittings'' (incorporated by reference, *see* § 192.7).

ASTM F2785–12, ''Standard Specification for Polyamide 12 Gas Pressure Pipe, Tubing, and Fittings'' (PA–12) (incorporated by reference, *see* § 192.7).

ASTM F2945–12a, ''Standard Specification for Polyamide 11 Gas Pressure Pipe, Tubing, and Fittings'' (PA–11) (incorporated by reference, *see* § 192.7).

ASTM F1055–98 (2006), ''Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing'' (incorporated by reference, *see* § 192.7).

ASTM F1924–12, ''Standard Specification for Plastic Mechanical Fittings for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing'' (incorporated by reference, *see* § 192.7).

ASTM/ANSI F1948–12, ''Standard Specification for Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing'' (incorporated by reference, *see* § 192.7).

ASTM F1973–13, ''Standard Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA 11) and Polyamide 12 (PA 12) Fuel Gas Distribution Systems'' (incorporated by reference, *see* § 192.7).

ASTM/ANSI F2600–09, ''Standard Specification for Electrofusion Type Polyamide-11 Fittings for Outside Diameter Controlled Polyamide-11 Pipe and Tubing'' (incorporated by reference, *see* § 192.7).

ASTM/ANSI F2145–13, ''Standard Specification for Polyamide 11 (PA–11) and Polyamide 12 (PA–12) Mechanical Fittings for Use on Outside Diameter Controlled Polyamide 11 and Polyamide 12 Pipe and Tubing'' (incorporated by reference, *see* § 192.7).

ASTM F2767–12, ''Specification for Electrofusion Type Polyamide-12 Fittings for Outside Diameter Controlled Polyamide-12 Pipe and Tubing for Gas Distribution'' (incorporated by reference, *see* § 192.7).

ASTM F2817–10, ''Standard Specification for Poly (Vinyl Chloride) (PVC) Gas Pressure Pipe and Fittings for Maintenance or Repair'' (incorporated by reference, *see* § 192.7).

* * * * *

Issued in Washington, DC, on May 14, 2015, under authority delegated in 49 CFR 1.97.

Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety.

[FR Doc. 2015–12113 Filed 5–20–15; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 36

[Docket No. FWS–R7–NWRS–2014–0003: FF07R05000 145 FXRS12610700000]

RIN 1018–AX56

Refuge-Specific Regulations; Public Use; Kenai National Wildlife Refuge

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to amend our public use regulations for Kenai National Wildlife Refuge (Kenai NWR or Refuge) to clarify the existing regulations; implement management decisions from our June 2010 Kenai NWR revised comprehensive conservation plan (CCP); establish regulations for managing wildlife attractants, including food, refuse, and retained fish; and revise the regulations for hunting and trapping. The proposed regulations are aimed at enhancing natural resource protection, public use activities, and public safety on the Refuge; are necessary to ensure the compatibility of public use activities with the Refuge's purposes and the Refuge System's purposes; and would ensure consistency with management policies and approved Refuge management plans.

DATES: To ensure that we are able to consider your comments on this proposed rule, we must receive them on or before July 20, 2015. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by July 6, 2015.

ADDRESSES: You may submit comments on this proposed rule by one of the following methods:

(1) Electronically: Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* Search for FWS–R7–NWRS–2014–0003, which is the docket number for this rulemaking. You may submit a comment by clicking on ''Comment Now!'' Please ensure that you have found the correct rulemaking before submitting your comment.

(2) By hard copy: Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R7–NWRS–2014–0003, U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We will post all comments on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us. For additional information, see the Request for Comments and Public Availability of Comments sections, below.

FOR FURTHER INFORMATION CONTACT: Stephanie Brady, National Wildlife Refuge System, Alaska Regional Office, 1011 E. Tudor Rd., Mail Stop 211, Anchorage, AK 99503; telephone (907) 306–7448; fax (907) 786–3901.

SUPPLEMENTARY INFORMATION:

Background

Franklin D. Roosevelt established the Kenai National Moose Range (Moose Range) on December 16, 1941, for the purpose of ''protecting the natural breeding and feeding range of the giant Kenai moose on the Kenai Peninsula, Alaska, which in this area presents a unique wildlife feature and an unusual opportunity for the study in its natural environment of the practical management of a big game species that has considerable local economic value'' (Executive Order 8979; see 6 FR 6471, December 18, 1941).

Section 303(4) of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) (16 U.S.C. 3101 *et seq.*) substantially affected the Moose Range by modifying its boundaries and broadening its purposes from moose conservation to protection and conservation of a broad array of fish, wildlife, habitats, and other resources, and to providing educational and recreational opportunities. ANILCA also redesignated the Moose Range as the Kenai National Wildlife Refuge (NWR or Refuge) and increased the size of the Refuge to 1.92 million acres, of which approximately two-thirds are designated as wilderness.

ANILCA sets out purposes for each refuge in Alaska; the purposes of Kenai NWR are set forth in section 303(4) (B) of ANILCA. The purposes identify some of the reasons why Congress established the Refuge and set the management priorities for the Refuge. The purposes are as follows:

(1) To conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, moose, bears, mountain goats, Dall sheep, wolves and other furbearers, salmonoids and other fish, waterfowl and other migratory and nonmigratory birds;