

Comments on the Plastics Pipe Rule NPRM: 2/23/2016

Topic	Comment	Subtopic	Commenters	Comment
A. Tracking and Traceability	Drop Tracking and Traceability	None/other	American Gas Association; American Public Gas Association; Northeast Gas Association; Texas Pipeline Association; NORTON MCMURRAY MANUFACTURING COMPANY; National Grid; AGL Resources; Atmos Energy Corporation; CPS Energy; Questar Gas Company; National Fuel Gas Distribution Corporation; SoCalGas and SDG&E; Southwest Gas Corporation; NiSource Inc.;	The listed entities submitting comments suggesting that the plastic pipe tracking and traceability program be dropped from the proposal. Many operators echoed AGAs concern that a TTP would be economically significant and discussions of cost, benefits, and alternatives would slow the implementation of the other portions of the rule. Additionally, they maintained that TTP should be implemented as a separate rulemaking for all material and system types rather than piecemeal by material. Consistent regulation of all segments avoids regulatory uncertainty. AGA, APGA, National Fuel, NiSource, SoCalGas and SDGE, and SW Gas all proposed convening a working group to discuss options for moving forward with a separate, comprehensive tracking and traceability rule.
A. Tracking and Traceability	Tracking and Traceability: permanent	None/other	American Public Gas Association; Plastics Pipe Institute; NORTON MCMURRAY MANUFACTURING COMPANY; R.W. Lyall & Company, Inc.; Thomas M. Lael; National Fuel Gas Distribution Corporation; City Utilities; Texas Pipeline Association;	The listed entities submitted comments indicating that the markings should only have to remain visible until the time of installation. Truly "permanent" markings are not currently technically feasible, and the information is only needed at the time of installation, afterwards the information has been inputted into GIS or other data systems, the physical markings are no longer necessary. PPI notes that with current technology and practice, markings are designed to last for 3 years within an underground environment APGA believes this would be significantly burdensome to small public operators, and proposes 20 years after manufacture to be a reasonable timeframe.
A. Tracking and Traceability	Copy or Revise ASTM F2897	None/other	American Public Gas Association; Southwest Gas Corporation; Plastics Pipe Institute; Continental Industries;	APGA suggested that if PHMSA does move forward with T&T, that it only collect the data required by the 6 field tag prescribed by ASTM 2897, which allows identification of unsafe pipes within a system.

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			R.W. Lyall & Company, Inc.;	<p>T.W. Lyall, Continental industries concurred.</p> <p>PPI noted that this would require manufacturers to revamp their marking systems away from the standard, and would potentially require new barcoding systems.</p> <p>SW gas suggested that a T&T working group could also work to potentially revise ASTM F2897-11a</p>
A. Tracking and Traceability	Timeline	None/other	American Gas Association; Northeast Gas Association; National Fuel Gas Distribution Corporation; Plastics Pipe Institute; R.W. Lyall & Company, Inc.; City Utilities;	<p>AGA and the listed operators recommended phasing in whatever implementation of T&T is proposed.</p> <p>City utilities was not opposed to the recordkeeping of material data but requested a reasonable timeframe to create an implementation plan and budgets. They suggested 3 years was a reasonable timeframe for full compliance.</p>
A. Tracking and Traceability	Tracking and Traceability: Costs	None/other	National Grid; Southwest Gas Corporation;	<p>National grid estimates a cost of \$8.1m a year for 14,968 plastic pipe miles for an uncertain safety benefit. This includes the costs of scanning devices, software, training, licensing, and labor.</p> <p>SW Gas estimates \$10-\$20m startup costs with \$1-2m recurring costs</p>
A. Tracking and Traceability	Tracking and Traceability	None/other	City Utilities; DTE Gas Company;	<p>DTE notes that 192.321(k), 192.375(d), and the second sentence of 192.63(e)(3) should be removed as the applicable tracking and traceability phrases are already defined in 192.3</p> <p>City Utilities notes that 192.63 repeats language already in ASTM F2897, but implies that markings must be permanent for the life of the pipe. City Utilities generally advises against repeating language in industry consensus standards in the code.</p>
A. Tracking and Traceability	Support	None/other	National Association of Pipeline Safety Representatives; Palermo Plastics Pipe (P) Consulting;	NAPSR and Palermo Plastics Pipe Consulting expressed support for the proposed tracking and traceability measures.
A. Tracking	Tracking and	None/other	NORTON MCMURRAY	NORMAC believes PHMSA is violating the spirit of the

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and Traceability	Traceability: Other Comments		MANUFACTURING COMPANY;	National Technology Transfer and Advancement Act of 1995 by not adopting the latest standards in full, without edits, amendments or modifications. Thomas Lael requests clarifications about what is expected for "permanent markings", specifically if records of markings stored in an operator's records be sufficient. Reef Industries sells tracking wire to help with locates.
B. Design Factor for PE	PE Design Factor: Support	None/other	American Gas Association; American Public Gas Association; Plastics Pipe Institute; Northeast Gas Association; National Association of Pipeline Safety Representatives; National Fuel Gas Distribution Corporation; Texas Pipeline Association; Palermo Plastics Pipe (P) Consulting; Southwest Gas Corporation;	The vast majority of commenters supported this proposal, citing economic, social, and safety benefits. SW gas noted they can use the material MAOP information in their IM plans
B. Design Factor for PE	PE- Maximum diameter	None/other	American Gas Association; Plastics Pipe Institute; Northeast Gas Association; Evonik Industries; MidAmerican Energy Company; MidAmerican Energy Company;	The listed entities generally supported the proposal but were opposed to restricting the diameter of PE pipe beyond the 24" published in ASTM D2513-14. The commenters suggested permitting pipe up to 24" as provided in the standard. Evonik further requested that PHMSA expand the PE, PA-11 and PA-12 tables to include pipe sizes including and below 1" IPS. MidAmerican requested the inclusion of 1" CTS as a pipe size.
B. Design Factor for PE	PE Design Factor: Opposed	None/other	PVC Pipe Association;	The Vinyl Institute, representing PVC Pipe manufacturers strongly opposed the less conservative design factor in D2513 until more field experience is obtained on low strength, thin PE pipe.

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				In supporting documentation, the PVC Pipe Association hypothesizes that certain HDPE pipe grade compounds can be susceptible to microscopic crack propagation in high pressure water service, though admits that newer compounds may be more crack resistant.
B. Design Factor for PE	PE- Retroactive Applicability	None/other	American Gas Association; Texas Pipeline Association;	AGA and TPA requested that the proposal for increased design factor for PE pipe should be applied to existing pipe designed under ASTM D2513-08B as the requirements for those pipes have remained the same since that time. TPA also reference PE2708 or PE4710.
B. Design Factor for PE	PE- SDR vs DR	None/other	Iowa Utilities Board;	The Iowa Utilities Board believes that the wall thickness tables should use SDR rather than DR in the column heading to be consistent with the design formula. The PE and PA table should have a header indicating what material they apply to for ease of use.
B. Design Factor for PE	PE- Minimum Wall thickness	None/other	DTE Gas Company;	DTE gas opposes the proposed 0.9" minimum wall thickness for plastic pipe. PHMSA should retain the current minimum of 0.62" for PE pipe. Operators should be allowed to use the design formula in 192.121(a)
B. Design Factor for PE	PE-Maximum Pressure	None/other	Plastics Pipe Institute;	Design Factor PPI supports the merger of 192.121 and 192.123 and increased design factor. However there is no justification for limiting the maximum design pressure to neither 125 psig nor the size limitation of 12" diameter. PPI recommends allowing pressures up to the design capabilities and diameters included in ASTM D2513 (24" max diameter) see comment for revised language and tables.
C. Expanded use of PA11	PA11-Support	None/other	American Gas Association; American Public Gas	Nearly all commenters supported the proposed PA11 standards in general.

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			Association; Plastics Pipe Institute; Northeast Gas Association; National Association of Pipeline Safety Representatives; Texas Pipeline Association; Arkema; Palermo Plastics Pipe (P) Consulting;	
C. Expanded use of PA11	PA11- 3/4" pipe	None/other	American Gas Association; Northeast Gas Association; Arkema;	The listed entities support including 3/4" pipe to the PA-11 and the other tables.
C. Expanded use of PA11	PA-11- CTS	None/other	Iowa Utilities Board; MidAmerican Energy Company; MidAmerican Energy Company;	IUB noted that the rule references CTS pipe, but it is not present on the table. CTS values should be included or references to CTS should be removed from the text MidAmerican requested the inclusion of 1" CTS pipe for PE, PA11, and PA12
C. Expanded use of PA11	PA-11: Other Comments	None/other	Palermo Plastics Pipe (P) Consulting; Volgstadt & Associates, Inc.,;	Palermo Plastics Pipe Consulting and Volgstadt and Associates, two consulting firms, recommended permitting the use of PA32312 in addition to PA32316 under PA-11. Volgstadt noted that they can be used in low pressure, high temperature applications such as anodeless risers. Volgstadt further noted that since PA11 has an HDB listing at 180F, 192.121 should be revised to incorporate it
D. Incorporation of PA12	PA12-support	None/other	American Gas Association; American Public Gas Association; Northeast Gas Association; Plastics Pipe Institute; National Association of Pipeline Safety Representatives; Palermo Plastics Pipe (P) Consulting; Texas Pipeline Association;	The listed entities support the proposal
D.	PA-12 CTS	None/other	Iowa Utilities Board;	The Iowa Utilities Board noted that the narrative text refers to

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Incorporation of PA12			MidAmerican Energy Company; MidAmerican Energy Company;	<p>CTS sizes but the table only shows IPS. PHMSA should include pipe available in CTS dimensions or remove reference to CTS sizes</p> <p>MidAmerican believes the PE, PA-11, and PA-12 tables should list 1 inch CTS as a pipe size.</p>
D. Incorporation of PA12	PA-12, Small diameter pipe	None/other	American Gas Association; Northeast Gas Association;	AGA and NE Gas recommended including 3/4" diameter pipe using the same minimum wall thickness and DR value for PE Pipe (see table on page 7 of AGA Comment)
D. Incorporation of PA12	PA-12: Miscellaneous Comments	None/other	Evonik Industries; Continental Industries;	<p>Evonik: The language in the preamble of section D references to "allow a minimum wall thickness of at least 0.90 inches" which the operator believes is a typographical error. 0.090 would be consistent with the original petition and the proposed 192.121 tables.</p> <p>Continental Industries" Continental believes that A-12's material designation code, PA 42316 needs to be included in the proposed 192.121(e)</p>
E. Risers	Risers: Structural performance Standard	None/other	American Gas Association; Plastics Pipe Institute; Northeast Gas Association; Texas Pipeline Association; NORTON MCMURRAY MANUFACTURING COMPANY; R.W. Lyall & Company, Inc.; Volgstadt & Associates, Inc.; Avista Utilities;	A number of commentators opposed the prescriptive language concerning support requirements for risers I the proposed rule. Specifically comments focused on the requirement for a 3ft horizontal leg. The listed commentators all suggested either deleting the 3' horizontal leg requirement or some sort of performance standard. AGA, PPI, TPA, NORMAC, and R.W. Lyall proposed language requiring operators to ensure that risers are secure against lateral movement and from bearing external loads. Volgstadt and DTE supported deleting references to the horizontal base leg. Others supported a performance standard in general
E. Risers	Risers: Field Assembled Risers	None/other	Plastics Pipe Institute; Volgstadt & Associates, Inc.; R.W. Lyall & Company, Inc.; Continental Industries;	<p>Commenters noted that exclusive reference to ASTM F2509 will effectively prohibit the use of field assembled risers under ASTM F209 as ASTM F1973 is only for factory assembled Risers.</p> <p>PPI, Lyall, and Volgstadt, Continental Industries recommended</p>

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				<p>IBR of ASTM F2509 and revising 192.204(b) to reference a listed specification.</p> <p>NORMAC also recommended reference to F1948 since both standards share the same design qualification requirements.</p>
E. Risers	Risers-Support	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	American Gas Association; American Public Gas Association; National Association of Pipeline Safety Representatives; Northeast Gas Association; Palermo Plastics Pipe (P) Consulting;	AGA, APGA, NAPSRR, Northeast Gas Co, and Palermo Plastics Consulting supported GPTC's petition to allow the use of anode less plastic risers above ground level to the meter/regulator station.
E. Risers	Risers-Retroactive	None/other	American Gas Association;	AGA noted that this requirement should not be applicable to risers installed before the effective date
E. Risers	Risers - Metal Risers	None/other	MidAmerican Energy Company; MidAmerican Energy Company; Texas Pipeline Association; Iowa Utilities Board; Gas Processors Association;	A number of commenters noted that as written the proposed revisions could be interpreted to require that all risers be plastic, anodeless risers. The proposed rule should either address non-anodeless risers or the title of the section should be titled/explicitly only apply to anodeless risers.
E. Risers	Risers: Other Comments	None/other	Iowa Utilities Board; NORTON MCMURRAY MANUFACTURING COMPANY; NiSource Inc.;	<p>IUB requested clarification on whether plastic anodeless risers will be allowed on structures other than metering and regulating stations (i.e. pressure recording stations or other non-service line installations). IUB believes this scenario may be addressed if the riser is considered a main</p> <p>NORMAC: recommended deleting 192.204(b) as it is duplicative of the proposed 192.281(e) (4). If not ASTM F2509 should be added to allow field assembled risers.</p> <p>NiSource: The use of the word Rigid in the proposed 192.204. Specifically, rigid typically refers to "anodeless riser rigid riser casing" as defined in ASTM F1973. If this is the intent</p>

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				192.204(c) should be revised to require anodeless risers to have a rigid riser casing. Additionally 192.375(a)(2) should be revised to permit the use of anodeless flex riser casings.
F. Fittings	Fittings-Retroactive	None/other	American Gas Association; Northeast Gas Association; Texas Pipeline Association;	AGA, NEGA, and TPA suggested that the requirement for Category 1 fittings and cathodic protection should only be for newly installed fittings or those uncovered during maintenance. All three commented that a search and replace program would be very costly for little offsetting safety benefit.
F. Fittings	Fittings-Category 1 Availability	None/other	Texas Pipeline Association; NORTON MCMURRAY MANUFACTURING COMPANY; Continental Industries; GE-Dresser Pipeline Solutions; Gas Processors Association;	Though all commenters supported the idea of requiring category 1 fittings where available, a number of commenters noted that category 1 fittings are not available in the large diameters used in distribution service. TPA and GPA suggested clarifying the requirements to only apply to distribution lines. Norton McMurray and Continental industries noted that the justification for requiring category 1 fittings on high diameter lines is unsupported, and that Category 2 & 3 joints under D2513, F1924, F1948 or F1973 should be permitted. GE-Dresser proposed limiting the requirement for Category 1 fittings for lines under 4" and retain the requirements of 49 CFR 192.283(b) for larger systems.
F. Fittings	Fittings-Support	None/other	American Public Gas Association; Palermo Plastics Pipe (P) Consulting; National Association of Pipeline Safety Representatives;	NAPSR and Palermo Plastics Pipe Consulting approved of the revisions under this section, and Dr. Palermo noted that there is no reason for a gas operator to use anything but a Category 1 mechanical fitting. APGA supported the requirements to use specified fittings and the cathodic protection requirement for isolated metal fittings (though they opposed the monitoring requirement).
F. Fittings	Fittings:Cathodic Protection	None/other	American Public Gas Association;	Though APGA supported cathodic protection for isolated metal fittings, monitoring requirements would have significant costs as it would require a test station for each fitting.

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	Monitoring			Furthermore, APGA suggested that isolated metal fittings don't face the same corrosion risks since they are isolated by the plastic pipe and don't have significant variances in soil conditions that a long metal pipe system does.
F. Fittings	fittings-timing	None/other	American Gas Association; National Fuel Gas Distribution Corporation;	AGA and NFGDC recommend revisions to 192.455 requiring monitoring every 10 years rather than the proposed requirement to survey 10% of the system a year.
G. Plastic Pipe Installation	Trenchless excavation-"device"	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	American Gas Association; American Public Gas Association; Texas Pipeline Association; Gas Processors Association; Avista Utilities; DTE Gas Company; Southwest Gas Corporation;	A large volume of commenters were broadly supportive of the use of a weak link in trenchless excavations, but expressed concern that use of the word device could limit operators to commercially available devices. Some operators may use a piece of weaker pipe or internally designed device as a weak link.
G. Plastic Pipe Installation	Trenchless excavation-Support	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	DTE Gas Company; National Association of Pipeline Safety Representatives; Plastics Pipe Institute; American Gas Association; American Public Gas Association; Texas Pipeline Association; Avista Utilities; Southwest Gas Corporation;	DTE Gas Company and PPI supported the proposal as a general practice (the others listed supported the proposal but had other specific complaints)
G. Plastic Pipe Installation	Trenchless Excavation: Support	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	DTE Gas Company; Plastics Pipe Institute;	DTE Gas Company and the Plastics Pipe Institute supported the proposed revisions to trenchless installation practice. (Nearly all commenters broadly supported the proposal but these did so without other complaints or specific comments.)
G. Plastic Pipe	Trenchless Excavation:	G.1. - Installation	American Gas Association; Northeast Gas Association;	AGA suggested that these requirements should not apply to service lines below 1.25" IPS if an analysis of incidents shows

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Installation	Miscellaneous Comments	by Trenchless Excavation (192.3, 192.329 and 192.376)		that no relevant incidents have occurred (see comment for proposed language) NGA believes requiring weak link techniques is shortsighted. They recommend holding a workshop to determine what the best practices in trenchless excavation are.
G. Plastic Pipe Installation	Trenchless Excavation: Cross-Bore Incidents	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	American Gas Association; City Utilities; National Fuel Gas Distribution Corporation; Texas Pipeline Association; Gas Processors Association;	A number of operators had issue with PHMSA's proposed requirement that operators ensure that the area is clear of other underground structures. AGA, NFGDC, and TPA proposed that operators only be responsible for providing sufficient clearance from underground structures known at the time of installation. TPA commented that if the other underground structure owner does not respond to one call notification the plastic pipe operator has no means to assure appropriate clearance. GPA believed that the expectations in the rule were too vague, and should be dropped or PHMSA should provide a specific list of steps operators must do to ensure proper clearance. City Utilities believed it was sufficient that operators be required to have written procedures for mitigating and preventing cross-bore incidents.
G. Plastic Pipe Installation	Trenchless excavation-safety improvements	G.1. - Installation by Trenchless Excavation (192.3, 192.329 and 192.376)	National Association of Pipeline Safety Representatives; Mark H. Bruce;	NAPSR recommended that when installing pipe with trenchless installation, operators should be required to pull through an additional 10 feet beyond the exit of the ground. This segment should be inspected and the pipe installed must be replaced if damage exceeding 10% of the pipe wall thickness is discovered. A tracer wire should be required, but it may be installed on the existing steel pipe if its use on the plastic pipe is not feasible. Mark Bruce , an engineer associated with ASTM and trenchless technology associations, suggested alternative language for item

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				G.1. to require positive identification of other underground structures prior to trenchless installation. Specifically, he suggested requiring operators ensure that the path of excavation "has provided" sufficient clearance, rather than will provide. He notes that modern best practice such as CCTV and robotic CCTV can assure positive identification.
G. Plastic Pipe Installation	Joining Plastic Pipe-socket fittings	G.2. - Joining Plastic Pipe (192.281)	American Public Gas Association; City Utilities; National Association of Pipeline Safety Representatives; Plastics Pipe Institute; Texas Pipeline Association;	APGA and a number of operators strongly opposed the prohibition of socket fusion joints above a certain diameter. APGA noted that PHMSA has not provided a rationale for prohibiting socket fusion on any size of plastic pipe, and that the cost of butt fusion or electrofusion equipment is prohibitive for small operators. They proposed allowing socket fusion for plastic pipe of 4" diameter or less. PPI, TPA, NAPSAR, and City Utilities concurred.
G. Plastic Pipe Installation	Joining Plastic Pipe-F2620 Electrofusion	G.2. - Joining Plastic Pipe (192.281)	Volgstadt & Associates, Inc.,;	Volgstadt and Associates noted that ASTM F2620 is a standard practice for PE hot-plate butt, socket, and saddle fusion and therefore does not apply to electrofusion or PA-11. Volgstadt recommends either revising 192.281-c to replace plastic pipe with PE pipe, or alternatively revising ASTM F2620. Volgstadt recommends revision of the standard and notes that it would be straightforward to revise it to include PA-11 and electrofusion. 192.281-b-2 and 192.281(c)(3) need to be corrected as F2620 does not address electrofusion joining
G. Plastic Pipe Installation	Joining Procedures- Qualifying Joining Procedures	G.3. - Qualifying Joining Procedures (192.283)	American Gas Association; Plastics Pipe Institute; Texas Pipeline Association; National Fuel Gas Distribution Corporation;	AGA opposed requiring joining procedures to comply with ASTM F2620, which is primarily intended for saddle fusion joints on live pipes. Requiring ASTM F2620-12 would require re-qualifying a number of proven joining procedures, or eliminating those which differ from the standard, specifically in the use of different heater temperatures. This is similar to comments on G.2. (NFGDC concurs) PPI supports IBR of F2620-12 that PPI TR-33 and TR-41 are equally sound procedures

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				TPA requests allowing "continued use of existing qualified joining procedures"
G. Plastic Pipe Installation	Joining Plastic Pipe - Support	G.2. - Joining Plastic Pipe (192.281)	American Public Gas Association;	APGA Supports PHMSA's proposal to require heat-fusion joints to comply with ASTM F2620-12 and the proposed revisions to 192.281(d) requiring all mechanical joints and fittings be category 1 as defined in ASTM F1924, ASTM F1948 or ASTM F1973
G. Plastic Pipe Installation	Joining Plastic Pipe: Preassembled riser standards	G.2. - Joining Plastic Pipe (192.281)	NORTON MCMURRAY MANUFACTURING COMPANY;	NORMAC requests clarification as to whether the proposed 192.281(e) requires manufacturers of factory assembled anodeless risers must meet a listed specification as 192.271(b) states that the requirements do not apply to joints made during the manufacture of a product.
G. Plastic Pipe Installation	Joining Plastic Pipe- NORMAC Complaints	G.2. - Joining Plastic Pipe (192.281)	NORTON MCMURRAY MANUFACTURING COMPANY;	<p>NORMAC says that the regulations for qualifying joining procedures by operators must be separate from the qualification of designs for manufacturers' joint and fitting specifications. D2513 should not be applied to mechanical joint manufacturing regulations as it is a standard spec rather than a testing performance criterion.</p> <p>Section 192.281(e)(1) should be deleted as it is not written in performance language and is unnecessary as there is no evidence of plastic incompatibility. Additionally (e)(2) is duplicative of 192.281(e)(3).</p> <p>NORMAC strongly opposes PHMSA's statement that mechanical fittings/elastomers or joints can loosen or degrade over time. PHMSA must provide publically cited evidence that elastomer degradation has been a systemic problem, or retract unsupported statements on mechanical joints from the docket, retract ADB-08-02, and "instruct PHMSA staff to only make statements based on fact"</p>
G. Plastic Pipe	Joining Plastic Pipe-	G.2. - Joining Plastic Pipe	SoCalGas and SDG&E;	SoCal Gas and SDG&E notes that ASTM F2620-12 does not address a number of safety concerns which have been

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Installation	Qualification under 192.283	(192.281)		<p>incorporated into qualified heat fusion procedures. SOCAL gas believes PHMSA should continue to allow the use of qualified procedures currently permitted under the testing performance standard in 192.283. F2620 is less stringent than the current 192.283 and PHMSA has not provided justification for removing that option.</p> <p>The proposed 192.285 should use more general language which allows the option of relying on sound engineering requirements developed by an operator's own lab testing.</p>
G. Plastic Pipe Installation	Qualifying Joining Procedures - Support	G.3. - Qualifying Joining Procedures (192.283)	National Association of Pipeline Safety Representatives;	NAPSR supports these changes
G. Plastic Pipe Installation	Qualifying Joining Procedures - Lateral Forces	G.3. - Qualifying Joining Procedures (192.283)	GE-Dresser Pipeline Solutions;	GE-Dresser opposes the requirement that fittings or joints must be designed and tested to resist lateral forces large enough to cause the pipe to yield before the fitting. GE suggested that there are no expected significant lateral forces on plastic pipes and that there are not tests or qualifications for lateral forces. Rather, pipes are susceptible to longitudinal or tensile forces due to temperature variation.
G. Plastic Pipe Installation	Qualifying Joining Procedures- MFG Standards	G.3. - Qualifying Joining Procedures (192.283)	NORTON MCMURRAY MANUFACTURING COMPANY;	<p>The 3 listed specifications proposed for 192.281(e)(4) do not contain language for qualifying operator joining procedures, unlike 49 CFR 192.283.</p> <p>NORMAC recommends revision of 192.283 to separate the specification and testing requirements for manufacturers from the regulatory performance standards for operator procedures currently in the CFR</p>
G. Plastic Pipe Installation	Qualifying Joining Procedures - Editorial	G.8. - Equipment Maintenance; Plastic Pipe	Volgstadt & Associates, Inc.,;	Volgstadt recommends an editorial change to 192.283(a)(1)(I) to replace "Hydrostatic Burst Test" with "hydraulic Burst Test" to match the language used in F1055 and F2600. Both standards refer to "Hydraulic Burst Test"

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	change	Joining (192.756)		
G. Plastic Pipe Installation	Qualifying Persons to Make Joints-Support	G.4. - Qualifying Persons to Make Joints (192.285)	National Association of Pipeline Safety Representatives;	NAPSR supports these proposals
G. Plastic Pipe Installation	Qualifying Persons to Make Joints-Standards	G.4. - Qualifying Persons to Make Joints (192.285)	Arkema;	Arkema opposes the deletion of testing details form 192.285. F2620 is specific to PE only. The proposed 192.285 should instead reference F2620 for PE heat fusion joints included in the standard. Other joining qualification tests would be regulated under the existing 192.285 language.
G. Plastic Pipe Installation	Bends-Support	G.5. - Bends (192.313)	American Public Gas Association; National Association of Pipeline Safety Representatives;	APGA and NAPSR supported PHMS's proposed restrictions on bend specifications.
G. Plastic Pipe Installation	Bends-Minimum Typo	G.5. - Bends (192.313)	Plastics Pipe Institute; Gas Processors Association;	PPI and GPA noted a probable typo in 192.311(d). The commenters noted that PHMA most likely intended to prohibit bends less than the minimum radius specified by the manufacturer rather than maximum
G. Plastic Pipe Installation	Plastic Pipe Installation - Backfill	G.6. - Installation of Plastic Pipe (192.321)	American Gas Association; American Public Gas Association; Plastics Pipe Institute; Texas Pipeline Association; National Association of Pipeline Safety Representatives; National Fuel Gas Distribution Corporation;	<p>PHMSA received a number of comments critical of the proposed backfill requirements. Comments generally concur with AGAs critique that the phrase "properly compacted" inadvertently adds a prescriptive requirement which requires further clarification. AGA recommended simply requiring that lines be properly supported. The other commenters agreed unless otherwise noted below.</p> <p>PPI recommends PHMSA clarify requirements through the incorporation of the "PPI handbook for PE Pipe", Chapter 7 - "Underground Installation of PE Pipe"</p> <p>NAPSR proposed removing the "suck as rocks of a size exceeding those established through sound engineering practices"</p>

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				from 192.321(i)(1) SW gas questioned the need for this requirement as backfill requirements are typically prescribed and enforced by the agency that issues the construction permits. If this is added compaction and documentation requirements must be properly specified.
G. Plastic Pipe Installation	Installation of Plastic Pipe - Minimum Wall thickness	G.6. - Installation of Plastic Pipe (192.321)	American Public Gas Association; DTE Gas Company;	APGA took no position on the proposal to require a minimum wall thickness of 0.090" for plastic pipe in natural gas service but noted that it may be inconsistent with the proposed 192.121(b)(3) which establishes a minimum plastic pipe thickness of 0.062" and that one or the other must be changed. DTE gas strongly opposed any change from the current 0.062.
G. Plastic Pipe Installation	Installation of Plastic Pipe- Support	G.6. - Installation of Plastic Pipe (192.321)	American Public Gas Association;	APGA supported the proposed 192.321(f) & (j). These proposals required protecting encased plastic pipe from damage at casing entrance and exit points and allowed certain plastic mains to terminate above ground respectively.
G. Plastic Pipe Installation	Service Line connections- support	G.7. - Service Lines; General requirements for Connections to Main Piping (192.367)	National Association of Pipeline Safety Representatives;	NAPSR supports these proposals
G. Plastic Pipe Installation	Service Line connections- NORMAC	G.7. - Service Lines; General requirements for Connections to Main	NORTON MCMURRAY MANUFACTURING COMPANY;	NORMAC proposed deleting 192.367(b) and the proposed 192.367(b)(3). Assuming "connection" is synonymous with "joint" in this context, they are redundant with 192.81(e)(3) and 192.283(b) which address compression joints. The manufacturer further notes that gaskets are used beyond just connections to mains, and that performance standards for gaskets

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		Piping (192.367)		should be included in 49 CFR 192.273-general, while 192.367 should only address issues unique to main connections. See comment for alternative language.
G. Plastic Pipe Installation	Equipment Maintenance - records	G.8. - Equipment Maintenance; Plastic Pipe Joining (192.756)	American Gas Association; American Public Gas Association; Gas Processors Association; Avista Utilities; DTE Gas Company; Southwest Gas Corporation; Texas Pipeline Association;	PHMSA received a number of comments critical of certain recordkeeping requirements for equipment maintenance. The listed commenters generally viewed 192.756 as highly prescriptive, limiting, and burdensome. Comments generally requested less prescriptive and burdensome requirements. As proposed the commenters claim the language is not sensitive to the different maintenance and recordkeeping requirements recommended by equipment manufacturers.
G. Plastic Pipe Installation	Equipment Maintenance- Support	G.8. - Equipment Maintenance; Plastic Pipe Joining (192.756)	National Association of Pipeline Safety Representatives;	NAPSR supports these revisions
G. Plastic Pipe Installation	Equipment Maintenance - more stringent	G.8. - Equipment Maintenance; Plastic Pipe Joining (192.756)	Thomas M. Lael;	Thomas Lael supports the recordkeeping requirements, but suggests making certain requirements more stringent. Specifically he suggests requiring operators to have written procedures on equipment maintenance and recordkeeping. Even if they ultimately refer to manufacturer recommendations it forces the operator to put thought into the process. Additionally, he opposes the recordkeeping exception for daily verifications and adjustments. If a machine goes out of calibration the latest daily reading will be critical.
H. Repairs	Gouges - gouge depth cutoff	H.1. - Repair of Plastic Pipe - Gouges (192.311)	American Gas Association; American Public Gas Association; Texas Pipeline Association;	AGA APGA, and a TPA were critical of the 10% gouge depth threshold to require repair or replacement. AGA noted that 10% is an industry rule of thumb that is too stringent for a regulatory requirement and instead proposes 20% as initially recommended.

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H. Repairs	Gouges = electrofusion sleeve repair	H.1. - Repair of Plastic Pipe - Gouges (192.311)	American Gas Association; Northeast Gas Association;	AGA and Northeast Gas Association had concerns that as written 192.311(a) and (b) would prevent the use of electrofusion sleeves for plastic pipe repair.
H. Repairs	Gouges-Support	H.1. - Repair of Plastic Pipe - Gouges (192.311)	National Association of Pipeline Safety Representatives; Plastics Pipe Institute;	NAPSR supports the proposal PPI supports the 10% gouge standard but notes that research shows that 30% gouges were found to not have significant long term performance impacts, therefore operators should be allowed to use visual inspection to identify defects which must be repaired.
H. Repairs	Repair Clamps - Retroactive	H.2. - Leak Repair Clamps (192.720)	American Public Gas Association; American Gas Association; Northeast Gas Association; Texas Pipeline Association; Gas Processors Association; National Fuel Gas Distribution Corporation;	Commenters did not oppose the leak repair clamp proposals in general provided that the restrictions do not apply retroactively, as that would require a costly search and replace program. Commenters generally recommend restrictions on new clamps and replacement of previously installed clamps which are excavated during maintenance activity.
H. Repairs	Repair Clamps - Qualification of permanent clamps	H.2. - Leak Repair Clamps (192.720)	American Gas Association; National Fuel Gas Distribution Corporation;	AGA and NFGA proposed that PHMSA develop procedures for qualifying repair clamps for permanent use.
H. Repairs	Repair Clamps	H.2. - Leak Repair Clamps (192.720)	National Association of Pipeline Safety Representatives;	NAPSR supported the proposal
I. General Provisions	Plastic Pipe Material - Support	I.2. - Plastic Pipe Material (192.59)	American Public Gas Association; National Association of Pipeline Safety Representatives;	APGA and NAPSR support PHMSA's proposal to prohibit the installation of new PVC piping. NAPSR feels the exclusion of PVC pipe for new installations will increase pipeline safety.
I. General Provisions	Plastic Pipe Material -	I.2. - Plastic Pipe Material	PVC Pipe Association;	The PVC Pipe Association/ The Vinyl Institute, a trade group representing PVC pipe manufacturers, opposes PHMSA's

Topic	Comment	Subtopic	Commenters	Comment
	Opposition	(192.59)		proposal to prohibit new installations of PVC pipe. VI suggested that prohibiting PVC picks winners and losers and will restrict competition in the plastic piping sector which will stifle innovation and raise prices. VI proposes permitting PVC pipe in low diameter, SDR-11 applications.
I. General Provisions	Plastic Pipe Material - Use in selected applications	I.2. - Plastic Pipe Material (192.59)	NiSource Inc.;	NiSource recommends PHMSA not prohibit new PVC gas pipe. NiSource uses them effectively as regulator and vent piping. Prohibiting PVC pipe would reduce safety by requiring the use of metal pipe in these applications which introduces corrosion risk. NiSource proposes adopting ANSI/UL 651, Schedule 40 and 80 rigid PVC conduit and fittings, as permitted in NFPA 54
I. General Provisions	Storage and handling-support	I.3. - Plastic Pipe Storage and Handling (192.67)	National Association of Pipeline Safety Representatives; American Public Gas Association;	NAPSR supports the proposal. APGA supports safe storage requirements but seeks clarification from PHMSA as to whether a simple, generic storage and handling procedure provided by the pipe and component manufacturer, trade association, or other central source will satisfy the requirement.
I. General Provisions	Storage and Handling - request for information	I.3. - Plastic Pipe Storage and Handling (192.67)	American Gas Association;	Aga requests background information on PHMSA's addition of 192.67, which AGA believes is due to the adoption of ASTM D2513-09a
I. General Provisions	Gathering Lines-support	I.4. - Gathering Lines (192.9)	National Association of Pipeline Safety Representatives; DTE Gas Company;	NAPSR and DTE supports the proposed revisions
I. General Provisions	Gathering Lines - Organization	I.4. - Gathering Lines (192.9)	DTE Gas Company;	DTE suggests that PHMSA may have inadvertently removed an existing regulation (192.9(d)(7) - leakage survey. DTE suggests placing the new requirements for plastic pipe and components in a more logical order in 192.9(d) (maybe as a subsection of (d)(3) and appropriately number it). Additionally, PHMSA should restore the leakage survey requirements for type

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				B gathering lines found in 192.9(d)(7) see proposed language in the comment.
I. General Provisions	121-123 merger- HDB temperature	I.5. - Merger of Sections 192.121 and 192.123	Arkema; Palermo Plastics Pipe (P) Consulting;	Arkema and Palermo Plastics Pipe recommend including an HDB at 180 degrees. PA11 and other materials (PA12) have an HDB at that level, so it should be listed along with the other standard temperatures
I. General Provisions	121-123 merger - CTS	I.5. - Merger of Sections 192.121 and 192.123	Iowa Utilities Board;	IAUB recommends including 1" CTS to the tables proposed in 192.121 as that size is also commercially available.
I. General Provisions	Components - support	I.6. - General Design Requirements for Components (192.143)	National Association of Pipeline Safety Representatives;	NAPSR supports the proposal but suggests revising 192.143 to (c) Each plastic component of a pipeline must be able to withstand operating pressures and other anticipated loads in accordance with the listed specification for the plastic component being installed.
I. General Provisions	Components - EFVs	I.6. - General Design Requirements for Components (192.143)	NiSource Inc.; R.W. Lyall & Company, Inc.; Plastics Pipe Institute;	NiSource and RW Lyall are concerned that as written the proposal would require EFVs to meet a listed specification. PHMSA must either exempt EFVs from the requirements in 192.143 or PHMSA should IBR an EFV specification (i.e. ASTM F2138)
I. General Provisions	Valves - Retroactive	I.7. - General Design Requirements for Valves (192.145)	American Gas Association; Texas Pipeline Association;	AGA and TPA proposed to clarify that the language in 192.145(f) be revised to clarify that the requirements for new valves do not apply retroactively.
I. General Provisions	Valves - specific standard	I.7. - General Design Requirements for Valves (192.145)	National Association of Pipeline Safety Representatives;	NAPSR supports the proposal but suggests requiring valves to meet " the listed specification for the particular valve(s) being installed "
I. General	Fittings	I.8. - General	National Association of Pipeline	NAPSR supports the proposal but suggests revision to require

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Provisions	Standards - Support	Design Requirements for Standard Fittings (192.149)	Safety Representatives;	that the fitting meet the listed specification <i>for each specific type of fitting being installed</i>
I. General Provisions	Fittings Standards - Listed Specification	I.8. - General Design Requirements for Standard Fittings (192.149)	Volgstadt & Associates, Inc.,;	Assuming "must meet a listed specification" means listed in 192.7, PHMSA should incorporate D3261 for PE butt fusion fittings and D2683 for PE socket fusion fittings into 192.7. Additionally, Volgstadt requests clarification as to whether a non-listed specification listed in a listed specification is considered listed under 192.149
I. General Provisions	Test Requirements for Plastic Pipelines - Support	I.9. - Test Requirements for Plastic Pipelines (192.513)	Arkema; National Association of Pipeline Safety Representatives;	NAPSR and Arkema support the proposed changes
I. General Provisions	IBR - Up to Date Standards	I.1. - Incorporation by Reference (192.7)	Aaron Adamczyk; PVC Pipe Association; Arkema; Kerotest Manufacturing Corp; Plastics Pipe Institute;	A number of commenters suggested incorporating more recent editions of certain standards. Aaron Adamczyk provided a list of the most up to date versions of the standards IBR in the proposed rule. Arkema notes that There is an upcoming revision of D1948 which will include PA-11, as D2513 now only concerns PE pipe Volgstadt noted that he is currently revising the following standards B 16.40-XX to correct the reference to D2513, which is now a PE only specification ASTM F1948-XX: being revised to make non-mandatory pull out/ restraint requirements mandatory

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				<p>ASTM/ANSI F2600-09 (reapproved 2013): updated title</p> <p>ASTM F2620-XX: Volgstadt is offering to revise this standard to make it apply to PA-11 in addition to PE. IF acceptable, he will make the revisions and notify PHMSA when it has been issued.</p> <p>ASTM F2945-15: PHMSA should incorporate the latest version of this standard as the only revision was to add gas transmission application to the scope to make it consistent with the latest revision of ASTM D2513.</p>
I. General Provisions	IBR - Support	I.1. - Incorporation by Reference (192.7)	National Association of Pipeline Safety Representatives;	NAPSR supports the proposed incorporations and updates
I. General Provisions	IBR- Transmission Lines	I.1. - Incorporation by Reference (192.7)	Gas Processors Association; Texas Pipeline Association;	GPA and TPA argue that the standards incorporated by the rule are clearly intended for distribution systems, and that applying them to gas transmission and gathering lines are clearly inappropriate. The scope of these standards should be restricted to distribution lines, and PHMSA should pursue a separate rulemaking to incorporate the applicable standards for transmission and gathering lines.
I. General Provisions	IBR - Legal challenges	I.1. - Incorporation by Reference (192.7)	NORTON MCMURRAY MANUFACTURING COMPANY; Public Resource;	<p>National Tech Transfer and Advancement Act of 1995</p> <p>NORMAC suggested that SDO standards are best practices which should be preserved intact and incorporated in their entirety without modification or delay by PHMSA. Modification of standards or delaying incorporation of new editions violates the intent of the NTTAA. If PHMSA has an issue with as standard it should be presented to the SDC</p> <p>Public Resource</p> <p>Public Resources submitted a lengthy comment requesting PHMSA to recognize that it has acted illegally and arbitrarily at the NPRM stage by not making the sixteen standards- which are</p>

Topic	Comment	Subtopic	Commenters	Comment
				<p>integral to the proposed rule- available to the public for free, on the internet, on an unrestricted and permanent basis, just as the other provisions of the regulation are available.</p> <p>PR suggested that the rule violates FOIA, the Due Process Clause of the Constitution, and that a final rule issued without free standards would be equally invalid.</p>
I. General Provisions	IBR- retroactive	I.1. Incorporation by Reference (192.7)	Gas Processors Association;	GPA requested clarification that the standards in this rule do not apply retroactively
I. General Provisions	Public Comments	None/other	Gilberto Torres; Grace Huang;	<p>Gilberto Torres supported the proposal and believed the benefits to operators and the environment would justify the costs</p> <p>Ms. Grace Huang was generally supportive of the proposed changes, noting the use and availability of plastic pipe has improved with new best practices and materials.</p>