
# Pipeline Safety: Class Location Change Requirements

Gas Pipeline Advisory Committee

November 2023



# Rule Background
# Departmental and PHMSA Actions



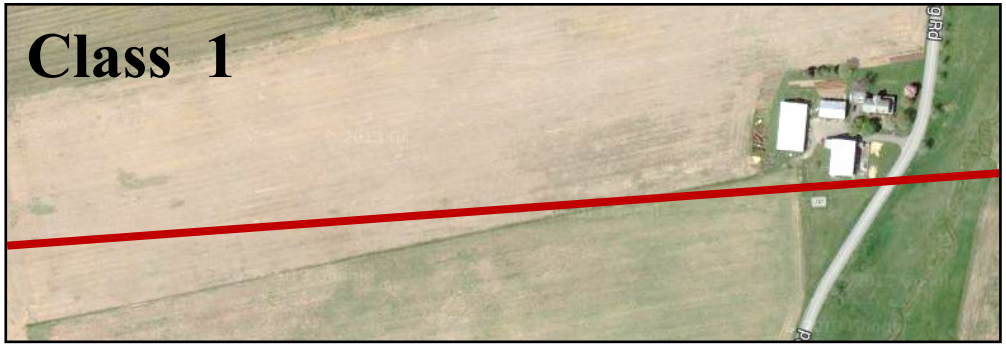
# Rule Background

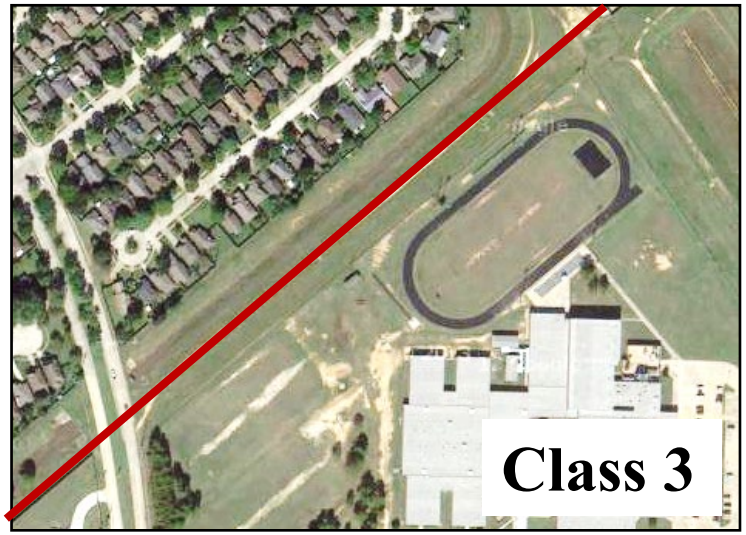
- 1970 - Federal pipeline safety regulations:
  - Incorporated class location definitions.
  - Provided safety margins and standards to protect surrounding population.
  - Based on American Society of Mechanical Engineers (ASME) B31.8, “Gas Transmission and Distribution Pipeline Systems.”



# Rule Background

## 192.5 - Class Locations





# Rule Background

- March 23, 1994 – Edison, NJ
  - Pipeline failure destroyed 8 buildings, and
  - 1500 residents were evacuated.
- August 19, 2000 – Carlsbad, NM
  - Pipeline failure killed 12 people.



# Rule Background

- June 6, 1996 – Clarified miscellaneous gas pipeline safety regulations:
  - "Regulatory Review; Gas Pipeline Safety Standards" (61 FR 28770)
  - Clarified class locations and allowed operators to limit exposure based on structure locations ("cluster rule")

- PHMSA did not propose any changes to these requirements in the NPRM.



# Rule Background

- December 17, 2002 – Congress signed into law:
  - The Pipeline Safety Improvement Act of 2002 (PSIA-2002).
  - Requested the Secretary of Transportation publish standards for integrity management (IM).
  - If no standards were published, operators would be required to implement the statutory requirements as stated.



# Rule Background

- December 15, 2003 – IM regulations issued:
  - "Pipeline Safety: High Consequence Area Identification Methods for Gas Transmission Pipelines" (68 FR 69778).
  - Required risk-based management of high-consequence areas (HCA).
  - Saved industry $6.2 billion compared to the PSIA-2002 statutory requirements.



# Rule Background

- Class change requirements at §192.611 require the reconfirmation of maximum allowable operating pressure (MAOP) after a class change by either pressure test, pressure reduction, or pipe replacement.
- Operators can apply for a special permit as detailed at § 190.341 to waive compliance with this requirement.
  - Issued class location special permits have saved industry hundreds of millions of dollars over the last 20 years.
  - Experience gained by PHMSA in issuing special permits lead to this NPRM codifying these waiver requirements.


# Rule Background

- April 23, 2004 – Class location public notice issued:
  - "Pipeline Safety: Development of Class Location Change Waiver Guidelines" (69 FR 22115)
  - Addressed common conditions for granting a class location change waiver/special permit
- June 29, 2004 – Class location public notice issued:
  - "Pipeline Safety: Development of Class Location Change Waiver Criteria" (69 FR 38948)
  - Illustrated specific requirements of an issued waiver/special permit

# Rule Background

- January 3, 2012 – Congressional mandate issued:
  - "Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011"
  - Required PHMSA evaluate if IM principles applied outside HCAs would mitigate the need for class location requirements

# Rule Background

- August 1, 2013 – Class Location notice of inquiry (NOI) issued
  - "Pipeline Safety: Class Location Requirements" (78 FR 46560) and Docket PHMSA-2013-0161 at www.regulations.gov
  - PHMSA communicated that eliminating the entire concept of class locations would **not** improve safety and could lead to unintended consequences



# Rule Background

- 2014 – PHMSA hosted two events:
  - February 25, 2014 – Combined Gas Pipeline Advisory Committee (GPAC) and Liquid Pipeline Advisory Committee (LPAC) meeting
  - April 16, 2014 – Public workshop
  - Each event was held to discuss the NOI responses regarding the potential elimination of class location requirements



# Rule Background

- April 2016 – Report to Congress issued
  - "Evaluation of Expanding Pipeline Integrity Management Beyond High-Consequence Areas and Whether Such Expansion Would Mitigate the Need for Gas Pipeline Class Location Requirements."
  - Concluded class locations requirements could not be eliminated.
  - While elimination was not an option, PHMSA planned to identify possible alternatives, specifically if SPs for class location waiver requests should be codified.



# Rule Background

- April 3, 2016 – IM notice of proposed rulemaking (NPRM) issued:
  - "Safety of Gas Transmission and Gathering Pipelines" (81 FR 20722).
  - Proposed expanding IM principles to pipe outside of HCAs.
  - Ultimately split into three rulemakings (RIN-1 (mandates), RIN-3 (gathering), and RIN-2 (repair criteria, corrosion control, everything else).

# Rule Background

- October 2, 2017 – Regulatory review issued:
  - "Notification of Regulatory Review" (82 FR 45750).
  - Requested comment on existing rules to be candidates for repeal, replacement, suspension, or modification.
  - AGA, API, and INGAA submitted a joint comment that the existing class location change requirements needed an alternative option for managing class changes beyond the existing methods.



# Rule Background

- July 31, 2018 – Class location advanced notice of proposed rulemaking (ANPRM) issued:
  - "Pipeline Safety: Class Location Change Requirements" (85 FR 36861).
  - Requested comment on existing rules to be candidates for repeal, replacement, suspension, or modification.



# Rule Background

- October 1, 2019 – First of the Gas Rules published:
  - "Pipeline Safety: Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments" (84 FR 52180).
  - Expanded IM periodic inspections to Class 3 & Class 4 segments with MAOP ≥ 30%, and piggable segments in the newly defined moderate-consequence areas (MCA).

# Rule Background

- Oct. 14, 2020 – Class location NPRM published:
  - "Pipeline Safety: Class Location Change Requirements" (85 FR 65142).
  - Proposed codifying key special permit criteria for Class 1 to Class 3 changes without the need for operators to apply for a special permit.



# Rule Background

- Since the NPRM was published, two rules have been codified:
  - Aug. 24, 2022 – Second of three Gas Rules (RIN-2) published:
    - "Pipeline Safety: Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments" (87 FR 52224)
  - Apr. 8, 2022 – Valve Final Rule published:
    - "Pipeline Safety: Requirement of Valve Installation and Minimum Rupture Detection Standards" (87 FR 20940)

# Rule Background

- These final rules included the following topics of interest for the Class Location proposal:
  - Discovery of condition for non-HCA pipeline segments.
  - Remediation criteria for both HCA and non-HCA pipeline segments.
  - Incorporated analysis procedures for dent anomalies.
  - Automation of valves.
- If the Class Location final rule is approved and published, PHMSA will ensure that conforming changes are made with these final rules for consistency.

# Special Permits

- Special permit general eligibility requirements for a pipeline segment:
  - No outstanding compliance issues with 49 CFR 192
  - No Class 4 locations
  - No history of significant integrity issues
  - No history of stress corrosion cracking (SCC)
  - Pipe segment can accommodate in-line inspection
  - Successful 125% MAOP pressure test for 8 hours


# Special Permits

- Special permit general conditions:
  - Implement subpart O requirements
  - Pipe segment material and pressure test records
  - Corrosion control requirements
  - Valve installation and operational requirements
  - Define the safety benefit to the special permit segment and areas outside the segment



# Special Permits

- Since 2001, PHMSA has reviewed over 100 special permit applications:
  - 58% have been approved to date.
  - 37 are currently in effect.
  - Cover pipe diameter ranging from 16 to 42 inches.
  - Located in 37 states.
  - To date, no leaks or failures have occurred in these segments.
  - Most are effectively managed and successfully renewed.
- Oak Ridge National Laboratory conducted a review of PHMSA's special permit review process and issued special permits. The final report is forthcoming.



# Summary of Proposed Rule



# Class Location Change Requirements

- **Issue:** Establish option for pipeline operators to use proposed § 192.618 for reconfirming MAOP for Class 1 to 3 segments without applying for a special permit.



# Class Location Change Requirements

- **PHMSA proposed to:** Add an IM-based MAOP reconfirmation of Class 1 to Class 3 segments by:
  - Establishing eligibility criteria the segment must meet;
  - Incorporating the eligible segment into subpart O regulations; and
  - In addition to subpart O requirements, establishing IM-based technical requirements including; ILI assessments, assessment timing, anomaly remediation, P&MMs focusing on corrosion and damage prevention, crack-specific requirements, and the addition of RCVs/ASVs.



# Class Location Change Requirements

- **Basis:** Over 15 years experience in the successful application of the special permit criteria and requirements published in:
  - "Pipeline Safety: Development of Class Location Change Waiver Criteria" (60 FR 38948; June 29, 2004).



# Scope, Applicability, and Notification Requirements

- When a segment changes from Class 1 to Class 3, PHMSA proposed a new MAOP reconfirmation method that uses IM practices without the need for pipe replacement. [§§ 192.611(a)(4) and 192.618]
- New terms defined: [§ 192.3]
  - ***Class 1 to Class 3 location segment*** *(Class 1 to 3 segment)*
  - ***In-line inspection segment*** *(ILI segment)*
  - ***Predicted failure pressure***
- An operator must notify PHMSA of intent to use the new method. [§§ 191.22 and 192.618(i)]



# Eligibility Criteria

- The ***Class 1 to 3 segment*** must meet the following eligibility requirements:
  - The class change must have occurred after the issuance of the final rule. [§ 192.618(a)(1)]
  - Must accommodate assessment by ILI. [§ 192.618(a)(2)]
  - The hoop stress must not exceed 72% of specified minimum yield strength (SMYS). [§ 192.618(a)(3)]



# Eligibility Criteria

- Pipeline segments with any of the following attributes **cannot** be a ***Class 1 to 3 segment***:
  - Bare pipe.
  - Pipe with wrinkle bends.
  - Pipe without traceable, verifiable, and complete (TVC) pipe records for diameter, wall thickness, grade, seam type, yield strength, and tensile strength.
  - Pipe that has been uprated in accordance with subpart K.
  - Pipe that has not been pressure tested in accordance with subpart J for 8 hours at 1.25 times MAOP.



# Eligibility Criteria

- Pipeline segments with any of the following attributes **cannot** be a ***Class 1 to 3 segment***:
  - Pipe with seam types associated with integrity issues:
    - Direct-current (DC) electric-resistance welded (ERW)
    - Low-frequency ERW (LF-ERW)
    - Electric flash-welded (EFW)
    - Lap-welded
    - Pipe with a longitudinal joint factor below 1.0
    - Unknown seam type

# Eligibility Criteria

- The pipe body, seam, or girth welds in or within 5 miles of the ***Class 1 to 3 segment*** may not have cracking that meets any of the following:
  - Greater than 20% of wall thickness,
  - Predicted failure pressure (PFP) less than 100% SMYS for Class 1 pipe (1.39 x MAOP),
  - PFP less than 1.50 x MAOP for Class 2 pipe,
  - has experienced a leak/rupture due to cracking, – OR –
  - cracking inspection/test indicates pipe could fail in brittle mode.



# Eligibility Criteria

- The pipe may not have tape wraps or shrink sleeves
- Poor external coating where, to achieve cathodic protection (CP) in accordance with § 192.463, the segment requires either:
  - A minimum negative cathodic polarization voltage shift of 100 millivolts – OR –
  - Linear anodes to maintain CP levels due to poor coating.
    - (Linear anodes for grounding when the pipeline is adjacent to high-voltage power lines are acceptable.)

# Eligibility Criteria

- Pipe that transports gas with quality not suitable for sale to distribution customers.
- Grandfathered pipe operating in accordance with § 192.619(c) or (d).
- *Class 1 to 3 segment*, *ILI segment*, or a portion of either has been previously denied a SP.



# Technical Requirements - Assessments

- The operator must reconfirm an eligible ***Class 1 to 3 segment*** MAOP by the following:
  - Incorporate the segment into the operator's subpart O IM program. Conforming changes were proposed to § 192.903 to define *Class 1 to 3 segment* as an HCA. [§ 192.618(a)]
  - Assess using ILI at prescribed intervals with tool validation and a 180-day maximum discovery of condition. [§ 192.618(b)]
  - Perform specific cracking inspections. [§§ 192.618(d) & (e)]



# Technical Requirements - Remediation

- In addition to subpart O requirements, the operator must:
  - Grade anomalies using specified PFP calculations.
  - Perform remediation for both the ***Class 1 to 3 segment*** **and** ***ILI segment***. [§§ 192.618(c), 192.3, 192.712]

# Technical Requirements – P&MM and Valve Requirements

- In addition to subpart O requirements, the operator must:
  - Implement prescribed P&MMs activities for corrosion and damage prevention (DP). [§ 192.618(f)]
  - Install required remote-control valves (RCV) or automatic-shutoff valves (ASV) on each side of the ***Class 1 to 3 segment***. [§ 192.618(g)]
  - Maintain documentation of activities performed for the life of the pipe. [§ 192.618(h)]



# NPRM Comment Summary

- PHMSA issued NPRM on October 14, 2020.
- Comment period ended December 14, 2020.
- PHMSA received 13 comment submissions for the NPRM from a diverse group of stakeholders:
  - **Public Advocacy Groups:** Pipeline Safety Trust (PST), Accufacts, Inc.
  - **Government**: National Transportation Safety Board (NTSB), National Association of Pipeline Safety Representatives (NAPSR)
  - **Industry/Operator:** TC Energy, Sander Resources, Paiute Pipeline Company, Southwest Gas Corporation, NiSource Inc.
  - **Industry Trades:** American Gas Association (AGA), American Petroleum Institute (API), American Public Gas Association (APGA), GPA Midstream Association, Interstate Natural Gas Association of America (INGAA), NACE International Institute, Gas Piping Technology Committee (GPTC)
  - **Other Commenters:** Citizen comments from 6 individuals

# Agenda

1. Scope, Applicability, and Notification Requirements
2. Eligibility Criteria
3. Technical Requirements - Assessments
4. Technical Requirements - Remediation
5. Technical Requirements - P&MM and Valve Requirements
6. Meeting Report



# Topic for Discussion

# 1. Scope, Applicability, and Notification Requirements



# IM option for MAOP reconfirmation § 192.611(a)(4)

- **NPRM Comments:**
  - Accufacts supported the proposed option with the additional prescriptive requirements beyond current IM, asserting that the additional requirements are important because industry tends to "rely on and overstate ILI capabilities without prudent field verification."
  - NAPSR members were divided in their support. Members that supported the proposal did so if all proposed requirements were accepted.
  - A private citizen supported this proposal that "offers solutions and incentives to improve" pipeline systems.



# IM option for MAOP reconfirmation § 192.611(a)(4)

- **NPRM Comments:**
  - AGA, API, APGA, GPA Midstream Association, INGAA, and NACE, in a combined submission (Associations), supported codifying the IM option given the special permit process is not an appropriate industry-wide or long-term solution. They stated that the IM option will improve safety, is more cost effective, will reduce emissions, and reduce community/consumer impacts.
  - Another private citizen also noted benefits to consumers, as pressure reductions in response to class location changes could result in less reliable gas distribution.

# IM option for MAOP reconfirmation § 192.611(a)(4)

- **NPRM Comments:**
  - PST and some NAPSR members that were against the option were not convinced this rule is necessary given the existing options for operators to manage class changes.
  - NAPSR also asserted that design requirements from the class location rules are being replaced by IM, which industry has not reliably and consistently implemented.
  - PST also noted there is ample evidence of poor IM implementation, such as the Marshall, MI accident. If PHMSA adopts this proposed rule, public safety would be sacrificed.

# IM option for MAOP reconfirmation § 192.611(a)(4)

- **NPRM Comments:**
  - NTSB is concerned that the additional monitoring and remediation required by the NPRM, while beneficial, may be less effective than the current class change requirements due to the small special permit data set.
  - NTSB commented that the NPRM is applicable to only a small subset of the pipeline system and does not fully satisfy Safety Recommendation P-11-11 (require ASV/RCV at all HCAs and Class 3 and 4 locations).
  - NTSB also urged PHMSA to consider how to provide the same level of scrutiny as a special permit on the larger scale impacted by this regulation.

# IM option for MAOP reconfirmation § 192.611(a)(4)

- **NPRM Comments:**
  - Sanders Resources urged PHMSA to postpone this rulemaking until the other regulations that are currently further along in the regulatory process that would impact this rulemaking are completed.
  - Sanders Resources requested clarification that an operator with a pipe segment that does not meet the eligibility requirements of this proposal may still use the special permit process.
  - Sanders Resources commented that many of the proposed requirements appear to duplicate those already in code and would like these duplicative requirements removed.

# IM option for MAOP reconfirmation § 192.611(a)(4)

- **PHMSA Response:**
  - The effect of the rule does not change the current practice but instead streamlines the administrative process. It would allow eligible pipeline operators to implement accepted activities without the need to apply for a SP.
  - This proposed rule would only allow pipeline segments with modern steel pipe, constructed and operated in accordance with modern part 192 requirements, and with proven integrity to be applicable.
  - Experience with SPs issued to date and the inclusion of additional eligibility criteria give PHMSA confidence that pipelines operating within the parameters of this proposal do not need to be subject to the special permit review process.

# IM option for MAOP reconfirmation § 192.611(a)(4)

- **PHMSA Response:**
  - Operators may continue to apply for a special permit (subject to PHMSA review and approval) for pipeline segments that do not meet the eligibility parameters of this proposal.
  - PHMSA intended to incorporate new requirements in the proposed § 192.618 in addition to what is required in subpart O. PHMSA will review the regulatory text and remove duplicative language, if necessary.

# Definitions - § 192.3

- **NPRM Comments:**
  - The Associations and industry representatives requested clarification that the ***Class 1 to 3 segment*** could be a segment that has stepped from Class 1 to Class 2 to Class 3 and is not limited to a jump from Class 1 to Class 3.
- **PHMSA Response:**
  - PHMSA intends for the definition to include Class 1 (or higher) design pipe with a 1.25 x MAOP pressure test in a Class 3 location regardless of how the class change occurred. PHMSA will look to clarify this in the final rule.


# Definitions - § 192.3

- **NPRM Comments:**
  - The Associations and industry representatives also suggested that this should include Class 2 to Class 3 changes with a 1.25 x MAOP pressure test (without the required 1.5 x MAOP pressure test).
- **PHMSA Response:**
  - PHMSA specifically requests Committee recommendations on allowing Class 2 design pipe with at least a 1.25 x MAOP pressure test to be incorporated in the definition.
  - PHMSA notes for the Committee that Class 2 design pipe is stronger than Class 1 design pipe. Under current code, Class 2 design pipe would be allowed to use a one-class jump if a 1.5 x MAOP pressure test was conducted.
  - PHMSA also notes that special permits have been issued that cover this scenario.


# Definitions - § 192.3

- **NPRM Comments:**
  - Multiple commenters expressed concern that the term ***In-line inspection segment*** is already used by many operators to describe a segment that may or may not contain a ***Class 1 to 3 segment***, and PHMSA should not be limiting them to that definition.
  - The Associations suggested changing the term ***Class 1 to Class 3 location segment*** to ***Class 3 location change segment***.
- **PHMSA Response:**
  - While ILI segment is not used in the pipeline safety regulations outside of proposed § 192.618, PHMSA understands the potential for confusion. PHMSA will take these suggestions into consideration for potential clarification in the final rule.



# Predicted Failure Pressure - § 192.3

- **NPRM Comments:**
  - NAPSR and GPTC recommended that PHMSA consider adding to the predicted failure pressure definition the phrase "as determined by the procedures in ASME/ANSI B31G or RSTRENG PRCI PR-3-805 (as incorporated by reference in §192.7)", as this would provide the same limitations as currently found in §§ 192.485 and 192.933(a).
- **PHMSA Response:**
  - PHMSA will consider this when drafting the final rule.



# Notification Requirements - § 192.618(i)

- **NPRM Comments:**
  - NAPSR and PST supported the proposed requirement for operators to notify PHMSA if implementing the IM option.
  - PST and Accufacts also stressed the importance that the public is made aware of pipeline segments using the rule provisions, given the current special permit process has a public comment period prior to approval.
  - PST suggested the use of a Safety Related Condition Report for these segments at least a decade after the rule goes into effect.

# Notification Requirements - § 192.618(i)

- **PHMSA Response:**
  - PHMSA specifically requests the Committee recommendations on a public notification process for this proposal.
  - PHMSA notes for the Committee that implementing the proposed IM activities does not compromise public safety, so a Safety Related Condition notification would likely not be appropriate.



# Notification Requirements - § 192.618(i)

- **NPRM Comments:**
  - Multiple commenters requested that PHMSA consider consolidating the multiple notification requirements that appear throughout § 192.618 into a single location.
- **PHMSA Response:**
  - PHMSA will review the notification requirements of § 192.618 and will clarify in the final rule, if needed.

# 1. Scope, Applicability, and Notifications

This concludes PHMSA's initial response to the comments received on the scope, applicability, and notification requirements of the proposed rule.



# 1. Scope, Applicability, and Notifications

PHMSA requests the Committee recommendations on the Scope, Applicability, and Notifications requirements of the:

- Proposed rule as published in the Federal Register and
  - Draft Regulatory Evaluation and Environmental Assessment
- Specific topics raised by commenters we are requesting Committee recommendations for are:
  - Eligibility of Class 2 design pipe with a minimum pressure test of 1.25 x MAOP that meets 192.517(a).
  - Incorporation of a public notification for implementation of this reconfirmation option.



# 1. Scope, Applicability, and Notifications

Public Comments



# 1. Scope, Applicability, and Notifications

GPAC Discussion



# 1. Scope, Applicability, and Notifications

## Committee Voting Slides

The proposed rule, as published in the Federal Register, and the Draft Regulatory Evaluation, with regard to scope, applicability, and notifications for the proposed MAOP reconfirmation option, is technically feasible, reasonable, cost-effective, and practicable.



# Topic for Discussion

# 2. Eligibility Criteria
§ 192.618(a)(1) – (4)



# Eligibility Criteria - § 192.618(a)

- **NPRM Comments:**
  - Sanders Resources requested clarification regarding the statement that "If the following are met:" when referring to incorporating the new HCA into the operator's IM program. They stated that this implies that you could have an HCA in your integrity management program that you do not have to assess. They recommend clarifying whether PHMSA intends to have operators keep two separate criteria because of the differences.
- **PHMSA Response:**
  - PHMSA intended for the eligibility criteria § 192.618 to preclude the use of § 192.611(a)(4) to reconfirm or revise the MAOP. PHMSA will look to clarify this in the final rule.

# Class Change Date - § 192.618(a)(i)

- **NPRM Comments:**
  - The Associations commented that the NPRM requires the class study in accordance with § 192.609 but gives a required frequency of once every calendar year not to exceed 15 months, which is inconsistent with § 192.609. They asserted that the proposed ILI assessment frequency would preclude the need for yearly class studies.
- **PHMSA Response:**
  - A time requirement is not specified in § 192.609 but should be required to implement the IM option for the ***Class 1 to 3 segment***. The intent of this requirement is to ensure new Class 3 segments are identified promptly.

# Class Change Date - § 192.618(a)(i)

- **NPRM Comments:**
  - The Associations requested that existing special permits should be incorporated under this option, and previous special permits could be withdrawn.
- **PHMSA Response:**
  - PHMSA does not intend to allow operators that have segments currently being managed by an active special permit to use the proposed MAOP reconfirmation option.

# Class Change Date - § 192.618(a)(i)

- **NPRM Comments:**
  - The Associations commented that, if a previous pressure reduction was taken prior to the effective date of the final rule, then an operator should be able to restore MAOP using § 192.611(a)(4).
  - PST supported not allowing operators that have taken a pressure reduction before the effective date of this rule to later switch to take advantage of the proposal and agrees with the proposed limitation.
- **PHMSA Response:**
  - PHMSA intends only for class changes that have occurred after the effective date of the final rule to be eligible for the § 192.618 MAOP reconfirmation option.

# Class Change Date - § 192.618(a)(i)

- **NPRM Comments:**
  - The Associations expressed concern that the requirements for restoring MAOP in § 192.611(b) and § 192.618(a)(4)(iv) are unclear and recommend that restoring MAOP should not be limited to only within 24 months of the class change.
- **PHMSA Response:**
  - PHMSA did not intend for an operator to restore MAOP after a pressure reduction has occurred, unless that pressure reduction was taken and then the new MAOP reconfirmation option was implemented within 24 months of the class change. PHMSA will look to clarify this in the final rule.

# Class Change Date - § 192.618(a)(i)

- **NPRM Comments:**
  - TC Energy suggested that class changes occurring up to 24 months prior to the effective date of the final rule should be eligible for the IM approach.
  - PST disagreed, stating the proposed rule should be limited to segments that have a class change following the effective date of the final rule.
- **PHMSA Response:**
  - PHMSA intends only for class changes that have occurred after the effective date of the final rule to be eligible for the § 192.618 MAOP reconfirmation option.


# Eligibility Pipe Specifications - § 192.618(a)(4)

- **NPRM Comments:**
  - NTSB agreed with a majority of the criteria proposed and that the criteria "concur with the NTSB's historical knowledge of higher risk pipelines."
  - PST supported the proposed rule not allowing operators to self-identify eligible segments.
  - Accufacts expressed similar support, indicating that the list of pipelines excluded from the IM option is technically sound and valid.

# Eligibility - Wrinkle Bends - § 192.618(a)(4)(ii)

- **NPRM Comments:**
  - The Associations and TC Energy recommended excluding only segments containing wrinkle bends in the presence of geohazard threats. A broad exclusion of all segments with wrinkle bends would significantly limit the application and benefits of the IM option with little safety benefit.
- **PHMSA Response:**
  - Due to PHMSA's extensive experience with special permits regarding this issue, at present, PHMSA's position is that reconfirmation of MAOP using IM under § 192.618 is not appropriate for pipe with wrinkle bends.
  - Operators may apply for a special permit (subject to PHMSA review and approval) to allow for additional technical review.



# Eligibility – TVC Records – § 192.618(a)(4)(iii)

- **NPRM Comments:**
  - The Associations recommended that pipelines without TVC tensile strength records should be eligible due to tensile strength not being required for anomaly evaluation or MAOP calculations.
  - The Associations also mentioned that operators should be allowed to verify missing pipe properties through the use of § 192.607 rather than be ineligible to use the IM option.
- **PHMSA Response:**
  - PHMSA requests Committee feedback on the use of § 192.607 to verify missing pipe properties for the purpose of complying with § 192.618.
  - PHMSA notes that tensile strength is an attribute that is important to ensure pipeline integrity.



# Eligibility – Subpart J Pressure Test § 192.618(a)(4)(iv) and (v)

- **NPRM Comments:**
  - The Associations generally supported this requirement but recommended addressing scenarios where an 8-hour test is not required for subpart J compliance. For example, under § 192.505(d), fabricated units and short sections of pipe may be tested for 4 hours.
- **PHMSA Response:**
  - PHMSA requests Committee feedback on allowing subpart J pressure tests at less than 8 hours in duration.



# Eligibility – Seam Type – § 192.618(a)(4)(vi)

- **NPRM Comments:**
  - The Associations and TC Energy opposed the exclusion of segments that have vintage seam types, recommending EFW and LF-ERW, two of the most prevalent vintage seam types, be eligible with appropriate fitness testing.
  - Accufacts expressed that assessments and repairs alone are not sufficient to demonstrate the eligibility and fitness-for-service of pipe manufactured to Class 1 location standards for use in Class 3 locations.


# Eligibility – Seam Type – § 192.618(a)(4)(vi)

- **PHMSA Initial Response:**
  - Due to PHMSA's extensive experience with special permits regarding this issue, PHMSA determined that reconfirmation of MAOP using IM under § 192.618 is not appropriate for pipe with the following seam types:
    - Direct-current electric-resistance welded (DC-ERW)
    - Low-frequency electric-resistance welded (LF-ERW)
    - Electric flash-welded (EFW)
    - Lap-welded
    - Pipe with a longitudinal joint factor below 1.0
    - Unknown pipe seam type
  - Operators may apply for a special permit (subject to PHMSA review and approval) to allow for additional technical review.

# Eligibility – Cracking – § 192.618(a)(4)(vii)

- **NPRM Comments:**
  - The Associations opposed applying the cracking eligibility requirement 5 miles upstream and downstream of the class change segment.
  - NTSB requested PHMSA analyze the 5-mile limit on the cracking eligibility criteria and determine if this distance is sufficient or should be extended.
- **PHMSA Initial Response:**
  - PHMSA requests Committee feedback on if the 5-mile distance is appropriate or if another distance should be prescribed.
  - Note that in PHMSA's experience, pipe cracking is not an isolated defect, and if found in surrounding pipe, cracking is likely to be found in the ***Class 1 to 3 segment***.



# Eligibility – Tape Wrap or Shrink Sleeves § 192.618(a)(4)(viii)

- **NPRM Comments:**
  - The Associations recommended that segments with tape coating or shrink sleeves should be ineligible only in instances where the operator has experienced a history of disbondment or shielding.
- **PHMSA Response:**
  - Due to PHMSA's extensive experience with special permits regarding this issue, at present, PHMSA's position is that reconfirmation of MAOP using IM under § 192.618 is not appropriate for pipe with tape wrap or shrink sleeves.
  - Operators may apply for a special permit (subject to PHMSA review and approval) to allow additional technical review.

# Eligibility – Linear Anodes or -100 mv Shift § 192.618(a)(4)(viii)

- **NPRM Comments:**
  - The Associations stated that these "methods are code compliant and effective" and should not be a basis for ineligibility. They recommend that PHMSA base eligibility on the existing performance standard in § 192.457.
- **PHMSA Response:**
  - PHMSA requests Committee feedback regarding this comment.
  - PHMSA notes that linear anodes can be used in instances not associated with coating deficiencies. In these situations, the linear anodes should be able to be disconnected to allow the operator to conduct appropriate CP surveys.

# Eligibility – Grandfathered Pipe § 192.618(a)(4)(x)

- **NPRM Comments:**
  - TC Energy recommended that some segments that are currently operating under § 192.619(c) should not automatically be excluded from the integrity management approach. They added that, since subpart J did not exist for pipelines until after November 12, 1970 (or initially readied for service after March 12, 1971), this could exclude any pipeline not changed or readied for service after these dates from being eligible.

# Eligibility – Grandfathered Pipe § 192.618(a)(4)(x)

- **PHMSA Response:**
  - Due to PHMSA's extensive experience with special permits regarding this issue, PHMSA's position is that reconfirmation of MAOP using IM under § 192.618 is not appropriate for pipeline segments operating under § 192.619(c) - grandfathered pipe. Approval for impacted segments may be obtained through additional technical review using the special permit process.

# Eligibility – Previously Denied SP § 192.618(a)(4)(x)

- **NPRM Comments:**
  - The Associations and TC Energy asserted that a pipe segment should not be ineligible just because the ILI segment contained a section that had been denied a special permit in the past.
- **PHMSA Response:**
  - PHMSA believes reconfirmation of MAOP using IM under § 192.618 is not appropriate for segments where a special permit has been denied in the past, regardless of the location of the segment. Approval for impacted segments may be obtained through additional technical review using the special permit process.

# Eligibility – Suggested Addition

- **NPRM Comments:**
  - PST commented that PHMSA should consider removing an operator from eligibility if that operator has a significant incident that would not have occurred with an effective IM program.
- **PHMSA Response:**
  - Due to § 192.618 relying on effective implementation of IM concepts, PHMSA acknowledges the concern addressed in this comment, and seeks input from the Committee.



# Eligibility – Suggested Addition

- **NPRM Comments:**
  - NTSB requested PHMSA consider excluding pipe segments with known history of movement from eligibility, as geohazard threats "pose a significant risk to the integrity" of the pipeline.
- **PHMSA Initial Response:**
  - PHMSA acknowledges the concern addressed in this comment and seeks input from the Committee as to whether it should be implemented.

# 2. Eligibility Criteria - § 192.618(a)

This concludes PHMSA's initial response to the comments received on the eligibility criteria of the proposed rule.



# 2. Eligibility Criteria - § 192.618(a)

PHMSA requests the Committee recommendations on the Eligibility Criteria requirements of the:

- Proposed rule as published in the Federal Register and
  - Draft Regulatory Evaluation and Environmental Assessment



# 2. Eligibility Criteria - § 192.618(a)

- Specific topics raised by commenters we are requesting Committee recommendations are:
  1) Missing pipe properties obtained through the use of § 192.607
  2) Pressure tests to subpart J requirements at less than 8 hours in duration
  3) If the 5-mile distance surrounding the *Class 1 to 3 segment* is appropriate for cracking susceptibility
  4) Use of linear anodes that can be disconnected to facilitate cathodic protection surveys
  5) Operator removal from eligibility should any of their assets experience a significant incident
  6) Implementing geohazards as an eligibility criterion

# 2. Eligibility Criteria - § 192.618(a)

Public Comments



# 2. Eligibility Criteria - § 192.618(a)

GPAC Discussion



# 2. Eligibility Criteria - § 192.618(a)

**Committee Voting Slides**

The proposed rule, as published in the Federal Register, and the Draft Regulatory Evaluation, with regard to the eligibility requirements for the proposed MAOP reconfirmation option, is technically feasible, reasonable, cost-effective, and practicable.



# Topic for Discussion

# 3. Technical Application - Assessments



# Subpart O Incorporation - § 192.618(a)

- **NPRM Comments:**
  - Commenters agreed that the *Class 1 to Class 3 location segments* should be incorporated into an operator's integrity management plan as required by 49 CFR 192 subpart O.
- **PHMSA Response:**
  - PHMSA appreciates the commenters support.

# Assessment Method - § 192.618(b)(1)

- **NPRM Comments:**
  - The Associations asked that PHMSA clarify that the ILI requirements are based on threats to which the class change segment is susceptible.
- **PHMSA Response:**
  - Except for initial eligibility, PHMSA intends for the § 192.917 threat assessment to be conducted for the *Class 1 to 3 segment* and the assessment methodology determined based on all threats identified. PHMSA will ensure the regulation is clear regarding threat identification in the final rule.

# Assessment Method - § 192.618(b)(1)

- **NPRM Comments:**
  - The Associations recommended that direct assessment (DA) should be allowed with prior notification to PHMSA.
- **PHMSA Response:**
  - These pipeline segments must be assessable by ILI tools.
  - DA has not been authorized in any previous special permit and should not be allowed to be used as an assessment methodology for this reconfirmation option.

# Assessment Method - § 192.618(b)(1)

- **NPRM Comments:**
  - GPTC recommended the pressure test notification should be removed given it is not a subpart O requirement.
- **PHMSA Response:**
  - As implementation of § 192.618 is intended to be more restrictive than subpart O requirements, PHMSA would like to have notification of any planned pressure test. Previously issued special permits have required this notification so that PHMSA has the option to witness the test.

# Assessment Method - § 192.618(b)(1)(vi)

- **NPRM Comments:**
  - NAPSR expressed that it is appropriate that the proposed assessment and repair criteria exceeds IM requirements, and operators should be required to assess and manage cracking threats.
- **PHMSA Response:**
  - PHMSA requests Committee feedback on the proposed rule with regard to crack risk and whether additional provisions should be adopted, modified, or dropped.


# Initial Assessment - § 192.618(b)(2)

- **NPRM Comments:**
  - TC Energy also recommended that PHMSA should allow operators more than 24 months to complete the initial assessment. TC Energy recommended extending the requirement to 36 months.
  - PST commented that PHMSA should reconsider the timing for baseline assessment anomaly remediation, with remediation completed within the initial 24 months. They noted that, if anomalies identified in the initial assessment would revoke IM option eligibility, potentially unsafe pipe would remain in the ground for well over 2 years until the operator replaced it or obtained a special permit.


# Initial Assessment - § 192.618(b)(2)

- **PHMSA Response:**
  - PHMSA requests Committee feedback on the timing of initial assessments and repairs.
  - PHMSA notes that allowing an operator 36 months to complete initial assessments of the segment is inconsistent with the intent of the rule and the current requirements for class location change.
  - Current regulations require a pressure reduction, pressure test (Class 2 design pipe), or pipe replacement within 24 months of the class change.

# Initial Assessment and Surveys §§ 192.618(b)(2), (f)(1), (f)(2), (f)(4), and (f)(7)

- **NPRM Comments:**
  - The Associations and TC Energy recommended that, where information from a prior assessment or surveys is available and still valid, PHMSA should allow the next assessments to be scheduled in accordance with the reassessment intervals specified in §§ 192.618(b) and (f).
- **PHMSA Response:**
  - PHMSA specifically requests the Committee recommendations on the use of previous assessments.
  - PHMSA notes that, consistent with issued special permits, previous ILI assessments or surveys may be applied so long as remediation is completed and the reassessment interval is maintained as detailed in this proposal.

# ILI Validation - § 192.618(b)(4)

- **NPRM Comments:**
  - PST strongly supported Level 3 validation for ILI tools to ensure that the tool performed within specifications, given decisions made using this data are critical.
  - NTSB supported incorporating API 1163 and corresponding validation digs but would like PHMSA to further investigate the minimum number of four anomaly excavations. Given that some ILI runs can identify thousands of anomalies, four digs would not be statistically significant.
  - Accufacts commented that many pipeline ruptures have occurred soon after ILI assessment, and while they support ILI technology's continued advancement, these requirements demonstrate that PHMSA is aware of the current limitations of ILI.

# ILI Validation - § 192.618(b)(4)

- **NPRM Comments:**
  - The Associations commented that API 1163 Level 3 for tool validation is not practicable or necessary for safety. Validation should be allowed under any pathway allowed under API RP 1163, rather than requiring operators to validate anomalies using the proposed digging requirements.
  - Sanders Resources added that API 1163 appears to add additional qualifications to IM-related ILI assessments and is not appropriate for this rulemaking.

# ILI Validation - § 192.618(b)(4)

- **PHMSA Response:**
  - PHMSA is confident in this ILI validation approach. This enhanced validation is consistent with previously approved SPs and § 192.618 being more stringent than subpart O requirements.



# Requirements for Crack Anomalies - § 192.618(d)

- **NPRM Comments:**
  - PST sought clarification as to why a cracking feature located by the operator would not remove the pipe from the program. If pipe with crack features are high enough risk to not be eligible for this program, then the segments should no longer be eligible once cracking features are discovered.
  - The Associations commented that it is unreasonable to require operators to replace the class change segment or reduce pressure, no matter how many years that the segment had been successfully managed under § 192.618, if there is cracking on or near a segment. They recommend that, if a crack is discovered, operators should notify the agency and propose a crack remediation and management plan.


# Requirements for Crack Anomalies - § 192.618(d)

- **PHMSA Response:**
  - PHMSA seeks input from the Committee on whether an operator should be allowed to continue managing a *Class 1 to 3 segment* using this option, or whether they should be ineligible, if cracking beyond a defined limit is discovered at a later date.



# 3. Technical Application - Assessments

This concludes PHMSA's initial response to comments received on the technical application – assessment requirements of this proposed rule.



# 3. Technical Application - Assessments

PHMSA requests the Committee recommendations on the Technical Application – Assessment requirements of the:

- Proposed rule as published in the Federal Register and
  - Draft Regulatory Evaluation and Environmental Assessment



# 3. Technical Application - Assessments

- Specific topics raised by commenters we are requesting Committee recommendations are:
  1) Timing of initial assessments and repairs associated with these assessments
  2) Use of previous assessments for the initial assessment
  3) Crack risk and whether additional provisions related to cracking should be adopted, modified, or dropped
  4) Continued use of this reconfirmation option if cracking is discovered after the initial assessments have been completed in the Class 1 to 3 segment or within the 5 miles surround the segment

# 3. Technical Application - Assessments

Public Comments



# 3. Technical Application - Assessments

GPAC Discussion



# 3. Technical Application - Assessments

## Committee Voting Slides

The proposed rule, as published in the Federal Register, and the Draft Regulatory Evaluation, with regard to assessments for the proposed MAOP reconfirmation option, is technically feasible, reasonable, cost-effective, and practicable.



# Topic for Discussion

# 4. Technical Application – Remediation



# Technical Application

- **NPRM Comments:**
  - The Associations, Sander Resources, TC Energy, GPTC, and NAPSR asked for clarification on whether § 192.618 requirements are only required upon the initial class change, and then subsequent assessments and monitoring are dictated by subpart O.
- **PHMSA Response:**
  - PHMSA intends for § 192.618 to be implemented in an ongoing basis in addition to subpart O requirements. PHMSA will look to clarify this in the final rule.

# Remediation Schedule - § 192.618(c)

- **NPRM Comments:**
  - The Associations supported the anomaly response criteria endorsed by GPAC during the "MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments" rulemaking in March 2018, and stated that deviations from that criteria would require operators address "low-risk anomalies instead of pursuing more valuable safety work."

# Remediation Schedule - § 192.618(c)

- **NPRM Comments:**
  - PST and Accufacts expressed support for the proposed repair criteria that are more stringent than those in subpart O.
  - Accufacts added that subpart O remediation requirements allow anomalies to remain in the pipe with minimal "room for error," which, they noted, may explain why some ruptures have occurred below MAOP. They supported the prescribed level of safety, "given the unexpected creativity […] observed resulting in too many pipeline ruptures, with some operators claiming they are following" IM.



# Remediation Schedule - § 192.618(c)

- **PHMSA Response:**
  - Previous GPAC discussion related to expanding repair criteria outside of HCAs did not contemplate applying the criteria to pipe that isn't designed in accordance with Class 3 locations. PHMSA believes the more stringent repair criteria of this proposal is warranted based upon the safety success of special permits.

# Remediation Schedule - § 192.618(c)

- **NPRM Comments:**
  - The Associations expressed that 1-year conditions for the ***Class 1 to 3 segment*** would require operators to remediate anomalies that have wall loss or crack depth greater than 40%, regardless of predicted failure pressure. Response criteria should be based on predicted failure pressure rather than an arbitrary depth criterion.
- **PHMSA Response:**
  - Due to PHMSA's extensive experience with special permits regarding this issue, PHMSA's position is that conservative remediation criteria is intended for implementation of this IM option.

# Remediation Schedule - § 192.618(c)

- **NPRM Comments:**
  - The Associations also expressed that anomalies "scheduled" outside of the ***Class 1 to 3 segment*** should have a 2-year timeline, not the 1 year proposed.
- **PHMSA Response:**
  - Currently issued special permits require "scheduled" anomalies to be addressed within 1 year, therefore, PHMSA determined that this conservative remediation criteria is best for implementing this IM option.



# 4. Technical Application - Remediation

This concludes PHMSA's initial response to the comments received on the technical application – remediation requirements of this proposed rule.



# 4. Technical Application - Remediation

PHMSA requests the Committee recommendations on the Technical Application – Remediation requirements of the:

- Proposed rule as published in the Federal Register and
  - Draft Regulatory Evaluation and Environmental Assessment



# 4. Technical Application - Remediation

Public Comments



# 4. Technical Application - Remediation

GPAC Discussion



# 4. Technical Application - Remediation

**Committee Voting Slides**

The proposed rule, as published in the Federal Register, and the Draft Regulatory Evaluation, with regard to remediation for the proposed MAOP reconfirmation option, are technically feasible, reasonable, cost-effective, and practicable.



# Topic for Discussion

# 5. Technical Application – P&MMs and Valve Requirements

§§ 192.618(f) and (g)



# Preventative and Mitigative Measures (P&MMs) § 192.618(f)

- **NPRM Comments:**
  - The Associations commented that, while in agreement of the P&MMs prescribed in general, these actions are often taken by operators to comply with § 192.935(a), which requires operators to implement P&MMs above and beyond what is required in part 192. They recommended that PHMSA should clarify that § 192.618(f) requirements qualify as "additional measures" to meet the requirements of § 192.935(a).
- **PHMSA Initial Response:**
  - PHMSA specifically requests Committee recommendations on if the P&MMs required as a part of this rulemaking should be considered "additional measures" to comply with subpart O requirements.



# P&MMs – Depth of Cover - § 192.618(f)(5)

- **NPRM Comments:**
  - The Associations and NAPSR recommended that operators should be permitted to use all effective measures to mitigate loss of cover, such as installing above-ground safety barriers.
  - The Associations also propose the option of adding concrete over the pipe that has a depth of cover less than 24 inches in areas of non-consolidated rock.
- **PHMSA Initial Response:**
  - PHMSA requests Committee recommendations on adding concrete pads over pipe that has a depth of cover less than 24 inches in non-consolidated rock.
  - PHMSA notes that these are allowed in special permits.



# P&MMs – Clear Shorted Casings § 192.618(f)(8)

- **NPRM Comments:**
  - The Associations and TC Energy recommended that, rather than clearing shorted casings under this proposal, operators should be given an option for managing shorted casings on class change segments using IM when it is impracticable or unsafe to eliminate a short.
- **PHMSA Initial Response:**
  - PHMSA believes the proposed IM method for reconfirming MAOP under § 192.618 is not appropriate for locations where a shorted casing cannot be cleared.
  - Operators may apply for a special permit (subject to PHMSA review and approval) to allow for additional technical review.



# P&MMs – General - § 192.618(f)

- **NPRM Comments:**
  - Accufacts supported PHMSA including additional prescribed activities that focus on "preventing the introduction or growth of injurious anomalies." Without those additional activities "the public is placed at considerable risk from overreliance on IM ILI. The additional requirements help to assure a level of safety consistent with the current MAOP reestablishment options."



# P&MMs – General - § 192.618(f)

- **PHMSA Initial Response:**
  - In the NPRM, PHMSA requested comments on whether it should consider modifying or eliminating any of the O&M procedural requirements in the proposed rule (e.g., remote-controlled valves, integrity assessments, P&M measures, etc.).
  - PHMSA requests Committee feedback if such P&M measures, as modified by the Committee recommendations, are necessary to maintain pipeline safety for the purposes of this IM option.



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

This concludes PHMSA's initial response to the comments received on the technical application – remediation requirements of the proposed rule.



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

PHMSA requests the Committee recommendations on the P&MM and Valve requirements of the:

- Proposed rule as published in the Federal Register and
  - Draft Regulatory Evaluation and Environmental Assessment



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

- Specific topics raised by commenters we are requesting Committee recommendations are:
  1) Should P&MMs required as a part of this rulemaking be considered "additional" measures in compliance with subpart O requirements
  2) Should PHMSA allow concrete pads over pipe that has a depth of cover less than 24 inches in non-consolidated rock
  3) That the inclusion of the prescribed P&MM's, as modified by the Committee's recommendations, are necessary to maintain pipeline safety



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

Public Comments



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

GPAC Discussion



# 5. Technical Application - P&MMs and Valve Requirements (§§ 192.618(f) and (g))

## Committee Voting Slides

The proposed rule, as published in the Federal Register, and the Draft Regulatory Evaluation, with regards to P&MM and valve requirements, are technically feasible, reasonable, cost-effective, and practicable.



# Committee Report

## Committee Voting Slides

The transcript of this meeting (duly recorded and accurately transcribed), together with the presentation slides documenting the Committee's votes during this meeting, represent the report of this proceeding.



# Meeting Wrap Up

# Thank You