

Indian Point 2020 Annual Assessment Meeting



Indian Point Energy Center 2020 Annual Assessment Meeting

Welcome!

This webinar will start in a few moments

Call in using the phone number below:

Dial-in Number: (888) 391-9420

Participant passcode: 9660269#

Help: *0 ("star" "zero")



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Indian Point Energy Center 2020 Annual Assessment Meeting Sept. 22, 2020

Brett Klukan, Regional Counsel
Nuclear Regulatory Commission
Region I



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Agenda

- Opening Remarks / Meeting Conduct
Discussion / Intro of Elected Officials - **Brett Klukan**
- Welcome - **Ray Lorson**
- 2019 Indian Point Assessment Summary - **Dan Schroeder**
- License Transfer - **Rich Guzman**
- Gas Pipeline - **Dave Skeen / Mel Gray**
- Question and Answer – **Brett Klukan**



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First Things First

- Introduction of Elected Officials
- Meeting Conduct
- How To Ask
a Question



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Meeting Conduct

- Questions will be taken at the end of the presentation
- Please be respectful of all attendees
- Please be mindful of your speaking time

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How to ask a questions after the presentation

- Please wait until the Question-and-Answer session at the end of the presentation
- You will be able to ask your question by verbally asking it by pressing *1 (star one)
- Guidance will be provided again at the end of the presentation
- Press *0 (star zero) for audio help



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Welcome

Ray Lorson,
*Deputy Regional Administrator
Nuclear Regulatory Commission
Region I*



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2019 Indian Point Assessment Summary

Daniel Schroeder,
*Chief, Division of Reactor Projects
Nuclear Regulatory Commission
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Resident Inspection Office Staff

Nik Floyd
Senior Resident Inspector



Diane Hochmuth,
Administrative Assistant

Sarah Obadina
Resident Inspector



Justin Vazquez
Resident Inspector

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NRC Independent Safety Inspections

Reactor Oversight Process

- NRC inspectors have unfettered access to all plant activities related to nuclear safety and security
- Full-time NRC resident inspectors
- NRC regional specialists conduct additional inspections at each nuclear plant



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Indian Point 2019 Assessment Summary

- Indian Point Units 2 & 3 operated safely and in a manner that preserved the public health and safety and protected the environment
- Indian Point Units 2 & 3 remained in the Licensee Response column of the Action Matrix
- 8,400 hours of inspection and related activities
- 3 Green Non-Cited Violations (NCVs) and one Green finding

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License Transfer



Richard Guzman
NRC Project Manager
Office of Nuclear Reactor
Regulation

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License Transfer Review Summary

- **License Transfer Application (November 2019)**
 - Noticed in Federal Register (January 2020)
 - Hearing Requests and Comments Received (February 2020)
 - Requests for Additional Information (August 2020)
- **If approved, an Order and Conforming Amendment are issued:**
 - Order (Projected November/December 2020)
 - Conforming License Amendment (May 2021)
- **Other Processes/Reviews:**
 - Hearings on License Transfer Applications
 - Holtec Exemption Request to allow use of Decommissioning Trust Funds for Non-Radiological Decommissioning Activities

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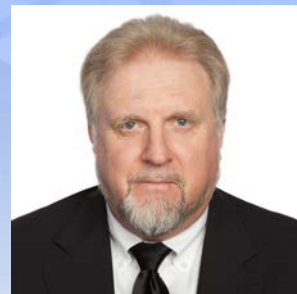
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Gas Pipeline

David Skeen,
*Team Lead: Expert Evaluation Team on
Concerns Pertaining to the Gas
Transmission Lines Near Indian Point*



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Expert Evaluation Team's Key Findings

- Indian Point remains safe.
 - A rupture of the 42" Algonquin Incremental Market (AIM) pipeline near Indian Point is unlikely.
 - If a rupture occurred, the nuclear power plant and its stored spent fuel would remain protected.
- The team recommended that the NRC take several actions.
 - Entergy should be asked to revisit optimistic assumptions it used in its analyses.
 - NRC should consider process updates for peer reviews, inspection support, petition reviews, interagency work, and pipeline analysis.

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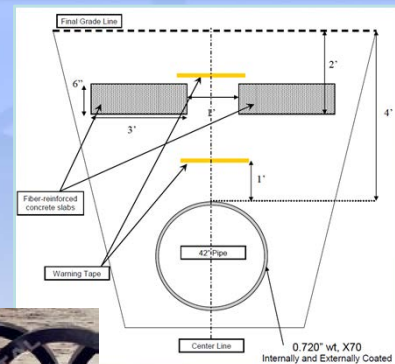
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AIM Pipeline Unlikely to Fail

- Construction meets or exceeds DOT requirements for a high-consequence area
 - Stronger pipe
 - Buried deeper, with concrete slabs, warning tape
 - Corrosion protection
 - Full weld inspection
 - Pressure testing
- Operator's integrity management program provides for risk assessments, prioritization of ongoing inspections
- New York inspects under agreement with DOT/PHMSA; no violations or open issues



<https://www.octalsteel.com/resources/api-5l-x70-pipe>

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Plant Safe in the Unlikely Event of a Pipe Rupture

- Safety-related equipment, spent fuel pools, and dry fuel storage are 2 or more times the "potential impact radius" in DOT regulations
- Team calculated heat effects – thick-walled important plant structures could withstand a fire burning for ~8 hours



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NRC Is Improving its Processes

- **Peer reviews** – initial and continued training on updated guidance
- **Inspection support** – guidelines for how to ask and answer technical questions
- **10 CFR 2.206 petition reviews** – better decision making, documentation, and independence
- **Pipeline analysis** – updated technical guidance, including when/how to do detailed analysis
- **Interagency collaboration** – guidance for how to support other agencies' reviews and document interactions

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NRC Inspection of Revised Entergy Safety Analysis

Mel Gray,
Chief, Engineering Branch 1
Division of Reactor Safety
Nuclear Regulatory Commission
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NRC Inspection Follow-up of Expert Team Recommendation

- NRC requested Entergy to revisit optimistic assumptions it used in its 2015 analyses.
- NRC received revised Entergy analyses and completed inspections in July 2020.
- NRC completed inspection and issued a report on September 16, 2020



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NRC Inspection Conclusions

- Indian Point Safety-Related Structures and Equipment Not Affected in the Unlikely Event of an AIM Pipeline Rupture



Rupture Hazards

- Jet fire
- Vapor cloud explosions
- Vapor cloud fire
- Missiles (projectiles from pipe rupture)

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NRC Inspection Conclusions (cont.)

- **Entergy revised assumptions that resulted in increased isolation time (8 minutes) and longer pipe length to be isolated (11 miles).**
- **Inspectors found assumptions were not used by Entergy in 2015 to determine the impact of pipeline hazards on safety-related equipment.**
 - **Valve closure time discussed in cloud fire hazard analysis but not a factor in conclusions.**

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NRC Inspection Conclusions (cont.)

- **Inspectors found Entergy revised their analysis to include additional conservatisms and refinements.**
 - **Jet fire angled towards plant**
 - **Increased flow rate for turbulent jet explosion**
 - **Vapor cloud explosion in tree belt**
- **Analyses continued to show safety related equipment is unaffected by AIM pipeline**

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Closing Remarks

Ray Lorson,
Deputy Regional Administrator
Nuclear Regulatory Commission
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How to contact the NRC (www.nrc.gov)

 Mailing Address U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 1-800-368-5642, 301-415-7000 TTD: 301-415-5575		Report a Concern 24-Hour Ops Ctr for Emergencies 301-816-5100 NRC Waste, Fraud or Abuse 1-800-233-3497 (OIG hotline) Safety or Security Concern 1-800-695-7403 FAR Contractor Reporting Form
Get General Help or Information Human Resources* 301-415-7400 Public Document Room * 1-800-397-4209 Fax: 301-415-3548 NRC Forms* Web Site Questions or Concerns*		
Provide Comments or Views Documents for Comment Index of All Contact Pages		

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Office of Public Affairs

Diane Screnci

Diane.Screnci@nrc.gov

(610) 337-5330



Neil Sheehan

Neil.Sheehan@nrc.gov

(610) 337-5331



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NRC Social Media Channels

- Facebook: <https://www.facebook.com/nrcgov/>
- Twitter: <https://twitter.com/nrcgov>
- YouTube: <http://www.youtube.com/user/NRCgov>
- Flickr: <http://www.flickr.com/photos/nrcgov/>
- LinkedIn: <https://www.linkedin.com/company/u-s--nuclear-regulatory-commission/>
- RSS: <http://www.nrc.gov/public-involve/listserver.html#rss>



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Annual Assessment Meeting Feedback

1. Mail in NRC feedback form that will be emailed to all attendees

- OR -

2. Scan QR Code on back of form with smart device

- OR -

3. Through any computer by going to the Public Meeting Schedule and pressing the "Meeting Feedback" link for this meeting, or pressing the "[...more]" link for this meeting and then pressing the "Meeting Feedback" link on the "Meeting Details" page.

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Questions & Answers

Brett Klukan, Regional Counsel

Nuclear Regulatory Commission Region I

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 **NRC Region I Staff Available for Questions**

**Dan Collins, Director,
Division of Reactor Projects**



**Tony Dimitriadis, Chief, Decommissioning,
Independent Spent Fuel Storage
Installation & Reactor Health Physics**



**Nik Floyd, Indian Point
Senior Resident Inspector**



**Kevin Mangan, Senior
Reactor Inspector**

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 **NRC Headquarters Staff Available for Questions**

**Rich Turtill, Senior
Financial Analyst**



**John Wise, Senior
Materials Engineer**



**Bruce Watson, Chief, Reactor
Decommissioning, Office of Nuclear
Material Safety & Safeguards**



**John McKirgan, Chief, Storage
& Transportation Licensing**

**Patricia Milligan, Senior
Level Advisor for
Emergency Preparedness**



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How To Ask a Question

- Ask your question verbally by pressing *1 (star one)
- Do not have your phone on mute
- The moderator will coordinate questions
- Press *2 (star two) to withdraw wanting to ask a question
- Press *0 (star zero) for help



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This ends the Meeting

Thank You for Attending!

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