

CHAIR
ALCOHOLISM AND SUBSTANCE ABUSE

COMMITTEES
COMMERCE, ECONOMIC DEVELOPMENT &
SMALL BUSINESS
DOMESTIC ANIMAL WELFARE
ENERGY & TELECOMMUNICATIONS
ENVIRONMENTAL CONSERVATION
LOCAL GOVERNMENT
VETERANS, HOMELAND SECURITY & MILITARY
AFFAIRS

**THE SENATE
STATE OF NEW YORK**



PETER B. HARCKHAM
SENATOR, 40TH DISTRICT

ALBANY OFFICE
ROOM 812
LEGISLATIVE OFFICE BUILDING
ALBANY, NEW YORK 12247
(518) 455-2340

WESTCHESTER OFFICE
1 PARK PLACE
SUITE 302
PEEKSKILL, NEW YORK 10566
(914) 241-4600

PUTNAM OFFICE
40 GLENEIDA AVENUE
3RD FLOOR
CARMEL, NEW YORK 10512
(845) 225-3025

Chairman Kristine Svinicki
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852

**Re: Public Release of Entergy's Revised Algonquin
Pipeline Analysis June 30, 2020**

Dear Chairman Svinicki:

I am writing to urge you to release of a copy of Entergy's revised 10 CFR 50.59 risk analysis along with all supporting expert reports and analyses relating to the Algonquin Incremental Market ("AIM") gas pipelines that cross the Indian Point Nuclear Plant, due on June 30, 2020.

Situated in the heart of my State Senate District, Indian Point lives each day in the shadow of a potentially dangerous high-pressure natural gas pipeline running under it, posing a lethal threat to 20 million people in the surrounding and NYC areas.

As you know, in February 2020, the Office of the Inspector General of the Nuclear Regulatory Commission issued a scathing Report ("OIG Report") finding deep flaws and deviations in NRC's original safety analysis that led to the Federal Energy Regulatory Commission (FERC) approval for the AIM pipeline expansion. We commend NRC's decision to follow OIG's direction to "redo" its analysis and to require Entergy, Indian Point's owner, to revise its 10 CFR 50.59 assessment. While an important first step, millions of people living in the Indian Point vicinity still have no assurances of their safety. It is essential that Entergy's revised 10 CFR 50.59 analysis be released for public review so that the public can determine whether the revised analysis redresses the numerous failures listed in the OIG Report and offers an accurate and complete analysis of the actual threat posed to the millions of people who live in this area.

Background

At its heart, the public needs assurances that it will be safe in the event of a pipeline explosion or leak occurring so close to the reactors at Indian Point. Yet, for more than six years, the safety of the pipeline expansion remains unresolved.

In 2014, Entergy submitted a 10 CFR 50.59 risk analysis as required to obtain FERC approval of the pipeline expansion. The 50.59 risk assessment contained numerous knowing misstatements of the risk posed. At the root of the safety inquiry, Entergy assumed that isolation valves would close within 3 minutes of a pipeline rupture. Its assessment was at odds with an expert opinion provided by Sandia National Laboratories, which participated in NRC's Expert Evaluation Team (discussed below).

NRC's role was to provide an independent assessment to make sure that Entergy's analysis adequately reviewed the safety implications of the AIM pipeline. Yet, while suggesting that it conducted an independent analysis, NRC instead accepted numerous misrepresentations and conclusions contained in Entergy's faulty 50.59 analysis. In its review, NRC also utilized a computer program known as ALOHA (designed by the National Oceanic and Atmosphere Administration) that was not designed for this type of pipeline safety analysis or for evaluating 3 minutes of gas release. NRC also addressed the impact of a non-existent risk - the potential rupture of the pipeline above ground even though the pipeline does not come above ground anywhere at Indian Point.

In 2014 and 2015, pursuant to a 10 CFR 2.206 petition, an independent stakeholder raised numerous issues about Entergy's analysis citing violations of 10 CFR 50.9, 10 CFR Part 50, Appendix B, and 10 CFR 50.59. Among numerous issues, the stakeholder argued that Entergy materially misrepresented that the isolation valves could be closed within 3 minutes, a major issue in the risk assessment, and questioned the use of ALOHA in its analysis. Ultimately, NRC dismissed the concerns raised, and FERC used NRC's erroneous assessment to grant its approval to the pipeline project. The project went into effect in January 2017.

On February 13, 2020, more than 3 years later and in response to the same concerns raised by the petitioner, NRC's Office of the Inspector General opened an inquiry and issued its scathing OIG Report that detailed the extent of the significantly flawed risk analysis conducted by both Entergy and NRC. *See*, Office of Inspector General Report, dated 2/13/20 ("OIG Report") at <https://www.nrc.gov/docs/ML2005/ML20056F095.pdf>. The following highlights a number of the failures and flaws contained in the original Entergy and NRC assessments:

- NRC's underlying analysis suggested additional analysis of Entergy's 50.59 assessment had been conducted when it had not. (OIG Report, pp. 11, 13-14, 16);
- NRC's analysis was incorrectly characterized "as more conservative than it actually was." (OIG Report, pp.2, 10);
- Entergy and NRC misrepresented that the pipelines could be closed in 3 minutes. NRC never confirmed Entergy's assumptions that the valves could be

closed in 3 minutes, whereas Enbridge, the pipeline operator, informed the OIG it would take at least 6 minutes. (OIG Report, pp.3, 19, 22-24);

- NRC's "misguided use of the ALOHA program" was not designed to assess the risk at issue, including the ability to stop the flow of gas within 3 minutes (OIG Report, pp. 2, 11, 15-16);
- Much of NRC's analysis "remains based on a non-existent, above ground location." (OIG Report, pp. 2, 10, 12-14);
- With regard to assumptions and factors used by the NRC reviewing scientist, NRC's own reviewing managers commented that certain calculations and analyses "appeared to be backwards engineering to get to a desired result" and another noted that certain aspects of the Physical Scientist's analysis were "inappropriate." (OIG Report, pp.2, 13);
- The OIG recognized that NRC misrepresented the nature of its work to the petitioner. It further questioned why NRC, when presented with the petitioner's "relevant and on point" concerns, did not "reexamine" its analysis. (OIG Report, pp.2, 19);
- OIG found additional deviations that appeared designed to evade quality assurance requirements, deviated from regulatory guidelines in a manner that was less conservative, and evaded independent analysis of the risks posed by the pipeline. (OIG Report, pp. 2-3, 11-18, 25-26).

Instead of carefully conducting a thorough examination of whether this pipeline should be situated under a nuclear power plant, with its decades of spent nuclear fuel rods in on-site storage, the OIG report reveals that NRC rubberstamped Entergy's flawed analysis and allowed industry to lead regulators to the industry's desired conclusion. By accepting Entergy's conclusions and failing to conduct a rigorous, independent analysis, NRC abdicated its responsibility to protect the health, lives, and safety of millions of people.

Public Disclosure of Entergy's Revised 10 CFR 50.59 Assessment Is Essential

We commend NRC in its decision to redo its analysis and to require Entergy to submit a revised 50.59 analysis in light of the OIG Report.

We urge NRC to act with the utmost of transparency to show that it is committed to appropriate oversight of the risks associated with a pipeline in such close proximity to Indian Point. Only through such disclosures can the public and millions of people impacted by these risks regain faith that Entergy's revised 10 CFR 50.59 analysis corrects the flawed underlying assumptions and claims and addresses the numerous other issues in its original analysis, as laid out in the OIG Report. Moreover, it is essential that the public be informed of the new analysis and underlying reports to assess whether NRC has fulfilled its own duty to conduct an adequate

independent review of Entergy's revised analysis and to comply with OIG's direction to correct the deviations from regulatory guidelines in order to establish the actual risk of the pipeline expansion.

In addition, 10 CFR 50.59 requires that "[I]nformation provided to the Commission . . . by a licensee . . . shall be complete and accurate in all material respects." Public disclosure is the only way to confirm that Entergy has fulfilled this requirement, specifically in its assessment of the time required to stop the flow of gas, one of the most significant issues raised by both Entergy's and NRC's prior reviews. Entergy's original assessment misrepresented that the facility could close the AIM pipeline isolation valve in 3 minutes. Its new assessment must include a full and complete analysis of damage caused by flow of gas and realistic assessment of when the flow of gas could be stopped. The OIG Report notes the importance of re-evaluating Entergy's and NRC's prior assumption of a 3-minute closure, given the pipeline operator's representation to the OIG that it would take at least 6 minutes to close. (OIG Report, p.3). This information, and the risks posed, are all the more important and must be considered by NRC in light of findings by Sandia, which were disregarded by NRC. In particular, while NRC's original assessment purportedly incorporated "important insights" from researchers at Sandia, NRC ignored important conclusions about the risks posed by open gas valves:

"At approximately 6 to 7 minutes after release the flammability region of the vapor cloud will be either near or begin to engulf the SOCA and can result in an explosion with a high likelihood of exceeding an overpressure of 1 psi at the SOCA if ignited within the flammability region. The furthest point downwind distance within the flammability region is about 950 m (3,100 ft) at 8 minutes which is greater than any distance from the pipeline route to the SOCA (Security Owner Control Area) which varies from about 1580 Ft. 20 2363 Ft."

Given the pipeline operator's representation that it would take at least 6 minutes to close the valves, it is vital that NRC consider Sandia's conclusions with Entergy's revised analysis.

The chief responsibility of our government officials, through policy and action, is to safeguard our residents. We therefore urge NRC to conduct a full independent evaluation of the risks and release Entergy's revised analysis. Consistent with this redo evaluation, the NRC should determine whether the pipeline poses a threat to the millions of people in the surrounding areas requiring a permanent shut down of the pipeline.

Very truly yours,



Peter Harckham
NY State Senator, 40th District