NEWS From

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NEW YORK STATE LEGISLATURE

For Immediate Release

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Assembly Members Galef and Buchwald Urge Federal Agencies to Conduct Outside Independent Risk Assessment of Spectra's AIM Gas Pipeline Siting near Indian Point Nuclear Power Plant and Halt Pipeline Construction Until Then

Galef and Buchwald believe a transient risk analysis would yield different results than those which led to the approval of siting a new high pressure pipeline on and near Indian Point

(August 4, 2015) On Tuesday, August 4, Assemblywoman Sandy Galef and Assemblyman David Buchwald sent letters to the Federal Energy Regulatory Commission (FERC) and the Nuclear Regulatory Commission (NRC) highlighting new information they learned in mid-July that led them to continue pushing for a truly independent risk assessment of the impact a new high pressure pipeline could have on the Indian Point Nuclear Power Plant in Buchanan, New York. Gas pipeline expert Richard Kuprewicz and nuclear expert Paul Blanch have pointed out significant flaws in the analyses conducted to date that have been used by FERC to issue an approval for the pipeline to be sited near Indian Point and to allow for the start of construction. In addition to using loosely hand drawn diagrams in place of vigorous verifiable calculations, the analyses also failed to look at an hour by hour roll out of what happens when a gas line ruptures, especially if such a rupture were to take place in the vicinity of the nuclear power plant.

"I am convinced that an outside agency, like the National Academy of Sciences in Washington, DC or the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) that collects and compiles information on gas line ruptures nationwide, would be the better ones to conduct a realistic risk assessment," said Assemblywoman Sandy Galef. "FERC and NRC are too close to the companies that would benefit from an easy path for the pipeline to be laid. They also are not working closely together with all of the experts to fully understand the ramifications on the area if a pipeline rupture were to take place on or near Entergy's Indian Point Energy Center. We must work harder on an analysis of this critical facility and the potential liabilities that could result from such a high pressure pipeline sited so close to a nuclear power plant before constructing it."

"Given the potential for a catastrophic explosion of the 42" diameter high pressure pipeline in close proximity to the Indian Point Nuclear Facility and a significant seismic zone, an independent and comprehensive assessment is absolutely necessary," said Assemblyman David Buchwald. "I stand with all of those who are concerned that FERC and the NRC have not done enough to make sure that area residents will be safe. The consequences for our families and the economy in the Hudson Valley are too high to not conduct a truly thorough risk assessment of Spectra's proposed high pressure gas pipeline."

A copy of the letter sent to FERC follows:

August 4, 2015

Honorable Norman C. Bay Chairman Federal Energy Regulatory Commission 888 First Street NE, Room 1A Washington, DC 20426

Re: Project Docket Number CP14-96-000

Dear Commissioner:

We are writing to you today because of our grave concerns that the Spectra AIM pipeline project sited near Indian Point should not proceed unless and until further safety assessments as outlined below are conducted and conclude that this project is, indeed, safely sited. We have cause to believe the NRC has not properly vetted the threat that a gas pipeline rupture would pose to the nuclear power plant. We have repeatedly called for an independent risk assessment, and now call for that assessment to include a transient risk analysis, which has not been undertaken. A gas pipeline expert who has been hired by the Town of Cortlandt, NY has pointed out the need for such an assessment to fully understand the nature of a pipeline rupture and its potential impact on the power plant.

We request you put a stop to any work that has begun or is about to begin until such time as this analysis can be complete. As you know, Indian Point Energy Center (IPEC) is within 50 miles of New York City. Any threat to the plant's safety could have catastrophic consequences for this region. An independent risk assessment, including a transient risk analysis (see attached description of such an analysis prepared by Rick Kuprewicz, gas line expert), must be undertaken before the path of this pipeline is finalized and before any construction or pre-construction takes place in the vicinity of IPEC.

Sincerely,

Sandy Galef Member of Assembly

95th District

David Buchwald Member of Assembly 93rd District

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cc: Douglas Pickett, NRC Senior Project Manager, Indian Point Nuclear Generating Units Nos. 2 & 3

U.S. Senator Charles Schumer

U.S. Senator Kirsten Gillibrand

Congresswoman Nita Lowey

Congressman Sean Patrick Maloney

NYS DEC Acting Commissioner Marc Gerstman

NYS Attorney General Eric Schneiderman

Westchester County Legislator Catherine Borgia

Westchester County Legislator John Testa

Town of Cortlandt Supervisor Linda Puglisi

Village of Buchanan Mayor Theresa Knickerbocker

Attachment

Excerpted from an email dated 7/17/15 from Richard Kuprewicz:

"By transient risk analysis I mean a risk analysis that incorporates the true transient nature of a pipeline rupture capturing the extremely high and change in gas rate of release with time that reflects the tremendous extremes of a gas transmission pipeline rupture, especially on a 42-inch high pressure pipeline. Given the past attempts to use models that don't reflect the release change with time science and that tend to average the numbers down I would advise the following, especially given the lack of clarity of the Exhibit G's and G2s for this project to FERC for the Cortlandt segment that can be used to develop a simple schematic. These Exhibits are the soul of a FERC determination one would think, and the ones I have seen (they are CEII protected) were very "sloppy" given that they should have been heavily vetted by the applicant before going to FERC, which raises a question as to how did FERC do any analysis of project claims.

A Transient Risk Analysis should include:

- 1. A clear simple flow schematic capturing the 42-inch system between compressor stations for the pipe segment spanning the Nuke facilities, and include the mileage of pipe along the segment from the compressor stations, the pipe diameter and thickness, the pipe friction factor (affects rate of mass release with time), the location of mainline valves and the valve actuation if any of these mainline valves, the controlling scheme of the upstream and downstream compressor stations and the approximate mileage at the point near the Nuke plant where the case will assume rupture has occurred.
- 2. From the above schematic an engineer familiar with transient rupture calculations for compressible natural gas flow can then model or calculate the mass release change with time from the designated point of rupture for the schematic system clearly stating key assumptions leveraging to the calculation effort (such as pressure at time of rupture, control logic of the upstream compressor station, pipe segment lengths, initial gas flow rate before rupture, etc.) This is no small feat as the gas release rates out of rupture take a quantum rate increase as the "system curves" for the pipeline segments (there will be two following rupture) are changed considerably at point of rupture.
- 3. Results of the above mass release calculation are usually plotted as a series of total mass release curves with time that help demonstrate "a fingerprint" for the case that will quickly allow an experienced analyst familiar with

pipeline rupture to see if case assumptions are realistic (such as rupture recognition time via SCADA and valve closure time, and pipe segment blowdown times. All of these affect the mass release cases, thus the transient part.

4. Lastly, a time to ignition/detonation is estimated for several different plot curves to demonstrate a sensitivity case for possible blast and usually more importantly heat fluxes to gauge impact to sensitive nuke facilities that play a part in bringing the plant down safely and keep it in a safe condition (Paul's storage tanks question needs a clear resolution yes or no on containing hydrocarbon for example). Not all gas pipeline ruptures ignite or detonate, but when they do, damage is increased considerably so a truly conservative case for the nuke risk is going to have a fairly quick detonation/ignition time for controlling case (something like 30 seconds or less).

Sorry to be so techie but it just isn't that complicated to lay out the steps, though the calculations and process can be quite involved, but this is a nuke plant. Some in the industry know what I am talking about but their voices can be drowned out given the time value of money on projects that can bring many billions of dollars in profit where delay by proper analysis can really slow things down.

Others can lay out the transient calculations. None of the above rises to the level of being kept secret I think as it is fairly public so such secrecy claims as you have figured out, are apparently driven by another agenda. The key are the case steps as above. Lastly the analysis may demonstrate that the 42 inch needs to be moved away from the nuke plant so others may need to be prepared for a gas pipeline reroute away from the plant as a possibility.

Take care.

Richard B. Kuprewicz President, Accufacts Inc."

Galef and Buchwald sent a similar letter to the NRC outlining their concerns.

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