

*Paul M. Blanch*  
*Energy Consultant*

17 March 2015

USNRC Chairman Burns ([Chairmam@nrc.gov](mailto:Chairmam@nrc.gov))

USNRC Commissioner Baren ([cmrbaren@nrc.gov](mailto:cmrbaren@nrc.gov))

USNRC Commissioner Svinicki ([cmrsvinicki@nrc.gov](mailto:cmrsvinicki@nrc.gov))

USNRC Commissioner Ostendorff [cmrostendorff@nrc.gov](mailto:cmrostendorff@nrc.gov)

**Subject:**

Request for expedited 10 CFR 2.206 Directors Decision for proposed Indian Point 42 inch gas transmission line.

Dear Chairman and Commissioners

On October 15, 2014 I filed a 10 CFR 2.206 petition requesting enforcement action against Entergy for submitting inaccurate and incomplete information in violation of 10 CFR 50.5 and 10 CFR 50.9.

NRC's Management Directive 8.11 requires a "timeliness goal to 120 days from the date of the acknowledgment letter until the date the proposed director's decision is sent out for comment."

As of today's date it has been about 150 days and I have not even received and acknowledgement letter of my petition and have been informed. I was informed by the NRC's Petition Manager today that I ". . .should be hearing from us in the next couple weeks."

This is unacceptable as Indian Point Units 2 and 3 are presently operating in an unanalyzed condition that significantly degrades plant safety. This presumption is based on the fact that Entergy used the same methodology and person for the analysis of the existing gas lines located within the protected area within 600 feet of vital SSCs. This recently released analysis is severely deficient and it is assumed the same methodology was also applied to the existing lines that concluded that a gas line rupture is "not considered feasible"<sup>1</sup> (less than 10e-7 per year).

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<sup>1</sup> Indian Point Unit 3 2011 UFSAR

The new analysis was obtained under appeal of FOIA 2015-0062.

The new analysis now concludes that a gas line rupture of the existing lines is feasible and based on expert analysis the probability of failure is greater than  $10e-5$  per year and likely greater due to the 50-year age of the existing lines.

Some of the more significant deficiencies in the NRC's analysis of the proposed gas line are:

1. The analysis relies on the [EPA ALOHA](#) code to predict the probability and consequences of fires, overpressure and radiant heat flux. The EPA document states the following:

***“ALOHA cannot model gas release from a pipe that has broken in the middle and is leaking from both broken ends.”(Bold emphasis added by EPA)***

2. None of the cited references mention 3 minutes for a gas line rupture but do discuss a 1-hour time to be considered. History and expert opinions demonstrate gas blowdown times range from 30 minutes to many hours.
3. Using more realistic gas release of one to two orders of magnitude greater, the blast radius would encompass the city water tank and possibly tanks used for core cooling. The NRC/Entergy analysis stated the switchyard and the diesel oil storage tanks are within the blast radius. Loss of the switchyard and the oil tanks would result in a station blackout (SBO) and the loss of the city water tank would render the Unit 2 SBO diesel inoperable due to loss of SBO diesel generator cooling.
4. The city water tank serves to supply back-up water to the Auxiliary Feedwater System used to cool the core during loss of AC power/SBO event.
5. The NRC stated in its analysis that the probability of an explosion after a pipe rupture is 5% yet this number is not contained in any of the cited references. Research shows almost 100% of pipe ruptures result in ignition.

6. The NRC analysis assumes that a total pipe rupture will occur in 1% of the pipeline accidents whereas the references clearly state this occurs in 20% of the accidents.
7. The NRC analysis states: "*If this release is due to the underground pipe, the frequency of explosion will be further reduced by at **least an order of magnitude.***" (Emphasis added) There is no documentation or reference supporting this non-conservative assumption.
8. The analysis for the COLA permit for Turkey Point Units 6 and 7 predict a damage radius of more than 3000 feet from a smaller line operation at a lower pressure. The NRC/Entergy analysis predicts a damage radius of 1155 feet for a line more than double in capacity operating at a higher pressure.
9. The cited reference "[Handbook of Chemical Hazard Analysis Procedures](#)" is apparently dated circa 1987 and does not consider subsequent major gas-line explosions such as the San Bruno, CA, Sissonville WV, Cleburne TX, Carlsbad NM, and the Edison, NJ transmission and distribution explosions.
10. The NRC calculates the probability of a gas line explosion at  $7.5E-7$  per year. My calculations and the invalid use of the EPA ALOHA code clearly show the probability of core damage to be orders of magnitude greater than predicted by the NRC/Entergy analysis.

These are but a few of the significant deficiencies and because of the imminent risk to the public, immediate action by the Commission is requested. I have compiled a chronology and a list of significant NRC/Entergy analytical deficiencies that I can make available to the Commission and Staff should there be any interest.

I am requesting the Commission immediately direct the NRC Staff to rescind the NRC's approval provided to FERC stating no increase in risk to Indian Point until the final resolution of my petition.

I further request the Commission to direct the NRC Staff to accelerate this 10 CFR 2.206 process using proper references and updated methodologies.

*Paul M. Blanch*

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135 Hyde Rd.  
West Hartford, CT 06117  
860-236-0326

cc: Senator Schumer  
Senator Gillibrand  
Congresswoman Lowey  
Assemblywoman Galef

**CHAIRMAN Resource**

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**From:** Paul Blanch <pdblanch@comcast.net>  
**Sent:** Tuesday, March 17, 2015 5:28 PM  
**To:** CHAIRMAN Resource  
**Cc:** Paul Blanch  
**Subject:** Fwd: Immediate concern with Indian Point analysis  
**Attachments:** 20153017 ltr to Commissioner JP Gas Lines.pdf; ATT00002.htm

**Paul M.  
Blanch  
Energy  
Consultant**

Sent to wrong email.

**To:** [Chairmam@nrc.gov](mailto:Chairmam@nrc.gov), [cmrbaren@nrc.gov](mailto:cmrbaren@nrc.gov), [cmrsvinicki@nrc.gov](mailto:cmrsvinicki@nrc.gov), [cmrostendorff@nrc.gov](mailto:cmrostendorff@nrc.gov)

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