UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 13, 2015

Sandra R. Galef
Assemblywoman 95th District
The Assembly State of New York, Room 641
Legislative Office Building
Albany, NY 12248

Dear Ms. Galef:

I am responding to your letters of January 15 and February 26, 2015, to the Chairman of the Nuclear Regulatory Commission (NRC) regarding the proposed Algonquin Incremental Market (AIM) Project where a 42-inch diameter natural gas pipeline is proposed to cross a portion of the owner controlled property at the Indian Point Energy Center in Buchanan, NY. Members of your staff have discussed the AIM project with staff from the NRC Region I Office located in King of Prussia, PA, with support from NRC headquarters staff located in Rockville, MD.

NRC regulations required that Entergy Nuclear Operations, Inc., the licensee for Indian Point, perform a site hazards analysis to determine the impact that the proposed natural gas pipeline would have on the facility. Accordingly, Entergy performed an analysis of the proposed 42-inch diameter gas pipeline and concluded that the plant could safely shut down in the event of a pipeline rupture and that the proposed gas pipeline would not represent an undue risk to the safe operation of the facility. The NRC staff reviewed Entergy's analysis and concluded that it was reasonable. In addition, the NRC staff performed an independent confirmatory analysis by conservatively assuming a complete rupture of the 42-inch diameter gas pipeline and similarly concluded that the plant could operate safely or could shut down and that the proposed pipeline would not represent an undue risk to the plant.

Your letter of January 15, 2015, stated that the NRC analysis was based on unrealistic assumptions and severely overestimated the ability of remote operators to isolate the gas pipelines and stop the flow of gas. Your letter also included a letter from Mr. Richard Kuprewicz, President of Accufacts, Inc., in which he states that the Entergy site hazard analysis is severely deficient and inadequate. Finally, you requested that an independent risk analysis be performed before the Federal Energy Regulatory Commission approves a certificate to build the proposed AIM Project.

During previous discussions with your staff, you were informed that the NRC had received a petition from Mr. Paul Blanch in which he also called for an independent analysis of the safety impact of the proposed AIM Project and that Mr. Blanch would have the opportunity to discuss his concerns with the NRC's Petition Review Board.

On January 28, 2015, Mr. Blanch, with assistance from Mr. Kuprewicz, made their presentation before NRC's Petition Review Board where they discussed their concerns over the proposed AIM Project. Their presentation focused on the following three items. First, they stated that it was unreasonable to assume that remote operators located in Houston, TX, would be able to detect pressure losses resulting from a postulated pipe rupture and take actions resulting in isolating gas flow within 3 minutes. Based on his experience, Mr. Kuprewicz estimated that the remote isolation valves would not close prior to 30 to 60 minutes following a pipe rupture.

Second, they believed that the controlling factor following a postulated pipe rupture would be the critical heat flux resulting from an extended fire that would last much longer than 3 minutes and would result in melting essential safety system components at the Indian Point site. They acknowledged that the robust concrete structures at the Indian Point site would not likely be adversely impacted by the overpressure pulse associated with the initial explosions. Third, they insisted that an independent safety analysis be performed to more accurately determine the impact of the proposed AIM project on the Indian Point site.

Your letter of February 26, 2015, further questioned Entergy's assumption that the pipeline isolation valves would close within 3 minutes following a pipeline rupture. Specifically, you questioned how remote control room operators located in Houston, TX, would be able to recognize that a pipeline rupture occurred and take the necessary actions to close the valves and isolate flow within 3 minutes. The NRC staff shared these concerns and performed a sensitivity study to determine the impact of a delayed closure of the pipeline's isolation valves. The study was bounded by the assumption of an infinite source which, simply stated, is the case where the isolation valves do not close and remain open for 60 minutes. The staff used the Areal Locations of Hazardous Atmospheres (ALOHA) model to simulate a 60-minute, continuous release. The ALOHA model was developed by NOAA and the EPA for responding to chemical releases, as well as emergency planning purposes. The outcome of the infinite source on the staff's confirmatory analysis resulted in only a minimal increase in both the overpressure pulse and the heat flux at safety-related structures, systems, and components (SSCs) of the plant. Due to the distance between the proposed routing of the 42-inch diameter natural gas pipeline and safety-related SSCs located at the Indian Point site, the predicted increase in peak pressure and critical heat flux remained below levels that would adversely impact the safe operations at the Indian Point site or prevent a safe shutdown.

The petition submitted by Mr. Blanch is being reviewed by the Petition Review Board. As part of that review process, a determination will be made regarding the need for an independent analysis, in addition to that already performed by the NRC staff. We will apprise you of any decisions by the Board regarding the petition when we communicate them to Mr. Blanch.

Thank you for sharing your concerns on this important issue.

Sincerely,

Michele G. Evans

Michele G. Evans, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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/RA/
Michele G. Evans, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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