

October 3, 2014

MEMORANDUM FOR: Christopher G. Miller, Director  
Division of Intergovernmental Liaison and Rulemaking  
Office of Federal and State Materials and Environmental  
Management Programs

FROM: Benjamin G. Beasley, Chief */RA/*  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

SUBJECT: COMMENTS ON THE FEDERAL ENERGY REGULATORY  
COMMISSION'S DRAFT ENVIRONMENTAL IMPACT  
STATEMENT RE: ALGONQUIN INCREMENTAL MARKET  
PROJECT (DOCKET NO. CP14-96-000)

The Federal Energy Regulatory Commission (FERC) solicited public comments on their draft Environmental Impact Statement (EIS) regarding the Algonquin Incremental Market (AIM) Project. The draft EIS describes the environmental effects that could result from the construction and operation of expanded natural gas pipelines that includes a new 42-inch diameter pipeline that crosses the owner controlled property at the Indian Point Energy Center.

The attached comments on the draft EIS, which were coordinated with Region 1 and the Office of Nuclear Reactor Regulation's Division of Operating Reactor Licensing (DORL) and Division of License Renewal, were previously forwarded to FERC. The purpose of this memorandum is to capture these comments in ADAMS (Agencywide Documents Access and Management System). The public comment period for the draft EIS ended on Monday, September 29, 2014.

Entergy Nuclear Operations, Inc., performed a site hazards analysis and submitted the associated 10 CFR 50.59 evaluation to the NRC by letter dated August 21, 2014 (Agencywide Document Access and Management System Accession No. ML14253A338). Region 1, with the assistance of the Office of New Reactors, is inspecting the licensee's submittal. FERC has recommended that a telephone conference call be held in the middle to late October time frame to discuss the results of the NRC inspection and whether any additional mitigation measures are necessary near Indian Point. DORL will be coordinating this call.

Docket Nos. 50-247 and 50-286

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**ADAMS ACCESSION NO.: ML14269A197**

**\*by email**

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**U.S. FEDERAL ENERGY REGULATORY COMMISSION**

**DRAFT ENVIRONMENTAL IMPACT STATEMENT**

**ALGONQUIN GAS TRANSMISSION, LLC**

**DOCKET NO. CP14-96-000**

**COMMENTS PROVIDED BY THE U.S. NUCLEAR REGULATORY COMMISSION**

Focus of NRC Comments

NRC comments are limited to the impact of the proposed 42-inch diameter natural gas pipeline on the continued safe operation of the Indian Point Nuclear Power Plant located in Buchanan, NY.

Comment 1: The Southern Route Crossing of the Hudson River

During the early planning phase of the AIM Project, Algonquin considered both a Northern and Southern Route Crossing of the Hudson River in the vicinity of the Indian Point Nuclear Power Plant. The Northern Route Crossing would run near the existing Hudson River pipeline and use the same easement that houses the existing natural gas pipelines that cross the owner-controlled property at the Indian Point facility. The Southern Route Crossing is located approximately 0.5 miles south of the existing Hudson River crossing and would be further south of the Indian Point facility. Algonquin's preferred option is the Southern Route Crossing and this is the proposed pipeline routing as described in the draft Federal Energy Regulatory Commission (FERC) Environmental Impact Statement (EIS). The NRC comments assume that the pipeline will be constructed along the Southern Route Crossing of the Hudson River as described in the draft FERC EIS.

Comment 2: Discussion of the Ramapo Fault

Page ES-3 of the draft EIS includes the following paragraph:

The potential for geologic hazards, including seismic events, to significantly affect construction or operation of the proposed Project facilities is low. Although the Ramapo Fault has been linked to recent earthquake occurrence in the area, the design of the pipeline takes into consideration site-specific conditions, including earthquakes. The recorded magnitude of earthquakes in the Project area is relatively low and the ground vibration would not pose a problem for a modern welded-steel pipeline.

The NRC recommends revising the above paragraph to more accurately describe the seismic activity of the Ramapo Fault as follows:

The potential for geologic hazards, including seismic events, to significantly affect construction of operation of the proposed Project facilities is low. *The U.S. Geological Survey (USGS) has extensively studied the Ramapo Fault system and the level of seismicity in the region. The USGS's review of data for evidence*

*of Quaternary fault activity (i.e., within the last 1.6 million years) encompassing the Eastern United States indicates that there is no clear association between the fault and small earthquakes that do occur in the region. Further, there is insufficient geologic evidence to indicate the existence of a tectonic fault or Quaternary slip or deformation associated with the fault (Crone and Wheeler 2000; Wheeler 2006). The design of the pipeline takes into consideration site-specific considerations, including earthquakes. The recorded magnitude of earthquakes in the Project area is relatively low and the ground vibration would not pose a problem for a modern welded-steel pipeline.*

*Wheeler RL. 2006. "Quaternary tectonic faulting in the Eastern United States." *Engineering Geology* 82:165–186.*

*Crone AJ, Wheeler RL. 2000. *Data for Quaternary Faults, Liquefaction Features, and Possible Tectonic Features in the Central and Eastern United States, East of the Rocky Mountain Front*. Reston, VA: U.S. Geological Survey. Open-File Report 00-260. 2000. 332 p. Available at <<http://pubs.usgs.gov/of/2000/ofr-00-0260>>*

### Comment 3: Discussion of the Safety Impact on the Indian Point Nuclear Plant

During preparation of the draft EIS, Entergy was actively performing a site hazards analysis to assess the impact of the proposed gas pipeline on the safe operation of the Indian Point nuclear power plant. Several times in the draft EIS, FERC discussed Entergy's site hazards analysis, NRC's involvement with this assessment, and how a final resolution would need to be made between all parties. This is discussed on (1) page ES-8 of the Executive Summary, (2) page 4-267 under Section 4.12.3, "Impact on Public Safety," (3) page 5-15 under Section 5.1.12, "Reliability and Safety," and (4) page 5-25 as Recommendation No. 42 under Section 5.2, "FERC Staff's Recommended Mitigation."

By letter dated August 21, 2014, Entergy provided their site hazards analysis to the NRC. NRC inspection of Entergy's site hazards analysis is ongoing as of the close of the public comment period for the draft EIS and the results of this inspection are scheduled for issuance in mid-November 2014. This is in advance of FERC's planned issuance of the final EIS in mid-December 2014. It is recommended that FERC and NRC discuss the final inspection findings in the mid to late October 2014 time frame to allow FERC to more accurately update the final EIS. In the interim, the NRC recommends revising these discussions to include the following:

*Entergy performed a site hazards analysis to assess any new safety impacts on the IPEC facility and concluded that, based on the proposed southern routing of the 42-inch pipeline and accounting for the substantial design and installation enhancements agreed to by Spectra Energy, the proposed pipeline poses no increased risks to IPEC. By letter dated August 21, 2014, Entergy submitted the site hazards analysis to the Nuclear Regulatory Commission for inspection. The results of this independent inspection are scheduled for issuance in mid-November 2014. Prior to construction in the vicinity of the IPEC facility, Spectra Energy shall consider the findings of the Nuclear Regulatory Commission's inspection to ensure that the AIM Project will not present any new safety hazards to the IPEC facility.*

Comment 4: Discussion of Nuclear Energy

Page 3-9 under Section 3.2.2.1, "Nuclear Energy," includes the following paragraph:

Because the subject of nuclear power remains controversial, any future proposals to construct new or expand existing facilities in the region would likely involve prolonged regulatory review and public opposition. Furthermore, there are environmental and regulatory challenges concerning safety and security, the disposal of toxic materials (spent fuel), and alterations to hydrological/ biological systems (for cooling water) that would need to be addressed before any new plants could be constructed. Even if these challenges could be overcome, a new plant would not likely be operational for many years. For these reasons, new sources of nuclear power could not meet the schedule of the Project and are not currently a practicable alternative to the proposed Project.

The NRC recommends the paragraph be revised as follows:

Because the subject of nuclear power remains controversial, any future proposals to construct new or expand existing facilities in the region would likely involve prolonged regulatory review and public opposition. Furthermore, *there is a regulatory process addressing safety and environmental issues (including reviews in the areas of nuclear safety and security, the disposal of spent nuclear fuel, and alterations to hydrological and biological systems) that would have to be completed before any new plants could be constructed and operated. Even if this regulatory review process were completed,* a new plant would not likely be operational for many years. For these reasons, new sources of nuclear power could not meet the schedule of the Project and are not currently a practicable alternative to the proposed Project.