Bernard M. Vaughey 215 Broadway Verplanck, NY 10596

October 25, 2016

Mr. Brian Haagensen Senior Resident Inspector Indian Point Nuclear Generating Unit Nos. 2&3 Buchanan, NY

Via E-Mail

Dear Mr. Haagensen,

With respect and utmost urgency, I request that you, as the Senior Resident Inspector, facilitate the immediate withdrawal of the NRC's approval of improvements to the Algonquin gas line through Indian Point Energy Center (IPEC), as part of the Spectra/Algonquin Incremental Market Project (AIM Project). A revision to the Updated Final Safety Analysis Report (UFSAR) is necessary prior to NRC approval, due to the changes in operating characteristics of the existing and remaining pipeline. Further, a transparent, independent risk analysis for the system modifications and IPEC is long overdue, has been requested at all levels of government, and should not be put off a moment longer.

Time is of the essence, as Spectra / Algonquin has requested FERC approval to implement these modifications by October 28, 2016. I believe you have a professional responsibility and moral obligation to address, and immediately correct, any situations that are not properly addressed or risk the future operation of Indian Point Energy Center (IPEC).

Facts:

The Entergy 10 CFR 50.59 transmittal letter (page 2 of 4) to the NRC indicates that "Entergy is required to assess the new safety impacts on its IPEC facility and provide that analysis to the NRC." However, the analysis provided is only for the NEW 42" natural gas loop pipeline south of IPEC. The need to analyze the existing two lines is relegated to a 2008 analysis, *well before* the AIM system changes were determined and officially presented.

The existing 50+ year-old 30-inch line, is within 400 feet of safety-related structures, systems and components (SSC). These SSC elements are within the potential impact radius of the 30-inch line, which has a maximum allowable operating pressure of 750 PSIG. This 30-inch line will now be interconnected either side of the IPEC to the higher pressure 42 inch, MAOP 850 PSIG gas line, just outside the IPEC security area. A single malfunction of a valve could over pressurize the existing lines.

The existing 50+ year-old 26-inch line, which also runs approximately 400 feet from the control room and other SSC, was presented as being kept in place *as a backup*. That 26-inch line has a MAOP of 674 PSIG, and will also be connected directly to the 42-inch line with a MAOP of 850 PSIG.

The 42-inch loop under the Hudson River has encountered serious installation difficulties. The exact date of the loop becoming operational is unknown at this time, and has not been presented on the docket. The existing 26-inch pipeline, within IPEC, will *not be a backup*, but the primary line, for the coming weeks and / or months of initial operation of the AIM project modification.

That 26-inch line within IPEC will now also be accessible from NEWLY installed receiver/launchers for pigging tools. These system entry points, for the 26-inch line thru IPEC, are located in areas just outside the security area of IPEC.

In the AIM Project FEIS, the existing 30-inch line, thru IPEC, was to receive additional compression horsepower, an increase of 70% (from existing 20,300 HP to 34,300 HP, with an additional reserve of 1900 HP (36,200 HP total)) located on the AIM system, upstream of IPEC, in Stony Point, NY. A recent FERC submittal may be seeking to increase that authorization further, for a *total increase in compression HP of over 78%*.

Entergy has indicated that the proposed AIM project significantly expands the existing Algonquin system, including pipeline capacity and pressure. The existing 30-inch line will see an increase in the existing volumes and likely current operating pressures. While we are not party to the amounts flowing in the existing 26- and 30- inch lines, we do know that the docket records indicate that prior to the AIM upgrades, **approximately 1.4 Billion cubic feet per day (Bcf/d)** cross under the Hudson River, and that the 30-inch line will provide <u>additional</u> volumes. The AIM documents originally indicated the 30- inch line would provide an additional 237,500 (0.23 Bcf/d) of the 342,000 Dth/d of the AIM project upgrades. Documents submitted a few days ago to FERC for authorization indicate 245,000 Dth/d (0.237 Bcf/d) of additional volume under the river, and **thru IPEC**, **for a total of over approximately 1.6 BCF/d.**

Each of the abovementioned facts appear to be changes to the operation parameters to the existing system. Further, the changes affect the pipeline through IPEC, within 400 feet of safety related structures, systems and components (SSC).

These facts and changes would not have been known at the time the last UFSAR was updated, (supposedly in 2008), according to the documents submitted by NRC and Entergy to FERC in August of 2014.

Therefore, who specifically has reviewed the modifications and upgrades to the existing gas transmission lines thru IPEC?

Regarding the existing 26- and 30- inch transmission lines thru IPEC, FERC project personnel have confirmed that "The existing pipeline was not evaluated under the AIM Project, as it was previously evaluated when it was installed. The AIM Project proposes NO increase in operating pressure of the existing pipeline. The new 42-inch pipeline will replace the existing pipeline throughout much of the project. However, at the Hudson River, Algonquin chose to keep the existing pipeline in place as a backup. Should any condition arise, such that the new 42-inch pipeline becomes unusable or restricted, Algonquin will have the redundancy in its system needed to continue providing service through the existing lines. However, that service would be restricted to the existing pressure allowed on the existing pipeline. The increased compression at each of the compressor stations would facilitate the additional volumes of gas to flow along the new 42-inch pipeline. Therefore, there would be no change in operational characteristics of the existing pipeline". (emphasis added)

While the additional compression Horsepower, the additional volumes of permitted flow (an additional 245,000 Dth/d or 237,000,000 CF/d), additional crossover piping and valves, and the additional of launchers / receivers in close proximity to the secure area may not be a drastic change for the larger Spectra / Algonquin system overall, how can these modifications not be regarded as a change for IPEC and any risk analysis?

Where are those changes addressed, for the existing line, in the IPEC USFAR from 2008?

Did the NRC-AIM project analysis review the possible over-pressurization of the existing 26-inch and / or 30- inch lines using the new 42- inch line higher allowable operating pressures thru NEWLY installed crossovers, located in relatively unsecure areas? Either accidental or intentional incidents?

Did the NRC analysis review the possible use and the security of the launcher / receivers outside IPEC to access secure facilities within IPEC?

What was reviewed by NRC – current operating system or proposed upgrades and system capacities?

These modifications and changes are definitely changes in the operation of the 30- inch and 26 -inch gas lines. It should have triggered a review, but did not. Why?

The existing 30-inch gas line, within 400 feet of SCC, is connected to the new higher pressure 42-inch line. Why are the enhancements needed for the 42 inch line – thicker walls, deeper embedment depth, concrete slabs, etc – but apparently not reviewed nor upgrades required for the existing lines thru IPEC, adjacent to the control room, plant and other facilities?

The 42-inch pipeline was originally proposed as a class 3 pipeline adjacent to SCC areas. Now that new 42-inch section is not a class 4, but an "enhanced" class 4 area. Also, this enhanced area is NOT the safety related SCC area (of the 30 inch line), but an SCC area important to safety.

If Entergy and the NRC are demanding pipeline class upgrades and enhancements outside the secure area at IPEC, an area important to safety, wouldn't it be deemed best practice, in the interest of public safety, to require and **demand those enhancements on the existing pipes** remaining within the IPEC security area – a safety related SCC area, if they are in any manner connected to the higher pressure pipeline?

RECENT EVENTS

Events of recent days have increased the urgency of requests to the NRC to rescind its approvals for this AIM project until transparent risk analysis are done. Further, it is vital to conduct a transparent updating of the IPEC USFAR to address the <u>changed operating conditions on the 26-inch and 30- inch lines which could not be reflected in the referenced 2008 last review.</u>

If protestors and activists can so easily access the inside of pipelines to be installed, and shut down transmission gas lines thru minimally secured enclosures, it is reasonable and necessary for the Department of Homeland Security, Entergy and NRC to address the ramifications at IPEC **BEFORE** the AIM modifications can become operational thru IPEC.

In early October, 2016, the actions of a handful of activists illustrated the vulnerability of pipelines to low tech attacks. These actions illustrated the potential dangers of shutting off valves, and the resulting significant increases in pressures experts indicate can occur on pipelines. With the new compression horsepower in Stony Point and shutoff valves in Buchanan, both close but *outside* the IPEC secure area, has the USFAR been updated to address these system changes, and potential impacts, to both remaining existing gas transmission lines?

An October 12, 2016 NY Times article on this incident mentioned a review published by DHS in 2015 identifying physical and cyber security as a risk to energy infrastructure systems. Has the NRC reviewed the AIM project, and its NEW installations, including valves, with regards to this new information?

Also in October, 2016, the vulnerability of critical internet infrastructure was exposed. Due to technology advances year to year, let alone between 2008 and 2015, how can the 2008 USFAR address technology changes in the communications used and necessary to monitor, control and protect the gas line, and the related infrastructure – the compressor stations, valves, launchers, and overall security of the gas lines thru IPEC. With the system changes in the exiting lines thru IPEC, where is the UPDATED Final Safety Analysis (UFSAR) to address the changes that AIM is making? Without that updated and current analysis (UFSAR), and the long demanded transparent risk analysis, how can the NRC, or any of its agents, in good conscience, much less in the interest of national safety, allow the AIM project to receive FERC approvals to proceed changing the current gas line operating parameters?

I understand that the details of many of these individual issues are confidential. However, a comprehensive and detailed NRC declaration that these and other outstanding issues were reviewed could surely be addressed with some specifics or details related to each issue, to provide some clarification, without divulging actual confidential details. This needs to be done BEFORE the AIM modifications / upgrade are allowed to become operational through the IPEC pipeline section and thru the IPEC security area.

Your immediate attention is required, as these changes may take effect as soon as this weekend.

Sincerely,

Bernard M. Vaughey

Cc:

Glenn Dentel, NRC

Congresswoman Nita Lowey

Senator Charles Schumer,

Assemblywoman Sandy Galef

Michael Preziosi, PE, Town of Cortlandt

Paul Blanch



EAST OF IPEC BUCHANAN FACILITY - GRM FRANCE

of the AIM Project to IPEC, Entergy—as the owner and NRC-licensed operator of IPEC—has a demonstrated interest in the AIM Project, and no other party can adequately represent Entergy's interests.⁶

Entergy noted in its NEPA scoping comments that the existing Algonquin pipeline system has been operating safely next to IPEC for several decades, and several evaluations of the potential hazards posed by the existing pipelines, conducted pursuant to NRC regulations and guidance, establish that the existing pipelines do not impair the safe operation of IPEC.⁷ These analyses are part of the NRC design and licensing basis for both IP2 and IP3.8 The proposed AIM Project, however, significantly expands the existing Algonquin system, including pipeline capacity and pressure. Thus, the potential for increased nuclear safety risks, including in terms of the probability and consequences of a potential malfunction or failure of the expanded natural gas pipeline near IPEC, must be evaluated in advance and found to be acceptable in accordance with applicable NRC regulations before implementing the proposed change. While such occurrences are unlikely, Entergy must analyze any increased risk and consequences of such events prior to FERC's approval of the project. Depending on the results of the analysis, prior NRC review and approval of the new hazards analysis could be required before the project can be approved by FERC. As part of its review, NRC could request further information on the project or require additional measures to mitigate any potential hazards to IPEC. Such issues would have to be addressed before NRC could complete its review.

Algonquin Gas Transmission, LLC, Motion to Intervene and Comments of Entergy Nuclear Indian Point 1, LLC, et al. at 4, Docket No. CP14-96-000 (April 8, 2014).

The NRC has independently evaluated the external hazards posed by these pipelines several times, including pre-licensing in 1973 and more recently in 2003 and 2008. Those evaluations considered the design and construction of the gas lines, operations and maintenance practices, postulated failure modes, and standoff distances to safety-related structures. NRC's reviews have concluded that the existing pipelines do not adversely affect the safety and security of the plant. *See* Letter from NRC to the Honorable Sandra R. Galef, New York State Assembly, dated March 20, 2014 (ADAMS Accession No. ML14069A370).

See IP3 Updated Final Safety Analysis Report ("UFSAR"), Rev. 3, Section 2.2.2, describing the existing pipelines and referencing a 2008 evaluation of potential hazards posed by the pipelines.

N 300,-0, N 250'-0" N. 200'-0" N. 150'-0" 30 N. 50'-0" 0-06 5 REV. E Algoropsin Gas Transmission, LLC
469 Washen C. Index D. Trockles III - 620-549
DWG. S7-G-1321 RE Spectra Energy Partners. LOC. WESTCHESIER COUNTY, NEW YORK
DATE YEAR 2016 | SCALE. 1' STONY POINT DISCHARGE
ALCONQUIN INCREMENTAL MARKET PR
PROPOSED 42" & 26" M/L
GENERAL PLAN EDISON CO. STATE OF NEW ENCINEERING REVIEW 2/11/14
JAB 02/2014 £ 20,-0, DRAWN BY: MNG MNG AN AN PROJECT PREPRISED 26' BALL VALVE TPEC PROPUSED ROV. PROPOSED R.D.V. TEM NO. ISSUED FOR FERC APPLICATION
ISSUED FOR FERC APPLICATION
ISSUED FOR CLIBAT REVIEW
ISSUED FOR INTERNAL REVIEW
DESCRIPTION
REVIEW
REVISIONS CON EDISON CO. STATE OF NEW YORK Prince Controller Annual New Depterm weraumon countrol mou instrument practice of the first expension of the first service of the service of MNG JAB
MNG JAB
MNG JAB
MNG CCW
MNG CCW
MNG CCW
MNG CCW
MNG CCW
MNG CCW 440, DWG. NO. PLOT TIME: 2/18/2014 2:47 PM

30° × 50.00 N. 300'-0" 2 20,-0 REV. D Algoriquin Gas Transmission, 11.C. Sed Westerne D. Hosea, D. Profession 11. Cr. DWG. S7-G-1311 RE 100 Spectra Energy STONY POINT DISCHARGE
ALGONOUIN INCREMENTAL MARKET PROJECT
PROPOSED 42" & 26" M/L
GENERAL PLAN LOC. ROCKLAND COUNTY, NEW YORK
DATE YEAR 2016 SCALE: R-126 H/L CHRIS MARTINELLE E 200.-0, TEMPORARY CONSTRUCTION APPROXIMATELY .75 ACRES POSED R.D.V. E 250.-0. ENGINEERING APPROVALS CCW 2/11/14 JAB 02/2014 SIGNATURE DATE STATE OF NEW YORK PROPOSED 42' SIES STONY AND AIR PROJECT DRAWN BY: MNG MNG PROPOSED 30" BALL VALVE PROPOSED 26" | X ROPUSED 86* BALL VALVE CONSTRUCTION STRUCTION STR 0 STATION 0,0 ITEM NO. R-119.05 VALTER A. PORR A MING JAB ISSUED FOR FERE APPLICATION NEW JAB ISSUED FOR FERE APPLICATION SSUED FOR FERE APPLICATION REVIEW APPLICATION STATE OF CHEMICAL REVIEW APPLICATION S R-119.04 PALISADES INTERSTATE PARK CUMMISSION EDSTRUCT CONTINUES AND PROPERTY INSTRUMENTS COLPILED TROM INSTRUMENTS PROVIDED COMPANIES. FOUR ZOOR 16 AND 38.

VARIABLES FOUR ZOOR TO THE SHAPE WITH SWARMENTS TO BE EDGE. FOR PASSENCED MAY ALL THESE OF OTHER THEORY SHAPE DWG, NO. 250'-0"

		Stand-Alone		Stand-Alone		Combined *			
	Before	Req For		Req for		Req for Both	and the same of	Available HP	
	AIM	AIM		System 2.55 B		Projects		After Projects	
	Нр	Нр		НР		Нр		Нр	
C1-Recip	2,700	2,700		retired		retired			
C2-Recip	2,700	2,700		retired		retired			
C3-Recip	2,700	2,700		retired		retired			
C4-Recip	2,700	2,700		retired		retired			
C5-Taurus 60	7,700	7,700		7,700		7,700		_	
New Pwr	-	2,300	1/	10,800	2/	15,900	5/	2,800	
Total Hp	18,500	20,800		18,500		23,600		2,800	
Reserve	2,700	2,700	3/	2,700		2,700		2,600	
Design	15,800	18,100	4/	15,800		20,900		2,800	
1/	Call for Centaur 50 (6	5,300 HP) since	Cent	aur 40 (4,700 HP)	can	not meet the 9P	PM		
	requirement.			• • • • •					
2/	Call for Mars 100.								
3/ 4/	Reserve Power of 2,700 hp is retained throughout.								
	Extracted from Exhibit G, G-I, Winter Peak Day Expansion, page 3 of 20								

		Stand-Alon	е	Stand-Alone	Combined	*		
	Before AIM Hp	Req For AIM Hp	50 1091	Req for System 2.55 B HP	Req for Both Projects Hp		Available HP After Proje Hp	
C6-Taurus 60 C7-Mars 90	7,700 12,600	7,700 12,600			7,700 12,600	2/	-	2,
New Pwr	-	14,000	1/	·	15,900	3/	1,900	
Total Hp Reserve	20,300	34,300	4/		36,200		1,900	
Design ————————————————————————————————————	20,300	34,300	5/		36,200		1,900	
1/3/ 2/ 4/ 5/	HP output to the cur Reserve Power not n	Mars 100 to me rent Mars 90 lev leeded here. It i	et 9F rel (1 s acc	PPM requirement. W	-inch side	to lim	nit	



10.5.3 Hudson River Crossing Alternative

As described in the Pre-filing Draft Resource Report 10, Algonquin owns and operates two existing 24-inch diameter pipelines and one 30-inch diameter pipeline that cross the Hudson River between the Town of Stony Point in Rockland County, New York, and the Village of Buchanan (located in the Town of Cortlandt) in Westchester County, New York. Algonquin typically aligns its replacement facilities in similar locations to the pipeline being replaced to utilize the existing footprint as much as practicable. However, the three existing Algonquin pipelines that cross the Hudson River at this location were all installed using the open cut construction method in the late 1950s to early 1960s. All three pipelines cross through the Indian Point Energy Center Station ("IPEC") property on the east side of the Hudson River.

In its comments on Algonquin's Draft Resource Reports, the New York State Department of Environmental Conservation ("NYSDEC") asked why an additional 42-inch diameter pipeline is required across the Hudson River when the three existing pipelines will remain in service. As part of its Certificate Application, Algonquin filed Exhibit G (Section 157.14) that provides the information needed for FERC to review and evaluate Algonquin's proposed facilities and determine if they are properly sized for the Project's proposed increase in flows. Exhibit G is comprised of a set of flow diagrams that shows daily design capacity and reflects operation with and without the proposed facilities. As reflected in the Exhibit G, the two existing 24-inch diameter lines and one 30-inch diameter line beneath the Hudson River cannot provide the increased capacity to meet the needs of the Project. The two 24-inch diameter pipelines each have a MAOP of 674 psig; the 30-inch diameter pipeline has an MAOP of 750 psig. The proposed 42-inch diameter line will have an MAOP of 850 psig. The 26-inch diameter onshore pipeline that connects to the two 24-inch diameter pipeline crossings on either side of the Hudson River also operates at a MAOP of 674 psig. None of these existing pipelines can be upgraded to a higher MAOP.

Algonquin will retain the existing pipelines for system reliability reasons. Approximately 1.4 Bcf/d flows through the existing pipelines that cross the Hudson River providing approximately 50 percent of the natural gas delivered to the New England region. Should flow through either the 30-inch diameter pipeline crossing or the proposed 42-inch diameter pipeline crossing be interrupted (i.e. a planned maintenance outage of the upstream pipelines) then the two 24-inch diameter pipelines can be temporarily used, albeit at a lower pressure, to minimize the interruption or reduction of flow to points further downstream. Without the two existing 24-inch diameter pipeline crossings, an outage of either the proposed 42-inch or the existing 30-inch diameter pipeline crossings would mean that substantially greater losses in capacity would occur over an extended period. The resulting curtailment of gas supplies to New England power generators, industrial, commercial and residential customers downstream could mean substantial hardship and economic loss for those customers.

Because the existing pipelines that cross the Hudson River do not provide the necessary pipeline capacity required for the Project, Algonquin conducted an evaluation of the feasibility of installing the proposed 42-inch diameter pipeline across the Hudson River using the horizontal directional drilling ("HDD") construction technique along two routes, the "Northern Route Crossing" and "Southern Route Crossing" because an HDD river crossing would avoid any in-water impacts in the Hudson River. The Northern Route Crossing would generally parallel the existing pipelines while the Southern Route Crossing would deviate from the existing pipeline ROW and cross the Hudson River approximately 0.5 miles south of the existing pipeline crossings.

To determine the most suitable crossing location, Algonquin completed a detailed engineering feasibility and geotechnical investigation that included the collection of fifteen (15) geotechnical borings in the Hudson River. The data collected during the field effort was combined with the analysis of other existing publically available geotechnical data in the general Project area.

Algonquin Gas Transmission, LLC Docket Nos. PF13-16-000 / CP14-96-000 Response to Data Request Dated December 2, 2014

DATA REQUEST RESPONSE

pipeline, Algonquin is able to replace fewer miles of the existing 26-inch diameter pipeline as part of the take-up and relay, which in turn reduces the potential environmental impacts of the AIM Project. Finally, installation of the proposed 42-inch diameter pipeline as part of the AIM Project will minimize potential future environmental and landowner impacts. For these reasons, Algonquin has determined that a 42-inch diameter replacement pipeline as part of the AIM Project is appropriate.

PIPELINE:

The pipe lengths proposed for the AIM Project in the hydraulic model may differ from those contained in the application. Initial pipe lengths included in the application are field-based and determined by field conditions while those in the model are simulation-based and determined by hydraulic conditions. Final lengths will be determined by the route approved by the FERC. Upon approval of the final route by the FERC and completion of the project facilities, the hydraulic model will be updated to incorporate the actual "as-built" lengths and diameters.

From the inlet of the Hanover Compressor Station and the outlet of the Oxford Compressor Station, Algonquin proposed the Take-up & Relay (T&R) of approximately 20.1 miles of existing 26-inch diameter line with new 42-inch line in three segments, (i) 3.3 miles of Haverstraw to Stony Point, (ii) 12.3 miles of Stony Point to Yorktown, and (ii) 4.5 miles of Southeast to Yorktown. In addition, Algonquin proposed additional horsepower at the Stony Point and Southeast Compressor Stations.

The AIM volumes are split between the 26-inch and the 30-inch lines in order to serve the markets located on each of those lines. Of the 342,000 Dth/d in the AIM Project, the 26-inch diameter pipeline will carry approximately 104,500 Dth/d while the 30-inch diameter pipeline will carry approximately 237,500 Dth/day.

As noted above, one option to address the pressure losses on the two lines would have been to install an additional loop on each line. This would minimize the pressure losses such that the Algonquin System could meet its existing and AIM Project obligations. However, the addition of loop lines to the existing 26-inch and 30-inch would have meant large tracts of new Right-of-Way, all new temporary work space, new access roads and a maximum of disturbance to the environment and to the local communities.

In an effort to minimize the disturbances while still meeting the needs of its shippers, Algonquin searched for a way that effectively addressed the pressure losses on both lines while still minimizing the disturbance to the environment and the surrounding communities.

³ As stated in Algonquin's Response to Comments, Algonquin is proposing to install a new 42-inch diameter pipeline crossing the Hudson River and idle (but retain in-service for backup needs) the two existing 24-inch diameter pipelines. Response to Comments at 22.

	TA	BLE 4.12.1-1					
Area Classifications Along the AIM Project							
Facility	County, State	Begin MP	End MP	Length (feet)	Class Location		
Replacement Pipeline				(1001)	Location		
Haverstraw to Stony Point Take-up and Relay	Rockland, NY	0.0	1.7	9,186	3		
		1.7	1.9	787	1		
Story Daint to V. 14	Serial Interfaces No. Securitives	1.9	3.3	7,334	3		
Stony Point to Yorktown Take- up and Relay	Rockland, NY	0.0	0.9	4,800	3		
op and relay		0.9	1.3	2,270	1		
		1.3	3.2	9,988	3		
		3.2	3.5	1,542	1		
	Westchester, NY	3.5	3.9	1,983	1		
		3.9	4.6	3,837	2		
		4.6	4.7	244	3		
		4.7	5.0	1,776	1		
		5.0	6.8	9,567	3		
		6.8	8.0	6,148	1		
		8.0	10.9	15,335	3		
		10.9	11.2	1,708	2		
Caralla de Maria de Caralla de Ca	NEE	11.2	12.3	5,755	1		
Southeast to MLV 19 Take-up and Relay	Putnam, NY	0.0	0.1	792	1		
	Fairfield, CT	0.1	0.9	4,105	3		
F40		0.9	1.0	724	1		
		1.0	2.6	8,205	3		
		2.6	2.9	1,585	1		
		2.9	4.5	8,354	3		
E-1 System Lateral Take-up and Relay	New London, CT	0.0	0.5	2,579	2		
		0.5	8.5	42,408	1		
		8.5	8.9	2,123	3		
pop Extension		8.9	9.1	938	1		
Line-36A Loop Extension	1610						
Line-30A Loop Extension	Middlesex, CT	0.0	0.7	3,586	1		
		0.7	0.9	906	3		
		0.9	1.0	1,034	1		
		1.0	1.5	2,328	2		
	199 39 3 E	1.5	1.8	1,372	1		
E 1 System Lateral I	Hartford, CT	1.8	2.0	1,320	1		
E-1 System Lateral Loop Extension	New London, CT	0.0	0.3	1,814	3		
		0.3	1.2	4,412	1		
w Pipeline a		1.2	1.3	902	2		
West Roxbury Lateral	Norfalls MA						
	Norfolk, MA	0.0	0.2	900	3		
		0.2	0.4	1,300	4		
		0.4	0.6	1,100	3		
		0.6	1.2	19,600	4		
	0.66.11.11.1	1.2	3.4	11,880	3		
	Suffolk, MA	3.4	5.1	8,184	3		

The length of the pipeline does not match the mileposting system. This is because several route modifications were incorporated into the proposed route after the mileposting system was established. This specifically affects the West Roxbury Lateral where the changes resulted in an overall decrease in total pipeline length. The changes to the other segments did not result in an overall change in the segment lengths.

ALGONQUIN GAS TRANSMISSION, LLC 5400 Westheimer Court Houston, TX 77056-5310

713.627.5400 main

Mailing Address: P.O. Box 1642 Houston, TX 77251-1642



October 18, 2016

Ms. Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Re:

Algonquin Gas Transmission, LLC, Docket No. CP14-96-000

Request to Place AIM Project Facilities In-service

Dear Ms. Bose:

On March 3, 2015, the Federal Energy Regulatory Commission ("Commission") issued its Order Issuing Certificate and Approving Abandonment in the above-referenced docket authorizing Algonquin Gas Transmission, LLC ("Algonquin") to construct, own, operate, and maintain the Algonquin Incremental Market Project ("AIM Project"). Pursuant to Environmental Condition No. 10 of the Certificate Order, Algonquin hereby requests that the Director of the Office of Energy Projects ("OEP") grant Algonquin authorization by October 28, 2016 to place into service all of the AIM Project facilities except for new pipeline associated with the crossing of the Hudson River, facilities at the existing Pomfret M&R Station, and the West Roxbury Lateral and associated new meter station. This request includes all the facilities listed below, along with other appurtenant facilities.

Compression Facilities:

- Two new Solar Mars 100, 15,900 hp each natural gas-fired turbine compressor units and restage of one existing compressor driven by a Solar Taurus 60 natural gas-fired turbine with gas cooling and station piping modifications at Algonquin's existing Stony Point Compressor Station in the Town of Stony Point, Rockland County, NY;
- One new Taurus 70, 10,320 hp natural gas-fired turbine compressor unit; restage of one existing compressor driven by a Solar Taurus 70 natural gas-fired turbine; replace the compressor body driven by an existing Solar Mars 100 natural gas fired turbine; and gas cooling and station piping modifications at Algonquin's existing Southeast Compressor Station in the Town of Southeast, Putnam County, NY;
- Restage one existing compressor driven by a Solar Taurus 60 natural gas-fired turbine at Algonquin's existing Oxford Compressor Station in the Town of Oxford, New Haven County, CT;
- One new Solar Mars 100, 15,900 hp natural gas-fired compressor unit with gas cooling and station piping modifications at Algonquin's existing Cromwell Compressor Station in the Town of Cromwell, Middlesex County, CT;
- One new Solar Mars 100, 15,900 hp natural gas-fired compressor unit, gas cooling for the new
 compressor unit, restage of one existing compressor driven by a Solar Taurus 60 natural gas-fired
 turbine, and station piping modifications at Algonquin's existing compressor station in the Town
 of Burrillville, Providence County, RI; and

¹ Algonquin Gas Transmission, LLC, 150 FERC ¶ 61,163 (2015) ("Certificate Order").

 One new Solar Taurus 60, 7,700 hp natural gas-fired compressor unit, gas cooling for the new compressor unit and two existing compressor units, and station piping modifications at Algonquin's existing compressor station in the Town of Chaplin, Windham County, CT.

Pipeline Facilities²:

- 2.0 miles of 36-inch diameter pipeline looping in Middlesex and Hartford counties, CT (Line 36A Loop);
- 9.1 miles of 16-inch diameter pipeline that replaced a corresponding segment of 6-inch diameter pipeline on the E-1 System Lateral in New London County, CT (E-1 System Lateral Take-up and Relay);
- 1.3 miles of 12-inch diameter pipeline looping in New London County, CT (E-1 System Lateral Loop);
- Haverstraw to Stony Point Take-up & Relay of 3.3 Miles of 26-inch diameter pipeline with 42-inch diameter pipeline in the Town of Haverstraw, Rockland County, NY and in the Town of Stony Point, Rockland County, CT;
- Stony Point to MP 2.6 (Valve Site 142) Take-up & Relay of 2.6 Miles of 26-inch diameter pipeline with 42-inch diameter pipeline in the Town of Stony Point, Rockland County, CT;
- MP 5.5 (Valve Site 143) to Yorktown Take-up & Relay of 6.8 Miles of 26-inch diameter pipeline with 42-inch diameter pipeline in the Towns of Stony Point and Cortlandt (including the Hamlet of Verplanck and the Village of Buchanan), the City of Peekskill, and the Town of Yorktown, Westchester County, NY;
- Southeast to MLV 19 Take-up & Relay of 4.5 Miles of 26-inch diameter pipeline with 42-inch diameter pipeline in the Town of Southeast, Putnam County, NY and in the City of Danbury, Fairfield County, CT; and

Metering & Regulating Facilities (New Stations):

- Oakland Heights M&R Station in City of Norwich, New London, CT;
- Assonet M&R Station in Town of Freetown, Bristol, MA; and

Metering & Regulating Facilities (Modifications to Existing Stations):

• Modifications to 23 existing M&R stations in CT, MA, and NY.

Algonquin previously received authorization to place certain facilities into service, while the AIM Project was still under construction, to provide service using pre-existing system capacity and for system reliability purposes during the construction of the remaining Project facilities. Here, Algonquin is requesting authorization to place Project facilities into service that will be utilized to provide 245,000 Dth/d of incremental firm transportation service, out of the total AIM Project capacity of 342,000 Dth/d.³ In support of this request, Algonquin affirms that restoration of areas of Project-related disturbance for the referenced facilities is proceeding satisfactorily, or will be by the requested authorization date. In accordance with Environmental Condition No. 10 of the Certificate Order, Algonquin will submit an additional, more separate request to the Director of OEP to place the remaining Project facilities into service once they are complete and ready to begin full service.

² This request includes all pipeline facilities except for an approximately 2.9 mile section of new pipeline associated with the crossing of the Hudson River from MP 2.6 (Valve Site 142) to MP 5.5 (Valve Site 143). That crossing is still under construction and Algonquin will utilize its existing crossings of the Hudson River until the construction is complete. In addition, the West Roxbury Lateral and the new meter station in West Roxbury are also excluded from this request. As indicated below, Algonquin will submit an additional request to place those facilities in-service in order to provide the full project capacity.

³ The remaining 97,000 Dth/d AIM Project capacity will be available when the remaining Project facilities are placed into service following authorization from the Director of OEP.

If you have any questions regarding this filing, please contact me at (713) 627-5113.

Respectfully submitted,

/s/ Chris Harvey
Chris Harvey
Director, Rates and Certificates

cc: Maggie Suter (FERC) Stefanie Schumacher (FERC) Matthew Roy (FERC)