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By Electronic Delivery & Hand Delivery

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Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 South Fruit Street
Concord, NH 03301

**RE: Public Service Company of New Hampshire d/b/a Eversource Energy
Mercury Boiler Removal Project Monthly Status Update**

Dear Director Howland:

Pursuant to Order No. 25,956 issued on October 21, 2016, I enclose Eversource Energy's monthly update on the cost and progress for the Schiller Station mercury boiler removal project for the month of December 2017. If you have any questions, please do not hesitate to contact me.

Very truly yours,

Christopher J. Goulding
Manager
NH Revenue Requirements

Enclosures

cc : Service List, Docket No. DE 16-817 (by electronic mail only)

Eversource

**Removal of Mercury Boilers
at Schiller Station**

Monthly Status Report

December 2017

Date: January 30, 2018
Subject: Schiller Station Units 1 & 2 Mercury Boiler Removal
Monthly Status Report # 14 – December 2017

Summary

The mercury boiler equipment removal project was proceeding as planned up to June 2017 when an employee of the demolition contractor Manafort Brothers Inc. (“MBI”) voiced concern regarding a potential mercury exposure. At that time, all work related to cutting, burning and handling steel components was stopped to evaluate the situation. As a result, demolition work stopped to assess conditions and did not resume until September 2017. Since then, demolition work has slowly ramped up under modified procedures developed by MBI.

Actual expenses for the last fourteen months of activity continue to be in line with the overall estimated cost range. No environmental concerns have been raised beyond those expected and typical at this time. The potential safety issue noted above was discussed in previous reports.

Due to the recent work-stoppage, the expected project completion date of October 15, 2017 is now extended into 2018. The revised schedule reflects the work stoppage for safety re-evaluation, a work transition to orientate several new contractor employees as well as to institute revised procedures to allow a safe return to work. The schedule continues to be reviewed and will likely be finalized along with an updated project cost estimate by late January 2018 / early February 2018. This time is needed to evaluate worker productivity while using new work procedures, expand personal protective equipment and new tooling for cutting and removal.

Background

On October 21, 2016 in Order No. 25,956 the Commission approved Eversource’s removal of two mercury boilers and associated equipment located at Schiller generating station as recommended by the Commission’s auction advisor, J.P. Morgan

The Order noted:

“The immediate launching of the Schiller abatement effort offers several advantages within this framework. Eversource has intimate, operationally-developed knowledge of Schiller Station conditions that would enhance the efficiency of the remediation effort. Prompt remediation of the conditions at Schiller Station will tend to make the asset a more attractive acquisition target, and protect potential operational synergies among the Schiller, Newington, and Merrimack Station facilities.”

And the Commission concluded:

“We are also satisfied that the cost-review checks called for by the terms of the Stipulation will enable the Commission, Staff, and the other parties to monitor the effort for cost overruns and other potential issues. We will require that Eversource provide monthly updates on the cost and progress of the removal to Staff

and we will require Staff to bring any substantial variances to our attention. We therefore find that undertaking the proposed removal of the two mercury boilers and related equipment from the Schiller generation station is prudent within the framework of the divestiture auction. We will monitor the manner in which Eversource conducts the removal to ensure that the removal is prudently managed.”

Status

1.0 Cost

The total project cost estimate is in the range of \$20 - 30 million based on information provided by Eversource’s vendors. The Company has incurred cost through December 2017 of approximately \$12.5 million. As noted above, an updated cost estimate is expected during late January 2018. Please refer to page 6 and page 7 for details of the actual cost by month.

2.0 Schedule

The anticipated schedule and corresponding status is being reviewed and is expected to be updated by late January 2018.

	Projected Schedule	Schedule Status
Nov 2016	Mobilize & Testing (a)	On Target
Dec 2016	ACM (b)	On Target
Jan 2017	ACM & Demolition (c)	On Target
Feb 2017	ACM & Demolition	Schedule Revised
Mar 2017	ACM & Demolition	On Target
Apr 2017	ACM & Demolition	On Target
May 2017	ACM & Demolition	On Target
Jun 2017	Delay – Safety Re-Evaluation	Delay (d)
Jul 2017	Delay – Safety Re-Evaluation	Under Review
Aug 2017	Delay – Safety Re-Evaluation	Under Review
Sep 2017	ACM & Demolition	Under Review
Oct 2017	Demolition	Under Review
Nov 2017	Demolition	Under Review
Dec 2017	Demolition	Under Review
2018	Demolition/Completion (TBD)	
	Project completion date remains under review	

Notes (for table above):

- (a) "Mobilize" includes staging of temporary office trailers, parking, decontamination area, setting up enclosures, and preparing work & safety plans. "Testing" involves *in situ* pre-demolition chemical characterization of materials to determine proper offsite disposal criteria.
- (b) "ACM" = Abatement of Asbestos Containing Material.
- (c) "Demolition" = Demolition of Units 1&2 components over a 9-month period. Components to be removed include: stack, turbines, boilers, control room, coal bunker and all associated piping, lines and conduits.
- (d) Schedule impact due to Safety Re-Evaluation, new employee orientation, revised procedures and gradual startup.

3.0 Permitting and Notifications

The existing project permits as described in the November 2016 monthly status report are in good standing with no issues. Those are listed below.

- Demolition Permit with the City of Portsmouth
- Abatement Notification to NHDES
- Alternative Air Emissions Compliance Plan

4.0 Critical Path Items Completed / Underway

Asbestos Abatement – 90% complete

Dismantling/Demolition – 45% complete

Gross asbestos abatement took place over the first 6 months of the project. Dismantling/demolition including integrated asbestos abatement is continuing. The dismantling and integrated asbestos abatement involves 5 elevations in varied locations of the Unit 1 and 2 boiler house area. The work initially began at the higher elevations and proceeded to the lower elevations. Boiler dismantling has recently been re-phased to complete boiler, condenser, and turbine dismantling on the turbine deck (El. 36') and proceed from the turbine deck up to where the boilers are currently dismantled down to at El. 82'. Where possible, work is being completed in parallel. The asbestos and dismantling work conducted during December included the following:

- Continued removal of mercury piping systems within the Unit 1 and 2 El. 82' and El. 59' containment.
- Continued removal of mercury piping systems at El. 11'.
- Continued maintenance of all existing containments.
- Continued asbestos bulk final cleaning of the Unit 1 and 2 El. 82' and El. 59' containment outside the footprint of the Unit 1 and 2 boilers.
- Continued removal of the north and south Mercury Storage Tanks at El. 11'.

- Completed removal of stored equipment and materials from the Planning Office for temporary storage.
- Completed removal of the mercury boiler stack.
- Began and completed removal of piping within the El. 36' containment between Turbine 1 and Turbine 2.
- Completed removal of the Deaerator Tank and base at El. 59'.
- Began construction of large decontamination area within the Planning Office at El. 36'. This decontamination area will be used to support the El. 36' and El. 49' boiler containments as well as the Turbine #1 containment.
- Mobilized an additional 50' personnel trailer to the site.
- Mobilized one PAC-91 air handler and two F-240 air handlers to the Site for utilization in El. 36' containments.
- Disposal of approximately 4,810 gallons of hazardous waste water.
- Disposal of approximately 22.5 tons of hazardous mercury impacted metal with asbestos.
- On 12/11/17, Frank Lill and Sons mobilized to the Site to assist MBI with boiler dismantling activities through project completion.

On 12/12/17, the Occupational Safety and Health Administration (OSHA) was on-Site and performed a Site walk with MBI personnel. On 12/15/17, MBI and OSHA conducted an informal conference offsite regarding citations that have been issued to MBI.

On 12/18/17 and 12/21/17, Eversource met with representatives of Granite Shore Power (GSP, who recently acquired the SCHILLER Plant) to conduct walk-through of the temporary hazardous waste storage areas being utilized for the mercury boiler project.

5.0 Significant Issues

No new significant issues were identified during December 2017.

6.0 Cost & Schedule Impacts

The expected completion date of October 15, 2017 is now delayed well into 2018 due to the issues described in Section 5 of the previous monthly status reports. MBI continues to assess the reduced productivity caused impacts to the schedule given the adjustments necessary in response to these issues. However, system component demolition continues and productivity is increasing week by week.

7.0 Agency Visits, Inspections & Audits

U.S. OSHA visited the site during December 2017 as a follow-up to their Safety Investigation and subsequent Citations issued to MBI.

8.0 Next Report Due

The next monthly report will be submitted to the Commission by February 28, 2018.

**Public Service Company of New Hampshire d/b/a Eversource Energy
Removal of Mercury Boilers Deferred Costs
Monthly Status Report for December 2017**

Line #	Description	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Total 2017
1	Internal Cost:													
2	-Employee Labor	\$ 34,463	\$ 31,022	\$ 32,376	\$ 32,105	\$ 35,099	\$ 34,447	\$ 43,593	\$ 36,304	\$ 27,789	\$ 33,501	\$ 31,868	\$ 41,218	\$ 413,784
3	-Employee Misc. Expense	105	225	254	142	386	248	254	229	370	175	140	260	2,788
4	-Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
5														
6	Vendor Cost:													
7	-O'Connor Corp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	-William Scotsman Inc.	1,510	1,510	1,510	834	2,430	590	2,430	1,510	1,510	1,510	1,510	590	17,444
9	-Mohlin & Company	12	-	-	-	-	-	-	-	-	-	-	-	12
10	-GZA GEO Environmental Inc.	51,358	39,130	59,349	49,738	51,517	55,687	30,903	94,612	7,725	39,601	50,726	40,846	571,193
11	-Ayer Electric Inc.	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-Manafort Brothers	1,065,685	240,929	2,065,674	969,690	2,242,510	(471,604)	97,743	625,126	532,282	886,322	874,768	174,029	9,303,155
13														
14	Monthly Total	1,153,133	312,817	2,159,162	1,052,509	2,331,942	(380,631)	174,923	757,781	569,677	961,109	959,012	256,943	10,308,376
15														
16	Balance	\$ 2,965,812	\$ 3,278,629	\$ 5,437,791	\$ 6,490,300	\$ 8,822,241	\$ 8,441,610	\$ 8,616,533	\$ 9,374,314	\$ 9,943,991	\$ 10,905,100	\$ 11,864,112	\$ 12,121,056	
17														
18	Average Balance	\$ 2,389,246	\$ 3,122,221	\$ 4,358,210	\$ 5,964,045	\$ 7,656,270	\$ 8,631,926	\$ 8,529,071	\$ 8,995,423	\$ 9,659,153	\$ 10,424,546	\$ 11,384,606	\$ 11,992,584	
19	Tax Impact @ 40.330%	(963,583)	(1,259,192)	(1,757,666)	(2,405,299)	(3,087,774)	(3,481,256)	(3,439,774)	(3,627,854)	(3,895,536)	(4,204,219)	(4,591,412)	(4,836,609)	
20	Average Investment	\$ 1,425,663	\$ 1,863,029	\$ 2,600,544	\$ 3,558,746	\$ 4,568,497	\$ 5,150,670	\$ 5,089,297	\$ 5,367,569	\$ 5,763,616	\$ 6,220,326	\$ 6,793,195	\$ 7,155,975	
21	Stipulated Rate of Return	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	
22	Interest	\$ 9,546	\$ 12,475	\$ 17,413	\$ 23,877	\$ 30,652	\$ 34,558	\$ 34,216	\$ 36,087	\$ 38,750	\$ 41,568	\$ 45,396	\$ 47,821	\$ 372,360
23														
24	Monthly Total Including Interest	1,162,679	325,291	2,176,575	1,076,386	2,362,594	(346,073)	209,139	793,868	608,427	1,002,677	1,004,409	304,764	
25														
26	Cumulative Total Including Interest	2,982,530	3,307,821	5,484,395	6,560,782	8,923,375	8,577,303	8,786,441	9,580,310	10,188,737	11,191,414	12,195,823	12,500,587	

**Public Service Company of New Hampshire d/b/a Eversource Energy
Removal of Mercury Boilers Deferred Costs
Monthly Status Report for 2016**

Line #	Description	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Total 2016
1	Internal Cost:													
2	-Employee Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,510	\$ 34,490	\$ 69,001
3	-Employee Misc. Expense	-	-	-	-	-	-	-	-	-	-	230	243	473
4	-Materials & Supplies	-	-	-	-	-	-	-	-	-	-	9,889	183	10,072
5														
6	Vendor Cost:													
7	-O'Connor Corp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,000	\$ 33,058	\$ (149)	\$ 55,909
8	-William Scotsman Inc.	-	-	-	-	-	-	-	-	-	-	4,993	1,510	6,503
9	-Mohlin & Company	-	-	-	-	-	-	-	-	-	-	10,100	1,838	11,938
10	-GZA GEO Environmental Inc.	-	-	-	-	-	-	-	-	-	-	23,000	33,809	56,809
11	-Ayer Electric Inc.	-	-	-	-	-	-	-	-	-	-	46,941	(11,238)	35,703
12	-Manafort Brothers	-	-	-	-	-	-	-	-	-	-	680,010	886,262	1,566,272
13														
14	Monthly Total	-	-	-	-	-	-	-	-	-	23,000	842,732	946,948	1,812,679
15														
16	Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,000	\$ 865,732	\$ 1,812,679	\$ 1,812,679
17														
18	Average Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,500	\$ 444,366	\$ 1,339,206	
19	Tax Impact @ 40.330%	-	-	-	-	-	-	-	-	-	(4,638)	(179,213)	(540,102)	
20	Average Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,862	\$ 265,153	\$ 799,104	
21	Stipulated Rate of Return	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%	0.67%
22	Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46	\$ 1,775	\$ 5,350	\$ 7,171
23														
24	Monthly Total Including Interest	-	-	-	-	-	-	-	-	-	23,046	844,507	952,298	
25														
26	Cumulative Total Including Interest	-	-	-	-	-	-	-	-	-	23,046	867,553	1,819,851	