

Eversource

**Removal of Mercury Boilers
at Schiller Station**

Monthly Status Report

April 2017

Date: May 31, 2017
Subject: Schiller Station Units 1 & 2 Mercury Boiler Removal
Monthly Status Report # 6 – April 2017

Summary

The mercury boiler equipment removal project through April 2017 is proceeding as planned. Actual expenses for the first six months of activity are in line with the overall estimated cost range. No environmental concerns have been raised beyond those expected and typical at this time.

The current expected project completion date remains October 15, 2017. This schedule reflects work plans and resources consistent with the actual conditions and productivity experienced during January through April 2017.

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 April 2017 of approximately \$6.6 million. No changes to the overall estimated cost range are expected at this time. Please refer to page 5 and page 6 for details of the actual cost by month.

2.0 Schedule

The anticipated schedule and corresponding status for the project are as follows:

	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	
Jun 2017	Demolition	
Jul 2017	Demolition	
Aug 2017	Demolition	
Sep 2017	Demolition	
Oct 2017	Cleanup & Demobilization	
	Target completion date: 15 October 2017	

Notes:

- (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.

The remaining ACM work is distinct, targeted areas that become accessible for abatement as the demolition of material and equipment allows.

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

At present, the project is proceeding under a demonstrated compliance model consistent with the NHDES Air Rules. Under this approach, an air emissions permit is not required. As a contingency plan, it was

decided to prepare an air emissions permit application. Obtaining an air permit would provide additional flexibility to maintain the schedule; and reduce risk associated with work delays. A meeting was held with NHDES on 28 April 2017 to obtain regulatory input for the application preparation. As this is a short duration project and this type of activity does not fall under the normal definitions of a source or process requiring a permit, NHDES recommended the use of an alternative method of compliance. Specifically, during that meeting NHDES recommended the use of an alternative compliance plan as discussed in NHDES rules. As a result, a request for approval of an alternative compliance plan for air emissions will be provided to NHDES in May 2017. The demonstrated compliance model used to date continues to be used as the compliance method for the project; and all air monitoring data has been well under compliance limits.

4.0 Critical Path Items Completed / Underway

Asbestos Abatement – 85% complete

Dismantling/Demolition – 25% complete

Asbestos abatement is primarily taking place over 6 months and dismantling/demolition over 12 months, involving 5 elevations in varied locations of the Unit 1 and 2 boiler house area. The work began at the higher elevations and is proceeding to the lower elevations. Where possible, work is being completed in parallel. The asbestos and dismantling work during April included the following:

- Completed asbestos abatement on El. 11' and El. 24' between column lines 300-400
- Completed asbestos abatement on piping and duct insulation at El. 36' and El. 49'
- Collected and disposed of approximately 200 cubic yards of asbestos
- Completed construction of plenum to route air discharge tubes from work area containments to the retired Unit 5 stack for continuous mercury emission compliance monitoring
- Completed demolition of the conveyor system and duct collector above the coal bunker
- Completed demolition of horizontal portion of the Unit 2 flue duct above the coal bunker
- Completed dismantling of the packing seal tank at El. 59'
- Completed Unit 1 & 2 boiler side wall dismantling above El. 82'
- Began removal of Unit 1 & 2 superheater piping above El. 82'
- Began removal of mercury and non-mercury piping at El. 59'
- Began demolition of the precipitator
- Continued demolition of coal bunker between column lines 2-4
- Collected and disposed of approximately 4 tons of metal debris impacted with liquid mercury
- Collected and disposed of 12 cubic yards of asbestos insulation impacted with liquid mercury for retort
- Collected and disposed of approximately 144 tons of metal (non-mercury impacted and mercury impacted)
- Removed liquid mercury, as found, from piping systems associated with Turbine 2 on El. 24' and El. 36'
- Collected and packaged approximately 20 gallons of liquid mercury.

During the work described above, other activities included performance of background and area monitoring within the interior and at the exterior of containments for mercury and asbestos. In addition,

active electrical and mechanical lines to remain within the containment area were identified, marked and tagged. Mechanical lines to be removed from the work area were identified, cut and capped.

5.0 Significant Issues

There are no significant issues to report for the month of April. However, of note in early May, a minor fire created by hot cut slag occurred. The fire was quickly extinguished with no injuries. Only minor damage to non-critical infrastructure occurred. This incident will be discussed further in the May 2017 Status Report.

6.0 Cost & Schedule Impacts

There is no change to the expected schedule completion date of mid October 2017, as reported last month. This date remains well ahead of the asset transfer date currently in the sale schedule prepared by JP Morgan.

7.0 Agency Visits, Inspections & Audits

During late April 2017, the Newington Fire Department conducted a routine inspection of the project waste temporary storage area. No other agency visits, inspections or audits occurred during April 2017.

8.0 Next Report Due

The next monthly report will be submitted to the Commission by June 30, 2017.

Public Service Company of New Hampshire d/b/a Eversource Energy
Removal of Mercury Boilers Deferred Costs
Monthly Status Report for April 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 129,965
3	-Employee Misc. Expense	105	225	254	142	-	-	-	-	-	-	-	-	726
4	-Materials & Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
5														
6	Vendor Cost:													
7	-O'Connor Corp.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	-William Scotsman Inc.	1,510	1,510	1,510	834	-	-	-	-	-	-	-	-	5,364
9	-Mohlin & Company	12	-	-	-	-	-	-	-	-	-	-	-	12
10	-GZA GEO Environmental Inc.	51,358	39,130	59,349	49,738	-	-	-	-	-	-	-	-	199,575
11	-Ayer Electric Inc.	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-Manafort Brothers	1,086,678	240,929	2,065,674	969,690	-	-	-	-	-	-	-	-	4,362,972
13														
14	Monthly Total	1,174,126	312,817	2,159,162	1,052,509	-	-	-	-	-	-	-	-	4,698,614
15														
16	Balance	\$ 2,986,806	\$ 3,299,622	\$ 5,458,784	\$ 6,511,293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
17														
18	Average Balance	\$ 2,399,743	\$ 3,143,214	\$ 4,379,203	\$ 5,985,039	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
19	Tax Impact @ 40.330%	(967,816)	(1,267,658)	(1,766,133)	(2,413,766)	-	-	-	-	-	-	-	-	
20	Average Investment	\$ 1,431,926	\$ 1,875,556	\$ 2,613,071	\$ 3,571,273	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
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	\$ 9,588	\$ 12,558	\$ 17,497	\$ 23,961	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,604
23														
24	Monthly Total Including Interest	1,183,714	325,375	2,176,659	1,076,470	-	-	-	-	-	-	-	-	
25														
26	Cumulative Total Including Interest	3,003,565	3,328,940	5,505,599	6,582,069	6,582,069	6,582,069	6,582,069	6,582,069	6,582,069	6,582,069	6,582,069	6,582,069	

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	