

**FINDINGS OF FACT AND DIRECTOR'S DECISION**  
**In the Matter of the Issuance of a Temporary Permit To**  
**Public Service of New Hampshire dba Eversource Energy - Schiller Station**  
**Located at 400 Gosling Road, Portsmouth, New Hampshire**  
**Facility Identification # 3301500012; Application # 14-0081**

The New Hampshire Department of Environmental Services, Air Resources Division (DES) established a pre-construction permit program for new stationary sources or stationary sources making modifications. The permitting thresholds for this program are specified in the New Hampshire Code of Administrative Rules, Env-A 607.01, *Specific Applicability for Temporary Permits*. Pre-construction permits, also called "Temporary Permits", are issued for a period of 18 months. The Temporary Permit contains all applicable regulatory requirements (both state and federal) that pertain to the facility. The Temporary Permit allows the facility to construct and operate a device based on terms and conditions specified in the permit. In some cases, the Temporary Permit requires certain testing to be completed in order to verify compliance with permit terms and conditions once the device is constructed and operational.

There are typically four phases in the Temporary Permit process. They are as follows:

- First, an applicant files an application to obtain a Temporary Permit. Once the application is received by DES, it undergoes an initial review to ensure that the information submitted is complete and includes all applicable regulatory requirements. If so, a "completeness determination" in the form of a letter is issued by DES.
- After the application has been deemed administratively complete, DES undertakes an extensive technical review. This may include, but is not limited to, facility site visits and an analysis of historical information. Once DES has completed this technical review and is confident that the application accurately reflects the facility's operations, DES develops a "draft Temporary Permit." As noted above, the draft Temporary Permit may also contain certain testing requirements to verify compliance with permit terms and conditions.
- Once the draft Temporary Permit is prepared, a notice is published as required by Env-A 621, *Permit Notice and Hearing Procedures: Temporary Permits and Permits to Operate*. The public, the United States Environmental Protection Agency (EPA), and any other interested parties are invited to submit comments on the draft Temporary Permit. An opportunity for a public hearing is also provided.
- After all public comments have been received and evaluated by DES, a final determination regarding the permit is made by the Director of the Air Resources Division (Director). If the determination is favorable, the draft Temporary Permit is finalized and issued. A draft Temporary Permit may be modified as a result of comments received during the public comment period. All pertinent comments received during the public comment period are addressed in a formal document. This document is called the "Findings of Fact and Director's Decision."

Any person aggrieved by the Director's decision can file an appeal with the Air Resources Council in accordance with the provisions of Env-A 621.10, *Appeals*.

## **Facility Description**

Public Service of New Hampshire dba Eversource Energy (Eversource) - Schiller Station is a fossil fuel and wood-fired electricity generating facility. The facility includes three utility boilers: one wood and fossil fuel-fired boiler (designated as emission unit SR5) and two fossil fuel-fired boilers (designated as emission units SR4 and SR6). The facility also includes a combustion turbine, an emergency generator, primary and secondary coal crushers, coal and wood handling systems, and various insignificant and exempt activities.

Emission units SR4 and SR6 are equipped with electrostatic precipitators (ESPs designated as SR4-PC1 and SR6-PC1) to control the emissions of particulate matter (PM), and selective non-catalytic reduction (SNCR) systems and overfire air (OFA) to control nitrogen oxide (NOx) emissions. Eversource operates SNCR on units SR4 and SR6 as necessary to maintain compliance with NOx emission limits. Each boiler stack is equipped with a continuous emissions monitoring system (CEMS) for NOx and sulfur dioxide (SO<sub>2</sub>) and a continuous opacity monitoring system.

Emission unit SR5, which has operated on wood since it commenced operation in 2006, is also permitted to operate on coal. It is equipped with a fabric filter for the control of PM, and also uses SNCR for NOx control. The boiler stack is equipped with CEMS for NOx, SO<sub>2</sub>, carbon monoxide, and opacity. Please note that unit SR5 is not covered under this permitting action.

Schiller Station is currently operating under Title V Operating Permit TV-0053, which was issued on June 6, 2014 and expires on June 30, 2019.

## **Proposed Project Description**

Schiller Station is a major source of hazardous air pollutants as defined under Section 112 of the Clean Air Act. Emission units SR4 and SR6 are electricity steam generating units (EGUs) and are therefore subject to the Code of Federal Regulations (CFR), 40 CFR Part 63, Subpart UUUUU *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* (also known as Mercury and Other Air Toxics Standards, or MATS). These units are considered to be "existing" EGUs, as they were installed prior to May 3, 2011.

Eversource has proposed to install Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI) systems on SR4 and SR6 for the purpose of complying with Subpart UUUUU. The DSI system will be used to control the emissions of acid gases such as hydrogen chloride (HCl). Activated carbon will be used to control mercury (Hg) emissions. Sorbents and activated carbon will be injected into the flue gas stream through strategically located ports upstream of the ESPs. The reaction products and sorbents are then removed downstream by the ESPs.

The compliance date for Subpart UUUUU is April 16, 2015. Eversource has requested a one year extension to comply with Subpart UUUUU. DES, through this permitting action, is granting a one year compliance extension, to April 16, 2016. Upon issuance of the Temporary Permit for this project, Eversource is required to comply with the terms and conditions of both Title V Operating Permit TV-0053 and this permit.

## **Permit Notice and Hearing Procedures**

In accordance with Env-A 621, *Permit Notice and Hearing Procedures: Temporary Permits and Permits to Operate*, a notice of request for public comment and schedule for a public hearing was published in the *New Hampshire Union Leader* and the *Portsmouth Herald* on February 10, 2015. The notice invited public comment and stated that any comments received during the public comment period would be considered in reaching a final decision. The public hearing was held at 6 p.m. on March 18, 2015, at the Portsmouth City Hall, located at One Junkins Avenue, Portsmouth, NH. The purpose of the hearing was to receive public comment on the application and the draft Temporary Permit.

## **Discussion**

During the public hearing, interested parties offered testimony, comments, and questions regarding the DSI/ACI installation project. Written comments were also received from EPA - Region 1 and interested parties prior to the March 18, 2015 public comment deadline. In accordance with Env-A 621.08, *Opportunity for Response*, copies of all written comments received by DES were forwarded to Eversource for review. Eversource did not provide a response to the comments received.

The following discussion provides responses to questions and/or comments raised at the public hearing or during the public comment period. In some cases, several parties provided similar comments. Comments are organized by topic and summarized in italic print.

### **I. New Source Review Applicability Determination**

1. *Commenter - United States Environmental Protection Agency - Region 1: The permit record does not fully provide the basis and calculations for determining this project is not subject to PSD/NSR. Such analysis should meet the criteria set forth in 40 CFR 52.21.*

#### **DES Response**

Schiller Station is an existing major source under the federal Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR) programs. Eversource supplied a PSD/NSR applicability analysis in the Temporary Permit application for the DSI/ACI installation project. DES revisited the PSD/NSR analysis as a result of EPA's comment and concluded that this analysis does not meet all of criteria required pursuant to Env-A 618 *Nonattainment New Source Review* and Env-A 619 *Prevention of Significant Deterioration*. On March 31, 2015, DES requested Eversource to expand the previously provided PSD/NSR analysis such that it meets the criteria set forth in Env-A 618 and Env-A 619. On April 6, 2015, Eversource submitted an updated PSD/NSR analysis. Eversource used the "actual-to-projected-actual" (ATPA) applicability test to determine whether the DSI/ACI installation project would cause significant emission increases. The new analysis provided the following updates:

- Baseline actual emissions for emission units SR4 and SR6 were calculated using the average of actual emissions for calendar years 2013 and 2014. This consecutive 24-month period is within the 5 year period immediately preceding when the owner or operator of the facility will begin actual construction of the project. This meets the criteria set in Env-A 618.03(a)(1) and Env-A 619.03(c)(1).

- The calculation of projected actual (i.e., post project) emissions from emission units SR4 and SR6 in the updated analysis satisfies the criteria specified in 40 CFR 51.165(a)(1)(xxviii) and 40 CFR 52.21(b)(41), which are incorporated by reference in Env-A 618 and Env-A 619, respectively.

Based on the updated analysis, DSI/ACI installation project is not subject to PSD/NSR requirements.

The Permit Application Review Summary was updated to provide a more detailed discussion of PSD/NSR applicability to the DSI/ACI installation project.

2. *Commenter – The Sierra Club: The NSR analysis submitted by Eversource is not consistent with NSR. DES should require Eversource to complete a well-supported NSR analysis. This analysis should start with a proper identification of the type (or types) of sorbents and ACI (including chemical composition and particle size) that Eversource intends to use. If Eversource wants flexibility in its control reagent blend, separate NSR analyses must be conducted for the various options of sorbents/ACI types.*

### **DES Response**

In response to a March 31, 2015 request from DES, Eversource submitted an updated PSD/NSR analysis for the DSI/ACI project. Existing major sources are permitted under the NSR rules to use the ATPA emissions test for projects that involve existing emission units. Eversource used the ATPA test to determine if the DSI/ACI installation project would result in significant emissions increase. The NSR regulations (at 40 CFR 52.21 and 40 CFR 51.165) define the term “projected actual emissions”:

In determining the projected actual emissions, the owner or operator of the stationary source shall consider all relevant information, including but not limited to, historical operational data, **the company's own representations [emphasis added]**, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved State implementation plan.

As noted by the Sierra Club, Eversource has requested flexibility to use different types of sorbent in combination with different coal blends. Eversource provided emissions data obtained from Research & Development (R&D) testing performed in 2012 and 2013, which included tests using different types and amounts of activated carbon and sorbents in combination with different coal blends.

In response to DES's request for an expanded NSR/PSD applicability analysis, Eversource calculated the post project PM emissions using the highest PM emission factor obtained during the 2012 and 2013 R&D testing. DES has determined that this conservative method of using the highest emission factor obtained from the R&D testing is adequate to project emissions from the different operating scenarios, and a separate analysis is not warranted for every conceivable operating scenario. DES has determined that this updated projection of actual emissions fulfills the requirements of 40 CFR 51.165 and 40 CFR 52.21 referenced in Env-A 618 and Env-A 619 - that the owner or operator (i.e., Eversource) consider all relevant information in such projections, and that the projection is acceptable for evaluating NSR/PSD applicability for this project.

Please also see DES's response to comment category II., "Increase in Particulate Emissions Resulting from the Injection of Sorbent and Activated Carbon", below for additional information relevant to this topic.

**II. Increase in Particulate Emissions Resulting from the Injection of Sorbent and Activated Carbon**

1. *Commenter - Conservation Law Foundation (CLF): The current record does not appear to provide a basis for the Department of Environmental Services determination embodied in the Draft Permit that the operation of SR4's and SR6's MATS compliance pollution control equipment will not result in an increase in PM emissions.*
2. *Commenter - The Sierra Club: The proposed emissions monitoring does not ensure PM emissions will not increase. The draft permit fails to require sufficient monitoring to ensure that PM emissions do not increase (or that if they do, DES and the public will be readily made aware of it).*
3. *Commenter - The Sierra Club: Limit the combined injection rates of sorbent and ACI to those listed in the Summary Table.*

**DES Response**

Periodic stack testing will provide data on actual, post project emissions. This data can be compared against projections provided by Eversource in the permit application for this project. Env-A 618 and Env-A 619 require that, for projects where there is a "reasonable possibility" (as defined in 40 CFR 51.165 and 40 CFR 52.21) of a significant emissions increase, that the owner or operator provide post-project reports of actual emissions. Based upon Eversource's projected actual emissions, the project is below the reasonable possibility threshold and, therefore, post-project reports are not required.

However, in consideration of comments received regarding concerns over NSR/PSD applicability, DES is requiring Eversource to prepare and submit post-project NSR/PSD applicability reports for this project. These reports will ensure that the data necessary to compare future actual emissions with projections provided in the permit application are readily available to DES and the public.

The Temporary Permit was amended as a result of this comment. The new reporting requirement was added to Table 6 of the Permit as follows:

Item #	Reporting Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
7.	<p><u>Projected Actual Emissions Report</u></p> <p>Beginning 2016, for a period of 5 years, submit post-project New Source Review/Prevention of Significant Deterioration applicability reports for the DSI/ACI systems installation project. For example, the report for CY 2016 is due by April 15, 2017. The report shall include a comparison of actual calendar year emissions with the projections provided in the application #14-0081.</p>	Annually received no later than April 15 <sup>th</sup>	SR4 & SR6	Env-A 910 (State-only enforceable)

### III. Continuous Emissions Monitoring

1. *Commenter – Conservation Law Foundation: Conservation Law Foundation urges the Department to reconsider its previous decisions not to require continuous monitoring of particulate matter emissions. Stack tests are not a sufficiently reliable or consistent monitoring tool for emissions that will vary widely depending on the type of coal being fired in the unit or the type of sorbent material used to control toxic air emissions.*

The MATS rule provides two basic approaches to demonstrate compliance with the particulate matter emission limit: use of continuous monitoring (either a continuous emissions monitoring system or continuous parametric monitoring system) or periodic stack testing. Eversource chose to demonstrate compliance with the PM emission limit by conducting periodic stack testing. The draft Temporary Permit includes periodic PM stack testing requirements but also allows for the use of PM CEMS to determine compliance with the PM limit - if the facility elects to use this approach. Under the MATS rule, the use of PM CEMS is only one of the compliance demonstration methods and is not mandatory. DES is therefore not requiring Eversource to install and operate a PM CEMS to demonstrate compliance with the PM emission limit.

Please note that stack testing is not the only means of evaluating compliance with the PM emission limits. Emission units SR4 and SR6 are already subject to the requirements of 40 CFR 64 *Compliance Assurance Monitoring (CAM)*<sup>1</sup> rule. Table 8 of the current Title V Operating Permit TV-0053 for the facility includes CAM requirements for the two ESPs, which control particulate matter emissions from SR4 and SR6. These CAM requirements are described in more detail on pages 17-18 of the Permit Application Review Summary, and on pages 6-7 of the Findings of Fact and Director's Decision for the Title V Operating Permit. These documents (for Application # 11-0134) are available via DES's online OneStop Database at: <http://des.nh.gov/onestop/>.

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<sup>1</sup> The purpose of the Compliance Assurance Monitoring rule is to ensure effective monitoring of the pollution control equipment that the emission units rely to achieve compliance with the emission limit.

DES believes that the periodic stack testing requirements contained in the draft Temporary Permit, in combination with the CAM requirements in TV-0053, are sufficient to ensure compliance with the MATS PM limit on an ongoing basis.

No amendments to the draft Temporary Permit were made as a result of this comment.

2. *Commenter – The Sierra Club: Despite the fact that PSNH in this document (MATS Compliance Strategy) admits that there are no technical impediments to CEMS for mercury, PM, and HCl, the proposed permit instead contemplates allowing use of stack testing for compliance with MATS. This is improper, as periodic stack testing has well-known limitations in terms of assuring that the MATS limits at Schiller would be met on a continuous basis. The proposed permit must be amended to include continuous monitoring for MATS compliance, as PSNH has already deemed is technically achievable.*

**DES Response**

The MATS rule provides options to demonstrate compliance with the emission limits. Under the MATS rule, a source can demonstrate initial and continuous compliance with the emission limits through the use of either CEMS or stack tests, as shown in the following table:

<b>Table 1 - MATS Compliance Options for Existing Coal-fired EGUs</b>	
<b>Pollutant</b>	<b>Demonstrate Initial and Continuous Compliance<sup>2</sup> Using:</b>
Filterable PM (which is used as a surrogate for non-Hg metallic HAPs)	<ul style="list-style-type: none"> <li>• Stack testing                             <ul style="list-style-type: none"> <li>○ Quarterly testing for 3 years to determine low emitting EGU (LEE)<sup>3</sup> status, then stack testing every three years if LEE status is achieved;</li> <li>○ Quarterly testing if LEE is not achieved</li> </ul> </li> <li>(or)</li> <li>• Continuous monitoring (using either continuous emissions monitoring system or continuous parametric monitoring system)</li> </ul>
HCl (which is used as a surrogate for acid gases)	<ul style="list-style-type: none"> <li>• Stack testing                             <ul style="list-style-type: none"> <li>○ Quarterly testing for 3 years to determine LEE status, then stack testing every three years if LEE status is achieved;</li> <li>○ Quarterly testing if LEE is not achieved</li> </ul> </li> <li>(or)</li> <li>• HCl CEMS. As a second alternative, if the EGU is equipped with wet or dry flue gas desulfurization technology, SO<sub>2</sub></li> </ul>

<sup>2</sup> If quarterly performance testing is used to demonstrate compliance with the emission limits, as per 40 CFR 63.10021(d) the performance test may be skipped in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year.

<sup>3</sup> If an EGU can meet more stringent emission limits, it can qualify for reduced stack testing frequency under the low emitting EGU option provided by the MATS rule.

<b>Table 1 - MATS Compliance Options for Existing Coal-fired EGUs</b>	
<b>Pollutant</b>	<b>Demonstrate Initial and Continuous Compliance<sup>2</sup> Using:</b>
	CEMS <sup>4</sup> may be used
Hg	<ul style="list-style-type: none"> <li>Stack testing to determine if the unit qualifies for LEE status</li> <li>Hg sorbent trap monitoring system or Hg CEMS, if the unit does not qualify for LEE status</li> </ul>

As shown in Table 1 above, the MATS rule does not mandate the use of CEMS. Instead, it is only one of the options through which initial and on-going compliance may be demonstrated with the emission limits.

Eversource submitted a MATS compliance strategy for Schiller Station on October 21, 2014, and selected the following compliance demonstration methods:

<b>Table 2 - Monitoring Methods Selected by Eversource to Demonstrate Compliance with MATS</b>		
<b>Pollutant</b>	<b>Primary Monitoring Method</b>	<b>Alternative Monitoring Method</b>
Filterable PM	Stack testing	PM CEMS
HCl	Stack testing	HCl CEMS
Hg	Stack testing to determine LEE status Sorbent trap monitoring system for non-LEE option	Hg CEMS

Table 4 of the draft Temporary Permit includes the monitoring methods chosen by Eversource to demonstrate compliance with MATS emission limits. DES also included additional pollution control equipment operating and monitoring requirements in the permit to supplement data available for demonstrating continuous compliance.

The methods by which continuous compliance is required to be demonstrated for each pollutant are summarized below:

**Mercury:** If LEE status for mercury is not achieved, Eversource is required to demonstrate continuous compliance using either a sorbent trap monitoring system or Hg CEMS. If LEE status for mercury is achieved, Eversource is required to perform periodic stack testing for mercury as per the schedule prescribed in the MATS rule. In addition to the MATS-required stack testing, Eversource is required to maintain the carbon injection at or above the average injection rate determined during the most recent performance test demonstrating compliance with the mercury emission limit<sup>5</sup>.

**Acid Gases:** Eversource is required to perform periodic stack testing for HCl as per the schedule prescribed in the MATS rule. In addition to the MATS-required stack testing, Eversource is required to maintain the sorbent injection rate at or above the injection rate

<sup>4</sup> Sources using this option have to meet an SO<sub>2</sub> emission limit of 0.20 lb/MMBtu. SO<sub>2</sub> CEMS must be operated in accordance with 40 CFR 75.

<sup>5</sup> The carbon injection rate must be maintained if mercury emissions are not continuously monitored.

observed during the most recent test demonstrating compliance with the HCl emission limit.

**PM:** Eversource is required to perform periodic stack testing for PM as per the schedule prescribed in the MATS rule. In addition to the MATS-required stack testing, Eversource is also required to comply with the CAM requirements for PM pollution control devices (i.e., electrostatic precipitators) identified in the current Title V Operating Permit TV-0053.

The combination of periodic stack testing and parametric monitoring described above are sufficient to demonstrate continuous compliance with the MATS emission limits. This is consistent with EPA's statements in the preamble to the final MATS rule that MATS-specified emission testing will be enhanced by other (e.g., CAM) requirements to demonstrate continuous compliance with MATS requirements (see 77 FR 9304 at 9384).

No amendments to the draft Temporary Permit were made as a result of this comment.

#### **IV. Effects of changing types of Activated Carbon and/or Sorbent**

1. *Commenter – The Sierra Club: Neither the review summary nor the draft permit identify the type of ACI PSNH intends to use for mercury compliance. The type/size of ACI will affect the efficiency with which mercury is removed from a unit's flue gases, and therefore the type/size will dictate the quantity of ACI needed to remove the desired quantity of mercury to meet the MATS limit.*
2. *Commenter – The Sierra Club: With regard to sorbents for the acid gases, as the Review Summary notes PSNH appears to have not narrowed its choices between trona and sodium bicarbonate—with no mention of the sizing within each of these types - that it will use. Thus, like ACI, the quantity of sorbent cannot be evaluated.*
3. *Commenter – The Sierra Club: Thus, while injection rate is an important parameter, it is, by itself, inadequate to ensure compliance. Similarly, the sorbent particle size, quality, and makeup for DSI is critical to control efficacy, and would not be captured by looking only at reagent flow rate. Likewise, fuel blends - and thus the amount of mercury in the flue gas stream—will undoubtedly change between stack tests, thus rendering mere reliance on mimicking flow parameters from prior stack tests incapable of ensuring compliance with MATS.*
4. *Limit the combined injection rates of sorbent and ACI to those listed in the Summary Table.*

#### **DES Response**

DES revisited the pollution control equipment operating and monitoring conditions as a result of this comment and agreed that additional oversight of changes to pollution control equipment operation is warranted.

DES has expanded activated carbon/sorbent recordkeeping to require that Eversource record the sorbent **type**. Table 5, Item 1 of the Temporary Permit is amended as follows:

Item #	Recordkeeping Requirement	Duration/ Frequency	Applicable Unit	Regulatory Basis
1.	Maintain the following information for sorbent and activated carbon: a.) Type (for example trona, sodium bicarbonate, etc.), manufacturer and product ID; and b.) Amount (in pounds) for each unit.	Daily and 30-boiler operating day average for activated carbon  Daily for acid gas sorbent	SR4 & SR6	Env-A 906.01

DES has also added a sorbent change notification requirement to Table 6 of the Temporary Permit as shown below:

Item #	Reporting Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
8.	<u>Sorbent Switch Notification</u> Notify DES any change in the type, manufacturer or product ID of sorbent or activated carbon. Notification shall include: a.) Type, manufacturer and product ID of new sorbent or activated carbon; b.) New injection rate in lb/hr; and c.) Method used to determine injection rate.	Within 10 days of any noted change	SR4 & SR6	Env-A 910

These additional recordkeeping and reporting requirements will ensure that timely data is available for DES to evaluate any changes in activated carbon or acid gas sorbent materials. DES can review such notifications and, considering such factors as the nature and extent of the change, and time remaining until the next regularly scheduled stack test, whether additional information and/or emission testing is warranted.

**V. Electrostatic Precipitators Mode of Operation**

*Commenter – The Sierra Club: Limit the ESPs only to EMS mode operation (along with requiring the applicable recordkeeping and reporting obligations).*

**DES Response**

Particulate matter emissions from the two boilers SR4 and SR6 are controlled by electrostatic precipitators. The ESPs are typically operated in energy management system (EMS) mode, which automatically adjusts the ESP electrode current based on opacity to minimize sparking within the ESP, resulting in better collection efficiency. The EMS maximizes PM emission reduction while minimizing energy consumption. The ESP can also be operated without the energy management system, using manual voltage adjustments to maintain opacity. To evaluate ESP performance during the 2012 and 2013 DSI/ACI research and development

testing, Eversource conducted several test runs while the ESP was manually set to operate in maximum current mode.

In response to DES's March 31, 2015 request, Eversource provided additional information on ESP modes of operation. The ESP was operated in maximum current mode in order to evaluate changes in control efficiency. This was done for experimental purposes only and not to optimize the ESP performance, i.e., the ESPs will not operate in maximum current mode. The experiments confirmed that ESP operation in the EMS mode provides for optimum ESP collection efficiency. Based on this, DES does not believe that a permit condition limiting the operation of the ESPs to EMS mode only is warranted.

No amendments to the draft Temporary Permit were made as a result of this comment.

## **VI. Extension of MATS Compliance Date**

*Commenter – The Sierra Club: The proposed extension of the MATS compliance period is unwarranted and unnecessary. Eversource has had more than adequate time to prepare for and achieve compliance with MATS by April 16, 2015. Eversource's request to be allowed to emit mercury and other air toxics from Schiller Station for an additional, gratuitous year, should be denied.*

*This comment was also stated verbally at the March 18, 2015, public hearing by representatives of the general public and Toxics Action Center.*

### **DES Response**

The MATS rule was promulgated on February 16, 2012, with an effective date of April 16, 2012. The federal Clean Air Act as amended in 1990 (CAA), provides 3 years from the effective date of the MATS rule for existing sources to comply with its requirements. In addition, Section 112(i)(3)(B) of the CAA allows Title V permitting authorities the discretion to grant extensions, on a case-by-case basis, to the compliance time of up to one year if needed for installation of controls. In the preamble to the final MATS rule (see 77 FR 9304 at 9407), EPA stated that this additional fourth year should be broadly available to sources, consistent with the requirements of the law. EPA stated that the fourth year should be broadly available to enable a facility owner to install controls within 4 years if the 3-year time frame is inadequate for completing the installation.

Emission units SR4 and SR6 are considered existing EGUs under the MATS rule and therefore, the stated compliance date is April 16, 2015. Pursuant to 40 CFR 63.6(i) *Extension of compliance date with emission standards*, the owner or operator of an existing source who is unable to comply with a relevant standard may request that the EPA Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. DES has an EPA-approved Part 70 (i.e., Title V) permitting program and also has been delegated by EPA to implement the MATS rule in New Hampshire.

Section §63.6(i)(4)(i)(B) requires that a request for an extension of compliance must be submitted to the permitting authority (i.e., DES) no later than 120 days prior to the affected source's compliance date. On October 21, 2013, Eversource submitted a one year compliance

extension request to allow for the procurement and installation of air pollution control equipment to meet the MATS emission limits. §63.6(i)(6)(i) specifies that the request for a compliance extension include the following information:

- *A description of the controls to be installed to comply with the standard.*  
Eversource proposed to install dry sorbent and activated carbon injection systems to comply with the MATS emission limits.
- *A compliance schedule, including the date by which each step toward compliance will be reached.*  
Eversource included a preliminary compliance schedule in the extension request submitted on October 21, 2013. Eversource also submitted status reports and updated compliance schedules on December 19, 2013 and June 19, 2014.

On January 10, 2014, DES, in accordance with Section 112(i)(3)(B) of the CAA, conditionally granted the extension request and required Eversource to submit a temporary permit application. Eversource submitted the temporary permit application for the DSI/ACI installation project on February 27, 2014. Since Eversource met the extension request criteria specified in 40 CFR 63.6(i), DES is granting the extension request through the issuance of this temporary permit. Eversource must complete the installation of the DSI and ACI systems and be in compliance with the MATS rule by April 16, 2016.

## **VII. Sulfur Dioxide National Ambient Air Quality Standard**

*Commenter – The Sierra Club: The proposed permit fails to follow the requirements in New Hampshire's federally-approved state implementation plan and set emission limits for SO<sub>2</sub> sufficient to ensure that Schiller Station does not significantly contribute to nonattainment of, or interfere with maintenance with the SO<sub>2</sub> national ambient air quality standard in neighboring Maine.*

### **DES Response**

DES notes that a similar comment was previously submitted by the Sierra Club on the draft Title V Operating Permit for Schiller Station. DES provided a detailed response in the "Findings of Fact and Director's Decision" document issued April 14, 2014 for the Title V Operating Permit (see response to Sierra Club comment 1.b. beginning on page 9). An electronic version of this document (for Application # 11-0134) is available via DES's online OneStop Database at: <http://des.nh.gov/onestop/>.

### **Progress Regarding Implementation of SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) Since the Summary Provided in the April 14, 2014 Findings of Fact**

On March 2, 2015, the United States District Court for the Northern District of California accepted, as an enforceable order, an agreement between the EPA, the Sierra Club and the Natural Resources Defense Council to resolve litigation regarding deadlines for completing the designation process for all remaining areas in the country with respect to the 2010 1-hour SO<sub>2</sub> NAAQS. The court's order directed EPA to complete the designation process for all the remaining areas in up to three rounds. The specified attainment designation deadlines that impact New Hampshire are either December 31, 2017 for designations based on air dispersion modeling analysis, or December 31, 2020 for designations based on new ambient SO<sub>2</sub> monitoring data. Designations based on either air dispersion modeling analysis or new ambient SO<sub>2</sub> monitoring data are expected

to be informed by guidance provided to the states in EPA's anticipated SO<sub>2</sub> Data Requirements Rule (DRR) for the 1-hour SO<sub>2</sub> Primary NAAQS . EPA's SO<sub>2</sub> DRR is expected to be finalized in the fall of 2015. DES intends to follow the process as outlined in the DRR in accordance with the timeframe noted above.

No amendments to the draft Temporary Permit were made as a result of this comment.

Additional Information Regarding Air Quality In the Vicinity of Schiller Station

In response to concerns raised by the Town of Eliot, ME, and to help provide information regarding actual air quality to the public while DES works through the NAAQS implementation process, DES has coordinated with the State of Maine to site an SO<sub>2</sub> air quality monitor in Eliot. This monitor has been measuring actual air quality just across the border from Schiller Station since November 2014. The levels of pollutants measured at this monitor site are posted on Maine Department of Environmental Protection's Website at the following link: [http://www.maine.gov/dep/ftp/ELIOT\\_SO2/](http://www.maine.gov/dep/ftp/ELIOT_SO2/) . Exceedances of the 1-hr SO<sub>2</sub> NAAQS have not been measured by this monitor since it began operation.

**VIII. Cleaner Sources of Energy**

*Commenter - Sierra Club members and oral testimony at public hearing: It is important to invest in cleaner sources of energy, like energy efficiency, wind and solar, in order to abate the health risks from burning coal for electricity.*

Many commenters expressed general concerns about the combustion of coal for the purposes of electricity generation and requested that Schiller Station's coal boilers be phased out and replaced with a cleaner source of energy generation, in particular, with renewable sources of energy generation.

**DES Response**

The purpose of this Temporary Permit is to allow Eversource to install air pollution control equipment on SR4 and SR6 for purposes of complying with new federal requirements, as well as extending the MATS compliance date. DES does not have the authority to address these comments directly during the Temporary Permit process. The State of New Hampshire, however, is dealing with the issue that the commenters have raised, under other state programs. The Renewable Portfolio Standard (RSA 362-F), enacted in 2007, requires that approximately 25% of the total electricity generation supplied to customers in 2025 must be from renewable energy sources. Although this requirement does not mandate the phase out of Schiller Station, 25 percent of the electricity supplied to all NH customers will be produced by renewable energy facilities.

**IX. Greenhouse Gas Emissions**

*Commenter - Sierra Club members: DSI and ACI systems will do nothing to reduce the emissions of greenhouse gases.*

**DES Response**

Eversource proposed to install DSI and ACI systems to reduce the emissions of acid gases and mercury, respectively from SR4 and SR6. Eversource is installing these systems to comply with the MATS emission limits. The purpose of the MATS rule is to reduce the emissions of toxic air pollutants such as mercury and acid gases from EGUs. It is beyond

the scope of this Temporary Permit to address the emissions of greenhouse gases from Schiller Station.

While there are no current air permitting requirements for Schiller Station to reduce its greenhouse gas emissions, there are current and pending requirements addressing greenhouse gas emissions from plants such as Schiller Station.

New Hampshire currently participates in the Regional Greenhouse Gas Initiative (RGGI) program. DES previously adopted Env-A 4600, *Carbon Dioxide Budget Trading Program*, and Env-A 4800, *Carbon Dioxide Allowance Auction Program*. These regulations are incorporated into Schiller Station's Title V Operating Permit TV-0053.

On June 18, 2014, the EPA proposed the Clean Power Plan to cut carbon pollution from power plants such as Schiller Station. Specifically under this Plan, EPA proposed *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units* (see 79 FR 34829). In this action, the EPA proposed emission guidelines for states to follow in developing plans to address greenhouse gas emissions from existing fossil fuel-fired electric generating units. This rule, as proposed, would reduce carbon dioxide emissions from existing fossil fuel-fired power plants. EPA is expected to issue the final rule this summer.

No amendments to the draft Temporary Permit were made as a result of this comment.

#### **X. Cost of Installation DSI and ACI Systems**

*Commenter - Sierra Club Members and oral testimony at Public Hearing:*

*How much do the DSI and ACI systems cost? How much of this cost will rate payers have to bear?*

*We don't want to pay for updating an old coal burning plant. It doesn't make sense to throw money at an old coal-fired plant.*

#### **DES Response**

Eversource has proposed to install DSI and ACI systems to meet the emission standards under the federal MATS rule. As an administrative agency, DES is authorized to issue construction permits under state and federal air pollution statutes and promulgated rules. The purpose of the construction permit program is to authorize the construction, installation and operation of devices subject to permit requirements. A permit issued by DES must ensure that a device, as designed, will operate in compliance with all applicable regulations and will contain sufficient monitoring, performance testing, recordkeeping and reporting requirements to ensure compliance. In this context, cost is not a permitting consideration.

No amendments to the draft Temporary Permit were made as a result of this comment.

## **XI. What Happens if Eversource Plants are Sold?**

*Commenter - Sierra Club Members: If the Eversource plants are sold, will the new plant owners continue to operate DSI and ACI systems?*

### **DES Response**

Emission units SR4 and SR6 are “affected sources” under the MATS rule, and as such with the extension provided through this Temporary Permit, must comply with the MATS rule by April 16, 2016. Any owner or operator of Schiller Station, current or future, must operate the EGUs such that they comply with the emission limitations prescribed under the MATS rule.

No amendments to the draft Temporary Permit were made as a result of this comment.

## **Findings of Fact**

DES has based its decision with respect to the application for a Temporary Permit for Eversource Schiller Station on the following findings of fact:

1. Eversource filed an application for a Temporary Permit in accordance with the requirements of Env-A 607, *Temporary Permits*.
2. DES conducted a comprehensive review of the proposed project. In addition, DES carefully considered public comments submitted either in writing during the public comment period or in oral testimony during the public hearing. Based on its review and consideration of all the available information, DES determined that Eversource will be able to comply with all state and federal air rules.
3. The one-year compliance extension request filed by Eversource meets the criteria of 40 CFR 63.6(i)(6)(i).

In summary, after consideration of comments received during the public comment period, DES has made the additions to the Temporary Permit and clarifications to the Permit Application Review Summary.

## **Director's Decision**

After consideration of the Temporary Permit Application and all public comments, the application is approved and a Temporary Permit, which includes a one-year extension of the MATS compliance date for emission units SR4 and SR6 is hereby issued.

Any person aggrieved by this decision may appeal to the N.H. Air Resources Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-AC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/air/index.htm>). Copies of the rules also are available from the DES Public Information Center at (603) 271-2975.

If no petition is filed within the 30-day period, this decision will become final.



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Craig A. Wright  
Director  
Air Resources Division

April 15, 2015  
Date

cc: Donald Dahl, EPA Region I (via e-mail)  
Eric Kennedy, ME DEP (via e-mail)  
Public Commenters  
City of Portsmouth, NH  
Town of Eliot, ME