

STATE OF RHODE ISLAND  
AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
DIVISION OF AIR AND HAZARDOUS MATERIALS

A.H. FILE NO. 83-12-AP

RE: PUBLIC HEARING CONCERNING THE REVISIONS  
OF AIR POLLUTION CONTROL REGULATION NO. 8

DECISION

On 27 May 1983 at approximately 10 AM, a public hearing was held in the auditorium of the Cannon Building located at 75 Davis Street, Providence, Rhode Island. The purpose of this hearing was to propose changes to Air Pollution Control Regulation No. 8, entitled Sulfur Content of Fuels. The primary purpose of this hearing was to propose changes in Section 8.3.4, entitled "Large Fuel Burning Devices." The changes in the regulation will allow facilities that have a fuel burning device with a rated energy input capacity of 250 million Btu's per hour or greater to burn coal with a higher sulfur limit than that which currently exists. It is proposed that the limits for coal shall not exceed 1.21 pounds sulfur per million Btu's heat release potential in any thirty-day period or 2.31 pounds sulfur per million Btu's heat release potential in any twenty-four hour period.

At the present time, Narragansett Electric's South Street generating station is the only source in the state that is eligible to utilize Section 8.3.4 of the regulation. All new sources that may be constructed having a fuel burning device having an energy input capacity of 250 million Btu's or greater will be required to meet the emission limitations of the New Source Performance Standards or the New Source Review or Prevention of Significant Deterioration (PSD) Program requirements.

The air quality impacts of the South Street generation station have been evaluated. Conversion of this facility to burn higher sulfur coal will not

cause the National Ambient Air Quality Standards for Sulfur Dioxide (SO<sub>2</sub>) or Total Suspended Particulates (TSP), to be exceeded. In addition, the facility will not cause any Class II PSD increments to be violated with respect to SO<sub>2</sub> or TSP.

Comments were received from the following: Elizabeth Head representing the League of Women Voters (LWV) of Rhode Island, Andrew Aitken representing the Narragansett Electric Company (NECO), Ms. Debra Hendrickson, public citizen and the United States Environmental Protection Agency (EPA) by means of a letter dated 27 June 1983.

The comments from the LWV indicated that they did not support the indefinite reservation of PSD increments for a potential coal conversion. This comment has been noted and will be addressed in the upcoming State PSD hearing. The LWV also requested that additional hearings be held to allow the public to comment on other environmental concerns that deal with coal handling and support facilities. This is a reasonable request since other environmental impacts need to be assessed i.e. water quality issues, fugitive dust problems, ash disposal, possible dredging, etc. Therefore, it will be departmental policy to give the public the opportunity to comment on these matters.

Mr. Andrew Aitken of NECO presented comments that were explanatory in nature. He indicated the company would use Section 8.3.4 in the event it becomes economical to burn coal instead of oil, which is not the case at the present time. The company would need to know the allowable sulfur content of the coal in order to complete the design of the electrostatic precipitator (ESP) units. The revision of this regulation will, in fact, set the limits of sulfur emissions from the South Street facility. Therefore, the ESP design can now be finished. NECO has pushed for the new sulfur emission limits

so that they can "be in a position to move ahead quickly" in the event the cost of oil rises rapidly. DEM is also interested in the ESP design and would request Narragansett Electric to develop a schedule that will detail when the final ESP design will be finished.

Ms. Hendrickson commented that Narragansett Electric would use the environmental assessment for the coal conversion as a justification for burning high sulfur oil. As was indicated at the public hearing, DEM does not support the burning of higher sulfur content oil. Regulation No. 8 was modified previously to encourage sources to burn coal and/or reduce their consumption of foreign oil. The revisions to Section 8.3.4 were made so that the utility could burn a fuel whose supply was not dependent on the vagaries of international oil politics. This reliability factor, coupled with the positive regional economic impact of burning coal, were factors that were used to mitigate the minor environmental impacts of burning coal with a higher sulfur content than oil.

Ms. Hendrickson further commented that it was inconsistent that Rhode Island should relax their emission standards while the State is an intervenor in a lawsuit that is pushing the midwestern states to reduce their emissions. This regulation revision would result in an increase of sulfur emissions into the atmosphere if the South Street station converts to coal. However, Section 8.3.4.3 has been included to ensure that this facility would be included in any federal acid rain reduction scheme.

Section 8.3.4.1 (d) was included in the regulation to ensure that the utility could not use the shorter stack on their premises that would not be suitable when burning higher sulfur fuels. This provision protects that area immediately in the vicinity of the source from being impacted by a downwash condition that would be an area of potential concern.

The stack size at the South Street generating facility was analyzed with respect to the good engineering practice (GEP) regulation of the U.S. EPA. This GEP regulation was instituted to prevent tall stacks from being built. The South Street stack is exempt from these regulations because it was built prior to 1970. The current stack height is three hundred thirty one feet. The GEP height for this stack would be three hundred eighteen feet if this facility were constructed today. The additional thirteen feet are not a significant factor with respect to long-range transport concerns.

Once EPA approves Section 8.3.4, NECO will have permission to burn coal. Prior to actually burning coal, the company will have to apply for construction permits for the installation of their new ESP and other emission control devices. At this time, if a significant time period has elapsed since this hearing, it will be necessary for NECO to update their technical support documentation to determine if the same or similar conditions exist as were presented in their 18 March 1983 submittal. DEM cannot approve the new permits if it is determined that PSD increments or NAAQS are violated.

Ms. Henrickson further questioned if NECO would be allowed to use the conversion and conservation incentive of the regulation. According to Section 8.3.3, a source may burn high sulfur oil for a period of up to thirty months. Sources greater than two hundred fifty million BTU per hour are not eligible for these provisions of the regulation. High sulfur oil cannot be burned by Narragansett Electric under this provision because their primary boilers are greater than the two hundred fifty million BTU per hour limit.

The U.S. EPA submitted comments to DEM via a letter dated 27 June 1983. It was determined that these comments did little to clarify the existing regulation and were rejected at this time.

RECOMMENDATIONS

Section 8.3.4 entitled "Large Fuel Burning Devices Using Coal" should be forwarded to the U.S. EPA as a revision of Air Pollution Regulation No. 8. The revision, when sent to EPA, should contain the following conditions:

1. NECO should be required to submit to DEM/EPA a schedule for completing the final designs of the ESP thirty days after final approval of this SIP revision in the Federal Register.
2. NECO should be required to review the technical support document and update it if necessary to determine if NAAQS and PSD increments are being violated prior to burning coal. This condition shall be required if two years or more elapse from the date of the final approval in the Federal Register and the time when NECO will begin actual construction of the transformation of the South Street station from an oil burning to a coal burning facility.

6 Jul 83  
Date

Thomas D. Getz  
Thomas D. Getz, Principal Engineer  
Hearing Officer

July 11, 1983  
Date

Robert L. Bendick  
Robert L. Bendick  
Director