

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 26 1979

OFFICE OF ENFORCEMENT

SUBJECT: PSD Applicability - Public Service Electric and
Gas Company

FROM: Director
Division of Stationary Source Enforcement

TO: Meyer Scolnick, Director
Enforcement Division - Region II

This is in response to your memo dated February 14, 1979, requesting a determination of applicability of the PSD regulations to the Public Service Electric and Gas Company's (PSE&G) Bergen Generating Station. The facts from your memo indicate that PSE&G would like to supplement the use of its normal fuel (Number 6 oil) with ECO-Fuel II at a rate of 15 tons per hour, ten hours per day for 90 days. This is considered to be an experimental period which will be evaluated to determine the viability of continuing this program. If successful, the use of ECO-Fuel II will be continued on a permanent basis. PSE&G does not plan to upgrade its inadequate control system during the experimental phase of this study, and particulate emissions will thus be in excess of all cut-off sizes established in the PSD regulations. Although there will be some changes made at the site, there will be no changes made to the boiler to accommodate this fuel. Given this background, you asked the following questions:

1. Does the use of ECO-Fuel and the addition of the above mentioned equipment constitute a "major modification" to the Bergen Station?

The Bergen Station is eligible for the exemption contained in 40 CFR 52.21(b)(2)(ii)(d) since it could accommodate this alternative fuel prior to January 6, 1975. However, it must be determined that the Bergen Station was not precluded from using this alternative fuel by some previously enforceable permit condition. If, for instance, the Bergen Station was limited via the SIP or some other federally enforceable requirement to the combustion of fuel oil, then the switch to the alternative fuel would constitute a modification.

2. If the Bergen Generating Station is determined to have been capable of accommodating ECO-Fuel prior to January 6, 1975, must EPA require a PSD permit for the silo and pneumatic conveyor system?

The silo and pneumatic conveyor system would require a PSD permit if the combined potential emissions from the silo and pneumatic conveyor system exceed 100 tons per year for any pollutant. If these emissions are less than 100 tons per year then they will not be required to obtain a PSD permit. This, however, is all based on the assumption that the Bergen Station qualifies for the exemption under 40 CFR 52.21(b)(2)(ii)(d).

3. If Phase I of PSE&G's proposal were not exempt from PSD requirements, to what extent may EPA consider the duration, experimental nature, and possible energy savings of the use of ECO-Fuel in determining the Best Available Control Technology (BACT)?

All such factors would be given consideration in any BACT analysis. However, the weight which would be accorded each factor would have to be evaluated on the relevant facts in this case.

4A. May a source make any modifications to facilitate a fuel conversion and yet qualify for the exemption for sources "capable of accommodating such fuel" prior to January 6, 1975 (40 CFR 52.21(b)(2)(ii)(d))?

B. If so, what types of modification may be made without losing the exemption?

Generally the exemption in 40 CFR 52.21(b)(2)(ii)(d) pertains only to the boiler, steam generator, or other process equipment which directly utilizes the fuel or raw material. This would mean that a boiler which could burn coal but for which there were no coal handling facilities would qualify under this exemption. However, any equipment which was added could qualify for a modification based on their own potential to emit 100 (250) tons or more per year. More specific questions will have to be reviewed on their own merits and will have to undergo a case-by-case analysis.

This memo was prepared in coordination with the Office of Air Quality Planning and Standards. Any additional questions should be addressed to Richard Biondi of my staff at 755-2564.

Edward E. Reich

cc: Dick Rhoads
Mike James

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: FEB 14 1979

SUBJECT: Request for PSD Determination

FROM: Stephen A. Dvorkin, Chief
General Enforcement Branch
Enforcement Division

TO: Edward Reich, Esq.
Director, Stationary Source
Enforcement Division

Thru: Meyer Scolnick, Director
Enforcement

FACTS

The Public Service Electric & Gas Company ("PSE&G") has proposed to burn a powdered refuse derived fuel, called Eco-Fuel II, on an experimental basis at its Bergen Generating Station ("Bergen Station") in Bergen County, New Jersey. The Bergen Station is a steam generator fired by Number 6 oil. Burning oil, the Bergen Station needs no control equipment to comply with New Jersey's Implementation Plan. However, the Station does have old electrostatic precipitators ("ESP's") which have not been used for years. It is PSE&G's guess that the ESP's will not even be minimally efficient without extensive repairs.

ECO-Fuel II is manufactured by Combustion Equipment Associates ("CEA") from municipal solid waste. It is PSE&G and CEA's plan to supplement the Number 6 oil with Eco-Fuel II at a rate of 15 tons per hour, ten hours per day for 90 days. During this time period PSE&G and CEA will test emissions and effluents for environmental effects and the burners to determine whether Eco-Fuel can be used on a commercially viable basis without harm to the boilers.

The 90 day experiment is Phase I of PSE&G's program to use Eco-Fuel. If Phase I is successful, then Phase II will be implemented. In Phase II PSE&G will make necessary expenditures to upgrade its air and water pollution control equipment and will begin burning Eco-Fuel on a regular basis to reduce its use of oil. PSE&G and CEA do not want to invest substantial sums (perhaps a couple million dollars) for repair or replacement of the ESP's for Phase I when the equipment may not be used after the 90 day experiment if it proves unsuccessful.

At the above-mentioned charging rate during Phase I, it is estimated that potential emissions of particulate matter from the boilers will increase by 529 tons/year. Potential emissions of sulfur dioxide from the boilers will increase by 45 tons/year. Since the efficiency of the ESP's in their present condition is unknown, allowable emissions may be as great as potential emissions. This will be assumed unless PSE&G can demonstrate the efficiency of the ESP's.

The following equipment will be constructed in order to carry out the experimental phase to burn Eco-Fuel. One silo for one day's storage of Eco-Fuel will be constructed. A pneumatic conveyor system will be installed to transfer the Eco-Fuel from the silo to the burners. Isolation valves will be installed to prevent back pressure into the pneumatic feed line. Eco-Fuel will be unloaded from trucks into the silo. Because Bergen Station was designed to burn pulverized coal, no changes need be made in the burners and boilers. Because of insufficient information at this time, it is not known how great potential emissions from the silo and pneumatic conveyor system will be.

Question #1

Does the use of Eco-Fuel and the addition of the above-mentioned equipment constitute a "major modification" to the Bergen Station?

Discussion

The real issue is not whether the changes proposed by PSE&G will increase potential emissions by 100 tons per year or more because it is clear that increases in potential emissions of particulate matter (and possibly NOx) will exceed that amount. The issue is whether the PSE&G proposal is exempt from PSD requirements under 40 CFR 52.21(b)(2)(ii)(d) because the Bergen Station was capable of accommodating Eco-Fuel prior to January 6, 1975. The boilers do not require changes in order to burn Eco-Fuel. The only other construction which is planned is the addition of a silo, a pneumatic conveyor system, and valves leading to the burners. The silo and conveyor system are external to the combustion process. In fact, the silo may not be essential since it might be possible to store the Eco-Fuel in another manner (or not store it at all).

Question #2

If the Bergen Generating Station is determined to have been capable of accommodating Eco-Fuel prior to January 6, 1975, must EPA require a PSD permit for the silo and pneumatic conveyor system?

Question #3

If Phase I of PSE&G's proposal were not exempt from PSD requirements, to what extent may EPA consider the duration, experimental nature, and possible energy savings of the use of Eco-Fuel in determining the Best Available Control Technology?

Question #4

A. May a source make any modifications to facilitate a fuel conversion and yet qualify for the exemption for sources "capable of accomodating such fuel" prior to January 6, 1975 (40 CFR §52.21(b)(2)(ii)(d))?

B. If so, what types of modification may be made without losing the exemption?

Should you need any further information before responding to these questions, please call Samuel P. Moulthrop, Attorney, General Enforcement Branch, at (212) 264-5695. Because Regional Administrator Beck is interested in this PSE&G proposal, I would appreciate your efforts to render the requested guidance as quickly as possible.