ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: June 22, 1978

SUBJECT: IPALCO's Proposed Patriot, Indiana Generating Station

FROM: Director
Division of Stationary Source Enforcement

TO: Dale S. Bryson, Acting Director
Enforcement Division
Region V

This is in response to your memo of June 1, 1978, concerning issuance of a final PSD permit to the Indianapolis Power and Light Company (IPALCO) for the proposed Patriot Generating Station.

As a new fossil-fuel fired steam electric plant with potential emissions greater than 100 tons/year and allowable emissions of greater than 50 tons/year, the Patriot Station will be subject to both first and second tier PSD reviews including application of BACT.

Included in IPALCO's PSD permit application must be a demonstration that emissions from the Patriot Station will be controlled to a level which reflects application of BACT and which will not cause the applicable NAAQS or PSD increments to be exceeded. Fundamental to such a demonstration are plans and specifications for control equipment. Manufacturers' claims of control efficiency should be supported by design specifications.

Specific questions raised by your memo are addressed below.

1. Q - Can U. S. EPA approve IPALCO's application for approval to construct conditionally in such a manner that construction could not commence until design specifications became available for the 91% efficiency scrubber and U.S. EPA reviewed and approved the scrubber system? This position was taken for the preliminary approval.

A - EPA's final approval to construct should not be issued until IPALCO has

submitted design specifications for the proposed scrubbers. Final approval conditioned on submittal of specifications is not appropriate in this case. DSSE is confident that design specifications for high efficiency scrubbers are available at this time.

2. Q - To what extent must IPALCO demonstrate that the necessary scrubber system will be available before U.S. EPA can issue a conditional approval as expressed in 1. above?

A - See answer to question #1, above.

3. Q - Can U.S. EPA reject the scrubber system IPALCO proposes and in fact require a different system in a final approval? Or, must the application be rejected and approval denied?

A - The responsibility for developing on adequate control strategy lies with IPALCO. EPA should disapprove the permit application if it is determined that the proposed scrubber system is not adequate to ensure protection of NAAQS or the PSD increments or does not represent BACT. A new application proposing an alternative control system could, of course, be submitted by IPALCO subsequent to any EPA permit disapproval.

The preamble to the new PSD regulations specifically addresses issuance of permits in situations where sources are constructed in phases. If each phase can be operated independently of other phases, as would be the case in this instance, a PSD permit may be issued for the entire source, provided the following conditions are specified: 1) the construction of the first phase must "commence" within 18 months of permit issuance, 2) construction of each additional phase must commence within 18 months of the date approved in the permit, 3) breaks in construction of greater than 18 months must not occur in any phase of the project, and 4) BACT for the later phases of the project may be reassessed up until the time it is no longer economically feasible for the source to change its control strategy. At the time the original permit is issued, the BACT determinations which are subject to re- evaluation should be specified.

Your memo points out IPALCO's failure to provide for spare scrubbing capacity to be used in the event of a scrubber malfunction or partial shutdown for routine maintenance

work. Although the SIP regulations do not allow for excess emissions, even during periods of malfunction, the PSD permit cannot be disapproved on the basis that backup controls are not planned. It is the source's option to prevent excess emissions using control techniques other than backup equipment (i.e., shutdown, decreased production rate, etc.). Periods during which excess emissions occur will, of course, be considered violations of the applicable SIP and grounds for enforcement action including penalty assessment.

I would like to point out that, according to the new PSD regulations, the Governor of any affected State should be notified prior to any action by EPA regarding a source which is expected to consume the entire remaining increment.

If you have any questions on this matter, please contact Libby Scopino at 755-2564.

Edward E. Reich

cc: Mike Trutna
Peter Wyckoff

EN-341:lscopino:nb:rm3202:x52564

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: JUN 1, 1978

SUBJECT: IPALCO's Proposed Patriot, Indiana Generating Station

FROM: Dale S. Bryson, Acting Director
Enforcement Division

TO: Edward E. Reich, Director
Division of Stationary Source Enforcement (EN-341)

I request your assistance in making a final determination regarding the PSD application submitted by Indianapolis Power and Light Company (IPALCO) for the proposed Patriot (Mexico Bottom) Generating Station. The primary issue is the use of a high efficiency scrubber system. The approval or disapproval of this system should be considered in light of the Agency's position on scrubbers, and requires examination for national policy impacts.

Background

IPALCO has applied to Region V for approval to construct the Patriot Generating Station. This power plant would consist of three 650 MW units scheduled to go on-line in 1985, 1987, and 1989. Preliminary approval was granted in February, 1978, and a public hearing was held on April 20, 1978.

Based upon the air quality analysis submitted by IPALCO, it has been determined that, for the proposed power plant to meet the limit of the 24- hour sulfur dioxide Class II increment, the sulfur dioxide emission limit for the plant must be 0.552 lbs/million BTU heat input. To meet this emission limit, IPALCO has proposed using a lime/limestone scrubber with a 91% removal efficiency. IPALCO claims that this type of scrubber will be available for installation by the mid-1980's. Coal with a sulfur content as high as 3.47% will be burned at the Patriot plant with no plans by IPALCO to treat the coal prior to combustion to reduce the sulfur content. IPALCO has not offered to blend low sulfur coal with the regular fuel mixture in order to reduce sulfur dioxide emissions. Additionally, IPALCO has no plans to install spare scrubber modules and had planned to install a scrubber bypass (the bypass was prohibited in the preliminary approval). Support data for the scrubber efficiency consists solely of letters from scrubber manufacturers attesting to but no guaranteeing that a 91% efficiency will be available in the 1980's. IPALCO has also used U.S. EPA documents supporting scrubber technology as evidence to support their application.

Issues

1. Can U.S. EPA approve IPALCO's application for approval construct conditionally in such a manner that construction could not commence until design specifications became available for the 91% efficiency scrubber and U.S. EPA reviewed and approved the scrubber system? This position was taken for the preliminary approval.

2. To what extent must IPALCO demonstrate that the necessary scrubber system will be available before U.S. EPA can issue a conditional approval as expressed in 1. above?

3. Can U.S. EPA reject the scrubber system IPALCO proposes and in fact require a different system in a final approval? Or, must the application be rejected and approval denied?

It should be pointed out that, while U.S. EPA has been strongly committed to the use of scrubbers for many years, the availability of, and U.S. EPA commitment to high-efficiency scrubbers is very recent. Furthermore, high efficiency lime/limestone scrubbing may not be commercially demonstrated in the United States. Region V is concerned that sulfur dioxide control at the Patriot Station will be inadequate to prevent violations of the 24-hour sulfur dioxide Class II increment in the vicinity of the station.

If you have any need for further information on this matter, please contact Mr. Bruce Varner at (312) 353-2086.

We would appreciate your consideration of these issues as expeditiously as possible. Region V must make a final PSD determination by July 1, 1978.

Dale S. Bryson