



State of New Jersey  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF ENVIRONMENTAL QUALITY

JOHN FITCH PLAZA, P. O. BOX 2807, TRENTON, N. J. 08625

December 20, 1977

Mr. John Proctor  
Debevoise and Liberman  
700 Shoreham Building  
806 - 15th Street, NW  
Washington, D.C. 20005

RE: Application for Permit to Construct, Install  
or Alter Control Apparatus or Equipment and  
Request for Amendment of Section 6.2 of N.J.A.C.  
7:27-6 and the New Jersey Implementation Plan to  
Meet National Ambient Air Quality Standards

Dear Mr. Proctor:

Your letter of September 29, 1977, to Commissioner Ricci requests an amendment to the New Jersey Administrative Code, Title 7, Chapter 27, Subchapter 6, (hereafter referred to as Subchapter 6) which is part of the New Jersey State Implementation Plan (SIP) to meet National Ambient Air Quality Standards (NAAQS).

At our meeting of July 20, 1977, Department of Environmental Protection (hereafter Department) officials indicated that we would consider a request by Jersey Central Power and Light (JCP&L) for an amendment to the aforementioned regulation if it were appended to a properly submitted permit to construct, install or alter control apparatus or equipment. At the outset, it should be noted that the permit application submitted with the September 29 letter is hereby returned to you. Further information as indicated herein is necessary before a permit review is possible.

Your letter raises several points in support of that SIP revision request. However, for the most part, none of the factors discussed represent new information. The reasons you offered have been discussed at some length in the past and have often been responded to by members of the Bureau of Air Pollution Control or other representatives of the Department. It should be noted that although these discussions have occurred over a period of years, the permit application submitted with your letter dated September 29, 1977, represents the first formal written application by JCP&L to the Department with regard to this matter.

The first issue you raised was, I thought, resolved at the July 20, 1977, conference. At the time, JCP&L representatives indicated that the questions of salt water being construed as uncombined water and, consequently, exempt from Subchapter 6 would be dropped. In any case, it is the Department's position that salt particles are included in the emission limitations of Subchapter 6.

You have further stated that the "drafters of Subchapter 6" did not foresee sources such as the salt water cooling tower (SWCT) described on this permit application. When Subchapter 6 was drafted, numerous sources with particulate emission rates in excess of the 133 pounds per hour (#/hr) claimed for the SWCT here were then operating in New Jersey. These included ferrous and nonferrous foundries, refineries, smelting operations, asphalt plants and the like. The Department determined that the upper limit of 30 #/hr represented an attainable--albeit, in some instances a technology-forcing--level of emission for most source categories. Ambient air quality standards and, more recently, prevention of significant deterioration requirements have placed an upper limit on increased air contamination. This emission limitation, therefore, provides a mechanism for permitting individual sources a fair share of the atmosphere's capacity to assimilate emissions of pollutants.

In the few cases where present technology does not permit compliance with the emission limitation for particles, the present form of the regulation contains a provision, Section 6.5, authorizing variances. The very fact of this provision attests to the Department's explicit recognition of that eventuality which you contend was not foreseen.

You indicate that proceeding under this section is not a viable option because of the great financial impact, system reliability questions, etc., which would be experienced should the proposed Forked River Nuclear Generating Station somehow be required to cease operation as a result of a subsequent variance renewal proceeding in some future year. Those very factors would, of course, make such a decision by the Department extremely difficult.

Conversely, the Department has put into regulatory form its policy of continuing to seek the latest and best air pollution control technology for sources which do not meet the standards set forth in Subchapter 6. It is entirely possible that, during the useful life of the proposed nuclear generating station, cooling tower technology will progress to a point where a lower emission rate is, indeed, attainable. Certainly, in the case of a source of the magnitude of the

SWCT proposed here, it would behoove the Department to seek to have that technology applied. If a retrofit control were available, for example, it would only be required if the installation and operation of the control apparatus were deemed reasonable. If this is the case, the Department would be justified in seeking that installation. If, on the other hand, no retrofit controls become available, or the installation requirements were unreasonable, we would anticipate continued renewal of any variance that might be granted. These questions are, in fact, precisely the considerations which led the drafters of Subchapter 6 to develop the variance provision.

The five-year renewal period for the variance is the same life span any certificate to operate approved by the Department would have. Thus, an amendment to the regulation which would establish a separate category for SWCT's would not, in any case, eliminate all periodic review for the facility. In addition, this five-year procedure would have the additional benefit of bringing all the issues presented by a nuclear generating station equipped with a SWCT before the public for review on a periodic basis. Accordingly, the request to amend Subchapter 6 to establish a new subcategory with a separate emission limit for a SWCT is hereby denied.

With respect to the permit application also submitted, a substantial amount of additional information is required prior to the initiation of a thorough permit review. Detailed clarification of the design and calculations used to determine the specified emission rate must be submitted and must be credible. The manner in which emission factors were developed must also be specified. In addition, we would require the following information:

1. blueprints of tower design, including:
  - a. tower structure,
  - b. "fill" structure and composition,
  - c. drift eliminator design;
2. breakdown of particulate emissions. In addition to the composition of the "sea salt," the Bureau should be given the composition and quantities of anti-corrosion agents, biocides and all other additives which will be present to the circulating cooling water;

3. explanation of the relationship between ambient conditions and:
  - a. volume of discharge gas,
  - b. exit linear velocity,
  - c. temperature at point of discharge;
4. any other inputs required for modelling, including:
  - a. assumed distribution of aerosol radii and the theoretical/empirical basis for the assumption,
  - b. vapor pressure and density of the cooling water (vapor pressure and density should be determined at 70°F; the analysis should be performed on cooling water which is representative of that which will be found in the fill section of the cooling tower),
  - c. drift fraction,
  - d. exact geographic location and elevation.

Also the permit application cannot be considered complete until the required filing fee is submitted. In this case, our filing fee of \$490 is required based on the fee schedule contained in Subchapter 8.

Pending resolution of the issues raised herein, the permit application as submitted and SIP revision petition may be considered to be denied. Should you desire a hearing on the matter of the permit denial, a written request must be received by the Department (see N.J.A.C. 7:27A-1 et seq.) within 15 days of your receipt of this notice. I would suggest, however, that JCP&L instead consider submitting a new permit application enclosing all of the requested technical information. At the same time, JCP&L should file a request for a variance in accordance with N.J.A.C. 7:27-6.5. It should be understood that absent a decision by the Department to approve a variance, any permit application submitted cannot be approved. Final approval of the application must be held in abeyance until a variance is approved under state law. (See N.J.S.A. 26:2C-9 which provides in part that any permit "...approved by the Department must comply with all applicable codes, rules...")

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Washington, D.C.

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Finally, It should be noted that the permit application submitted was sent to Commissioner Ricci directly. In the interest of expediting such applications, any questions with regard to this matter, as well as all future correspondence, should be directed to me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Edward J. Londres". The signature is fluid and cursive, with a long horizontal stroke at the end.

Edward J. Londres  
Chief Enforcement Officer  
Bureau of Air Pollution Control

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cc: Assistant Commissioner Paulson  
Director Arbesman  
Deputy Attorney General Tasher  
Chief Herbert Wortreich  
George J. Tyler

CERTIFIED MAIL