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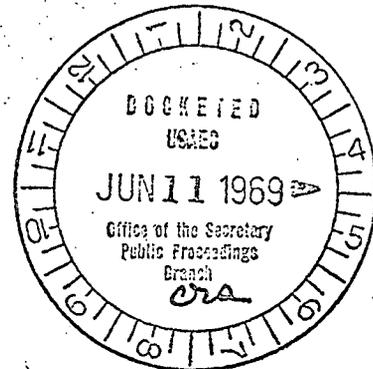
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In the Matter of Consolidated Edison Company of New York, Inc.  
Indian Point Unit No. 3  
Docket No. 50-286

Gentlemen:

During the hearing in this proceeding the board asked the staff to obtain the comments of the Division of Compliance concerning the air monitoring system now in use for the Indian Point 1 reactor. The board also asked certain questions as to the role of the Division of Compliance in inspecting an applicant's quality assurance program. Because the board had already excused the witness from Compliance, the answers by the staff were given subject to subsequent verification.

Enclosed find the comments prepared by the regulatory staff on these two subjects, the gist of which has already been incorporated into the staff's proposed findings (paras. 13 and 24) submitted on June 6, 1969.

Sincerely,

*Troy B. Conner, Jr.*

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Trial Counsel

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REGULATORY STAFF RESPONSE TO ASLB QUESTIONS

Effluent Control and Environmental Monitoring

During the hearing in the captioned proceeding, on May 15, 1969, the board asked the regulatory staff to determine from the Division of Compliance whether it considers the air monitoring system at the Indian Point site to be satisfactory since operations commenced in the Indian Point 1 reactor (Tr. 2191-2193). In particular, the board inquired about the auxiliary particulate monitors which are located onsite, but which are not part of the instrumentation for determining releases from the plant waste disposal system.

It is well to distinguish the types of monitoring programs conducted by Consolidated Edison Company with respect to the operations of Indian Point Unit 1. The first measures the effluents released from the plant waste disposal system. It controls and limits releases and is read in the plant control areas. The two auxiliary particulate monitors are not part of this system.

The second surveillance program is the environmental monitoring program which measures the overall effect on the environment of radioactivity released from the facility. As shown at the hearing, periodic samples are taken from many sources offsite (including 11 fixed monitoring stations and mobile sampling equipment), and from the two auxiliary particulate monitors.

We do not believe that, as presently used, the two particulate monitors (samplers) are of particular value in assessing the quantity of radioactivity in the environment. They do provide an index to the fluctuations of radioactivity in the atmosphere.

The primary purpose of the Division of Compliance inspections with respect to the release of radioactive material is to determine if any problem or abnormal modes of operation have occurred. For this purpose during its periodic inspections of the Indian Point 1 facility, which average six inspections per year, the inspectors routinely check the information provided by the control instruments for routine effluent releases, primary coolant activity and radiation levels in the facility. Because the two monitors in question, as presently constituted, do not contribute particularly meaningful data to the overall surveillance of the Indian Point operations either with respect to the control instruments or with respect to the environmental monitoring program, the Division of Compliance does not review their operation as part of its regular inspections.

Since the auxiliary particulate monitors are described in the Unit 1 application as part of the licensee's environmental monitoring program instrumentation, Compliance has reviewed the results of their operation as part of its inspection of this program on three occasions over approximately the last two and one-half year period.

Because of the board's request concerning these two monitors, Compliance made a special inspection of the entire environmental monitoring program, including these two monitors, and all of the associated records, following the hearing. Each monitor consists of an air pump which draws air, measured by an integrating gas meter, through a millipore filter and charcoal impregnated filter paper. Compliance review of the records associated with the onsite monitoring stations indicated that during the past 30 month period both monitors had been in operation in excess of 90% of the time. However, as expected for this type of monitor, flow rate through the monitors varied considerably from time to time due to clogging of the filters from dust and other particulates. It should be noted that the design of the gas flow meters associated with these monitors is such that the integrated air flow through a monitor would be measured for the period in which the filter is in service. Since the average activity concentration in the air is calculated using the integrated air flow for the period of operation that the filters was in service, the activity concentration would be reasonably accurate for the long-lived emitters which this system is designed to measure. The records reflected that the laboratory instruments had been properly calibrated during this period.

Compliance agrees the data from these instruments are only of qualitative value.

On the basis of the inspections noted above, the Division of Compliance concludes that the control instrumentation for monitoring airborne effluent releases and the environmental monitoring program (in which the auxiliary particulate monitors play only a minor role) are each adequate for their intended purposes. As previously noted, all radioactive effluent releases from the plant have been a small fraction of that permitted by Part 20 and the technical specifications.

#### Quality Assurance

During the hearing the board considered the subject of quality assurance in detail (Tr. 2100, et seq.). The board noted the written answers filed by the staff in response to the questions on this subject raised at the prehearing conference and indicated that it wished to ask some questions of the witness from the Division of Compliance, Mr. James B. Henderson. It was noted that on the last day of the second phase of the hearing, May 2, 1969, the board had stated it had no questions of Mr. Henderson and excused him (Tr. 1622).

For this reason the staff's answers to the board's subsequent questions concerning quality assurance were given subject to verification with the Division of Compliance. It was stated that any modifications could be provided by mail following the hearing (Tr. 2102). We have reviewed the answers stated to the board's questions concerning

quality assurance with the Division of Compliance and can advise the board that no changes are required.

In view of the comments concerning the need for a "checklist" on quality assurance for the Division of Compliance inspections in the record, however, we feel it should be emphasized that there is a comprehensive program for assuring that all facets of safety involved in the construction of the facility are covered.

To provide direction, continuity and uniformity of approach in inspection of the various power reactors under construction throughout the country, the Division of Compliance Headquarters staff has developed and issued to all inspection personnel, documents prescribing the type, sequence, frequency, and minimum requirements for inspection in the various areas pertinent to power reactor design and construction. For each inspection, review of the effectiveness of the licensee's quality assurance program as it applies to the activities selected for inspection is a specific requirement.

The cognizant Regional Compliance Office is required to develop an overall inspection plan for each of its reactors under construction. Prior to each scheduled inspection, the responsible inspector develops a specific plan for the inspection, based on the general and specific

Headquarters-issued documents, the overall inspection plan, and the prior inspection history for that facility. While not constituting a formalized "checklist," this inspection plan does provide assurance that important inspection areas are not inadvertently overlooked.

It is also well to emphasize that while no one inspector can be an expert in all phases of nuclear plant construction, the responsible inspector for each facility is assisted by other experts as necessary.

Finally, it must also be emphasized that the Division of Compliance directs that unnecessary detail not be provided in the reports, but, on the other hand, that in any area where there is an indicated problem the report contain a complete review and analysis. (Tr. 2110)

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