UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

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JUN 27 1980

Docket No. 50-295
Docket No. 50-304

Commonwealth Edison Company
ATTN. Mr. James J. O'Connor
President
Post Office Box 767
Chicago, IL 60690

Gentlemen:

Subject: Health Physics Appraisal

The NRC has identified a need for licensees to strengthen the health physics programs at nuclear power plants and has undertaken a significant effort to ensure that action is taken in this regard. As a first step in this effort, the Office of Inspection and Enforcement is conducting special team appraisals of the health physics programs, including the health physics aspects of radioactive waste management and onsite emergency preparedness, at all operating power reactor sites. The objectives of these appraisals are to evaluate the overall adequacy and effectiveness of the health physics program at each site and to identify areas of weakness that need to be strengthened. We will use the findings from these appraisals as a basis not only for requesting individual licensee action to correct deficiencies and effect improvements but also to improve NRC requirements and guidance. This effort was identified to you in a letter dated January 22, 1980, from Mr. Victor Stello, Jr., Director, NRC Office of Inspection and Enforcement.

During the period March 10 to March 21, 1980, the NRC conducted the special appraisal of the health physics program at the Zion Nuclear Power Station. Areas examined during this appraisal are described in the enclosed report (50-295/80-05; 50-304/80-04). Within these areas, the appraisal team reviewed selected procedures and representative records, observed work practices, interviewed personnel, and performed independent measurements. We request that you carefully review the findings of this report for consideration in improving your health physics program.

The findings of this appraisal indicate several significant weaknesses in your health physics program. These weaknesses, listed in Appendix A, "Significant Appraisal Findings," were discussed at our meeting on April 11, 1980, and at the meeting between members of our staffs on April 28, 1980. Results of these meetings and the actions to be taken by your organization to correct the weaknesses were documented in a letter to you dated April 15, 1980 and in an Immediate Action Letter to you dated May 14, 1980. While we believe the identified weaknesses require correction to enable you

to perform well in both normal and offnormal situations, your present health physics program is considered adequate for continued operation while achieving acceptable corrective action.

We recognize that an explicit regulatory requirement pertaining to each significant weakness identified in Appendix A may not currently exist. However, to determine whether adequate protection will be provided for the health and safety of workers and the public, you are requested to submit a written statement within twenty (20) days of your receipt of this letter, describing your corrective action for each significant weakness identified in Appendix A, including: (1) steps which have been taken; (2) steps which will be taken; and (3) a schedule for completion of action. This request is made pursuant to Section 50.54(f) of Part 50, Title 10, Code of Federal Regulations.

During this appraisal, it was also found that certain of your activities do not appear to have been conducted in full compliance with NRC requirements, as set forth in the Notice of Violation enclosed as Appendix B. The items of noncompliance in Appendix B have been categorized into the levels of severity as described in our Criteria for Enforcement Action dated December 13, 1974. Section 2.201 of Part 2, Title 10, Code of Federal Regulations, requires you to submit to this office, within twenty (20) days of your receipt of this notice, a written statement or explanation in reply, including: (1) corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved.

You should be aware that the next step in the NRC effort to strengthen health physics programs at nuclear power plants will be a requirement by the Office of Nuclear Reactor Regulation (NRR) that each licensee develop, submit to the NRC for approval, and implement a Radiation Protection Plan. Each licensee will be expected to include in the Radiation Protection Plan sufficient measures to provide lasting corrective action for significant weaknesses identified during the special appraisal of the current health physics program. Guidance for the development of this plan will incorporate pertinent findings from all special appraisals and will be issued by NRR in the fall of this year.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room. If this material contains any information that you believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must be accompanied by an affidavit, executed by the owner of the information, which identifies the document or part sought to be withheld and which contains a statement of reasons which addresses with specificity the items which will

be considered by the Commission as listed in Subparagraph (B)(4) of Section 2.790. The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified period, this letter and the enclosures will be placed in the Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

James G. Keppler
Director

Enclosures:
1. Appendix A, Significant Appraisal Findings
2. Appendix B, Notice of Violation
3. IE Inspection Report No. 50-295/80-05 and No. 50-304/80-04

cc w/encls:
Mr. D. L. Peoples, Director of Nuclear Licensing
Mr. N. Wandke, Plant Superintendent
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
Mr. Dean Hansell, Office of Assistant Attorney General

Appendix A

SIGNIFICANT APPRAISAL FINDINGS

Based on the Health Physics appraisal performed March 10-21, 1980, the following items appear to require corrective actions. (Section references are to the Details portion of the enclosed inspection report.)

1. Management and management support of the health physics program should be strengthened. Particular attention should be given to communication, performance standards and review, morale and discipline, ALARA, and enforcement of radiation protection standards. (Sections 2 and 5)

2. Vandalism affecting the health physics program should be eliminated. (Sections 2.3 and 11.5)

3. The Radiation/Chemistry Department's emergency response capability needs significant improvement. Particular attention should be paid to training, procedures, facilities, and equipment. (Sections 3.4, 4.3, 8.6, 8.7, 8.8, 9.4, 10, and 12)

4. Greater control of access to High Radiation Areas is required in order to avoid overexposures and to account for personnel. (Section 7.5)

5. Radiation protection problems could occur, following a major reactor accident, in processing liquid radwaste in the currently used, temporary demineralizer system. This situation requires prompt correction, including completion of additional radwaste treatment facilities. (Section 11.3)

6. There appears ample reason to suspect unmonitored leakage from the gaseous waste system, particularly from the cover gas system. Aggressive action is necessary to ensure gaseous radioactive waste system integrity. (Section 11.2)

7. Contamination control should be improved in order to reduce the potential for personal exposure and inadvertent removal of contamination from controlled areas. (Sections 7.7 and 8.5)

8. The ability to sample, detect, and measure alpha activity in effluents and in plant environs should be improved. Surveillance for alpha activity should be increased. (Sections 8.4 and 9.7)