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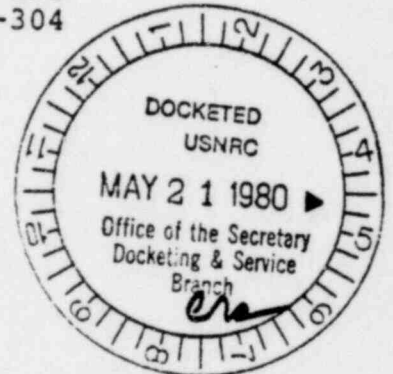
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)
)
COMMONWEALTH EDISON COMPANY) Docket Nos. 50-295
) 50-304
(Zion Station, Units 1 and 2))
)
Proposed Amendments to)
Increase Spent Fuel Storage)
Capacity (43 F.R. 30938))

May 12, 1980



Dear Board Members:

Enclosed is a letter from Catherine Quigg to the Director of Nuclear Reactor Regulation which requests a stay in this Zion spent fuel pool proceeding. Although denominated as a petition under 10 CFR §2.206, Licensee believes the letter is more properly treated as an amicus curiae brief in this appeal. See Consolidated Edison Company of New York (Indian Point, Units, 1, 2 and 3) CLI-75-8, 2 NRC 173, 177 (1975); Consolidated Edison Company of New York (Indian Point Station, Unit 2), ALAB-369, 5 NRC 129 (1977).

The assertions made in Miss Quigg's petition are inaccurate. The Licensing Board did give serious consideration to the possibility of a loss of water accident occurring in the Zion spent fuel pool. The Licensing Board found that there are adequate design and engineered safety features incorporated into the Zion Station spent fuel pool to preclude the possibility of such an accident. Initial Decision at 42-45, 84-86. Similarly, the Licensing Board gave serious

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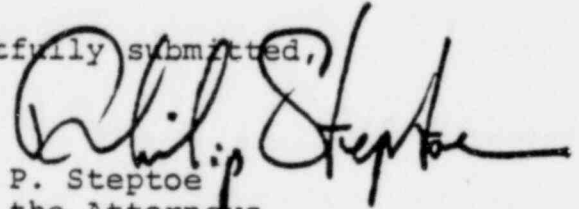
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consideration to the effects of the increased fuel burnup tests being conducted with respect to four spent fuel assemblies in the Zion spent fuel pool. Initial Decision at 90-92. In fact, the "information received from the NRC . . . subsequent to the NRC's favorable ruling on Commonwealth Edison's request," 44 Fed. Reg. 16504, upon which Ms. Quigg relies was published in the Federal Register on March 19, 1978, not on March 19, 1980 and therefore was available at the hearing. The NRC's safety evaluation report and environmental impact appraisal relating to the high burnup program for Zion were introduced into evidence as Staff Ex. 2. See Tr. 1800-1815.

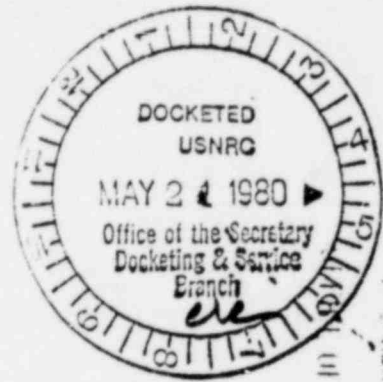
Respectfully submitted,



Philip P. Steptoe
One of the Attorneys
for Commonwealth Edison Company

CC: Service List
Ms. Catherine Quigg

DATE: April 17, 1980
TO: Director of Nuclear Reactor Regulations
U.S. Nuclear Regulatory Commission
Washington, DC 20555
FROM: Catherine Quigg, research director
Pollution & Environmental Problems, Inc.
P.O. Box 309, Palatine, IL 60067
(312/381-6693)
RE: Docket #50-295, 50-304



Under Section 2.206 of the Code of Federal Regulations, the members of Pollution & Environmental Problems, Inc. (PEP), request the U.S. Nuclear Regulatory Commission (NRC) to immediately suspend the license issued February 28, 1980 by the NRC to Commonwealth Edison to rerack and compact its spent fuel pool at the Zion Nuclear Station to 2,112 spent fuel assemblies. We ask that the license to rerack to stayed until the evidence currently being presented at the Salem, New Jersey spent fuel intervention has been examined by an NRC review board for its applicability to the Zion spent fuel case. Not to take this action at this time could result in serious and irreversible harm to the citizens of northern Illinois and their environment.

The following contentions constitute the basis for PEP's petition:

1. During the public hearings into the Zion spent fuel pool increase, the Atomic Safety & Licensing Board (ASLB) made known to all parties that it did not consider a loss of water accident or loss of cooling water accident in the Zion spent fuel pool to be a serious matter with consequences affecting the public. The Board, therefore, made its determination to increase the Zion pool's capacity without serious or sufficient consideration of the serious hazards involved in these potential accidents. It did not itself raise the question of these accidents or their consequences.

WHEREAS: In the hearings into the spent fuel increase at the Salem Nuclear Station in Salem, New Jersey (Docket #50-272), subsequent to the Zion hearing, the ASLB, itself, raised the following questions:

- a) To what extent did the accident at Three Mile Island affect the spent fuel pool at that site?
- b) In the event of a gross loss of water from the spent fuel storage pool at Salem-1, what would be the difference in consequences between those occasioned by the pool with expanded storage proposed by the Licensee and those occasioned by the present pool?

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In raising these questions, the ASLB has given credibility to a reactor accident or loss of cooling accident in a spent fuel pool and has undertaken a serious determination of the consequences of such accidents.

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2. Information received from the NRC dated March 13, 1980 and published in the Federal Register March 19, 1980 (44FR16504), subsequent to the NRC's favorable ruling on Commonwealth Edison's request, reveals that the NRC may, in the future, allow utilities to go to fuel burnups as high as 55-60,000 MWD/MTU. No environmental impact study has been prepared on the effects of high burnup on fuel integrity in pool water storage or the increased fission gas releases anticipated in spent fuel pools with high burnup spent fuel. The lack of adequate documented or experimental research on this subject was apparent at the Zion hearings.

CONCLUSION:

In view of these compelling arguments concerning matters overlooked, ignored, or disregarded by the ASLB looking into the Zion spent fuel increase and compaction, PE appeals to the NRC to immediately suspend the license of Edison to increase and compact spent fuel at the Zion Nuclear Station pending a thorough review of the evidence presented during the NRC-ASLB inquiry into Public Service Electric and Gas Company's request for compaction at the Salem, New Jersey nuclear station, particularly as it applies to the Zion spent fuel pool.

The ASLB at Salem has announced its intentions to seriously consider the impact of a serious accident in an adjacent nuclear reactor on the spent fuel pool and the consequences of a loss of water or loss of cooling accident in a low-volume, non-compact spent fuel pool as contrasted with a high-volume, compact spent fuel pool. It is obvious that all the answers on spent fuel storage are not in yet.

The citizens of northern Illinois and their representatives, who so overwhelmingly opposed the Zion spent fuel increase, deserve the same consideration of serious accident consequences as the residents of Salem, New Jersey. A temporary suspension of Edison's license to rerack may have long term beneficial effects on the health and safety of all Illinois residents; if that time is used to consider new information raised at Salem.

Finally, we believe the Zion license should be suspended, pending the completion of a full environmental impact statement on high burnup nuclear fuel in spent fuel storage pools. Fuel burnup is one of the most important considerations in determining spent fuel pool thermal heat and radiation output, major factors in a loss of water accident in the pool. It may also be a determining factor in the long term integrity of the spent fuel in water storage. The ASLB's decision to rerack Zion should be based on an informed judgement in this matter, since a nationwide application of high burnup in commercial lightwater nuclear reactors appears imminent.

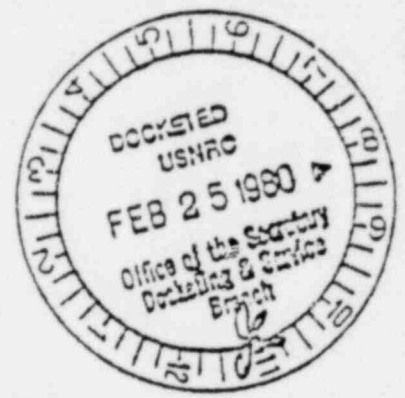
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Gary L. Milhollin, Esq., Chairman
Dr. James C. Lamb, III
Frederick J. Shon



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| In the Matter of |) | |
| |) | Docket No. 50-272 |
| PUBLIC SERVICE ELECTRIC & GAS COMPANY |) | (Proposed Issuance of Amendment to Facility Operating License No. DPR-70) |
| (Salem Nuclear Generating Station, Unit No. 1) |) | |

NOTICE OF EVIDENTIARY HEARING
(February 22, 1980)

An evidentiary hearing by the Atomic Safety and Licensing Board will be held in the above-captioned proceeding on April 22, 1980 at 9:30 A.M. in Courtroom 3, Salem County Courthouse, 92 Market Street, Salem, New Jersey. The parties shall address the following question:

In the event of a gross loss of water from the spent fuel storage pool at Salem 1, what would be the difference in consequences between those occasioned by the pool with the expanded storage proposed by the Licensee and those occasioned by the present pool?

Testimony, in addition to that previously filed on an earlier formulation of this question, shall be filed by March 24, 1980, and objections to all testimony shall be filed in writing by April 4, 1980.

SO ORDERED

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FOR THE ATOMIC SAFETY AND
LICENSING BOARD
Gary L. Milhollin
Gary L. Milhollin, Chairman

Objections to One of the Questions Posed by the Board
on April 18, 1979

On April 18, 1979 the Board posed three questions to the Staff. They were as follows:

1. To what extent did the accident at Three Mile Island affect the spent fuel pool at that site?
2. If there had been an explosion or "meltdown" at Three Mile Island, what effect would that have had upon the spent fuel pool? To what extent would it have mattered how much spent fuel was present at the pool?
3. If an accident such as the one at Three Mile Island occurred at Salem, to what extent would the accident affect the spent fuel pool? If an explosion or "meltdown" occurred at Salem, to what extent would that affect the spent fuel pool? To what extent would it have mattered how much spent fuel was present at the pool at Salem?

The Board agreed to withdraw question number 2 as unnecessary after a telephone conference call with the parties on April 19, 1979. We held evidentiary hearings on question 1 and the first sentence of question 3 on July 11, 1979. We now take up the Staff's objection to the second and third sentences of question 3.

The Staff's objection proceeds from the theory that the type of postulated accident to which these sentences refer is a "Class 9" accident, and that the Commission's policy is that such accidents are not to be considered in individual licensing proceedings. A Class 9 accident has been described as follows:

The occurrences in Class 9 involve
postulated success
those postulated

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