

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
(.ion Station, Units 1 and 2))
)
Proposed Amendments to)
Increase Spent Fuel Storage)
Capacity (43 F.R. 30938))

COMMONWEATH EDISON'S BRIEF
IN SUPPORT OF
THE INITIAL DECISION

By:

Michael I. Miller
Philip P. Steptoe

ISHAM, LINCOLN & BEALE
One First National Plaza
Suite 4200
One First National Plaza
Chicago, Illinois 60603
(312) 558-7500

DATED: May 5, 1980

8006170218

G

TABLE OF CONTENTS

| | |
|--|-----|
| Table of Cases, Statutes, Regulations and Other Authorities | iii |
| I. Statement of Facts | 1 |
| II. Intervenor's Brief Is So Inadequate That It Frustrates Intelligent Response By Licensee And Meaningful Review By The Appeal Board | 4 |
| III. Intervenor's Brief Fails To Demonstrate That the Licensing Board Erred | 6 |
| Exception 1. | 7 |
| Exception 2. | 10 |
| Exception 3, 4 and 5 | 13 |
| Exception 6. | 18 |
| Exception 7. | 23 |
| Exceptions 8, 9, 10 and 11 | 23 |
| Exceptions 12 and 13 | 32 |
| Exceptions 14 and 15 | 36 |
| IV. Conclusion | 40 |

TABLE OF CASES, STATUTES,
REGULATIONS AND OTHER AUTHORITIES

Cases

| | |
|---|-----------|
| <u>Consolidated Edison Company of New York, Inc.</u> (Indian Point Nuclear Generating Station, Unit No. 3), CLI-75-14, 2 NRC 835 (1975) | 16 |
| <u>Consumers Power Company</u> (Midland Plant Units 1 and 2), ALAB-270, 1 NRC 473 (1975) | 6 |
| <u>Portland General Electric Company</u> (Trojan Nuclear Plant), ALAB-531, 9 NRC 263 (1979) | 27,28,32 |
| <u>Portland General Electric Company</u> (Trojan Nuclear Plant) Memorandum and Order, 2 Nuclear Regulation Reports #30,427 | 32 |
| <u>Portland General Electric Company</u> (Trojan Nuclear Plant), ALAB-534, 9 NRC 287 (1979) | 37 |
| <u>Public Service Company of New Hampshire v. NRC,</u> 582 F.2d 77 (1st Cir. 1978) | 35 |
| <u>Public Service Company of Oklahoma</u> (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775 (1980) | 4,6,23,38 |
| <u>Sacramento Municipal Utility District</u> (Rancho Seco Nuclear Generating Station), LBP-79-33, 10 NRC 821 (1979) | 37 |
| <u>Seacoast Anti-Pollution League v. NRC,</u> 598 F.2d 1221 (1st Cir. 1979) | 9 |
| <u>Siegel v. AEC,</u> 400 F.2d 778 (D.C. Cir. 1968) | 10 |
| <u>Tennessee Valley Authority</u> (Yellow Creek Nuclear Plant, Units 1 and 2), LBP-78-39, 8 NRC 602 (1978) | 17 |
| <u>Union Electric Company</u> (Callaway Plant, Units 1 and 2), ALAB-347, 4 NRC 216 (1976) | 17 |
| <u>Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council,</u> 435 U.S. 519 (1978) | 9 |
| <u>Virginia Electric and Power Company</u> (North Anna Power Station, Units 1, 2, 3 and 4) ALAB-256, 1 NRC 10 (1975) | 16 |
| <u>Wingo v. Washington,</u> 395 F.2d 633 (D.C. Cir. 1968). | 9 |

Regulations

10 CFR §2.202 30

10 CFR §2.204 30

10 CFR §2.206 32,33

10 CFR §2.743(c) 37,39

10 CFR §2.743(i). 20

10 CFR §2.762 4,26

10 CFR §2.762(a). 4

10 CFR §2.762(b). 4

10 CFR §2.762(e). 4

10 CFR §2.764 26

10 CFR §2.764(b). 26

10 CFR Part 21. 20,31

10 CFR §50.13 10

10 CFR §50.59 31

10 CFR §50.103. 10

10 CFR Part 50, Appendix E. 38

Other Authorities

Commonwealth Edison Company, Facility Operation
Licenses, DPR-39 and DPR-48, Appendix A,
Section 6.6(a)(9). 20,39

Criteria for Preparation and Evaluation of
Radiological Emergency Response Plans
and Preparedness in Support of Nuclear
Power Plants, NUREG 0654 (1980). 37,39

Federal Rule of Evidence 701. 39

Federal Rule of Evidence 702. 17

Federal Rule of Evidence 703. 39

I.

STATEMENT OF FACTS

This is an operating license amendment proceeding involving the application of the Commonwealth Edison Company ("Licensee" or "Applicant") for permission to install new storage racks in the Zion spent fuel pool. The new racks would increase the storage capacity of the pool from 868 to 2,112 fuel assemblies.

On April 13, 1978, Licensee formally requested the issuance of the license amendments. Notice of the proposed amendments was published in the Federal Register on July 18, 1978. 43 Fed. Reg. 30938. The State of Illinois, through the Attorney General of Illinois (Intervenor), filed a timely petition for leave to intervene in the proceedings, and requested that a public hearing be held.

Following a Special Prehearing Conference held on November 20 and 21, 1978, at Waukegan, Illinois, the Atomic Safety and Licensing Board (the Board) admitted the State of Illinois as an intervening party, ruled upon the admissibility of certain of Intervenor's contentions, and propounded six of its own questions.^{1/}

Subsequently, Motions for Summary Disposition were filed by Licensee and the Nuclear Regulatory Commission Staff (Staff). Certain of Intervenor's contentions were summarily dismissed on the grounds that no genuine issues

^{1/} "Order Following Prehearing Conference" dated January 19, 1979.

of material fact existed as to these contentions.^{2/} Intervenor withdrew, or attempted to withdraw, other contentions prior to and at the evidentiary hearing pursuant to stipulations entered into with the other parties. The Board propounded additional questions during the evidentiary hearing.^{3/}

The evidentiary hearing was held in Zion, Illinois from June 11, 1979 through June 15, 1979 and from June 20, 1979 through June 22, 1979. Shortly after the submission of proposed Findings of Fact and Conclusions of Law by the parties, the Board received a Board Notification from the Staff entitled "Pipe Cracks in Stagnant Borated Water Systems at PWR's" dated August 14, 1979. Based on its review of this document and the record, the Board reopened the record to receive evidence regarding the potential for intergranular stress corrosion cracking of stainless steel in the Zion spent fuel pool environment.^{4/} Each party submitted two sets of affidavits in response to the Board's

2/ "Order" dated May 1, 1979; "Order" dated June 4, 1979.

3/ A more complete history of the development of matters in controversy in this proceeding is found in Section II of Licensee's Proposed Findings of Fact and Conclusions of Law, dated July 16, 1979.

4/ "Memorandum and Order" dated September 14, 1979.

questions.^{5/}

On February 14, 1980 the Board issued its Initial Decision, authorizing installation of the new racks.^{6/} Intervenor filed a list of 15 exceptions to the Initial Decision on March 3, 1980. Intervenor's supporting brief was filed April 3, 1980.

On February 28, 1980 the NRC Staff issued Amendment Nos. 52 and 49 to Facility Operating Licenses DPR-39 and DPR-48, respectively, for Zion Station. Erroneously included in these license amendments were certain Licensee commitments which the Licensing Board specifically decided need not be included in the Zion Licenses. Licensee now requests the Appeal Board to conform the license amendments to the Initial Decision.

5/ Licensee submitted affidavits from the following witnesses:

Tom Tramm, 11/16/79 and 1/24/80
Thomas W. Lukens, 10/17/79
Robert Shannon, 11/6/79
Willis Lloyd Clarke, Jr., 11/2/79
Roger Staehle, 11/16/79 and 1/14/80

The staff submitted the following affidavits:

Alfred Taboada, 12/7/79
John R. Weeks, 12/6/79 and 1/10/80
Edward Lantz, 1/15/80

Intervenor submitted two affidavits from Robert Anderson, the first dated December 28, 1980, the second January 23, 1980.

6/ On March 10, 1980 the Board forwarded to the parties page 61(a) of the Initial Decision. This page had been omitted inadvertently during the pagination process.

II.

INTERVENOR'S BRIEF IS SO INADEQUATE
THAT IT FRUSTRATES INTELLIGENT RESPONSE
BY LICENSEE AND MEANINGFUL REVIEW
BY THE APPEAL BOARD.

The brief submitted by Intervenor in support of its exceptions fails to meet the requirements of 10 CFR §2.762 and the decisions of the Appeal Board setting forth the minimum standards for such briefs. Except for the portion dealing with the Licensing Board's exclusion of Peter Cleary's testimony (Exceptions 14 and 15; pages 18 through 24), the brief should be struck pursuant to 10 CFR §2.762(e).

10 CFR §2.762(a) requires that a brief in support of an exception "... shall specify, inter alia, the precise portion of the record relied upon in support of the assertion of error." 10 CFR §2.762(l) requires that "[e]ach factual assertion made in such supporting or opposing brief shall be supported by a reference to the precise portion of the record on which it is based." In short, as this Board has recently reiterated, parties before the Appeal Board must "'flesh out the bare bones of their exceptions' with information and discussion adequate to allow an intelligent disposition of their arguments. ... An ipse dixit is no substitute for reasoned discourse based on the record of the case." Public Service Company of Oklahoma (Black Fox Station, Units 1 and 2) ALAB-573, 10 NRC 775, 789 and n.59 (1979).

With the exception of pages 18 through 24, Intervenor's brief is almost entirely devoid of any citations to the record backing up its assertions of error. The brief is sprinkled with unsupported, conclusory statements such as:

[T]he Brooks and Perkins racks used in spent fuel storage pools other than Zion have been shown by experience to be unreliable and dangerous. (Intervenor's Brief, page 1.)

[T]he corrosion surveillance program to which Applicant has committed falls short of what the evidence in the record requires. (Intervenor's Brief, page 8.)

The State's cross examination and its affidavits demonstrated that corrosion and swelling are real possibilities in the Zion spent fuel pool. (Intervenor's Brief, page 8.)

...[Groundwater] monitoring should be required as a condition, or technical specification in this license amendment to protect the public health and safety. (Intervenor's Brief, page 26.)

Such ipse dixits force Licensee to plow through more than two thousand pages of hearing transcript, the lengthy affidavits subsequently submitted by the parties, and Intervenor's proposed findings of fact and conclusions of law in an effort to identify the pertinent evidence. Even more difficult, Licensee is forced to guess what inferences Intervenor may be drawing from such evidence.

The Appeal Board's rules requiring parties to specify the "precise portion of the record" supporting any assertion of error are not new. This Board has issued repeated warnings to litigants on this subject. See, e.g., Public Service Company of Oklahoma, (Black Fox Station, Units 1 and 2), ALAB 573, 10 NRC 775, 786-87, 789 (1979); Consumers Power Company (Midland Plant, Units 1 and 2), ALAB-270, 1 NRC 473, 475 (1975). Further, Intervenor is not inexperienced in NRC proceedings. Intervenor's failure to specify the factual bases for its assertions of error is particularly egregious because Intervenor repeatedly and unfairly castigates the Licensing Board for failing to provide reasoned bases for its conclusions. (Intervenor's Brief at 13-17.) Except for pages 18 through 24, all of Intervenor's brief should be struck.

III.

INTERVENOR'S BRIEF FAILS TO
DEMONSTRATE THAT THE LICENSING
BOARD ERRED

Intervenor has submitted fifteen exceptions. It appears that Intervenor's brief is meant to encompass all but exception 7. Licensee attempts to respond to each assertion of error below, although as stated previously, the deficiencies of Intervenor's brief make that task frustratingly difficult.

Exception 1:

There was no reasonable basis for the testimony that a loss of water ^{7/} accident might occur in the spent fuel pool through neglect. (Initial Decision at 44).

Intervenor addresses Exception 1 on pages 13 through 16 of its brief. Although Intervenor's brief does not contain any citation to the record, the most pertinent portion appears to be found in the direct testimony and cross examination of Intervenor's witness, Dr. Marvin Resnikoff (following Tr. 1528 and Tr. 1560-62).

Dr. Resnikoff's prepared testimony discussed a loss of water accident which he thought might occur in the Zion spent fuel pool. Dr. Resnikoff addressed only water loss caused by boiling.^{8/} He asserted that the water in the spent fuel pool could be allowed to boil away "under a major

^{7/} Intervenor's exception 1 and its supporting brief actually refer to a "loss of coolant accident" or "LOCA" occurring in the spent fuel pool. To avoid confusion, Licensee's brief will refer to such an accident as a "loss of water accident." The terms "loss of coolant accident" and "LOCA" will be reserved for the familiar design-basis accident involving the reactor cooling system. This distinction in terminology was generally observed in the evidentiary hearing and in the Licensing Board's Initial Decision (Compare page 40 with pages 42-44).

^{8/} Tr. 1522. On its own motion, the Licensing Board explored the possibility that loss of water accidents might occur through other means. Initial Decision at 45 n.134, 84-86.

reactor accident scenario, or simply through neglect."^{9/}

Dr. Resnikoff explained that he meant by this that "if you simply turn off the cooling system.... And walk away. This accident will then follow...." in about ten days. (Tr. 1560-1).

On cross-examination, Dr. Resnikoff conceded that for a boiling spent fuel pool to be neglected for ten days would require "major disruption in our society," some kind of act of God, or war. (Tr. 1562). Intervenor did not ask the witness to expand on these remarks on redirect.

Contrary to the assertion in Intervenor's brief, the Licensing Board gave the "accident through neglect" scenario all the attention it deserved. The Board accurately characterized the witness's testimony as "speculation," and correctly observed that he had provided "no basis" for this concern. Initial Decision at 44.^{10/} Intervenor now advances the general proposition that a Licensing Board must "confront the facts on which appellant relies and the legal inferences

^{9/} Prepared testimony of Marvin Resnikoff at pp. 3, 19-20, following Tr. 1528 (emphasis added). The possibility that a major reactor accident might preclude access to the spent fuel pool area and thus lead to a loss of water accident was examined by the Licensing Board (Initial Decision at 36 n. 104, 39-40 and 45), and is the subject of Intervenor's Exception 2.

^{10/} Even Intervenor concedes that "the Board may have found the witness to be less expansive than it wished in explaining how a LOCA, or other accident, might occur through such neglect...." (Intervenor's Brief at 13).

those facts suggest," citing Wingo v. Washington, 395 F.2d 633, 635 (D.C. Cir. 1968). (Intervenor's Brief at 16). But Intervenor's witness provided no facts, only speculation, for the Licensing Board to confront. Intervenor claims that "the Board did not fulfill its duty to explore fully the question once it was raised by the State's witness" (Intervenor's Brief at 13). But Intervenor had the opportunity and the obligation, in preparing its witness's direct testimony and on redirect, to provide some basis for the concern expressed. It was Intervenor's duty, not the Licensing Board's, to bring out the basis for its witness's concern that Licensee's employees might walk away from the reactor, assuming this was more than idle speculation. As the Supreme Court has stated:

[A]dministrative proceedings should not be a game or a forum to engage in unjustified obstructionism by making cryptic and obscure reference to matters that "ought to be" considered and then, after failing to do more to bring the matter to the agency's attention, seeking to have that agency determination vacated on the ground that the agency failed to consider matters "forcefully presented."

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 553-5 (1978). See also Seacoast Anti-Pollution League v. NRC, 598 F.2d 1221, 1231 (1st Cir. 1979).

Quite apart from the likelihood of Dr. Resnikoff's hypothesis that Licensee's employees might turn off the

spent fuel pool cooling system and walk away during a war or period of social disturbance, the Board's citation to 10 CFR §50.103 is an adequate answer to this hypothesis. The Federal government has the ultimate responsibility and the authority to protect the public in time of war or national emergency. While the Board might have gone on to cite 10 CFR §50.13 and Siegel v. AEC, 400 F.2d 778, 783 (D.C. Cir. 1968), an extended dissertation on this point was hardly necessary.^{11/}

Exception 2:

There are sufficient sources of makeup water and adequate access to such sources to ensure that the public health and safety is not endangered by boiling in the spent fuel pool. (Initial Decision at 45).

^{11/} Dr. Resnikoff's proposed solution was that the spent fuel pool be equipped with automatic cooling systems such that human intervention would not be required to provide makeup water in the event of pool boiling. (Resnikoff, prepared testimony at 19-20, following Tr. 1528). While such a system might provide some additional assurance in the event of a reactor accident (although the Licensing Board thoroughly explored this issue and concluded none was needed, Initial Decision at 39-40), it would obviously provide little additional protection in the "neglect" scenario proposed by Dr. Resnikoff where Licensee's employees would "simply turn off the cooling system.... And walk away." (Tr. 1560-61). The employees could of course just as easily turn off the automatic system before walking away. Thus, the Licensing Board's allusion to Federal responsibility in the "neglect" scenario is not only an adequate answer, but the only reasonable answer to Intervenor's concern.

Intervenor's brief treats Exception 2 at pages 16 and 17. Intervenor's brief cites its own witness, Dr. Resnikoff's testimony (Tr. 1557-1560, 1571), but fails to address what Licensee's witnesses and the Staff's witnesses had to say. Indeed, Intervenor makes the affirmative representation that:

The Applicant has not produced any factual evidence to show that in the event of a severe accident, where high amounts of radiation are present and the existing automated makeup water systems malfunction, it can assure adequate access to manual sources of makeup water to preclude any danger to the public health and safety. (Intervenor's Brief at 17 (emphasis added)).

This assertion is inaccurate.

Licensee's witness, Tom Tramm, Project Engineer for Zion Station, identified the various sources of makeup water at Zion and the rates at which they could supply water to the spent fuel pool in the event the spent fuel pool cooling system malfunction. (Tr. 1028-35; Initial Decision at 85-6). Intervenor's witness did not contradict this evidence; indeed he conceded that the makeup sources identified by Mr. Tramm would be adequate, if human intervention under all circumstances could be assured. (Tr. 1556-8).

Both the Staff and Mr. Tramm responded to Intervenor's concern about human intervention by testifying that the pumps and heat exchangers of the spent fuel pool cooling system and the controls to the makeup water supply are located in a room in the fuel building which has walls and ceilings of concrete. They testified that such equipment and controls are accessible under any circumstances (even if one of the reactors should experience a LOCA) through a railroad trackway entrance to the fuel building, and this could be done without going past the spent fuel pool.

(Tr. 1559-60, 1485-86, 1500-01, 1688-89, 1859-63). Mr. Tramm testified that the spent fuel pool area itself would remain accessible even in a reactor LOCA. (Tr. 1485-6). Finally Licensee and Staff witnesses also testified that even boiling in the spent fuel pool would not prevent people from entering the spent fuel pool area, although access would have to be controlled to maintain exposures to individuals as low as reasonably achievable (Tr. 1485-6, 1651-2).

Intervenor's witness, Dr. Resnikoff, stated that he did not know whether it would be possible to send a man into the fuel building during a LOCA to turn on the water. He disclaimed any detailed knowledge of the design and shielding capabilities of these facilities. And he stated that he had no reason to doubt Mr. Tramm's testimony on access to the fuel handling building through the trackway during a LOCA. (Tr. 1559-60)

All this testimony was carefully reviewed and summarized by the Board on pages 39-40 and footnote 120 of its Initial Decision. Its conclusions on this point are based on competent, uncontradicted testimony, which Intervenor simply chooses to ignore. Exception 2 is without merit.

Exception 3:

Swelling of the tubes in the spent fuel storage racks due to accumulation of entrapped gas between the boral and the stainless steel tube should not occur at Zion. (Initial Decision at 52).

Exception 4:

Swelling of the boral caused by hydrogen gas production should not occur in the Zion racks. (Initial Decision at 52-53).

Exception 5:

Swelling of the boral caused by corrosion product build-up will not interfere with the movement of fuel within storage tubes. (Initial Decision at 53).

Intervenor lumps these three exceptions together in a discussion of "corrosion and swelling" problems on pages 1 through 4 of its brief. The Licensing Board's Initial Decision at pages 47 through 53 presents a careful and thorough summary of the pertinent evidence including appropriate citations to the record. Applicant will therefore respond to the specific claims in Intervenor's brief, rather than attempt to duplicate the Licensing Board's effort.

Intervenor charges, without supporting citations to the record, that "the Brooks and Perkins racks used in spent fuel storage pools other than Zion have been shown by experience to be unreliable and dangerous." (Intervenor's Brief at p. 1). Intervenor is apparently referring to the swelling observed in 1978 in spent fuel racks containing Boral at Monticello, which is described by the Licensing Board on page 52 of the Initial Decision.^{12/} Presumably, the danger Intervenor is referring to is the increased potential for a fuel handling accident cause by such

^{12/} The Monticello "swelling" involved the bulging inward of the stainless steel walls of some of the tubes in the Monticello racks shortly after their immersion in the spent fuel pool. Holes were drilled in the previously unvented tubes, gas bubbled out, and the swelling was thereby alleviated. With some of the tubes, the thin inner wall was stretched beyond its yield strength and therefore had to be pressed back by mechanical means. There was no spent fuel in the Monticello racks at the time the swelling occurred. Staff Ex. 1A (Safety Evaluation Report) at p. 2-8; Tr. 1228-30; prepared testimony of Joseph E. Draley at p. 13 and reference 4, following Tr. 1290.

Swelling has also been observed in spent fuel storage racks at Haddam Neck, but these are very different racks, not manufactured by Brooks and Perkins, which do not contain Boral. (Tr. 1157)

swelling.^{13/} Intervenor, however, ignores the crucial design difference between the Monticello racks and the Zion racks, which is the addition of small holes at the top of the stainless steel tubes in the Zion racks. It is the judgment of the Licensing Board, based on the expert opinions of Licensee's witness Dr. Draley and of the NRC Staff, that this vented design will allow any entrapped gas to escape and thus prevent the kind of swelling observed at Monticello.^{14/}

Intervenor's brief fails to address at all the other potential mechanisms for swelling hypothesized by Dr. Draley and discussed by the Licensing Board on pages 52-53 of its Initial Decision, even though Exceptions 4 and 5 challenge the Board's conclusions in respect of such swelling.

^{13/} Cf. Caption on page 1 of Intervenor's brief. But see prepared testimony of John J. Zudans, at p. 4, following Tr. 1960. Of course, the vented design of the Zion racks allows water to come into contact with the Boral material inside the stainless steel tubes, and this raises long-term corrosion questions relating to the durability of the Boral. However, despite Intervenor's broad references to "corrosion and swelling," Exceptions 3, 4 and 5 only deal with corrosion insofar as it results in physical distortion, i.e., "swelling" of the racks. The Board's Findings with respect to the long term durability and integrity of the Boral material have not been appealed. See Initial Decision at pp. 48-51.

^{14/} Initial Decision at p. 52; prepared testimony of J. E. Draley at p. 13, following Tr. 1290, Tr. 1318-19, 1355-56, 1357-58; Licensee Proprietary Ex. 6; Tr. 1766-68; Staff Ex. 1A, at p. 2-8, following Tr. 1141; prepared testimony of Zudans at pp. 3-4, following Tr. 1960.

Intervenor argues that to sustain its burden of proof, Applicant would have had to prove that "swelling of the racks, due to corrosion, was a null proposition." (Intervenor's Brief at 1). Whatever this phrase means, it has never been the standard of proof in NRC proceedings, which are governed rather by the familiar preponderance of the evidence standard. See, e.g., Consolidated Edison Company of New York, Inc. (Indian Point Nuclear Generating Station, Unit No. 3) CLI-75-14, 2 NRC 835, 839 n.8 (1975). Even if one agrees with the dictum in Virginia Electric and Power Company (North Anna Power Station, Units 1, 2, 3 and 4) ALAB 256, 1 NRC 10, 16-17 and 17 n.18 (1975)), that the magnitude of the burden of persuasion should be influenced by the gravity of the matters in controversy, this record clearly shows that Licensee has met that burden. Licensee presented an expert witness, Joseph E. Draley, whose professional qualifications to testify on these subjects are overwhelming and beyond dispute.^{15/} His testimony fairly addressed the concerns expressed by Intervenor and he was not shaken on cross-examination. (Tr. 1292-1362). The Staff provided corroborating testimony.^{16/} Intervenor points to no evidence in the record which contradicts Dr. Draley's expert judgment that swelling should not occur in the Zion racks.

^{15/} Dr. Draley's credentials are presented in a Professional Resume and list of publications appended to his prepared testimony following Tr. 1290. See also Tr. 1292-1297.

^{16/} Prepared Testimony of Almeter and Lantz, following Tr. 1141.

Instead, Intervenor seizes upon a single word, "believed," in the Licensing Board's Initial Decision and argues that this shows that the true cause of [the Monticello] swelling is unknown" and for this reason attacks as "speculative" the Licensing Board's conclusion that swelling should not occur in the Zion racks. Intervenor is simply trying to make a minefield out of the dictionary. Licensing Boards in NRC proceedings are entitled to rely on the opinions of experts.^{17/} The Licensing Board's language simply reflects the source of its information and does not undercut its judgment in any way.

Intervenor characterizes "the matter in controversy" as an "unresolved safety problem." (Intervenor's Brief at 2). With this label it attempts to manufacture a set of new burdens for Licensee and the Licensing Board, citing Tennessee Valley Authority (Yellow Creek Nuclear Plant, Units 1 and 2), LBP-78-39, 8 NRC 602 (1978). But Intervenor conveniently ignores the express finding of the Licensing Board below that "there are no technical issues which have arisen during the review of this license amendment application which have not been resolved within the context of this proceeding." (Initial Decision at 14-15). There are no unresolved safety problems in this case.

^{17/} See, e.g. Union Electric Company (Callaway Plant, Units 1 and 2) ALAB-347, 4 NRC 216, 223 (1976). See also Federal Rule of Evidence 702.

Finally, Intervenor, with the only citations to the record which appear in the first fifteen pages of its brief, points out that Licensee changed the rack design shortly before the hearing began when certain proprietary experiments conducted by Brooks and Perkins suggested that this might be an improvement. (Intervenor's Brief at 4). The change made was to place vent holes only at the top of the racks, rather than at the top and the bottom, as had originally been contemplated. The reason for this change and the significance of the underlying experiments were thoroughly explored in the hearings and the Licensing Board's Initial Decision carefully summarizes the record.^{18/} Intervenor offers no explanation why the Licensing Board's conclusion is in error.

Exception 6:

The surveillance program that Applicant has committed to institute will adequately detect corrosion, loss of neutron absorber material, and swelling of the storage tubes (Initial Decision at 55, 63).

Intervenor's argument in support of Exception 6 appears to be found on pages 11 and 12 of its brief.^{19/}

^{18/} Initial Decision at 49-50; In Camera Tr. 1333-53; Intervenor's In Camera Exhibits 1, 2, and 3.

^{19/} Intervenor also makes the legal argument that Licensee's surveillance program, as well as other Licensee commitments, should be incorporated into the Zion licenses as technical specifications. This argument is addressed in connection with Exceptions 8, 9, 10, and 11 below.

Intervenor cites neither the Initial Decision, which addresses Licensee's surveillance program and Intervenor's objections at pages 54 through 57, nor the evidentiary record.

Apparently Intervenor does not now dispute that Licensee's surveillance program will detect galvanic corrosion of the Boral, or intergranular stress corrosion cracking ("IGSCC") of stainless steel, if either should occur in the Zion spent fuel pool. And Intervenor's witness, Mr. Minor, conceded that by observing such corrosion, Licensee would be a long way toward determining whether or not the ultimate criterion, that is, the safety of the racks, is being maintained.^{20/}

Nevertheless, Intervenor thinks Licensee's surveillance program is inadequate because it "does not define in advance what kind, degree or location of corrosion or cracking will threaten the racks, and what actions will be considered when a problem arises." (Intervenor's Brief at 11). This is only partially true. Licensee's galvanic corrosion surveillance does provide an acceptance criteria

^{20/} Tr. 1422-23. Actually, Mr. Minor made the statement with respect to galvanic corrosion, rather than IGSCC. However, it seems to be a generally true statement.

requiring further action if not met.^{21/} Licensee's IGSCC surveillance program, as briefly summarized in the decisional record, does not specify a minimum crack size which, if detected in the specimen, will trigger further specific actions.^{22/} However, under 10 CFR Part 21 and standard technical specifications, if Licensee detected indications of some unanticipated loss of neutron absorbing capacity or some structural deficiency in the racks, Licensee would of course be obligated to report that to the NRC.^{23/}

^{21/} The program provides that if any adverse conditions are detected in the test samples, based on weight change and pitting, the samples may be subjected to a boron-10 loading analysis. In addition to the small test samples full length vented fuel storage tubes will be suspended in the pool and will be opened and examined should the small samples indicate any loss of boron-10 below $.02\text{gm/cm}^2$. "Neutron Absorber Sampling Plan - In Pool," Reference 5 attached to prepared testimony of J. E. Draley, following Tr. 1290. $.02\text{gm/cm}^2$ is the original acceptance criteria for the boron plates in the racks, and roughly 75% of this could be lost from each Boron plate in each tube in the Zion pool before reaching Keff equal to 0.95, which itself is less than criticality. Initial Decision at 67, 72.

^{22/} Affidavit of Roger Staehle, 11/16/79, at p. 12. It does, however, provide specific water chemistry criteria for weekly fluoride and chloride monitoring purposes.

^{23/} Tr. 1257. See also Commonwealth Edison Company, Facility Operating Licenses DPR-39 and DPR-48 Appendix A, Section 6.6(a)(9). The Appeal Board can of course take official notice of the Zion operating licenses. 10 CFR §2.743(i).

But Intervenor would also like advance definition of all possible solutions to any galvanic corrosion or IGSCC problems which may occur during the lifetime of the Zion racks. Licensee strongly opposes this demand. First, as the Licensing Board found, no significant galvanic corrosion or IGSCC is expected to occur. (Initial Decision at 64, 62). Second, it would be extremely difficult if not impossible to calculate in the abstract, given the complex geometry of the racks, all hypothetical crack configurations for each possible rack location which might require corrective action. Third, corrosion is a slow-acting phenomenon^{24/} which does not, like emergency planning, require detailed contingency planning, and therefore it is not unreasonable to wait for a concrete problem to appear before defining a solution. Intervenor gives no reason why such contingency planning is necessary, apart from expressing a dark distrust of Licensee and of the NRC Staff which has no justification in this record.^{25/}

Intervenor also urges that Licensee be required to purchase and store at Zion an extra spent fuel rack in case it

^{24/} Initial Decision at 55.

^{25/} See Intervenor's Brief at 11, 25-26.

becomes necessary to examine destructively a rack that is in use. This suggestion is simply not well thought out. There are six different sizes of rack which will fill the Zion spent pool completely from wall to wall,^{26/} but Intervenor does not explain which size rack Licensee should get as a replacement. Further, the extra spent fuel rack would not be necessary to perform the function Intervenor has in mind until 1991.^{27/} Intervenor does not address the possibility that the federal government will provide AFR storage space by the mid-1980's,^{28/} which would eliminate any need for the extra rack. Finally, Intervenor doesn't explain why, since corrosion damage to the racks would be a slow-acting phenomenon,^{29/} Licensee could not simply order new racks if the surveillance program gave advance warning that any of the old racks might be deteriorating.

^{26/} Licensee Ex. 4, at pp. 3-4, 3-5.

^{27/} There will be 2112 storage spaces in the new Zion racks, which will last until 1992. Initial Decision at 2, 14. The largest rack holds 110 spent fuel assemblies, and the Zion reactors discharge 128 assemblies each year. Licensee Ex. 4, at pp. 3-2, 3-4. Thus there will be at least one empty rack already present in the pool until about 1991.

^{28/} Initial Decision at 13.

^{29/} Initial Decision at 55.

Exception 7:

Intergranular Stress Corrosion Cracking is not likely to occur in the proposed fuel storage racks (Initial Decision at 62).

Licensee can find no portion of Intervenor's brief supporting exception 7.^{30/} We therefore assume this assertion of error is abandoned. Public Service Company of Oklahoma, et al. (Black Fox Station, Units 1 and 2) ALAB-573, 10 NRC 775, 805-07 (1979). In any event, the Licensing Board's Initial Decision is an adequate treatment of the potential for IGSCC in the Zion spent fuel storage racks.

Exception 8:

A corrosion surveillance program need not be made the subject of a technical specification or condition of a license. (Initial Decision at 63).

Exception 9:

A dummy fuel assembly test of each tube on receipt of each rack need not be made the subject of a technical specification or condition of a license (Initial Decision at 69).

^{30/} There are isolated references to "cracking" in Intervenor's discussion of the need for corrosion surveillance technical specifications, as well as the unsupported assertion that:

"The State's cross examination and its affidavits demonstrated that corrosion and swelling are real possibilities in the Zion spent fuel pool."

(Intervenor's brief at 8). This may refer to IGSCC, among other kinds of corrosion, since IGSCC was the only corrosion issue decided on the basis of affidavits.

Exception 10:

There need not be a technical specification or condition to a license providing that if any boral plate is missing from a tube, that tube must be plugged to make it impossible to insert a fuel assembly, and all of the remaining tubes must be subjected to neutron attenuation testing (Initial Decision at 71).

Exception 11:

That in situ neutron attenuation testing need not be made the subject of a technical specification or condition of a license. (Initial Decision at 71-73).

Two matters relating to these exceptions should be pointed out at the outset. On page 8 Intervenor's brief incorrectly states that Licensee made commitments to carry out the actions described in Exceptions 8 and 11 (corrosion surveillance and in situ neutron attenuation testing) but opposed exceptions 9 and 10 (dummy fuel assembly testing of each tube and a contingency plan in case a boral plate is missing from a tube). In fact Licensee made commitments as to all four exceptions.^{31/}

^{31/} See Initial Decision at 69 and prepared testimony of Jack Leider at pp. 11-12, following Tr. 758 (dummy fuel assembly test); Initial Decision at 71 and Tr. 1947-1948, 1950 (missing Boral plate). With respect to dummy fuel assembly testing, Intervenor may have in mind condition 8 in the "Alternative Order" it submitted with its Proposed Findings of Fact and Conclusions of Law, dated July 25, 1979, which would require testing of each tube not only upon receipt at Zion Station (which is what Exception 9 refers to and what Licensee committed to do) but also shortly before a spent fuel assembly is to be placed in an individual tube whenever that occurs during the lifetime of the racks. Licensee opposed this because swelling is not expected to occur, and even if it did, the surveillance program would detect such swelling long before any significant distortion of the tubes developed. Initial Decision at 52-53, 55.

Second, at the hearing in this matter the NRC Staff testified in support of Licensee's request that these commitments not be incorporated as license conditions or technical specifications.^{32/} However, License Amendments 52 and 49 to Facility Operating License Nos. DPR-39 and DPR-48, respectively, as issued by the Staff on February 28, 1980, include as license conditions three of these commitments relating to corrosion surveillance (Exception 8), in situ neutron attenuation testing (Exception 11), and advance notification of the NRC in respect of the movement of heavy loads in the vicinity of the spent fuel pool. At first Licensee assumed that this inclusion was inadvertent, but in telephone calls to counsel for the NRC Staff we were informed that this was not a mistake.^{33/} The reasons for the NRC Staff's action have not been fully explained to Licensee.

^{32/} See, e.g., Initial Decision at 62-63; Tr. 1983-5; Tr. 1971-78. See also Nuclear Regulatory Commission Staff's Proposed Findings of Fact and Conclusions of Law In the Form of an Initial Decision, dated August 3, 1979, Appendix C; and NRC Staff's Response to Memorandum and Order Relating to Intergranular Stress Corrosion Cracking in Stainless Steel Type 304 Components of Spent Fuel Storage Pools, dated 12/7/79, at pages 1-2.

^{33/} Mr. Goddard, NRC Staff counsel, was unaware of this change until Licensee brought it to his attention on May 5, 1980. Similarly Intervenor's counsel were unaware until informed by Licensee on May 5.

In any event, Licensee believes the NRC Staff has no authority under 10 CFR §2.764(b) to depart from the explicit terms of the Initial Decision in issuing operating license amendments authorized therein. It may not have been appropriate for the Staff to file exceptions to the Initial Decision, where that decision was inaccordance with the Staff's recommendations. But it certainly could and should have filed a motion for reconsideration if it changed its mind following issuance of the Initial Decision. In view of its failure to make such a timely motion for reconsideration, Licensee asks that the Staff be estopped from making new arguments, not advanced below, in support of their changed position.

For the Staff simply to issue license amendments in accordance with its own revised position, without even bringing the matter to the attention of any of the other parties, is inappropriate. It makes a mockery of the entire NRC adjudicatory process. Licensee requests that the Appeal Board amend the license amendments, as issued to conform to the Initial Decision.^{34/}

The dispute between Licensee and Intervenor

^{34/} It cannot be contended that Licensee has waived the right to make this request. 10 CFR §2.762 provides only for appeals from the initial decisions, not from the license amendments. Further, although our discovery of the discrepancy between the Initial Decision and the License amendments came somewhat late, we believe we were entitled to rely on the Staff's performing the essentially ministerial function provided for in 10 CFR §2.764 correctly, or at least informing counsel of their intended change.

below was whether the four Licensee commitments listed in Exceptions 8 through 11 should be transformed into license conditions or technical specifications. Fortunately, there is no need to write on a clean slate in deciding this question. In Portland General Electric Company, et al. (Trojan Nuclear Plant) ALAB-531, 9 NRC 263 (1979), the Appeal Board held that not all operational details in a spent fuel pool expansion project need be converted into technical specifications. In each case, the Appeal Board held, "the question is whether the record establishes that its inclusion in the amended operating license is necessary in order to guard against the contingency of an untoward situation or event bringing about a safety threat of some immediacy." Trojan, supra, 9 NRC at 273-4.

With respect to Licensee's corrosion surveillance program, the Licensing Board expressly found that corrosion reactions should be sufficiently slow that any damage that occurs will not endanger the safe and effective operation of the pool. (Initial Decision at 55). There is ample support in the record for this conclusion.^{35/}

^{35/} See, e.g. Draley at Tr. 1307-10, 1357-59; prepared testimony of A.B. Johnson, Attachment A, p. 4 following Tr. 1057; Affidavit of Roger Staehle Nov. 16, 1979 at 11-12; Affidavit of John R. Weeks, December 6, 1979 at 2-3. The only evidence in the record to the contrary is with respect to IGSCC, where Intervenor's affidavit suggested that the Zion spent fuel pool water be monitored continuously, rather than weekly, for fluorides and chlorides, alleging that the presence of these contaminants could lead to rapid corrosion damage. Affidavit of Robert Neill Anderson dated December 17, 1979 at 3. But Dr. Anderson did not address the likelihood that such contaminants will be introduced into the pool. Indeed the absence of any corrosion damage to date in the Zion pool argues against their presence at Zion. Initial Decision at 61. And both Dr. Staehle and Dr. Weeks agreed in the affidavits cited above that even if

Although corrosion does not pose an immediate threat, the Licensing Board was concerned that the corrosion surveillance program be maintained over a long period of time. Intervenor echoes that concern in its brief. (Intervenor's Brief at 9-10). The Licensing Board was ultimately satisfied with the NRC Staff's testimony that the Office of Inspection and Enforcement can and does keep track of licensee commitments and can and does enforce them. (Initial Decision at 62). This is the same result reached in Trojan, supra, 9 NRC at 274-5, and Intervenor points to nothing in the record to cast doubt on this.

The other licensee commitments possess a safety significance of more immediacy than corrosion surveillance. But because they involve one-time actions to be performed by Licensee with NRC supervision during installation, these commitments are even more certain to be carried out. For example, dummy fuel assembly testing on receipt (Exception 9) is meant to reduce the possibility of a fuel handling accident caused by damage to the tubes during shipment of the racks. Clearly a fuel handling accident is something to be avoided, (which is why Licensee made the commitment to dummy testing in the first place). But the dummy test is only one part of the receiving inspection at Zion Station, and the receiving inspection is only one part of a detailed quality assurance program in which tube and rack dimensions

35/ Cont'd.

IGSCC should occur, the consequences are unlikely to be severe.

are verified during the assembling process and when each rack is completed.^{36/}

Similarly the neutron attenuation testing program (Exception 11) and the commitment to plug any tube with a missing Boral plate (Exception 10) are important to reduce the likelihood of inadvertent criticality in the spent fuel pool, but so are the myriad other details of Licensee's quality assurance program designed to ensure Boral plates with appropriate boron-10 loading are in each tube.^{37/} The evidence shows that even if one plate out of sixteen (every four tubes) were missing, K-effective in the Zion spent fuel pool would be less than 0.95. And of course 0.95 is an arbitrary number specified by the NRC's Standard Review Plan; any value of K-effective less than 1.0 would maintain sub-criticality. (Initial Decision at 70-72).

The NRC Staff testified that the Office of Inspection and Enforcement will utilize additional inspectors during the proposed Zion storage rack installation who will ensure that Licensee's commitments in respect of corrosion surveillance, dummy fuel assembly testing, and neutron attenuation testing are carried out.^{38/}

^{36/} Prepared testimony of Walter J. Shewski, following Tr. 707; Prepared Testimony of John P. Leider, Jr., at 10-12, following Tr. 758.

^{37/} Id.

^{38/} Prepared testimony of Joel E. Kohler at pages 2 through 4, following Tr. 784; Tr. 798-799; 802-804.

Intervenor's major argument in favor of converting Licensee commitments into Technical Specifications are legal, rather than factual. First, Intervenor argues that commitments are "voluntary, unenforceable statements of the licensee."

According to Intervenor:

...Applicant can relieve itself any time of a commitment simply by reporting to the NRC staff that it no longer adheres to the commitment. The Staff cannot their demand that the commitment be reinstated, nor can it penalize Applicant for failing to follow the commitment. To require that the commitment be followed, the Staff must initiate proceedings to make the commitment into a technical specification or a license condition.

(Intervenor's Brief at 6, 9-10 (emphasis in original)).

But the Staff is hardly as helpless as Intervenor suggests. Under 10 CFR §2.202 or §2.204 the NRC can issue orders to show cause or orders for modification of the Zion license, effective immediately if the public health, safety or interest so requires, or in cases of willful violation. This power is also a sufficient answer to Intervenor's further argument that the threat of civil sanctions is necessary to make Licensee keep its word. (Intervenor's Brief at 7). And Licensee's adherence to its commitment is reinforced by the knowledge that the first violation of a commitment can result in the immediate imposition of license amendments or technical specifications dealing with the same subject. A repeated violation would expose Licensee to civil penalties. And, of course, civil sanctions are already provided for violation

of the record-keeping and reporting obligations imposed by 10 CFR §50.59, 10 CFR Part 21 and Zion Station technical specifications.^{39/}

The principal advantage of accepting Licensee commitments in lieu of license conditions or technical specifications in the context of a contested licensing proceeding is that it allows the licensee and the Staff flexibility in responding to various situations arising over the forty-year life of a nuclear station which may not be foreseeable at the time license amendments are issued.^{40/} To burden operating licenses with all operational details would predictably result in a tremendous increase in license amendment applications, and unnecessarily increased burdens for the adjudicatory process, relating to matters of minor health and safety significance which are more reasonably resolved pursuant to 10 CFR §50.59.^{41/}

It has been suggested that the public is short-changed by the 10 CFR §50.59 process, in that no opportunity

^{39/} See, e.g., Facility Operating Licenses DPR-39 and DPR-48, Appendix A, Section 6.6a(9).

^{40/} Licensee commitments are often sought in other contexts by the Staff as a speedy substitute for more formal adjudicatory or rulemaking actions.

^{41/} Licensee's proposal to cut two small pieces from the old rack for research purposes and to substitute dye-penetrant testing for ultrasonic testing in the IGSCC surveillance program, communicated to the Appeal Board on May 5, 1980, are examples of the kinds of operational details which would flood the system if all Licensee commitments were incorporated into their licenses.

for public review and no right to a public hearing are provided when commitments are changed. Portland General Electric Company (Trojan Nuclear Plant) Memorandum and Order, 2 CCH Nuclear Regulation Reports ¶30,427 (October 18, 1979) (Separate views of Commissioner Bradford). But the public generally and Intervenor State of Illinois in particular has access to all correspondence on the Zion docket between licensees and the NRC Staff, and 10 CFR §2.206 provides a mechanism by which Intervenor or members of the public can request public hearings, if not as a matter of right, as a matter of NRC discretion. It may be important, for reasons of policy, to increase the participation of the public in the process of nuclear reactor regulation, but Licensee does not believe that public confidence can be won by an NRC which itself lacks the confidence to make any distinctions between important and less important regulatory requirements. We believe that the proper test for incorporating licensee commitments in operating licenses was stated by the Appeal Board in Trojan, supra and should be followed in this case.

Exception 12:

The issue of groundwater monitoring is beyond the scope of this proceeding (Initial Decision at 95).

Exception 13:

Groundwater monitoring need not be made the subject of a technical specification a condition of a license (Initial Decision at 95-96).

The Licensing Board was clearly correct that on this record, it had no jurisdiction to reverse the 1977 licensing action by the Staff, or to require groundwater monitoring as a condition to granting the spent fuel pool modification request. The record establishes that all leakage from the spent fuel pool is collected and handled as normal radwaste water. None escapes to the outside environment.^{42/} The Licensing Board found that amount of such leakage is negligible (about a quart a day) and does not represent a significant safety or environmental concern. (Initial Decision at 88). There is no reason to expect that this leak rate will ever increase.^{43/} And even if monitoring wells were dug on the beach at Zion, as Intervenor has requested, they would tell nothing because there are no baseline measurements of the groundwater levels between the plant and the Lake which would allow determination whether leakage from the spent fuel pool, or from the plant itself, was affecting background levels.^{44/} There is simply no nexus in this record between the subject of groundwater monitoring at Zion Station and this spent fuel pool proceeding.^{45/}

^{42/} Initial Decision at 87; Prepared testimony of Tom Tramm at p. 10, following Tr. 564.

^{43/} Tr. 1923.

^{44/} Intervenor's Proposed Findings of Fact and Conclusions of Law, at "Alternative Order," paragraph 10; Tr. 1017.

^{45/} Of course, if Intervenor has information which indicates that groundwater monitoring is necessary at Zion Station to protect the public health and safety, it can institute a proceeding under 10 CFR §2.206. We do not share Intervenor's view that "the Staff will most certainly

Intervenor nevertheless argues, as usual without any reference to the record, that groundwater monitoring is necessary at Zion Station "to protect the public health and safety." (Intervenor's Brief at 26). The record establishes the contrary.

Licensee's witness Dr. Golden testified that from 1970 through 1977 the Licensee monitored ground water in the Zion Station vicinity at three wells in the community of Zion to the west of the plant. In 1977 the Licensee requested a change in the Station Technical Specifications to allow it to eliminate such ground water monitoring and after review by the Staff this change was granted. There were two reasons for stopping the monitoring of ground water at Zion. First, the only available monitoring wells were up-gradient from the Station and therefore it is highly doubtful that any radioactive materials released from the Station would be detected in these wells. Second, to Dr. Golden's knowledge, there is no discharge to the ground water from Zion Station, or from any other nuclear station.^{46/}

Dr. Golden testified that ground water in the vicinity of the plant moves eastward into Lake Michigan. Any spill of radioactive liquid effluent in the vicinity of the plant would eventually on the surface or in the ground-

45/ Cont'd.

shirk its responsibility in this area. (Intervenor's Brief at 25).

46/ Tr. 1009-11, 1016.

water find its way into Lake Michigan. He described the Licensee's lake water monitoring program, which includes weekly monitoring of all public water intakes in the area of the plant from Kenosha in the north to Lake Forest in the south. In addition the Station collects samples from the plant intake and discharge structures. This lake water monitoring program has been conducted continuously since 1970.^{47/} Licensee's monitoring program at public water supply intakes is able to detect radiation levels at least as low as the EPA Standards for potable water supplies.^{48/} Thus there is no question that the public health and safety is protected by Licensee's lakewater monitoring program.

The Licensing Board's concern over the discontinuation of ground water monitoring at Zion Station seems to be environmental, rather than safety-related.^{49/} While Licensee understands why groundwater monitoring in the vicinity of nuclear power plants might seem, in the abstract, a good thing to do, after seven years of such monitoring with no information that any radioactivity is being released to the groundwater from Zion Station, or indeed from any other nuclear power plant,^{50/} Licensee believes it has done enough.

^{47/} Tr. 1012-13, 1017-18.

^{48/} Tr. 1022-26.

^{49/} See, e.g. the last sentence on page 94 of the Initial Decision, and the consistent reference to the FES rather than the SER. See also Tr. 1016, 1017, 1020. Of course, Licensee does not challenge the NRC's authority, under NEPA, to establish environmental technical specifications Public Service Company of New Hampshire v. NRC, 582 F.2d 77, 85-86 (1st Cir. 1978).

^{50/} Tr. 1009.

This is particularly true at Zion where, because the hydrology of the plant site, the ongoing lakewater monitoring program serves to some extent, as the equivalent of a groundwater monitoring program.^{51/}

Exception 14:

There is no need to change the Applicant's Emergency Plan due to the proposed modification and subsequent operation of Zion Station with increased spent fuel storage capacity (Initial Decision at 80).

Exception 15:

The written testimony and attachments of Peter J. Cleary (should) be excluded from the record (Hearing Transcript at 1610).

In its Order Following Prehearing Conference dated January 19, 1979, the Licensing Board asked the following question of the parties:

As a result of the proposed modification of the spent fuel pool and the proposed operation of the Station with increased spent fuel storage capacity, will it be necessary to modify the . . . Emergency Plan for the Station?^{52/}

At the evidentiary hearings in June, Intervenor through its witness Peter Cleary, attempted to introduce prepared testimony purporting to address this Board question. In fact, however, voir dire examination showed that Mr. Cleary's

^{51/} The statement has to be qualified because of the diluting effects of Lake Michigan, Tr. 1019-20, and the lower limits of detection of monitoring equipment, Tr. 1018.

^{52/} Emphasis added.

testimony was not at all responsive to the Board's question.^{53/} For example, the testimony contained no references at all to spent fuel pools, and only minimal references to Commonwealth Edison or to Zion. The testimony merely addressed what Mr. Cleary saw as general defects in existing nuclear generating station emergency planning (primarily the lack of evacuation drills involving public participation), without relating them to the subject matter of this proceeding. The Licensing Board quite rightly believed that a broad-scale review of emergency planning at Zion, unrelated to the effect, if any, of the proposed spent fuel pool license amendment, was beyond the scope of its jurisdiction.^{54/} Accordingly, the Board's question was limited to how the proposed spent fuel pool modification would affect the Zion emergency plan. Mr. Cleary's testimony didn't answer that question. His testimony was properly excluded as irrelevant and immaterial. 10 CFR §2.743(c).

Although the Board's ruling was based on the responsiveness of Mr. Cleary's testimony, it could equally

^{53/} Tr. 1582-94.

^{54/} Tr. 1610-11. See also Portland General Electric Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 297, 289 n.6 (1979). The Licensing Board's consideration of the general emergency planning issues Mr. Cleary sought to raise, such as the need for public participation in evacuation drills, may also now be precluded because the subsequently announced Commission rulemaking and intensive Staff review efforts in this area bar simultaneous adjudication before licensing boards. See Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP 79-33, 10 NRC 821 (1979); 44 Fed. Reg. 75167 (December 19, 1979); Criteria for Preparation and Evaluation of Radiological Emergency Response Plans

well have been grounded in Mr. Cleary's lack of qualifications to address the subject of emergency planning, and also upon the inherent unreliability of many of the statements made therein.^{55/} The voir dire examination brought out, for example, that Mr. Cleary is not a professional emergency planner. (Tr. 1592-3). He does not regard himself as an expert in evaluating what additional accident probabilities or consequences might be associated with the proposed spent fuel pool modification. (Tr. 15978). And he had neither done, nor regarded himself as competent to do such calculations. (Tr. 1592). Further, he admitted that he had not done any research to find out the current (i.e., June 1979) state of the responsibilities of various federal agencies for emergency response following an incident at a nuclear power plant. (Tr. 1591). Neither had he checked the Zion Emergency Plan against the requirements of 10 CFR Part 50, Appendix E or the then applicable NRC regulatory guide. (Tr. 1585-7, 1591, 1592).

54/ Cont'd.

and Preparedness in Support of Nuclear Power Plants, NUREG 0654 (1980).

55/ Tr. 1610-11. Licensee is, of course, free to defend the exclusion of Mr. Cleary's testimony on these grounds. Public Service Company of Oklahoma, (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 789-90 (1979).

Certain portions of the material attached to Mr. Cleary's testimony had neither been written nor researched by him.^{56/} And the testimony in general was a compilation of magazine articles, sayings of Chairman Mao, a secondhand quotation of one of Licensee's employees, and similar hearsay sources, many of which would never be relied upon by reputable experts in assessing the adequacy of licensee's emergency plan.^{57/}

Since Mr. Cleary's testimony was based neither on personal perception nor expert opinion, it could properly have been excluded as unreliable under 10 CFR §2.743(c) and Federal Rule of Evidence 701.

Apart from exclusion of Mr. Cleary's testimony, Intervenor offers no reason to suppose that the Licensing Board committed error in determining that no changes need to be made to Licensee's emergency plan as a result of the proposed spent fuel pool modification.^{58/} The Licensing Board's conclusion is supported by the record.^{59/}

^{56/} Tr. 1586-90.

^{57/} Tr. 1593, see Federal Rules of Evidence, Rule 703.

^{58/} Of course, there is an intensive effort underway to upgrade emergency preparedness in the vicinity of all nuclear power plants as a result of the accident at Three Mile Island. See 44 Fed. Reg. 75167 (1979), NUREG-0654, supra note 54.

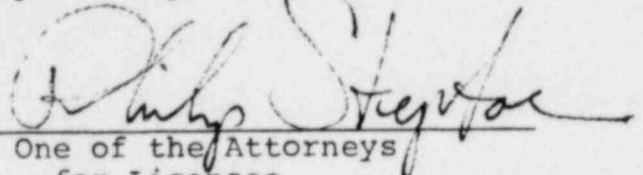
^{59/} Prepared testimony of Denton Louis Peoples, following Tr. 2044; Supplemental testimony of John R. Sears, following Tr. 2053.

IV.

CONCLUSION

For the reasons stated, the Licensing Board's Initial Decision should be affirmed.

Respectfully submitted,


One of the Attorneys
for Licensee

ISHAM, LINCOLN & BEALE
Suite 4200
One First National Plaza
Chicago, Illinois 60603
(312) 558-7500