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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'88 JUL 28 P3:29

ATOMIC SAFETY AND LICENSING APPEAL BOARD

OFFICE OF THE SECRETARY
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Administrative Judges:

Alan S. Rosenthal, Chairman
Christine N. Kohl
Howard A. Wilber

July 28, 1988
(ALAB-898)

SERVED JUL 28 1988

In the Matter of	)	
FLORIDA POWER & LIGHT COMPANY	)	Docket Nos. 50-250-OLA-2 50-251-OLA-2
(Turkey Point Nuclear Generating Plant, Units 3 and 4)	)	(Spent Fuel Pool Expansion)

Joette Lorion, Miami, Florida, pro se and for the intervenor Center for Nuclear Responsibility, Inc.

Steven P. Frantz, Washington, D.C., and Norman A. Coll, Miami, Florida, for the applicant Florida Power & Light Company.

Benjamin H. Vogler for the Nuclear Regulatory Commission staff.

DECISION

1. In March 1984, the Florida Power & Light Company (applicant) submitted an application for amendments to the operating licenses for its two-unit Turkey Point nuclear facility to enable it to expand the capacity of the spent fuel pools at the facility. In July 1984, the Center for Nuclear Responsibility, Inc., and Joette Lorion (intervenors) filed with the Licensing Board a timely request for a hearing and petition for leave to intervene in the proceeding.

While the intervenors' submission was still under Licensing Board advisement, the NRC staff determined that

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the proposed license amendments "involve[d] no significant hazards consideration" within the meaning of 10 CFR 50.92(c). Accordingly, in November 1984 and under the authority of 10 CFR 50.91(a)(4), the staff issued the amendments subject to the outcome of the pending intervention petition.[1]

In September 1985, the intervenors were admitted to the proceeding, together with seven of their proffered contentions.[2] Subsequently, the applicant obtained summary disposition on five of the contentions and the other two (contentions 5 and 6) went to hearing.

On April 19, 1988, the Licensing Board rendered its initial decision in which it resolved contentions 5 and 6 in the applicant's favor.[3] The Board therefore concluded that the license amendments issued by the staff in 1984 should remain in effect without modification.[4]

The intervenors have not appealed this conclusion and, thus, the initial decision is now before us for review on

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[1] See 49 Fed. Reg. 46,832 (1984).

[2] See LBP-85-36, 22 NRC 590.

[3] See LBP-88-9A, 27 NRC 387.

[4] Id. at 415.

our own initiative.[5] That review has disclosed no reason to disturb the license amendments. For the reasons set forth below, however, we are constrained to incorporate in our affirmance of the Licensing Board result a direction that the applicant give effect to a representation it made to the staff.

2. The expansion of the capacity of each Turkey Point spent fuel pool has been accomplished by the replacement of the former fuel storage racks with ones that provide less spacing between the individual fuel assemblies. To ensure that the interaction between assemblies remains subcritical by a specified amount, the applicant has placed a neutron-absorbing material, Boraflex, in the new racks.

The applicant supplied the Licensing Board with copies of letters to the staff in which it stated that it would (1) establish surveillance programs to assess the continued effectiveness of the Boraflex;[6] and (2) not store any fuel with an enrichment in U-235 greater than 4.1 weight percent

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[5] See Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), ALAB-859, 25 NRC 23, 27 (1987), and cases cited therein.

[6] See letter from Steven P. Frantz to the Licensing Board (July 15, 1987), Attachment (letter from C.O. Woody to the Commission (July 10, 1987), designated L-87-279).

prior to completion of the next surveillance in approximately three years.[7]

In the initial decision, the Licensing Board took both of these representations to be commitments on the applicant's part and, in reaching its result, placed considerable reliance upon them. Given that reliance, we thought it desirable to seek the parties' views on whether the Licensing Board should have converted the representations into license conditions. Although our June 27 order (unpublished) soliciting those views did not so note, in taking that step we were also influenced by the seeming internal disagreement within the staff respecting whether, in fact, the applicant had committed itself not to store fuel with more than a particular U-235 enrichment prior to the next surveillance. Staff witness Laurence I. Kopp, a nuclear engineer in the Reactor Systems Branch of the Office of Nuclear Reactor Regulation (NRR), expressed the opinion that no such commitment had been made or, indeed, was warranted.[8] But shortly thereafter, Conrad E.

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[7] See letter from Steven P. Frantz to the Licensing Board (August 31, 1987), Attachment (letter from C.O. Woody to the Commission (August 27, 1987), designated L-87-363). According to applicant witness Russell Gouldy, the surveillance has now been scheduled for December 1989. Tr. 246-47, 312.

[8] Tr. 358-59. Dr. Kopp was not asked about the representation concerning the surveillance programs.

McCracken, the Acting Chief of a different NRR Branch and a member of the same panel of staff witnesses, stated unequivocally that letters from applicants such as the one embracing the representations in question are treated as commitments.[9]

In their response to our order, the intervenors maintain that a license condition embracing the two representations should have been imposed by the Licensing Board and should now be imposed by us.[10] For their part, the applicant and the staff take the opposite position. In this connection, those parties call attention to our decision almost a decade ago in the proceeding involving the proposed expansion of the capacity of the Trojan facility's spent fuel pool. Rejecting the insistence of the intervenor State of Oregon that, inter alia, certain operational details set forth in the applicants' "design report" for the expansion be converted into technical specifications to be imposed upon the operating license, we observed:

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[9] Tr. 376. Mr. McCracken made this statement after being reminded of Dr. Kopp's earlier contrary testimony.

[10] In exercising our discretion to hear from all of the parties below on the matter of the warrant for a license condition, we saw no need to pass upon whether, by not taking an appeal from the initial decision, the intervenors gave up any further entitlement to participate as of right in the proceeding. We similarly now reserve judgment on that question.

> there is neither a statutory nor a regulatory requirement that every operational detail set forth in an applicant's safety analysis report (or equivalent) be subject to a technical specification, to be included in the license as an absolute condition of operation which is legally binding upon the licensee unless and until changed with specific Commission approval. Rather, as best we can discern it, the contemplation of both the [Atomic Energy] Act and the regulations is that technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety.[11]

We need not decide here whether that standard is satisfied. For there is an acceptable alternative means of ensuring the observance of the applicant's representations.

The year after the Trojan decision, we confronted in Zion an appeal by the State of Illinois from the Licensing Board's authorization of the expansion of the storage capacity of a spent fuel pool. The State claimed, inter alia, that that Board should have raised to the level of a technical specification certain commitments of the applicant respecting such matters as the conduct of a corrosion surveillance program. Although concluding that the Trojan standard was not met, we went on to say:

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[11] Portland General Electric Co. (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979) (footnote omitted). See "Proposed Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," 52 Fed. Reg. 3788 (1987).

> This does not mean the State's concerns are frivolous. The slow action of corrosion and a gradual loss of neutron-absorbent material can present serious problems if left unchecked. However, Illinois' fears -- that the commitments to guard against these possibilities might be withdrawn without prior staff notification or approval and that the means for enforcing them are inadequate -- can be allayed without freighting the applicant's license with additional technical specifications. The applicant has pledged to the staff, to the Licensing Board and to this Board not to change or drop those commitments without prior staff approval; it has expressly acknowledged that those promises were made to obtain favorable action on the proposal now before us. . . . We perceive no reason why that pledge should not be formally incorporated in our own order in this case, which is of course enforceable to the same extent as a Commission decision. This disposition settles the permanence and enforceability of the applicant's commitments without trampling on any party's rights . . . .[12]

If anything, there is even greater cause to follow the Zion route in this case. As we have seen, the record leaves in doubt whether the staff deems the applicant to have made a commitment not to store, prior to completion of the next surveillance program, fuel with an enrichment in U-235 greater than 4 weight percent.[13] In this connection, there is at least some foundation for Dr. Kopp's opinion that no commitment was made. For the evidence indicates

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[12] Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 423-24 (1980) (footnote omitted).

[13] It is not clear from the staff's submission to us whether it supports Dr. Kopp's position on the question or, instead, that of Mr. McCracken.

that (1) in their present form the license amendments unconditionally authorize the storage of fuel with an enrichment in U-235 of 4.5 weight percent; and (2) the applicant has agreed, at most, merely to notify the staff if it decides to exceed the 4.1 weight percent limit before the next surveillance.[14]

In short, at present there is a lack of full assurance that the applicant will adhere to what the Licensing Board (perhaps mistakenly) took to be a commitment that could be relied upon in arriving at its ultimate determination that the reracking of the spent fuel pools did not pose a significant safety concern.[15] On the basis of the evidence before it, however, the Licensing Board was quite right in attaching importance to the applicant's representations.

The testimony of witnesses for both the applicant and the staff cited the Boraflex degradation that had occurred in the spent fuel storage racks at the Quad Cities nuclear facility. That degradation brought about, among other things, gaps (i.e., holes) in the Boraflex sheets incorporated into those racks.[16]

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[14] Tr. 282-83, 303.

[15] See LBP-88-9A, 27 NRC at 413-14.

[16] See Kilp and Gouldy, fol. Tr. 222, at 27-28; Wing, fol. Tr. 339, at 6-9.

Whether such gaps will be experienced at Turkey Point remains to be seen.[17] Should gaps develop, however, they would have an effect upon the neutron absorption efficacy of the Boraflex sheets. The extent of that effect would hinge upon the size and location of the gaps. The results of a gap sensitivity study performed by the Westinghouse Electric Corporation, taken in conjunction with the Quad Cities experience, suggests that it is unlikely that, so long as the stored fuel does not have an enrichment greater than 4.1 weight percent, the reactivity limit specified for the pools will be exceeded.[18] But, should the enrichment level be 4.5 weight percent, there will be much less room for confidence that any gaps at Turkey Point will not occasion the violation of that limit.[19]

In the circumstances, we might remand this matter to the Board for a reassessment of its determination that no safety concern attends upon the reracking. As we see it, however, the preferable course is to invoke the Zion precedent and, by doing so, to bring the proceeding to a

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[17] According to staff witness James Wing, the mechanism causing gap formation remains undetermined. See Wing, fol. Tr. 339, at 7. Dr. Wing did offer the conjecture that the gaps might be produced by the shrinkage of the sheets as the result of gamma radiation. Ibid.

[18] See Boyd, fol. Tr. 222, at 3, 7-9 & Figure 3.

[19] Id., Figure 2.

close without further delay. More particularly, we direct that, pending the obtaining of satisfactory results from the next surveillance, the applicant shall not store in either of the reracked pools any fuel with an enrichment in U-235 greater than 4.1 weight percent unless it requests approval to do so pursuant to 10 CFR 50.59(a)(1) as if a technical specification were involved.[20]

On the basis of that direction, coupled with our review of the balance of the record, LBP-88-9A, 27 NRC 387, is affirmed.

It is so ORDERED.

FOR THE APPEAL BOARD

C. Jean Shoemaker
Secretary to the
Appeal Board

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[20] We see no need for a specific incorporation into this order of the applicant's representation respecting the conduct of surveillance programs to assess the continued effectiveness of the Boraflex. The staff's filing with us characterizes that representation as a commitment and we are confident that the staff will enforce it as such. Moreover, our direction with regard to the enrichment limitation provides an additional incentive to carry out the promised surveillance programs.