NUREG-0750
Vol. 19, No. 2
Pages 487-554

NUCLEAR REGULATORY COMMISSION ISSUANCES

February 1984

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NUCLEAR REGULATORY COMMISSION ISSUANCES

February 1984

This report includes the issuances received during the specified period from the Commission (CLI), the Atomic Safety and Licensing Appeal Boards (ALAB), the Atomic Safety and Licensing Boards (LBP), the Administrative Law Judge (ALJ), the Directors' Decisions (DD), and the Denials of Petitions for Rulemaking (DPRM).

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

U.S. NUCLEAR REGULATORY COMMISSION

Prepared by the Division of Technical Information and Document Control,
Office of Administration, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555
(301/492-8925)

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Gary J. Edles
Dr. Reginald L. Gotchy
Howard A. Wilber

APPEAL BOARDS

Cite as 19 NRC 487 (1984) **ALAB-761**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Gary J. Edles, Chairman
Dr. W. Reed Johnson
Howard A. Wilber

In the Matter of **Docket No. 50-537-CP**

UNITED STATES DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CORPORATION
TENNESSEE VALLEY AUTHORITY
(Clinch River Breeder Reactor Plant)

February 29, 1984

Acting on appeals by two intervenors from Licensing Board actions (following termination of the Clinch River project and the Licensing Board's dismissal of the intervenors from the proceeding for a construction permit (CP) for the project) that, *inter alia*, limited the intervenors' participation in the Limited Work Authorization (LWA) proceeding (on remand to consider issues of site redress) to giving limited appearance statements, the Appeal Board vacates the Licensing Board action limiting LWA participation and denies the remainder of the appeals.

LIMITED WORK AUTHORIZATION (LWA): AVAILABILITY

Under 10 C.F.R. § 50.10(e), an applicant for a construction permit may seek early approval of certain types of site preparation activity by requesting issuance of an LWA.

CONSTRUCTION PERMIT PROCEEDINGS: INITIAL DECISION

A licensing board is required to issue an initial decision in a case involving an application for a construction permit even if the proceeding is uncontested. 10 C.F.R. § 2.104(b)(2) and (3).

LICENSING BOARDS: AUTHORITY TO REGULATE PROCEEDINGS

Licensing boards have the authority to regulate the course of a proceeding and to limit an intervenor's participation to issues in which it is interested. 10 C.F.R. §§ 2.718, 2.714(e) and (f).

RULES OF PRACTICE: RESPONSIBILITY OF PARTIES

Parties may not dart in and out of proceedings on their own terms and at their convenience and expect to enjoy the benefits of full participation without responsibilities. *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-691, 16 NRC 897, 907 (1982).

APPEARANCES

Barbara A. Finamore and **S. Jacob Scherr,** Washington, D.C., for the appellants Natural Resources Defense Council, Inc., and the Sierra Club.

George L. Edgar and **William D. Luck,** Washington, D.C., for the appellees Project Management Corporation and the U.S. Department of Energy.

Sherwin E. Turk for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

Opinion for the Board by Messrs. Edles and Wilber:

I.

This proceeding involves a request by the joint applicants for a permit to construct the Clinch River breeder reactor. Under the Commission's

regulations, an applicant for a construction permit may seek early approval of certain types of site preparation activity by requesting issuance of a limited work authorization (LWA).[1] The applicants did so in this case and, in a partial initial decision issued on February 28, 1983, the Licensing Board disposed of various site suitability issues and authorized issuance of the LWA.[2] Intervenors Natural Resources Defense Council (NRDC) and the Sierra Club filed an appeal from the Board's decision, accompanied by a request for a stay pending appellate review. We denied the request for stay,[3] and appellate proceedings began.

While the appeal was pending, the Licensing Board was moving forward with the remaining construction permit phase of the proceeding. On June 21, 1983, the intervenors filed a motion with the Licensing Board to withdraw their contentions on the outstanding permit issues because limited resources prohibited their continued full participation in the upcoming evidentiary hearings. At a conference with the parties held on June 29, the Licensing Board granted the intervenors' request to withdraw their contentions.[4] The Board went on to observe, however, that "it would appear to the Board . . . that the Intervenors no longer are parties to this proceeding . . . and that the Intervenors will be dismissed as parties to the construction permit proceeding."[5] The intervenors did not appeal the Board's decision. Evidentiary hearings in this now uncontested phase of the proceeding were held during August 1983, and the parties thereafter submitted the usual proposed findings of fact and conclusions of law as the final step before issuance of the Board's initial decision.[6]

In October 1983, Congress declined to appropriate further funds for the Clinch River project and it became clear that the project would soon be terminated. On November 23, NRDC filed a motion with the Licensing Board seeking to re-enter the proceeding in order to raise the issue of the effect of the termination of the project on that part of the case still pending before the Board. On the same day, the intervenors filed a

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1 See 10 C.F.R. § 50.10(e).

2 LBP-83-8, 17 NRC 158. In fact, site preparation activities began even before issuance of the LWA because the Commission granted the applicants an exemption from the requirement to obtain an LWA before beginning work. CLI-82-23, 16 NRC 412 (1982). The exemption was challenged in court by the intervenors and the Commission's decision was reversed and remanded. *Natural Resources Defense Council v. NRC*, 695 F.2d 623 (D.C. Cir. 1982). Site preparation work went forward, however, because the court declined to grant a stay of the Commission's decision. The Commission clarified its earlier decision and reaffirmed its grant of the exemption with an opinion issued on January 5, 1983. CLI-83-1, 17 NRC 1.

3 ALAB-731, 17 NRC 539 (1983).

4 Tr. 7329.

5 *Id.* at 7336.

6 A Licensing Board is required to issue an initial decision in a case involving an application for a construction permit even if the proceeding is uncontested. 10 C.F.R. § 2.104(b)(2) and (3).

motion with us to terminate appellate proceedings, vacate the partial initial decision in the LWA phase of the case, and authorize revocation of the LWA. On December 15, we granted the motion insofar as it requested termination of appellate proceedings and vacation of the LWA partial initial decision, but remanded the matter to the Licensing Board for consideration of whether any conditions to ameliorate environmental impacts of site preparation should be imposed.[7]

On January 20, 1984, the Licensing Board issued an order denying NRDC's request to be readmitted to the proceeding.[8] The Board concluded that "[t]he attempts of NRDC to re-intervene after deliberately withdrawing all remaining contentions and terminating its status as a party, are not conducive to orderly practice."[9] Simultaneously, the Board issued a 90-page Memorandum of Findings containing its analyses and conclusions regarding numerous issues in the construction permit proceeding.[10] Lastly, the Board issued a notice in response to our remand order setting March 14, 1984, as the date for a conference to discuss appropriate measures for site redress from the activities conducted under the LWA. That notice authorized "former intervenors" such as NRDC and the Sierra Club to participate in the conference "by making appropriate limited appearance statements (10 C.F.R. § 2.715)."[11]

NRDC appeals from the Board's order denying intervention and both NRDC and the Sierra Club appeal the Board's determination restricting them to "limited appearance" status in the proceedings on remand. Regarding its request to re-enter the construction permit phase of the case, NRDC claims that the need for orderly practice should not bar readmission because the Board's dismissal was without prejudice. NRDC also objects to the Board's failure to address the criteria for late intervention. As to the limitation of both groups to "limited appearance" status at the upcoming conference, the intervenors claim that they have participated fully with respect to LWA issues from the outset of the case and that termination of the LWA appeal proceedings should have had no effect on their ability to participate in those LWA proceedings still pending before the Licensing Board.

The applicants and the NRC staff filed answers opposing the intervenors' appeals. Essentially, the applicants claim that the intervenors' action in seeking and obtaining termination of appellate proceedings and vacation of the partial initial decision in the LWA portion of the case,

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[7] ALAB-755, 18 NRC 1337.
[8] Order Regarding NRDC Motion to Intervene (unpublished).
[9] *Id.* at 5.
[10] LBP-84-4, 19 NRC 288.
[11] Notice of Conference with Parties (Jan. 20, 1984) at 2 (unpublished).

coupled with their voluntary withdrawal from the remainder of the case, effectively extinguished whatever contingent rights may have existed. The staff argues that the Licensing Board's dismissal of NRDC and the Sierra Club as parties was consistent with the limitation of NRC proceedings to parties manifesting an interest in discrete issues. The staff also asserts that the requirement that NRDC and the Sierra Club make only limited appearances at the upcoming site redress conference is proper because neither is any longer a party to the proceeding.

For reasons explained below, we find that NRDC and the Sierra Club are entitled to participate fully as intervenors in the proceedings on remand, but that the Licensing Board did not act unreasonably in refusing to authorize NRDC to re-enter the remainder of the construction permit phase of the case.

II.

A. At the time we issued our order terminating appellate proceedings in connection with the LWA decision, and remanding the case to the Licensing Board for consideration of site redress issues, NRDC and the Sierra Club were parties to the proceeding. Nothing in our remand order was designed to alter their status as intervenors in the LWA portion of the case. Thus, to the extent the Licensing Board, without explanation, now purports to restrict their participation in the upcoming conference to "limited appearance" status, its action is inconsistent with the remand ordered in ALAB-755. Moreover, although the Licensing Board's recent announcement clouds the issue of these parties' continued status in the overall case, nothing in that Board's June 29 decision suggests an intent to deprive either NRDC or the Sierra Club of its right to pursue LWA issues.[12]

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[12] The following excerpts from the June 29 conference before the Licensing Board are illuminating.

Chairman Miller: "You are a party as to whatever you may have raised or done on appeal. I think there is no controversy as to that. But above and beyond that which is pending now before the Appeal Board and which it has jurisdiction, this Board does not have any jurisdiction of matters that pass to the Appeal Board . . . There is one other matter that has been alluded to. That is whether our order dismissing intervenors as parties to this or future construction permit proceedings should be without prejudice. Let me say simply that the Board does not intend to rule upon that matter . . . Therefore, this ruling at this time is neither with prejudice or without prejudice. *We will abide by whatever is done by the Appeal Board in whatever decisions it might make* or this Board might make in the future." Tr. 7318, 7332-33 (emphasis added)

Mr. Edgar (applicants' counsel): ". . . [W]hatever rights Intervenors may have vis-a-vis the LWA proceeding and the Board's decision exists and they are not affected by what the Board may do at this time . . ." Tr. 7314

Mr. Turk (staff counsel): "[W]e certainly do not not want them to be prejudiced from prosecuting the appeal which they have already filed in the first PID. And in the event the first PID is reversed and further evidence must be taken . . . then we would not oppose their participation as to those matters." Tr. 7316-17

The applicants argue that, insofar as the LWA proceeding was concerned, the intervenors never advanced any contentions related to the environmental impact of site preparation activities.[13] The staff similarly contends that NRDC had no interest in the redress issue as long as no construction permit was to be issued.[14] We reject these arguments.

To begin with, it cannot be said that the intervenors have manifested no interest in the question of site preparation. They argued before the Commission during the exemption proceedings that site preparation activities alone may result in significant adverse impacts. The Commission rejected their arguments in part because site redress was available in the event the project were to be terminated.[15]

Moreover, the focus of the proceeding before the Licensing Board thus far has been on the use of the land for construction of the project.[16] (In that context, as the applicants and the staff point out, the matter has been uncontested.) Now before the Board, for the first time, is the question of site *redress* in light of the abandonment of the project. These intervenors have been active participants in connection with the LWA aspects of the case and we do not believe that their decision to concentrate their attention on technical issues unrelated to use of the land at the earlier stages of the proceeding should prevent their participation now that site redress has become the only issue in the case. Redress is a matter with which the intervenors are concerned and we see no public interest purpose in circumscribing their participation at this stage.[17]

B. NRDC's request to re-enter that phase of the case dealing with non-LWA issues stands on a somewhat different footing. Although the LWA and construction permit aspects of the case are simply separate phases of the same proceeding, licensing boards have the authority to regulate the course of the proceeding and limit an intervenor's participation to issues in which it is interested.[18] In this case, as the staff points out, the Board's June 29 decision had the effect of declaring that neither NRDC nor the Sierra Club would be permitted to participate further in that portion of the case still pending before the Licensing Board on

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[13] Applicants' Answer to Intervenors' Appeal (February 21, 1984) at 2.

[14] NRC Staff's Brief in Opposition (February 21, 1984) at 21.

[15] CLI-82-23, *supra*, 16 NRC at 424 n.4.

[16] *See*, for example, LBP-83-8, *supra*, 17 NRC at 247-50.

[17] *Cf. Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-244, 8 AEC 857, 864-70 (1974), *reconsideration denied*, ALAB-252, 8 AEC 1175, *aff'd*, CLI-75-1, 1 NRC 1 (1975) (intervenor should not be "benched on the sidelines" even if it was not an original proponent of an issue).

[18] 10 C.F.R. §§ 2.718 and 2.714(e) and (f).

issues unrelated to the LWA.[19] The intervenors did not appeal the Board's determination. Rather, they assumed the risk that the Licensing Board might eventually take some action on non-LWA matters inconsistent with their interests. Although termination of the project is a new development, it is plainly not one that should have been wholly unanticipated when the intervenors withdrew. At that time, it was not unreasonable for the intervenors to assume either that the Licensing Board would simply complete the remaining phase of the case and, in due course, issue a further partial initial decision, or that Congress might decline to provide further funds for the Clinch River project, with the result that the project would be terminated. Thus, we cannot find that the Licensing Board acted unreasonably in denying the request to be readmitted. As we observed in our *Midland* decision:

> Parties may not dart in and out of proceedings on their own terms and at their convenience and still expect to enjoy the benefits of full participation without the responsibilities.[20]

NRDC argues that, in reaching its decision, the Licensing Board did not in terms consider the five factors ordinarily evaluated when deciding whether or not to permit late intervention.[21] We do not believe that an express evaluation of those factors would lead to a different result.

To begin with, and most important for decisional purposes, we think that NRDC's participation in the remanded LWA proceedings will fully protect its interests. Thus, we find against NRDC on factor 2. The project, after all, has been terminated, and the only issues that need to be resolved concern site redress. NRDC sought to re-intervene in the non-LWA proceedings to argue that (i) the conditions for grant of a construction permit cannot or have not been met, and (ii) the program objectives for the project will not be achieved.[22] The applicants concede that NRDC is correct in both respects,[23] and nothing in any of the Licensing Board's issuances is to the contrary. So we see little left for

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[19] NRC Staff's Brief in Opposition (February 21, 1984) at 13.

[20] *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-691, 16 NRC 897, 907 (1982).

[21] Those five factors, set forth in 10 C.F.R. § 2.714(a)(1), are as follows:

(i) Good cause, if any, for failure to file on time.
(ii) The availability of other means whereby the petitioner's interest will be protected.
(iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
(iv) The extent to which the petitioner's interest will be represented by existing parties.
(v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

[22] *See* Motion of Natural Resources Defense Council, Inc. to Intervene (November 23, 1983) at 5-6.

[23] *See* Applicants' Answer to Intervenors' Appeal (February 21, 1984) at 3.

further resolution. To be sure, the Licensing Board has issued, over NRDC's objection, what it styles a "Memorandum of Findings." The *nature* of that Memorandum is unclear. But its *status* is perfectly clear: it has no operative effect.[24] Thus, we perceive no genuine harm to NRDC from its issuance.

Second, this is not the most compelling case of good cause for late intervention. As explained above, intervenors were already participating in the construction permit phase of the case and elected to withdraw at a time when termination of the Clinch River project should clearly have been one foreseeable outcome (indeed, the intervenors may well have elected to conserve their limited resources in contemplation of that outcome).

It is unclear to what extent factors three, four or five are relevant to a proceeding that is effectively over and will soon be terminated formally for mootness. In any event, we believe that factor two is decisionally overriding in the context of this case.

The Licensing Board's determination to limit the intervenors' participation in the proceedings on remand to a limited appearance statement is *vacated as inconsistent with ALAB-755.* In all other respects, the appeals are *denied.*

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

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[24] The Memorandum is not a partial initial decision in the usual sense. Although various issues are "resolved" in the applicants' favor and none appears to remain for later resolution, the Memorandum does not authorize issuance of any form of license. Nonetheless, the Board specifically declined to characterize its Memorandum as an "advisory opinion." LBP-84-4, 19 NRC 288, 293. Rather, it observed: "[T]his Memorandum of Findings [is] somewhat unprecedented procedurally . . . . It is sufficient to issue only a memorandum tailored to the unusual posture of this proceeding, for whatever assistance it may provide to the NRC now or in the future." *Id.* at 291, 293. Perhaps, "as with the subject of a once popular song, being a combination thereof, it is neither swan nor goose, but truly 'swoose.'" *Saginaw Transfer Co. v. United States,* 275 F. Supp. 585, 588 (E.D. Mich. 1967), *quoting Chemicals in Aggregate Shipments — Midland, Mich. to the East,* 326 I.C.C. 657, 665 (1965).

Opinion of Dr. Johnson, dissenting in part:

I do not agree that the intervenors are still a party to the proceedings on remand. Our remand of the case to the Licensing Board was only for the purpose of considering site redress, clearly a matter unrelated to any issue then on appeal. Thus, the Licensing Board's notice according NRDC and the Sierra Club the right to participate on only a limited appearance basis is not inconsistent with ALAB-755.

My interpretation of the intent of the Licensing Board's determination of June 29, 1983 (*see* note 12 of the majority opinion, and accompanying text, *supra*), is that intervenors were dismissed except for matters they had raised expressly on appeal. The majority finds (and I agree) that a licensing board may, pursuant to 10 C.F.R. § 2.714(e) and (f), limit participation to those issues in which a party has demonstrated a genuine interest. In my view, the intervenors have not manifested any genuine interest in the redress issue sufficient to justify their participation as full parties. Significantly, when they sought immediate termination of the LWA appellate proceedings, they did not attempt to raise the redress issue. Rather, they urged us simply to order revocation of the LWA, presumably satisfied to leave to the applicants and the staff alone whatever redress may be needed. They have also not demonstrated any genuine expertise in the question of redress, and I see no public purpose to be served by their participation on the redress issue above and beyond that allowed by the Licensing Board.

Atomic Safety and Licensing Boards Issuances

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Cite as 19 NRC 497 (1984) LBP-84-9

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Herbert Grossman, Chairman
Glenn O. Bright
Dr. Jerry Harbour

In the Matter of **Docket No. 50-460-CPA**
(ASLBP No. 83-485-02-CPA)

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
(WPPSS Nuclear Project No. 1) **February 1, 1984**

In a proceeding to determine whether Applicant has demonstrated "good cause" for the construction completion date in the construction permit to be extended, the Licensing Board grants Applicant's and NRC Staff's motions for summary disposition in Applicant's favor.

CONSTRUCTION PERMIT: EXTENSION OF COMPLETION DATE (GOOD CAUSE)

Where the Applicant has demonstrated valid reasons for delaying construction, the Board will permit the construction completion date to be extended without reaching a judgment on the advisability of completing the plant.

CONSTRUCTION PERMIT: EXTENSION OF COMPLETION DATE (REASONABLENESS OF PERIOD)

The reasonableness of the period of the requested construction completion date extension cannot be challenged on grounds of insufficiency.

CONSTRUCTION PERMIT: EXTENSION OF COMPLETION DATE (HEALTH, SAFETY AND ENVIRONMENTAL EFFECTS)

A consideration of the health, safety or environmental effects of delaying construction cannot be heard at the construction permit extension proceeding, but must await the operating license stage.

MEMORANDUM AND ORDER

(Granting Applicant's and NRC Staff's Motions for Summary Disposition)

Memorandum

This is a proceeding to determine whether Applicant should be granted an amendment to extend the completion date stated in its construction permit. Intervenor contends that "good cause" does not exist for the extension of the construction permit completion date, as required by Section 185 of the Atomic Energy Act and 10 C.F.R. § 50.55(b), and that the extension requested is not for a reasonable period.

Applicant and NRC Staff have moved for summary disposition on the basis of affidavits and other documents annexed to their respective motions. Intervenor opposes the summary disposition motions and requests that an evidentiary hearing be convened.

We grant Applicant's and NRC Staff's motions for summary disposition and dismiss Intervenor's admitted contention.

I. BACKGROUND

On July 21, 1981, Applicant filed an application for an extension of its construction permit completion date from January 1, 1982 until June 1, 1986. On March 18, 1982, Intervenor, the Coalition for Safe Power (CSP), filed a request for hearing. On October 8, 1982, the Commission issued an Order, CLI-82-29, 16 NRC 1221, concerning CSP's request for hearing, which provided Commission guidance on the scope of construction permit extension proceedings and determined that only one contention raised by CSP would be litigable if properly particularized and supported. The Commission Order referred the petition filed by CSP to a licensing board to determine if the other hearing requirements of the Commission's regulations had been met and, if so, to conduct an appropriate proceeding.

On January 17, 1983, Applicant served on the Board and the parties copies of a request to the Staff that its pending amendment request for an extension to June 1, 1986 for completion of construction be modified to allow completion by June 1, 1991. Applicant stated therein its understanding that the request would be treated as a modification of the pending amendment rather than as a new amendment request.

The original requested extension, until June 1, 1986, was premised on the construction having proceeded slower than anticipated. Intervenor challenged that extension on the ground that poor management practices had resulted in delay and that, consequently, there was no good cause for the delay. Intervenor acknowledged that Applicant had not intentionally delayed construction.

The supplemental request for extension from June 1, 1986 until June 1, 1991, however, was necessitated by Applicant's intention to halt its construction for up to 5 years. Intervenor challenged that additional period of requested extension as not satisfying the "good cause" requirement of the Atomic Energy Act and Commission regulations, and the 5-year period as not being a reasonable period of time.

In our unpublished Orders of February 23, 1983 and March 23, 1983, we rejected any contentions that might relate to the original period of requested extension in the pending application, from January 1, 1982 until June 1, 1986. We determined that allegations of poor management practices resulting in construction delays are not sufficient to satisfy the Commission's guidance in CLI-82-29, *supra*, that equated a lack of good cause with being dilatory. Since Intervenor had made no showing that Applicant's requested extension until 1986 was the result of Applicant's being dilatory, we would not entertain any contentions regarding that time period.

However, with regard to the supplemental period of extension, from June 1, 1986 until June 1, 1991, we admitted the following contention:

> *Amended Contention No. 2*
>
> Petitioner contends that the Permittee's decision in April 1982 to "defer" construction for two to five years, and the subsequent cessation of construction at WNP-1, was dilatory. Such action was without "good cause" as required by 10 C.F.R. 50.55(b). Moreover, the modified request for extension of completion date to 1991 does not constitute a "reasonable period of time" provided for in 10 C.F.R. 50.55(b).

It is this contention, the only one admitted in this proceeding, that Applicant and Staff move to dismiss in their respective motions for summary disposition.

II. STATEMENT

According to Applicant's discussion of the facts, it was the Bonneville Power Administration (BPA), an agency of the U.S. Government established by the Bonneville Project Act of August 20, 1937, that required the halt in construction of WNP-1. Applicant has under construction three nuclear projects, WNP-1, WNP-2, and WNP-3. The financing of WNP-1 has been solely through the sale of bonds. Under agreements to which Applicant and BPA are parties, Applicant has agreed to construct WNP-1 and has assigned 100% of the capability of the facility to BPA. BPA is accorded substantial oversight responsibility and contract approval authority. In addition, the issuance of all bonds is subject to approval by BPA. Because the construction of WNP-1 is financed entirely through the sale of bonds, Applicant asserts that BPA controls the pace of construction as a result of its authority to withhold approval for bond sales.

As Applicant further describes the situation, in April of 1982 BPA published a draft powerload forecast which indicated that WNP-1, WNP-2 and WNP-3 were needed in the region, but that short-term surpluses of electricity could occur prior to 1990. Therefore, BPA recommended that construction of WNP-2 and WNP-3 proceed at full pace while the completion schedule for WNP-1 be delayed for a period of up to 5 years. Applicant developed alternatives to the BPA recommendation, but BPA advised Applicant that none of these alternatives was acceptable; that the BPA recommendation was the *only* prudent course of future conduct; and that BPA would not approve any financing plan inconsistent with its recommendation. As a result, Applicant decided to defer the construction of WNP-1, recognizing that BPA would not permit the sale of bonds needed to continue construction of the facility.

In support of its motion for summary disposition in Applicant's favor, Staff also relies upon BPA's refusal to approve further bond issuances for continued construction of WNP-1 as "good cause" for deferring construction. Staff agrees that Applicant would lack the financial resources to complete construction without BPA's support. Staff also relies upon one of the reasons cited by BPA for recommending deferral of WNP-1, a slower growth rate of electrical power demand than originally projected, as constituting a valid purpose for deferring construction. NRC Staff Motion at 5.

Intervenor, on the other hand, concludes that Applicant, rather than BPA, was responsible for the deferral of WNP-1. Intervenor submits that Applicant requested the deferral from BPA and concurred in it. Rosolie Affidavit at 2; Intervenor's Answer to Summary Disposition

Motions at 6-7. Intervenor asserts that Applicant had options other than deferral: it could have placed the project in indefinite mothball as it did with Projects WNP-4 and WNP-5; it could have terminated the Projects; or it could have entered into negotiations with the private utilities owning 30% of WNP-3 in order to have them defer WNP-3, rather than having to defer WNP-1. *Id.* at 7-9.

Furthermore, Intervenor asserts that the Board should go behind the decision to halt construction (whether made by Applicant or BPA) to consider the reasons for not financing continued construction at this point. Intervenor asserts that the reasons given by Staff and Applicant as inducing the BPA decision (which Intervenor asserts was Applicant's decision) to defer construction, a temporary lack of financial resources and a slower growth rate of electrical demand, are not the full story. It contends that escalating rates caused by the WPPSS construction program was a significant factor; that the private utilities would not agree to deferring WNP-3 in lieu of WNP-1, although WNP-1 was more complete; that more recent analyses by BPA show electrical growth to be even less than projected; and that there may be no future financing available to resume construction. Intervenor would like to call an expert witness to support its position that there will be a lack of need for power from WNP-1 (in addition to a consequent lack of future financing) in order to support a finding that there is no good cause to *extend* the construction completion date, notwithstanding that there might have been good cause to *delay* construction. In other words, whatever causes exist to delay construction, such as currently low electrical demand and temporary lack of financing, are more extreme, namely, even lower electrical demand and a permanent lack of financing, so as to require cancellation of construction. *Id.* at 10-11.

Intervenor also contends that the requested extension of completion date is not for a reasonable period of time by dint of its being insufficient. According to Intervenor, BPA and Applicant may well be considering a 5-12-year deferral of WNP-1, not a 2-5-year deferral, according to other documents. Furthermore, because of the downward trend in forecasting electrical demand and the unavailability of financing within the time period requested, Intervenor contends that Applicant cannot meet its burden of proving that financing will exist to resume construction within the 5-year period requested. Intervenor's Answer at 12-16. Finally, Intervenor asserts that the safety and environmental significance of the requested delay must be considered for at least the reasons that there is some concern over equipment deterioration during the extensive delay in completion of construction and that the original cost-

benefit analysis at the construction permit stage is completely outdated. *Id.* at 16-19.

III. OPINION

A. Good Cause

Section 185 of the Atomic Energy Act, as amended, 42 U.S.C. § 2235, states, in pertinent part:

> All applicants for licenses to construct or modify production or utilization facilities shall, if the application is otherwise acceptable to the Commission, be initially granted a construction permit. The construction permit shall state the earliest and latest dates for the completion of the construction or modification. Unless the construction or modification of the facility is completed by the completion date, the construction permit shall expire, and all rights thereunder be forfeited, unless upon good cause shown, the Commission extends the completion date.

In furtherance of this section, 10 C.F.R. § 50.55 reads in pertinent part, as follows:

> (a) The permit shall state the earliest and latest dates for completion of the construction or modification.
>
> (b) If the proposed construction or modification of the facility is not completed by the latest completion date, the permit shall expire and all rights thereunder shall be forfeited: *Provided, however,* That upon good cause shown the Commission will extend the completion date for a reasonable period of time. The Commission will recognize, among other things, developmental problems attributable to the experimental nature of the facility or fire, flood, explosion, strike, sabotage, domestic violence, enemy action, an act of the elements, and other acts beyond the control of the permit holder, as a basis for extending the completion date.

In its guidance to this Licensing Board in CLI-82-29, *supra,* the Commission interpreted the foregoing statute and regulation as affording only a narrow scope to this proceeding within which Intervenor was free to prove only that "WPPSS was both responsible for the delays and that the delays were dilatory and thus without 'good cause'." 16 NRC at 1231. In *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), ALAB-722, 17 NRC 546 (1983), involving only WNP-2, the Appeal Board elaborated on those directions from the Commission to the Licensing Board. It interpreted "dilatory conduct in the sense used by the Commission" as meaning "intentional delay of construction without a valid purpose." *Id.* at 552. Consequently, it held that, "unless the applicant was responsible for the delays and acted in a dilatory manner (*i.e.*, intentionally and without a valid purpose), a contested construction

permit extension proceeding is not to be undertaken at all." *Id.* at 553. Since, with regard to WNP-2 there had not been any Intervenor allegation of *intentional* delay (Applicant sought no halt in construction, as here, but had only suffered involuntary delays in meeting its construction schedule), the Appeal Board affirmed the Licensing Board's dismissal of Intervenor's contentions.

In the instant case, Applicant has made a strong showing of not "intentionally" causing the halt in construction, with affidavit and documentary support of its position that the Bonneville Power Administration caused the delay by withholding its approval of bond issuances for further construction, the only avenue for financing available to Applicant. Intervenor makes no attempt to dispute BPA's power to control the pace of construction through its control over the financing of the project, but insists that it was Applicant, rather than BPA, who instigated the decision to defer construction and that BPA only concurred in it. Intervenor seeks the opportunity to prove that Applicant's decision to delay construction, not having been compelled by BPA, was also without a valid purpose.

Although we see little in Intervenor's transmittals to us in opposition to the motions for summary disposition to support its position that the recommendation of deferral was instigated by Applicant, rather than BPA, we would not grant the motions for summary disposition on that score. Corporate dealings and motivations are sufficiently arcane, notwithstanding the matters placed upon the public record in the form of corporate minutes, resolutions, and recommendations, to afford a litigant the right to go behind these records to seek the testimony of participants in the corporate transactions. Intervenor has not taken discovery depositions, possibly for lack of finances, but that would not preclude it from examining for the first time at an evidentiary hearing the appropriate officials of WPPSS and BPA to identify the actual decisionmaker. However, even if we could place the intention to delay on Applicant, rather than BPA, we would still have to hold for Applicant on the undisputed material facts relating to the purpose for the delay, on which we find very little disagreement among the parties.

Without dispute, what prompted the decision to delay construction was a lack of financial resources to complete the construction of WNP-1 and WNP-3, and the forecast of no electrical demand for the output of WNP-1, at the targeted completion date of July 1, 1986. Intervenor, in fact, posits that the situation is more precarious than given by Applicant — that there will be a lack of financing and a lack of demand for electrical power even after a 5-year hiatus in construction. Intervenor's Answer at 10-11, 14-16; Rosolie Affidavit at 3-4.

In ALAB-722, *supra*, the Appeal Board indicated that "an intentional slowing of construction because of a temporary lack of financial resources or a slower growth rate of electric power than had been originally projected would constitute delay for a valid business purpose." 17 NRC at 552 n.6. Since there is no dispute that the lack of financing and slower growth rate of electrical power caused the decision to defer construction, we should have little hesitation in deciding that Applicant's delay in construction met the Appeal Board's test of being for a valid business purpose. Intervenor, however, relies on further *dictum* in ALAB-722 (*id.* at 553) that the "ultimate 'good cause' determination is expected to encompass a judgment about why the plant should be completed and is not to rest solely upon a judgment as to the Applicant's fault for delay." Intervenor asserts that there is not merely a *temporary* lack of financial resources, but a permanent one, and a long-term lack of electrical demand that would negate any reasons for completing a plant. Intervenor's Answer at 10-11.

Intervenor's argument flies in the face of the Commission's directives to us in CLI-82-29, *supra*. There the Commission, in no uncertain terms, focused exclusively on the "reasons that have contributed to the delay in construction," rather than good cause for completing construction. 16 NRC at 1228; *see also id.* at 1229, 1230 and 1231. While ALAB-722, *supra*, appears to be at some variance with the Commission's directives to us to focus exclusively on causes for delay, rather than for completing construction, even that *dictum* would require a judgment about whether the plant should be completed only if Applicant has not first satisfied the test of either not being responsible for the delay or having delayed construction for a valid purpose. Since the Applicant, in this case, has halted construction, either intentionally or at the direction of BPA, for the valid reasons of a lack of financial resources and a slower growth of electric power, we need not reach a value judgment on the advisability of completing the plant.*

Intervenor also seeks a hearing on the other options it asserts were available to Applicant in place of its deferral of construction for the

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*The Appeal Board has not illuminated the basis for its focus on the future, rather than on Applicant's past conduct, seemingly at variance with the Commission's directives to us, other than to conclude that this is called for by Section 185 of the Atomic Energy Act. 17 NRC at 553. Consequently, we offer no opinion on why the Appeal Board would permit an inquiry into the advisability of building a plant when it is for the benefit of an applicant that has failed the Commission's test of not being dilatory but would not permit such inquiry for the benefit of an intervenor wishing to scrap the plant. An applicant for a construction permit extension has, presumably, already satisfied its requirement of demonstrating the need for power at the construction permit stage and should not have to demonstrate that need again unless, under special circumstances, such a demonstration is deemed necessary *at the operating license stage*. *See* 10 C.F.R. §§ 51.21 and 51.23(e), and Statement of Consideration, 47 Fed. Reg. 12,940 (1982).

5-year projected period. These other asserted options of placing the project in indefinite mothball, terminating the project or negotiating with private utilities who own 30% of WNP-3 to delay WNP-3 instead, might have been more "prudent" according to Intervenor Rosolie Affidavit at 2-3; Intervenor's Answer at 9. Nothing stated by Intervenor in its answer or submitted in support of it raises any question about the decision to delay construction being at least a rational business decision, albeit not the decision Intervenor might have made under the same circumstances.

We see no merit in the Board's seeking to substitute its own judgment for that of Applicant in selecting one of a number of rational alternatives available to Applicant. The one apparently favored by Intervenor (*ibid.*), of halting construction on WNP-3 rather than WNP-1, cannot support a denial of the requested extension. If the Applicant is attempting to salvage both nuclear plants by temporarily halting construction on one of them, that cessation of construction activities has a valid purpose regardless of which plant is chosen. We see no reason to attempt to force the cancellation of the plant chosen to be delayed (through a revocation of the construction permit) merely because some reasonable persons would have chosen to delay the other plant. Nor do we see any justification for the Board to question the reasonableness of Applicant's decision of deferral because Applicant did not choose, instead, either of the other two more extreme alternatives suggested by Intervenor of indefinite mothballing or termination.

We are not faced with an allegation that Applicant has actually decided to abandon the plant. Had Intervenor made such an allegation and offered some factual support for it we would not be so quick to grant summary disposition in favor of Applicant. A finding by us of abandonment might permit us to dismiss Applicant's application as being moot. *See Puerto Rico Electric Power Authority* (North Coast Nuclear Plant, Unit 1), ALAB-605, 12 NRC 153 (1980). Here, Intervenor has not gone beyond an attempt to prove that future power demands and lack of financing will cause an abandonment of the plant when Applicant is faced with resuming construction. If Intervenor were convinced that Applicant had irrevocably decided to abandon the plant, it is doubtful that it would continue to expend its resources on its interventions in this and the operating license proceedings.

B. Reasonable Period of Time

Intervenor also challenges the reasonableness of the period of time requested for the extension. Intervenor asserts that the 5-year requested

extension is unreasonable because it is insufficient. It would like the opportunity to prove that the plant could not be completed by 1991. Intervenor's Answer at 11-16.

We cannot fairly read into the Atomic Energy Act or the regulations thereunder any basis for challenging the reasonableness of the period of requested extension on grounds of insufficiency. Were there some overall time (rather than reasonableness) limitation on the total construction period or on the period that might be requested which Applicant is attempting to circumvent by requesting the needed time in increments, we might be persuaded otherwise. However, no such limitation is apparent to us. By requesting an insufficient period, Applicant could only injure itself because it would then be forced to apply for another extension and demonstrate good cause anew in order to complete the plant, when its original "good cause" demonstration could have supported an extension for the total period required.

Perhaps we would view differently Intervenor's arguments with regard to the insufficiency of the period requested if we could accept its further argument that the total period of extension must be examined with regard to the safety and environmental aspects of the deferral of construction. Indeed, Intervenor's argument that there may be equipment deterioration during a lengthy delay in construction that should be considered during a construction completion date extension proceeding (Intervenor's Answer at 17) has considerable superficial appeal. Certainly, one cannot easily disassociate the question of whether an extension should be granted from the realization that the granting of the extension might well lead to a deterioration in equipment. Similarly, one could postulate environmental effects from the prolongation of the construction period. However, were we to choose the most propitious moment for evaluating the effects of a prolonged or delayed construction period on safety and the environment, we would choose a time *after* the effects became apparent, namely, at the operating license stage. A hearing at this juncture would be mostly speculative. We note that the Licensing Board in the WNP-1-OL operating license proceeding, composed of the same members as here, has admitted a contention (Contention 20) that questions unnamed construction defects that might result from Applicant's method of preserving the construction during the period of deferral. *Washington Public Power Supply System* (WPPSS Nuclear Project No. 1), LBP-83-66, 18 NRC 780, 797-98 (1983).

A deferral of consideration of the safety and environmental effects of the delay in construction to the operating license stage not only makes the most sense, but it comports with the Commission's interpretation of

Section 185 of the Atomic Energy Act as not requiring the relitigation of health, safety or environmental questions between the time a construction permit is granted and the time the facility is seeking authorization to operate. CLI-82-29, *supra*, 16 NRC at 1228. And, since the health, safety and environmental effects of the prolonged construction are not to be questioned at this juncture, Applicant also can derive little benefit from understating the period needed for completion of construction, as alleged by Intervenor.

C. Legal Standard

Under 10 C.F.R. § 2.749, this proceeding should be dismissed if the filings indicate that there is no genuine issue as to any material fact. In deciding Applicant's and NRC Staff's motions for summary disposition we have construed all of the material facts in favor of Intervenor. We have assumed, notwithstanding the strong evidence offered to the contrary by Applicant, that the decision to halt construction was Applicant's, not BPA's. We have accepted Intervenor's assertions that there were more prudent alternatives to a temporary halt in construction, such as cancellation of the facility, placing it in mothball, or halting construction on WNP-1. We have also assumed for the purpose of deciding this motion that the period of extension requested isn't sufficient and that the economic situation will eventually cause an abandonment of the facility. We nevertheless reach the position that Applicant has demonstrated good cause for delaying construction by demonstrating valid reasons for doing so even though there may be more prudent alternatives and the option selected may prove fruitless. Having found good cause for the deferral of construction on the uncontroverted material facts, we must grant Applicant's and Staff's motions for summary disposition without inquiring further into the advisability of constructing the nuclear plant.

Order

For all of the foregoing reasons and based upon a consideration of the entire record in this matter, it is, this 1st day of February 1984,

ORDERED

That Applicant's and NRC Staff's motions for summary disposition in favor of Applicant are granted and Intervenor's sole contention is dismissed, terminating the proceeding.

Within ten (10) days after service of this Memorandum and Order, which constitutes a final disposition of this proceeding before the Licensing Board, Intervenor may take an appeal to the Appeal Board by filing a notice of appeal pursuant to 10 C.F.R. §§ 2.762 and 2.785. A supporting brief would then be due within thirty (30) days after the notice of appeal is filed.

Pursuant to 10 C.F.R. § 2.760 of the Commission's Rules of Practice, this Memorandum and Order will constitute the final decision of the Commission thirty (30) days from the date of issuance unless an appeal is taken in accordance with 10 C.F.R. § 2.762 or the Commission directs otherwise. *See also* 10 C.F.R. §§ 2.785 and 2.786.

THE ATOMIC SAFETY AND
LICENSING BOARD

Glenn O. Bright
ADMINISTRATIVE JUDGE

Jerry Harbour
ADMINISTRATIVE JUDGE

Herbert Grossman, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
February 1, 1984

Cite as 19 NRC 509 (1984) LBP-84-10

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Peter B. Bloch, Chairman
Dr. Kenneth A. McCollom
Dr. Walter H. Jordan

In the Matter of

Docket Nos. 50-445
50-446
(Application for Operating License)

TEXAS UTILITIES ELECTRIC COMPANY,* *et al.*
(Comanche Peak Steam Electric Station, Units 1 and 2)

February 8, 1984

Based on a review of the history of the case, the Licensing Board concludes that Applicant had a fair opportunity to prove its case concerning quality assurance for design and that there is no reason to correct a previous decision to clarify that the Board's conclusions were based on the record.

QUALITY ASSURANCE FOR DESIGN: APPENDIX B

Criterion XVI of Appendix B to Part 50 requires the prompt identification of design deficiencies, but it does not require that those deficiencies be called "nonconformances." No particular terminology is mandated.

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*Previously, Texas Utilities Generating Company.

QUALITY ASSURANCE: RELATIONSHIP TO § 50.55(e)

Criterion XVI of Appendix B to Part 50 is consonant with 10 C.F.R. § 50.55(e). The former requires a system for promptly identifying deficiencies, including design deficiencies. The latter requires the prompt reporting to the NRC of serious deficiencies.

RULES OF PRACTICE: NEW ARGUMENTS

Absent some special procedural consideration, proposed findings of fact may make new arguments about record evidence. Allegedly contrary precedent is not persuasive.

RULES OF PRACTICE: MOTION FOR RECONSIDERATION (NEW ARGUMENTS)

Motions for reconsideration are for the purpose of pointing out an error the Board has made. Unless the Board has relied on an unexpected ground, new factual evidence and new arguments are not relevant in such a motion.

RULES OF PRACTICE: STANDARDS FOR APPLICANT TO REOPEN THE RECORD

Applicant is not subject to the same standards for reopening the record as are intervenors. It is neither iogical nor proper to close down a multi-billion-dollar nuclear plant because of a deficiency of proof. However, repeated failures of proof would jeopardize intervenor's right to due process and would require the denial of a license.

TECHNICAL ISSUES DISCUSSED

Pipe support stability
U-bolts cinched up around pipes
U-bolts made of SA-36 steel, clamping force
Local pipe stresses from pipe supports
U-bolts, overtensioning
Relationship of ASME Code and AWS Code, pipe supports
Richmond Inserts, axial torsion.

MEMORANDUM AND ORDER
(Reconsideration Concerning Quality Assurance for Design)

This Memorandum and Order considers the motions of the parties to reconsider our previous Memorandum and Order (Quality Assurance for Design).[1]

I. APPLICANT'S RECONSIDERATION MOTION

Applicant requests that we revise our Design Decision so that we make it clear that

> the *evidentiary record* is presently not adequate to determine whether Applicant's pipe support design process satisfies Appendix B (a view which Applicant shares) and that further evidence will be required.[2]

Applicant's concern arises because it feels that it did not have adequate notice that this matter was being litigated and because we incorrectly interpreted Applicant's Findings. We disagree.

First, we note that our findings were explicitly related to the burden of proof as reflected in our record. We acknowledged our lack of confidence that our record reflected the real world; hence, we permitted Applicant to submit a plan to increase this Board's confidence in the plant's design. Thus, Applicant will have an opportunity to demonstrate its compliance with the requirements of Criterion XVI of Appendix B.[3] However, Applicant had not given us any basis for hedging our findings further. Our knowledge is limited to the evidentiary record, which is the basis for our findings, and we are required to make findings based on that record.[4] We have done so.

If Applicant did not have a fair opportunity to demonstrate the adequacy of its quality assurance program, then we might agree to hedge the language we use in finding a deficiency. However, Applicant had an

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[1] We adopt the terms we defined in our previous decision, LBP-83-81, 18 NRC 1410 (1983) (Design Decision). All three motions for reconsideration were filed on January 17, 1983 and shall be referred to as Applicant's Reconsideration, Staff's Reconsideration, and CASE's Reconsideration.

[2] Applicant's Reconsideration at 2.

[3] Although our language suggested that Applicant and Staff thought Appendix B did not apply to design, a more accurate statement of the position of these parties was that Criterion XVI of Appendix B, which requires the identification and prompt correction of deficiencies, did not apply to design. Our decision could have been clearer on this point, but we believe the discussion in the decision adequately stated our concerns.

[4] *See Commonwealth Edison Co.* (Byron Nuclear Power Station, Units 1 and 2), LBP-84-2, 19 NRC 36 (1984) (operating license denied based on the existing record).

abundance of opportunities to present its case and did not avail itself of them.

A. Relevant Background

Our Design Decision sets forth the history of the Walsh/Doyle contention, but pertinent parts need be repeated to place Applicant's current claim in perspective. Based on testimony from Walsh and Doyle, CASE has argued that there were deficiencies in several design documents. CASE also argued that Applicant had not completed nonconformance reports related to design documents and that it had not filed 10 C.F.R. § 50.55(e) reports of significant design deficiencies.

Applicant answered that the deficiencies found by CASE were in preliminary design documents and were of no significance because they would be corrected before the plant was completed. It also argued that Appendix B did not require it to complete nonconformance reports for design deficiencies.

In another matter, which seemed unconnected to this question, Applicant has even argued that Appendix B does not require that reports called "nonconformance reports" or "NCRs" need be completed for *construction* deficiencies. This argument apparently is correct with respect to *all* deficiencies (including construction and design) because Appendix B, Criterion XVI, provides substantive criteria for identifying and correcting deficiencies but does not mandate any particular label for the reports concerning those deficiencies.

B. Applicant's Initial Argument

With these contextual matters in mind, let us now set out in full the portion of Applicant's Findings that it would now have us interpret as arguing only that Appendix B does not require that any particular *label* be attached to nonconformances:

> 6. *Documentation of "Nonconformances"*
>
> With respect to the allegation that Nonconformance Reports ("NCRs") should have been written against pipe support designs which were found to be inadequate, the NRC Staff testified, and the Board agrees, that 10 C.F.R. Part 50, Appendix B does not address inadequate designs but rather addresses the conformance of installed hardware and the inspection thereof to the design. With respect to 10 C.F.R. Part 50, Appendix B, Criterion III, concerning design control, that provision establishes review procedures, and does not involve reporting of nonconformances. (Tr. 6707-10.) Accordingly, we find there is no requirement for the identification of inadequate pipe support designs as nonconforming conditions. The iterative design process for pipe supports (including the internal checks in that process) discussed herein

supra, Section II.C.1, assures that inadequate designs or unstable supports are identified and corrected.[5]

C. Analysis

We do not find this language to be consistent with Applicant's regulatory obligation. We consider the following language in Applicant's Findings to be clear: "Appendix B does not address inadequate designs but rather addresses the conformance of installed hardware and the inspection thereof to the design." The meaning of this passage, that the prompt identification of design deficiencies is not required by Appendix B, was echoed by a statement that "there is no requirement for the identification of inadequate pipe support designs as nonconforming conditions." This language concerns *requirements*, does not place "nonconforming" in quotes and is, simply, an unqualified statement that Criterion XVI is inapplicable.

Our conclusion that Applicant has not interpreted Appendix B, Criterion XVI, correctly in this proceeding also is related to the general conduct of the case. CASE has attempted to show deficiencies in particular design documents. Instead of demonstrating the existence of a system to identify and correct deficiencies, Applicant chose to show that:

> the designs raised by [CASE's] . . . witnesses were taken from the initial stages of a carefully designed and comprehensive iterative design process and thus do not (nor were they intended to) reflect the quality of the final pipe support designs at Comanche Peak.[6]

We do not consider this to be isolated language. It represents Applicant's litigation approach, in which the Staff concurred. There has been no recognition that errors in design documents are an independent concern, regardless of whether they may be corrected before the plant is completed. Each design document must be a quality document. Although errors may be made, significant errors — particularly errors of which Applicant has been made aware through employee concerns and litigation — should be promptly identified, "documented," and corrected with reasonable speed.

We understand that Applicant now contends that it has such a system. However, the adequacy of this system for documenting and correcting design deficiencies (and construction deficiencies resulting from the

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[5] Applicant's Findings at 27-28.
[6] *Id.* at 18.

implementation of deficient designs[7]) has not yet been demonstrated[8] and CASE will have an opportunity to litigate both the adequacy of the system and the adequacy of its implementation.[9]

It also is not clear how Applicant's design program complies with the requirement of Criterion I that "persons . . performing quality assurance functions [for design] . . . report to a management level such that this required authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations, are provided."

It is difficult for us to sympathize with Applicant's surprise that its compliance with Appendix B was being litigated. The contention being litigated is a quality assurance contention and the Walsh/Doyle design concerns were admitted as a portion of that broad contention. Furthermore, these specific concerns about quality assurance for design were covered by Chapter XXV in CASE's Findings and Applicant had an opportunity to respond to those findings.

During the May 1983 hearings, both the Board and CASE asked questions concerning the Special Inspection Team's conclusion that Applicant would correct deficiencies before the plant was completed. Furthermore, as the Design Decision states, questions concerning the reporting of nonconformances were addressed in September 1982. At that time, Applicant did not argue that things labeled "nonconformance reports" were not required for design. It argued that, "[t]he item under consideration during design where you are going through an iterative process is not a nonconformance until you complete the design."[10] Furthermore,

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[7] *See* CASE's Answer to Motions for Reconsideration, February 1, 1984 (CASE's Answer) at 12, arguing that Criterion XVI of Appendix B requires a system for reporting all construction deficiencies, including those caused by faithful adherence to a deficient design.

[8] Criterion XVI requires that conditions adverse to quality be promptly identified and corrected. *Compare* Applicants' Reconsideration at 19, "*significant* conditions adverse to quality are identified." [Emphasis added.]

Although Criterion XVI restricts the requirements to identify the *cause* of a condition and to document that condition to *significant* deficiencies, the requirement to *identify* conditions is not restricted by use of the adjective, "significant." We anticipate receiving evidence concerning how Applicant's system actually handles specific deficiencies that have been detected.

[9] *See* CASE's Answer at 17-19. In this regard, we recognize the prodigious effort put in by CASE's unpaid volunteers, but we urge it to assist the Board (and the other parties) in being able to determine which aspects of prior exhibits bear on any new arguments presented by Applicant. In particular, we require CASE to make a good faith effort to see that new filings be susceptible of being understood without numerous cross-references. The cross-references are necessary to document what is in the record, but the Board and parties cannot readily undertake extensive tours through already-filed documents without an explanation in a filed pleading of what CASE believes those documents stand for.

We also note that the Board appears to be more ready to admit its mistakes than are the parties. We encourage others to be more ready to admit their mistakes and to concede points erroneously decided in their favor.

[10] Reedy, Tr. 5185. Finneran agreed that "until design of the installation is complete, there is no nonconformance condition." Tr. 5186. *See also* Taylor (Staff's Resident Inspector for Construction), Tr.

(Continued)

immediately after this question on nonconformances, Applicant elicited information from its witnesses concerning the use of CMCs, which it apparently considered to be a related question. At that time, Mr. Finneran's testimony about CMCs did not include the reporting of design deficiencies as a purpose of that document.[11]

Although Applicant will be permitted to show that it has an adequate quality assurance system for design, we do not consider it appropriate to modify any of our conclusions on this matter. Our conclusions fairly represent the state of the record.

D. Applicant's Argument About § 50.55(e)

We found that the "need for prompt identification of deficiencies [pursuant to Appendix B, Criterion XVI] is consistent with 10 C.F.R. § 50.55(e)(1)" and that fulfillment of the § 50.55(e)(1) requirement to report significant deficiencies requires that the "ongoing quality assurance program for design . . . have the capacity to spot, track and resolve significant design deficiencies on an ongoing basis."[12] Applicant asks us to reconsider this position and to state that § 50.55(e) "does not impose any requirements concerning the timing of activities under Appendix B."[13] This we refuse to do. We have merely interpreted two sections of the regulations to be consonant with one another, a standard method of regulatory interpretation. The requirement for the "prompt" detection of deficiencies in Appendix B assures that significant deficiencies should be promptly detected and reported pursuant to § 50.55(e). We fail to understand what other position Applicant would have us adopt.

E. New Arguments

Applicant would have us rule that new arguments presented in Findings are to be disregarded. However, its basis for this argument rests on two flimsy legs: (1) that it is a basic characteristic of administrative procedure that a party have the opportunity to know and meet the argument of the other party,[14] and (2) that *Union Electric Co.* (Callaway Plant, Unit 1), ALAB-740, 18 NRC 343, 350 (1983), contains language

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6707: "Appendix B, in dealing with nonconforming conditions, does not address nonconforming design. It only addresses the conformance of the installed hardware and the inspection thereof to the design."

[11] Tr. 5185-86.

[12] Design Decision, 18 NRC at 1414. *See* Applicant's Reconsideration at 9.

[13] Applicant's Reconsideration at 9.

[14] Applicant cites K. Davis, Administrative Law Treatise § 7.01 (1958). Applicant's Reconsideration at 17.

suggesting the need to present "an analytical disagreement" to an opposing witness for his consideration.

The first leg of this argument presents a truism that is inapplicable in this proceeding. Applicant has had an opportunity to learn about CASE's allegations through discovery. It could have asked for a prehearing conference to discuss in advance the parties' positions. It could have asked for the advance filing of findings (as we have ordered for subsequent hearings) or a trial brief. It did have an opportunity to file a reply to CASE's Findings. And if new arguments were made that required additional evidence, it could have moved to reopen the record for that purpose. We conclude that Applicant had an ample opportunity to know and respond to CASE's arguments.

As to the second leg of the argument, we find little factual support for the proposition that Applicant was prejudiced in any way by late-filed arguments and we do not interpret the *Callaway* case as barring new arguments in an intervenor's proposed findings.

Applicant has the following introductory remarks to make about its position that new arguments are barred:

> The reason to foreclose new arguments is that Applicant was not afforded the opportunity to meet the new argument with responsive evidence or cross-examination. In addition, we have identified below three instances in which the Board clearly relied on new arguments in reaching its conclusions.[15] Because the Board also relies on record material in deciding these questions, however, we do not ask the Board to reverse its conclusions but to revise them to reflect that a decision on these questions would be premature without affording Applicant an opportunity to respond.

In this passage, Applicant clarifies its position on new arguments. It does not claim prejudice from any arguments made by CASE in CASE's findings. Its sole claim to prejudice is that it was not permitted to respond to arguments made by CASE in its reply to the affidavits filed by the Staff concerning open items left after our hearing session.

We note that both of the arguments to which Applicant alleges that it had no opportunity to respond were, as Applicant admits, based on record evidence. The arguments were clearly set forth by witnesses. They related to open items that were addressed by Applicant in its findings. Furthermore, Applicant was under a clear directive by this Board to address all (potentially significant) evidence, including adverse evidence, relevant to its proposed findings and conclusions. Applicant had both the opportunity and the obligation to explain the relevance of

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[15] [Footnote from Applicant's Findings:] *See* Memorandum and Order at 13, n.35 [18 NRC 1419 n.35] (torsional moments in Richmond Inserts and shield wall thickness near the upper lateral restraint).

the underlying evidence when it filed its findings. There was no lack of opportunity there.

In Applicant's Reconsideration, there was another opportunity to file arguments concerning these matters. With respect to axial torsion in the Richmond Inserts, Applicant eschewed this opportunity to present any new arguments. It merely states that it has "obtained the independent opinions of outside experts on this point" and it asks the Board to reconsider the record on this matter.[16] With respect to the thickness of the wall near the upper lateral restraint, Applicant does not make any arguments at this time either. We find no prejudice to Applicant from this alleged lack of an opportunity to respond.

Nor do we find the citation of the *Callaway* case to be persuasive. In that case, the Appeal Board was considering an argument made in an intervenor's proposed findings, based on a citation to extra-record scientific material that could have been officially-noticed.[17] We applied the *Callaway* principle by refusing to rely on similar citations to scientific material in this case.[18] The Appeal Board's language in *Callaway* related to a situation in which intervenors had presented no witnesses and had not even conducted cross-examination. *Callaway* does not support Applicant's argument that we must refuse to consider new arguments concerning evidence that is already in the record.

We do not change our conclusion that, absent some procedural consideration not present in this case, proposed findings may make new arguments about record evidence.

F. Specific Factual Findings

Applicant's Reconsideration requests changes in factual findings, based at times on entirely new arguments and evidence concerning matters that have been litigated. This is not proper in a Motion for Reconsideration, which is an extraordinary filing alleging error in a decision of the Board. A motion for reconsideration should not include new arguments or evidence unless a party demonstrates that its new material

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[16] Applicant's Reconsideration at 41.

[17] *Callaway*, 18 NRC at 349-50.

[18] LBP-83-55, 18 NRC 415 (1983). We note that the Staff "supports" Applicant's argument concerning *Callaway* to the extent that its argument agrees with our interpretation of that case. NRC Staff Response to Applicant's Reconsideration, January 27, 1984, at 7. We point out additionally, that the Staff does not demonstrate prejudice to Applicant resulting from our interpretation. (*See also Tennessee Valley Authority* (Hartsville Nuclear Plant, Units 1A, 2A, 1B and 2B), ALAB-463, 7 NRC 341, 352 (1978), in which late-filed documents were considered by the Appeal Board because of their possible importance to public health.)

relates to a Board concern that could not reasonably have been anticipated.

Although we need not address in this decision any improper new arguments or evidence, we have chosen to address some of those arguments in order to communicate the Board's understanding of these matters and to facilitate the efficient progress of this case. There will be time to address these arguments more fully after new evidence is taken with respect to the Plan the Applicant is filing at the Board's request.

1. Mr. Michael A. Vivirito

Applicant requests that we revise our decision to be less critical of Mr. Michael Vivirito than we were in the Design Decision, 18 NRC at 1420 n.37. After reading Applicant's comments and reviewing our decision, we conclude that some softening of our language is appropriate.

Mr. Vivirito was in many ways an impressive witness, with good control of technical matters and an ability to explain complex matters to us in a way that we could understand. His testimony concerning thermal expansion was particularly helpful to us.

Our concern with Mr. Vivirito's testimony is that he seemed at times to be too ready to dismiss matters as falling within his engineering judgment, without providing the Board an adequate explanation. He also presented to us some testimony that, while carefully described as "only background," nevertheless could have implied to Gibbs & Hill employees that Mr. Vivirito has some feeling that regulatory requirements for seismic analysis are unnecessarily strict. Since we are aware of the importance of compliance with regulatory criteria and of the tendency of the industry to feel that it is over-regulated, we became uncomfortable with the statement Mr. Vivirito made to us. The statement bore the possible meaning that Mr. Vivirito did not feel that rigorous compliance with seismic requirements was necessary to the safety of the plant and we were concerned that members of his organization could adopt this attitude, apparently held by a senior official of their company.

Although we continue to be sensitive to this issue, we think we were overly critical of an isolated comment made in one portion of a lengthy regulatory proceeding. We do not have reason to believe that this single passage of testimony reflects an attitude that prevails at Gibbs & Hill. We expect that Mr. Vivirito's sincere efforts to listen to the Board's concerns and to assist us in our decision process is more reflective of Gibbs & Hill's attitudes toward regulation than was this one remark. We apologize for making too much of this one statement.

We are hopeful that this discussion will clarify the nature of our concerns. Accordingly, we will delete Footnote 37 from our published decision.

2. Mr. Kerlin

Applicant relies on extra-record materials to rebut the Board's finding that Mr. Kerlin had some supervisory responsibility. Although Applicant has not yet presented evidence on this point, we are confident that it will do so in order to establish its point. Similarly, Applicant has pointed out to us that we mistakenly attributed an incident that occurred at the Fast Flux Test Facility to the Comanche Peak facility.[19]

These factual errors occurred in a portion of our decision where we were trying to ascertain the first date on which Applicant was aware of possible instability problems. The result of this change of facts is, however, inconsequential. Our current best information about the first date of Applicant's knowledge is some time in 1981.[20] Since there are no data in our record concerning how Applicant dealt with this deficiency,[21] and since the burden of proof is on the Applicant, we have no basis for concluding that it was handled in a reasonably prompt manner. We will have to await further evidence to reach a conclusion on the adequacy of Applicant's system for promptly resolving design deficiencies.

In deliberating about this point, however, the Board has become aware that the entire matter of instability has been handled in an incomplete manner in our record. There are abstract discussions of the nature of pipe support instability, including hard-to-understand descriptions of a model that is not in our record, discussions about a pen standing on end, language about instabilities that exist only when a pipe is "missing" and other abstract discussions. What is needed is a review of a detailed, worst-case sample of about five of the thirty cases of instability investigated by the Staff. Then the Board will become informed in detail of the relationship between the design process and the stability of pipe supports. Some of the relevant issues are: (1) whether the forces and moments indicated by the initial pipe run analysis were met by the pipe design groups at the node points to which these supports were attached, (2) whether all required static and dynamic forces were considered, (3)

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[19] Applicant's Reconsideration at 20-21.

[20] Design Decision, 18 NRC at 1425 n.57.

[21] Testimony of a Staff witness that the problem was "identified during the normal design review process" does not establish that the problem was identified and resolved with reasonable promptness, particularly in light of the Board's findings concerning the adequacy of cinching-up U-bolts to prevent rotation. *See* Applicant's Findings at 40.

the nature of the instability, including the conditions under which it would exist and the likelihood of those conditions occurring, (4) the extent to which Gibbs & Hill was provided with all the information about the performance of the support that they needed for the purpose of doing a revised pipe run analysis and a local pipe stress analysis, (5) the reason that these supports were unstable, (6) how Applicant identified these instabilities and the process by which it resolved (or is resolving) them, including the paper trail of that process, and (7) the potential safety significance of these deficiencies.

The Board acknowledges that its conclusions about the adequacy of Applicant's program to identify analogous problems or to promptly correct design deficiencies was a conclusion based on a record that may have been incomplete. The Design Decision should be interpreted to be consistent with this statement.[22]

3. Walsh and Doyle

Applicant states that it never intended to impugn the veracity of Walsh and Doyle[23] and has asked that we clarify that fact for our record, which we gladly do. When the Board stated that Applicant had used the limited role of the STRUDL Group to question the credibility of Mr. Walsh and Mr. Doyle we might have more correctly stated that they used the limited role of that group in the total design sequence as a way of arguing that the testimony was entitled to less weight.

We also accept Applicant's request for clarification concerning the breadth of knowledge of Mr. Walsh and Mr. Doyle. It accords with our understanding that

> Walsh and Doyle had a limited *vertical* view of the entire support design *process*, by virtue of the function of the group they worked in[, but] they had a broad *horizontal* view from which to observe a large number of support *designs* in the combined year and one-half they were employed in the STRUDL group.[24]

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[22] Our summary of our own conclusion was that Applicant has "not demonstrated the existence of a system that promptly corrects design deficiencies . . ." Design Decision, 18 NRC at 1412. Our conclusions were based on the evidentiary record as it existed. *See also* Design Decision, 18 NRC at 1453 (acknowledging that further proof and analysis could cure the Board's difficulties).

[23] Applicant's Findings at 23-24. *Compare*, however, CASE's Answer in Doyle Deposition at 3. (We are not aware of the issue of the *Circuit Breaker* to which CASE refers, but we are confident that it will be brought to our attention when intimidation matters are litigated.)

[24] Applicant's Reconsideration at 26.

We do not think that Mr. Walsh or Mr. Doyle disagree with this characterization.[25]

On the other hand, we continue to believe that there would be serious repercussions for our confidence in the design of other portions of Comanche Peak were we to continue to be uncertain as to whether there were serious deficiencies in the design process for pipe supports or in specific designs for pipe supports.

4. Specific Stability Questions

Applicant urges that we reconsider our finding[26] in which we questioned whether the rate of unstable NPSI supports would be similar to the rate of unstable supports by the other two pipe support design groups. Applicant's request is based on the Affidavit of Mr. Finneran, dated June 3, 1983, and apparently not relied on either in Applicant's Findings or Applicant's Reply. Our review of that document, which was submitted to the Board at its request and should be considered to be in evidence, persuades us that the design review had progressed further than we had thought.[27] Consequently, if evidence persuades us of the adequacy of that review, including the appropriateness of Applicant's definition of instability (which has not been discussed) and the thoroughness of its survey examination, we will at that time accept its conclusion that only 21 of 13,681 supports, drawn from all design groups, were unstable.[28] Such a finding would, of course, go a long way toward giving the Board confidence in the stability of supports.

However, we decline to accept Applicant's suggestion that we may have inadvertently relied on a SIT Report discussion regarding "piping systems" in drawing conclusions about piping supports. The full quote from page 28 of the SIT Report is [emphasis added]:

> It is not general industry practice to explicitly address the overall stability of piping systems *together with their supports* in design guidelines. Rather, it is standard industry design practice to address only the structural integrity of supports in design guidelines. The Applicant's practice corresponds to this industry practice. Thus, no explicit design guidelines address overall stability. Functional adequacy, including

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[25] It would appear to be time for the Staff and Applicant to confer in detail with Mr. Walsh and Mr. Doyle about *all* the deficiencies they allege. *See* CASE's Answer in Doyle Affidavit at 4 (there appear to be further problems that Mr. Doyle and Mr. Walsh have not yet brought up).

[26] Design Decision at 1426 n.68. Note that the reference should be to Applicant's Reply rather than to Applicant's Findings.

[27] We interpreted Applicant's citation of earlier testimony to have been a representation that the review had *not* progressed as far as it apparently has progressed. Applicant's Reply at 13 n.6, relied on earlier testimony and did not cite the Finneran Affidavit, which was filed 3 months previously.

[28] Finneran Affidavit at 3-5.

> stability, of the overall piping system is typically a result of the normal iterative design and review process.

We relied on this passage for a finding that there were no design guidelines that address stability of pipe supports.[29] We do not understand how the iterative design process would substitute for such guidelines, although we may be persuaded of that through further proof. Furthermore, as we explained, we rejected the SIT's conclusions, found in the unquoted remainder of the paragraph we have cited, that stability problems may be avoided by cinching up U-bolts around pipes.

We note that this discussion appears within a section of the SIT Report devoted to "Stability of Pipe Supports Designed for CPSES."[30] Immediately following the paragraph we discussed above, there is a paragraph about the identification of unstable, nonrigid supports in Applicant's design process.[31] This discussion does not, however, track Applicant's review process from the time Applicant became aware of instability problems, probably because the SIT was not concerned about the question of whether or not deficiencies were being cured promptly.

A consequence of the SIT's approach, as explained in our record, is that the Board was left without a reasonable explanation of: (1) why design guidelines concerning stability were not necessary, and (2) whether design deficiencies are corrected promptly. Our conclusion is that this aspect of our decision is correct.

On another matter, we find that we properly construed the SIT Report's statement that "[d]esign modifications under *consideration* [emphasis added] by the Applicant are intended to prevent rotation of the box frame around the axis of the supported piping."[32] If the SIT meant to indicate that this problem had been resolved, the word "consideration" was ill-chosen. If the SIT would like to clarify its testimony or the Applicant would like to document its resolution of this problem, this aspect of our record might then be resolved to Applicant's satisfaction, but we do not think the SIT Report bears the meaning Applicant urges.[33]

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[29] Design Decision, 18 NRC at 1426.
[30] SIT Report at 27.
[31] *Id.* at 28.
[32] *Id.*
[33] Applicant's Reconsideration at 24.

5. *Friction on Pipes Attributable to U-Bolts*

We accept Applicant's clarification that it uses SA-36 steel in U-bolts, rather than the equivalent SA-307 steel we said it used.[34] However, we decline to rule on Applicant's new argument concerning the interpretation of ASME Code Section XVII-2462.1-31. In particular, we do not know whether the quoted section applies by analogy to the use of SA-36 steel to produce clamping forces that will restrain rotation of a pipe[35] and we have no evidence either about how great those clamping forces are or how great they need to be.

We do not consider it essential to our findings that Applicant may have initially designed its U-bolts to be cinched down. Although we consider the SIT Report, on rereading, to be somewhat ambiguous on this point, our finding on this subject merely helped us to feel that we understood how this possible problem of improper use of U-bolts arose. Should we be convinced that U-bolts were designed to be cinched down,[36] we would still need to be convinced that they exert sufficient clamping force to prevent rotation. If they do not exert sufficient force, the argument about the initial concept of U-bolts will only deprive us of an explanation that helped us to understand how this might have arisen. Applicant's argument does not persuade us that the U-bolts will exert sufficient force to restrain rotation.

In concluding our discussion of this point, we would note that the systematic discussion of instability which we have asked for, above, could help us to understand the nature of the stability problem and relate it to this question of clamping force. There is nothing in our record that quantifies in any way the amount of clamping force necessary to avert instability.

6. *Clamping Force*

The Board agrees with Applicant's statement that ASME Code Section XVII-2461.1-1 does not state that local stresses from SA-307 steel are too great, but we never gave that section that interpretation. The only purpose of our mention of this section in the context of local pipe

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[34] Applicant's Reconsideration at 28. However, the label attached to this steel does not seem to be significant since the different labels apparently refer to the same material applied to different uses. *See* CASE's Answer in Doyle Affidavit at 4.

[35] Although his statement is not yet in evidence, Mr. Doyle believes that ASME XVII-2462 applies and that Applicant is not in compliance with it. CASE's Answer in Doyle Affidavit at 4. This matter may be litigated.

[36] Mr. Doyle apparently will testify (and produce evidence) that the manufacturer did not intend these U-bolts to be cinched down. CASE's Answer in Doyle Deposition at 5.

stresses was to negate the possible inference from that section that SA-307 steel could not induce excess stresses. As we said, that section does not, however, exclude that possibility.[37]

With respect to clamping forces, we admit that there is substantial persuasive force to Applicant's new argument that we have erroneously equated forces in pounds with stresses in psi.[38] However, we are still without any explanation of the magnitude of the local stresses caused by the "soft" pipe clamps and we are confident that such an explanation should be easy to provide in the course of Applicant's forthcoming explanation of its treatment of local stresses from stiff pipe clamps.

At Applicant's request, we have also reexamined our discussion of the Staff's testimony about inspections of U-bolts.[39] We find no error. The Staff relied on the inspection as a way of assuring that the U-bolts have not been overtensioned.[40] However, "overtensioning" should be understood in the context of the combined load to be faced by the U-bolts, including subsequent thermal and seismic stresses that are not observed during the walkdown. We conclude that Staff was incorrect in placing any substantial reliance on walkdown inspections as a method for determining that the preloading stresses are acceptable.

A further concern of Applicant is that we should not have stated that its engineers may not have been "sufficiently sensitive to plant safety."[41] However, our statement came in the context of a discussion of whether localized stresses have been adequately considered with respect to *stiff pipe supports.* In that context, it is our understanding that the stresses exceed a reasonable margin of safety but that Comanche Peak's engineers did not attend to that problem, even though an analogous problem concerning "soft" supports had been called to their attention by CASE. If we should subsequently receive evidence that reasonable consideration was given to localized stresses from stiff pipe supports, we would then find it appropriate to rescind our characterization of the engineers.

With respect to whether or not Mr. Doyle presented "detailed calculations" of thermal stresses on U-bolts, we may have made a semantic error in so characterizing his testimony, but Mr. Doyle discussed test data that he used to extrapolate data he considered relevant to the U-bolt problem.[42] CASE's findings discuss the precise amount of thermal

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[37] Design Decision, 18 NRC at 1431.
[38] Applicant's Reconsideration at 31.
[39] *Id.* at 30.
[40] SIT Report at 32.
[41] Applicant's Reconsideration at 32, *citing* Design Decision, 18 NRC at 1434.
[42] CASE's Findings at IV-16.

expansion that would be expected for a pipe/U-bolt assembly covered with 900° insulation and also calculates the portion of the U-bolt that would not be in contact with the pipe at all. Given Mr. Doyle's earlier calculations of stresses from pretensioning, which equal or exceed the total allowable, these "calculations" or "extrapolations" from experimental results required that Applicant answer.[43]

Applicant also asks that we acknowledge that the responsibility for local pipe stress analysis has been assigned to Gibbs & Hill; however, the evidentiary support offered for this statement is a weak reed. Applicant points to a portion of the SIT Report dealing with Welded Stepped Connections.[44] That section states that Gibbs & Hill analyzes "local effects due to integral attachments." However, it does not discuss any responsibility to analyze local effects from nonwelded attachments and it is our understanding of the iterative design process, based on a portion of the record made subsequent to the filing of Walsh/Doyle Findings, that level of detail usually provided to Gibbs & Hill is insufficient to make local stress analysis possible.[45] We are also not aware of any local stress analysis performed on nonwelded attachments or of any analysis that demonstrated that such an analysis was not necessary. With respect to "stiff" supports, at least, it appears to be necessary but not to have been done.

7. AWS Code

In its request for us to reconsider our findings on the AWS Code, Applicant does not appear to have understood the basis for our conclusions, so we will attempt to state them in different terms. Applicant claims to comply with the ASME Code by performing weld qualification tests. However, it has not described those tests to us so we do not know the extent to which compliance with those tests would satisfy other industry standards found in the AWS Code. Applicant has admitted that some AWS Code standards are applied by reference despite the ASME Code standards. We want to have a basis for determining whether Applicant has correctly defined the standards that should be applied by reference and those that need not be applied because they are obviated by compliance with the ASME Code.

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[43] This argument, which we consider to be largely semantic, does not seem sufficiently serious to have found its way into Applicant's motion.

[44] SIT Report at 49.

[45] Taylor, Tr. 8922-25.

Applicant also has questioned our findings about when Mr. Doyle informed it that AWS Code provisions should be applied to Comanche Peak. Applicant appears to be correct that the finding is based on a CASE finding that was not supported by the record.[46] However, this error is not relevant to our basic concern about whether AWS Code provisions are being applied to Comanche Peak. It is relevant to the question of whether Applicant has promptly corrected welding deficiencies brought to its attention. In the instance of the Beta provisions, adopted on May 11, 1982,[47] it would be helpful if Applicant explains and documents how its quality assurance program for design handled this problem with respect to each of the design groups, including how the problem was detected and what was done to assure the acceptability of previously made welds.[48] With respect to other AWS provisions, the operation of the quality assurance program need not be explained unless we first find that there were deficiencies in not applying those other AWS provisions.

With respect to the application of Korol and Mirza criteria to NPSI rear brackets,[49] we accept Applicant's clarification that it has not adopted those criteria. However, we still wish to know whether the particular rear brackets are adequately designed.

Concerning repair of welds by "capping," we disagree with Applicant that Mr. Doyle did not submit relevant testimony.[50] CASE's findings argue that complete fusion is needed for an adequate weld and it cites Mr. Doyle's testimony at Tr. 6262 in support of that proposition. Applicant never answered this argument and has not shown a basis for believing that its repair procedures are properly qualified or are acceptable. We agree with Applicant that Mr. Compton supported its position and not CASE's,[51] but we are unwilling to accept Mr. Compton's unexplained acceptance of cap welding as "customary" as assurance that the welding repair procedure is adequate.[52]

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[46] Applicant's Reconsideration at 35.
[47] CASE Exhibit 716 at 4 (page 3 of guidelines).
[48] *See* CASE's Answer in Doyle Deposition at 7.
[49] Design Decision, 18 NRC at 1436.
[50] Applicant's Reconsideration at 36.
[51] Tr. 7957-58.
[52] It would have been helpful to us to have had Applicant's comment on this point prior to reaching our decision. Inevitably, review of one party's findings without the benefit of an adversary comment will lead to too-ready acceptance of that party's point of view. In this instance, we too-readily accepted CASE's characterization of the Compton testimony.

8. Generic Stiffness Values

Applicant correctly perceives that our problem with generic stiffness values is not with the study submitted to justify those values but with Applicant's initial justification.[53] In this instance, the SIT made an adverse finding and Applicant never explained why its design had the alleged deficiency. This apparently was part of the Applicant's and Staff's approach, which was to show that deficiencies had no consequence but not to address how deficiencies had arisen or whether they were adequately addressed by quality assurance.

We also agree that the one specific design problem mentioned at 1443 of the Design Decision was not related to the generic stiffness problem. This might more properly have been discussed in a separate section of our decision, called "Potential Rotation of the Plate in One Support."

9. Differential Seismic Displacement

Applicant's current explanation, which was not available to us prior to issuance of the Design Decision, persuades us that Applicant may be able to explain this problem to our satisfaction. However, our record is still devoid of evidence concerning how it came about that PSE violated its own design guidelines, how this event came to be reflected in the design quality assurance system, and whether this problem was resolved promptly, as required by 10 C.F.R. Part 50, Appendix B, Criterion XVI.

10. Testing of Richmond Inserts

We fail to understand from Applicant's argument why the Board may have been incorrect in its Richmond Insert findings. Although it is true that the Staff's findings, adopted by the Board,[54] failed to mention shear cone analysis done by the Applicant,[55] Applicant has not persuaded us that this omission is relevant to the Staff's findings concerning "allowable tension loads."[56] The SIT Report concluded that, "[a]s a result of the Applicant's assumptions as to shear load capability [in Applicant's calculation of allowable tension loads], the specified shear load allowables are 50 percent higher for the 1½-inch insert than the value

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[53] Applicant's Reconsideration at 37-38. However, CASE intends to challenge the appropriateness of using the stiffness study to generalize to other plant systems. This matter should be covered by the Plan Applicant intends to submit. CASE's Answer in Doyle Affidavit at 8.

[54] Design Decision, 18 NRC at 1445-46.

[55] Applicant's Reconsideration at 39-40.

[56] Design Decision, 18 NRC at 1445. NRC Staff Response to Applicant's Reconsideration, January 27, 1984, at 6-7.

recommended by the manufacturer."[57] The SIT Report found this to be a deficiency both because this was an inadequate safety margin, in the absence of further testing, and because "standard industry practice requires that testing be done to confirm the [published allowable shear] values."[58]

Applicant correctly states that the ultimate question is whether "the plant, *as built,* can and will be operated without endangering the public health and safety."[59] However, we wish to be assured that design quality assurance for pipe supports (including Richmond Inserts) has been adequate. If it has not been adequate, then we will examine other design issues before reaching a conclusion about the ultimate question of the safety of the plant.

11. Axial Torsion

This is a part of our decision to which we addressed unusual attention. Our reasoning was set forth in the Design Decision, 18 NRC at 1446-49. Of the two principal analyses set forth in our record, by Chen and Doyle, we prefer the view expressed by Mr. Doyle, and Applicant has not even attempted to explain why we have erred. The fact that Applicant has had "independent opinions of outside experts" corroborating its view is certainly not even entitled to our attention.[60]

II. STAFF'S RECONSIDERATION MOTION

The Staff requests us to rescind that portion of our decision in which we state that the Staff argued that Appendix B did not apply to design. On one issue we consider that the Staff's point is valid, and an analogous point made by Applicant is also valid.

Obviously, both the Staff and Applicant have always believed that Appendix B, Criterion III, which addresses design of a plant explicitly, applies to the design of a nuclear power plant. To this extent, both have acknowledged the applicability of Appendix B. However, both Applicant and Staff have taken an approach to this litigation that seems inconsistent with the realization that Criterion XVI, "Corrective Action," applies to the design of a plant. That is what we think Mr. Taylor meant when

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[57] SIT Report at 19.

[58] *Id.*

[59] [Emphasis added by Applicant in Applicant's Reconsideration at 40.] *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-756, 18 NRC 1340, 1345 (1983).

[60] Applicant's Reconsideration at 41. CASE correctly points out that these are "phantom" experts who, "[h]aving struck . . . move on without cross-examination or rebuttal." CASE's Answer at 25.

he said "Appendix B . . . does not address nonconforming design. It only addresses the conformance of the installed hardware and the inspection thereof to the design."[61] Because Criterion XVI does not require reports called "nonconformance reports" for construction or for design, we can think of no other appropriate interpretation of these remarks than that Criterion XVI does not apply to design.

We are pleased that both Applicant and Staff now agree that Appendix B is applicable to design. In particular, Applicant seems to agree that Criterion XVI is applicable to design. We infer that the Staff also agrees with that position.

III. CASE'S RECONSIDERATION MOTION

In general, we do not interpret CASE's Reconsideration as a challenge to our decision. It is more in the nature of anticipatory objections to the Plan that Applicant will file in response to our decision. To the extent that we suggested criteria for such a Plan, these were just suggestions, not binding on either party. It will be open to CASE to attack CYGNA as an inappropriate design review organization, providing that it has the evidence to do so.[62] It will also be open to CASE to attempt to diminish the credibility of the CYGNA report, should one be submitted, should it be able to establish a legitimate conflict of interest concerning the relationship between Texas Utilities Electric Company and CYGNA.

IV. REOPENING THE RECORD CONCERNING APPENDIX B

CASE argues, quite forcibly, that Applicant should not be permitted to submit evidence concerning its compliance with Appendix B, Criterion XVI. CASE believes that Applicant already had its opportunity to present the evidence and that it did not do so. We believe CASE's point is a serious one and set forth the following extensive quotation from its filing:

> Applicant has had more than ample time and occasion to propose additional hearings if at any time they felt they were warranted. Applicant *chose* not to do this. Instead,

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[61] Taylor, Tr. 6707.

[62] We will not determine the merits of the conflict-of-interest controversy at this time because the matter has not been fully litigated. However, the current state of the record tends to minimize the importance of the conflict-of-interest allegation. Applicant's Answer to Case's Motion for Reconsideration of Board's 12/28/83 Memorandum and Order (Quality Assurance for Design), February 1, 1984, Affidavit of David H. Wade (attached).

> Applicant has subjected the Licensing Board and parties to a constant barrage of pleadings and arguments to hurry up and close the record because "delay" by the Board could adversely impact Applicant's phony fuel load date.
>
> Applicant was arguing as far back as September *16, 1982,* that "the record as it stands right now is more than adequate for the Board to make findings on the allegations raised by Mr. Walsh and Mr. Doyle." (Tr. 5416/11-14.) Applicant's constant haranguing to *close the record* has continued right up until the Board's 12/28/83 Order when Applicant finally perceived that it had *had* its chance and had blown it. . . .
>
> Throughout their pleading, Applicant *admits* that the Board *cannot* find that Applicant's pipe support design process satisfies the requirements of 10 C.F.R. Part 50, Appendix B. It argues that the Board should not find it in violation of Appendix B but should instead, without any basis in the record, allow Applicant to basically go back and start over at this late date. CASE can just imagine the response of the Applicant and NRC Staff had CASE made such a suggestion! In fact, the Board has refused to allow CASE to supplement the record in some instances already. . . . The Board cannot use a double standard in these proceedings.[63]

Regrettably, we are unable to accept CASE's suggestion because we do not consider reopening by either party to be entirely symmetrical.[64] We are permitting Applicant to reopen the record without a showing of good cause because it does not seem to us logical or proper to close down a multi-billion-dollar nuclear plant because of a deficiency of proof. While there would be some "justice" to such a proposition, there would be no sense to it.

Furthermore, we note that intervenors receive several procedural advantages in our proceedings that also are not fully symmetrical and that compensate for the application of different standards for reopening the record. First, the Board has the authority to raise important issues *sua sponte,* thereby protecting public safety and the environment even when intervenors may not have raised the issues. Second, the Board has the responsibility to assure the adequacy of the record, thereby causing it to pursue more fully matters of public safety that may not have been fully

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[63] CASE's Answer at 5-6.

[64] We have considered whether CASE's point about reopening the record is irrelevant because the record has never been closed. However, there is no clear guidance concerning whether the record should have been closed. We conclude that the close relationship between the questions of leaving the record open for inadequacy or closing the record and entertaining a motion for reconsideration requires the use of similar standards in these two situations.

In this case, there is a special reason to consider these two questions to be similar. Prior to our decision to leave the record open we had already given the parties a chance to file supplemental briefs, accompanied by affidavits, on two issues — the AWS Code and Pipe Clamp Stresses — that we still consider to be inadequately addressed in our record.

We conclude that it is appropriate to consider the posture of this case to be similar to the posture of a case in which applicant has filed a motion to reopen the record. Consequently, we have chosen to address the applicability to this case of the previously enunciated standards for reopening the record.

pursued by intervenors. (For example, the Board has considered certain construction deficiency questions even though CASE failed to file findings on those issues.) Third, the burden of proof generally falls on applicants, who must therefore attempt to appreciate and rebut, by a preponderance of the evidence, all the implications of all issues raised by intervenors.

In one sense, the reopening of the record does not seem fair. CASE has been put to unnecessary expense because it will have to prove its case twice. In addition, the need to continue disputing an already closed issue is an unnecessary tax on its volunteer resources. Because of the burden imposed by our decision and the lack of precedent for failing to apply the standard for reopening the record to Applicant, we have extended to the parties, including CASE, an invitation to request that we refer the Design Decision for review by the Appeal Board.[55]

V. THE ITERATIVE DECISION PROCESS

We are hopeful that the Board's response to the pending motions for reconsideration will serve two purposes. First, to correct errors that have been brought to our attention. Second, to help to clarify matters in our decision that the parties had difficulty interpreting or that they considered to be in error.

Our efforts to encourage the filing of motions to reconsider are, we realize, somewhat unusual. However, we consider the exercise to be a constructive way to refine issues and manage the remainder of the proceeding.

We anticipate that the next round of hearings should be the last. At some point, prolongation of hearings would represent a denial of due process to one or more of the parties. We encourage the parties to present their evidence and to prepare their required Proposed Findings with care, being sure to present a reasoned basis for the decision sought from the Board.

ORDER

For all the foregoing reasons and based on consideration of the entire record in this matter, it is, this 8th day of February 1984,

ORDERED

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[55] Design Decision, 18 NRC at 1456.

That Footnote 37 be struck from our Memorandum and Order (Quality Assurance for Design), LBP-83-81, prior to publication.

That LBP-83-81 shall in other respects be unmodified but that it shall be interpreted in light of the Memorandum accompanying this Order.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Peter B. Bloch, Chairman
ADMINISTRATIVE JUDGE

Walter H. Jordan (by PBB)
ADMINISTRATIVE JUDGE

Kenneth A. McCollom (by PBB)
ADMINISTRATIVE JUDGE

Bethesda, Maryland

Cite as 19 NRC 533 (1984) LBP-84-11

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Morton B. Margulies, Chairman
Dr. Jerry R. Kline
Dr. David L. Hetrick

In the Matter of **Docket No. 50-261-OLA**
(ASLBP No. 83-484-03-LA)

CAROLINA POWER & LIGHT COMPANY
(H.B. Robinson Steam Electric Plant, Unit 2)

February 10, 1984

The Licensing Board dismisses this proceeding finding that the withdrawal of all remaining contentions by the sole intervenor has eliminated the basis for which the adjudicatory hearing was ordered.

ORDER DISMISSING PROCEEDING

We ordered the holding of an adjudicatory hearing on the application of Carolina Power & Light Company to amend its license for operation of the H.B. Robinson Steam Electric Plant, Unit 2, to permit repair of the steam generators by replacement of major components. The decision was based on four contentions that were submitted by the Hartsville Group, a party intervenor.

Prior to the commencement of the adjudicatory hearing on February 7, 1984, the Hartsville Group withdrew one of the contentions and on

motion of the Applicant we ordered the dismissal of another. During the course of the hearing the Hartsville Group withdrew its two remaining contentions thereby eliminating the entire basis for which the adjudicatory hearing was ordered. The need for a hearing no longer exists and therefore the adjudicatory proceeding is dismissed.

The matter of the amendment of the license may be handled by the Nuclear Regulatory Commission Staff.

It is so *Ordered.*

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Morton B. Margulies, Chairman
ADMINISTRATIVE LAW JUDGE

Dated at Bethesda, Maryland,
this 10th day of February 1984.

Directors' Decisions Under 10 CFR 2.206

DIRECTORS' DECISIONS

Cite as 19 NRC 535 (1984) DD-84-4

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

Docket No. 50-320
(10 C.F.R. § 2.206)

GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION
(Three Mile Island Nuclear Station, Unit 2)

February 17, 1984

The Director of the Office of Nuclear Reactor Regulation denies a petition submitted by Marvin Lewis requesting that the Commission postpone the lifting of the reactor pressure vessel head at the Three Mile Island Nuclear Station, Unit 2.

TECHNICAL ISSUE DISCUSSED: PYROPHORIC CONDITIONS

Based upon the staff's reviews and experience to date, there does not appear to be an undue risk to public health and safety from the possible formation of pyrophoric materials in the pressure vessel.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

By letter dated September 13, 1983 to the Secretary of the Commission, Mr. Marvin Lewis requested that the Commission postpone the lifting of the reactor pressure vessel head at Three Mile Island Nuclear Station, Unit 2 (TMI-2). Mr. Lewis' letter was supported by a letter dated November 1, 1983, from Professor Earl Gulbransen of the

University of Pittsburgh to the Secretary of the Commission. Attached to Professor Gulbransen's letter was a paper on the effects of oxygen, nitrogen and hydrogen on the mechanical properties of zirconium. Mr. Lewis' letter and the supporting letter from Professor Gulbransen were referred to the Office of Nuclear Reactor Regulation for treatment as a petition pursuant to 10 C.F.R. § 2.206 of the Commission's regulations.

I have reviewed the information contained in Mr. Lewis' petition, the information in Professor Gulbransen's letter of November 1, 1983, and other information pertinent to the issues raised by the petition. For the reasons stated in this decision, Mr. Lewis' request is denied.

PETITIONER'S ASSERTION AND REQUEST

Mr. Lewis contends that pyrophoric materials[1] may well exist within the reactor pressure vessel (RPV) and that the quantity of these materials is unknown. As a consequence, Mr. Lewis believes that the lifting of the RPV head is a "dangerous maneuver" which could result in a pyrophoric event. Mr. Lewis bases the likely existence of pyrophoric materials within the RPV on the conditions which existed within the vessel during the TMI accident. Mr. Lewis contends those conditions were favorable for the formation of pyrophoric zirconium or zirconium hydride, which can react violently when exposed to air. Consequently, Mr. Lewis requests that the RPV head lift be postponed pending a "public review" of the pyrophoricity issue. Mr. Lewis' contentions are supported by Professor Gulbransen, who also asserts that finely divided zirconium or zirconium hydride may well have been formed during the accident. Given the potential pyrophoricity of these materials, Professor Gulbransen warns that these materials must be kept under water pending further characterization of their pyrophoric nature. He urges that the greatest caution be exercised before proceeding with the RPV head lift.

STAFF REVIEW OF THE PYROPHORICITY ISSUE

By letters dated May 25, May 26, and July 20, 1983, General Public Utilities Nuclear Corporation, the TMI Unit 2 licensee, forwarded to the NRC safety evaluation reports to support the planned reactor vessel Un-

[1] Pyrophoric materials are those which are capable of igniting spontaneously in air.

derhead Characterization Study.[2] This study was conducted during the months of August through October 1983 to gather data for the RPV head lift and involved a number of different activities. These activities included the lowering of the water in the reactor vessel to a level approximately 1 foot below the top of the plenum (*see* Figure 1), the measurement of the radiation fields underneath the RPV head, the measurement of the radiation fields around the RPV head and service structure, the visual inspection under the RPV head with a TV camera, the measurement of the topography of the core cavity with an ultrasonic device, and the removal of six samples from the core debris bed. Inasmuch as these activities, specifically the lowering of the water level in the reactor vessel, involved the uncovering of equipment (the plenum cover) which was previously covered with water, it was necessary to address in advance the issue of exposing potentially pyrophoric material to air. Accordingly, the issue of pyrophoricity was addressed by the licensee as part of its Underhead Characterization Study. Thereafter, the hazard posed by pyrophoric materials in the TMI-2 reactor vessel was extensively evaluated by the NRC staff in its review and approval of the Underhead Characterization Study.[3] The staff was particularly concerned with the potential for pyrophoric reactions of materials on the plenum cover and of samples removed from the core debris bed. The staff determined in its safety evaluation that:

(1) the presence of steam (*i.e.*, an oxidizing agent) and the temperature conditions during the accident would make it unlikely that significant quantities of zirconium hydride in a pyrophoric condition were produced during the accident,

(2) the primary system flow dynamics during the TMI-2 accident would not likely have transported large quantities of pyrophoric material, if formed, to the top of the plenum, and

(3) any pyrophoric materials in finely divided form would be dispersed and mixed with inert materials of core debris which would prevent the development of pyrophoric conditions.

Following the staff's approval, the Underhead Characterization Study was conducted by the licensee. As described below, all of the visual observations of the reactor vessel underhead conditions and laboratory

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[2] *See* Letter from B.K. Kanga to L.H. Barrett, 4410-83-L-0098, Underhead Characterization Study (May 25, 1983); Letter from B.K. Kanga to L.H. Barrett, 4410-83-L-0100, Underhead Characterization SER, Core Topography Addendum (May 26, 1983); Letter from B.K. Kanga to L.H. Barrett, 4410-83-L-0133, Underhead Characterization SER, Core Sampling Addendum (July 20, 1983).

[3] Details concerning the staff's review are found in the following letters: Letter from L.H. Barrett to B.K. Kanga, NRC/TMI-83-043, Reactor Vessel Underhead Characterization Safety Evaluation (July 13, 1983); Letter from L.H. Barrett to B.K. Kanga, NRC/TMI-83-053, Response to Core Debris Safety Evaluation Report (SER) (August 19, 1983).

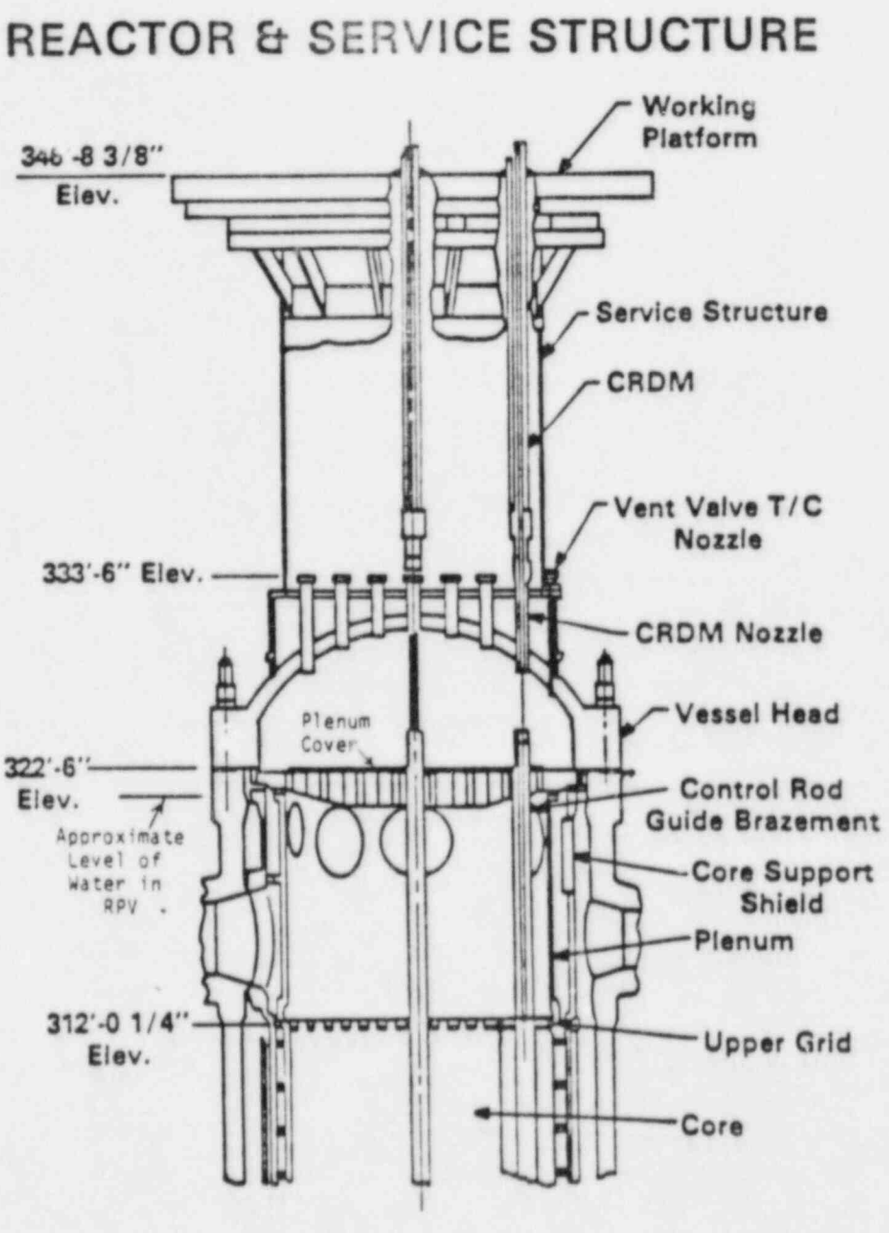
REACTOR & SERVICE STRUCTURE
Working Platform
346 -8 3/8" Elev.
Service Structure
CRDM
Vent Valve T/C Nozzle
333'-6" Elev.
CRDM Nozzle
Vessel Head
Plenum Cover
322'-6" Elev.
Approximate Level of Water in RPV
Control Rod Guide Brazement
Core Support Shield
Plenum
312'-0 1/4" Elev.
Upper Grid
Core

FIGURE 1

analyses of the chemical and pyrophoric properties of samples obtained from components within the reactor vessel and from solids filtered from the reactor coolant support the conclusions reached by the staff in its safety evaluation report.

The activities undertaken during underhead characterization to address pyrophoricity concerns were as follows. As a precaution prior to the lowering of the water level below the top of the plenum, the licensee conducted a closed-circuit television underwater inspection of portions of the plenum cover and observed that only an insignificant layer of material, approximately 1 millimeter in depth, was present on some of the plenum surfaces inspected. This observation verified the staff's conclusion that it was not likely that significant quantities of materials had been transported to the top of the plenum during the accident. Following the visual inspection, the licensee obtained two samples of the material from the plenum surface and the samples were tested for pyrophoricity by various attempts to initiate a pyrophoric reaction. The tests included a spark test (*i.e.*, an attempt to ignite the material with an electrically generated spark) and a flame test (*i.e.*, an attempt to ignite the material with a propane torch with approximate flame temperature of 2300°F). The spark test is perhaps the most reliable test for establishing the pyrophoric characteristics of a material in question as it provides an initiator (*i.e.*, the spark) for a reaction, if one can occur. The flame test is an extreme test that would show whether the material in question has any tendency to ignite at all or whether the material is completely inert.

For comparison with the tests on the plenum samples, the spark and flame tests were performed with some "cold" (*i.e.*, commercially available, nonradioactive elements and compounds) materials in powdered form, including iron, zirconium, and zirconium oxide. The particle size for the iron and zirconium powders was 62 microns or less and the particle size for the zirconium oxide was 125 microns or less. The cold tests demonstrated that the zirconium powder would ignite for both the spark and flame test; however, the material did not ignite spontaneously in the laboratory at atmospheric pressure and ambient temperature (*i.e.*, approximately 70°F). The powdered iron and zirconium oxide failed to ignite in either the spark or flame test.

The spark and flame tests on the samples removed from the plenum also failed to ignite the material, indicating the presence of little, if any, pyrophoric material and the absence of any pyrophoric characteristics. In fact, the plenum samples showed no more tendency to ignite than the "cold" iron and zirconium oxide samples. Both the "cold" laboratory tests and the tests on the plenum samples were videotaped by the licensee and the videotapes were reviewed by the NRC staff.

In addition to the pyrophoricity tests described above, the licensee performed chemical analyses of solids filtered from the reactor coolant system and of the thin films scraped from the surfaces of the control rod drive mechanism (CRDM) leadscrews removed from the reactor vessel head. *See* Figure 1. These analyses indicated the absence of zirconium metal and hydride particles. Based on the visual examinations, analyses and tests which indicate the probable absence of pyrophoric materials on the plenum cover, the NRC approved the lowering of the RPV water level to approximately 1 foot below the plenum surface, which enabled the licensee to proceed with the underhead characterization effort. The water was lowered to this level to simulate the radiological conditions that will exist for the RPV head lift. As a result, the plenum cover has been exposed to air since August 20, 1983, without any adverse impact. This condition has been visually confirmed by closed-circuit television inspection conducted subsequent to the lowering of the water level. Additionally, the six samples which were removed from the core debris bed have been exposed to air for several months with no indication of pyrophoric reactions.

The information resulting from the visual observation of the plenum and the analyses and tests on materials removed from within the RPV indicates that: (1) little material is present on the plenum surface, (2) the material on the plenum surface is not pyrophoric, (3) material filtered from the reactor coolant system during the accident lacks any pyrophoric content, (4) material scraped from CRDM leadscrews lacks any pyrophoric content, and (5) samples of material removed from the damaged core have not shown any tendency to undergo a pyrophoric reaction. Accordingly, the staff concludes that there is little potential for a pyrophoric event with the plenum cover exposed to air. The information provided by Mr. Lewis and Professor Gulbransen is of a general nature concerning pyrophoricity and the dangers that phenomenon poses for the head lift. The staff does not disagree with the petitioner that pyrophoric conditions could have developed in the RPV following the TMI accident. For that reason, prior to the receipt of the petition, the staff considered the issue of pyrophoricity as it relates to the licensee's proposed Underhead Characterization Study. Based upon the staff's reviews and the experience to date as described above, there does not appear to be an undue risk to public health and safety from the possible formation of pyrophoric materials in the pressure vessel.

With regard to Mr. Lewis' and Professor Gulbransen's cautions about proceeding with the RPV head lift on the basis of pyrophoricity concerns, it should be noted that the water level in the reactor vessel is presently at 1 foot below the plenum cover. This level is precisely that

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT

Richard C. DeYoung, Director

In the Matter of **Docket No. 50-293**
(10 C.F.R. § 2.206)

BOSTON EDISON COMPANY
(Pilgrim Nuclear Power Station) **February 27, 1984**

The Director of the Office of Inspection and Enforcement grants in part and denies in part a petition submitted by the Massachusetts Public Interest Research Group requesting that the NRC take action with respect to the state of emergency planning at Pilgrim facility. Among the specific relief requested was the initiation of the 4-month period specified by the Commission's regulations within which to correct the alleged deficiencies at the Pilgrim facility and consideration by the Commission as to whether the state of emergency preparedness in conjunction with the alleged poor safety record at the Pilgrim facility warrants immediate shutdown or operation of the facility at reduced power.

TECHNICAL ISSUE DISCUSSED: EMERGENCY PLANNING

The Federal Emergency Management Agency takes the lead in offsite emergency planning and reviews and assesses State and local emergency plans for adequacy. The NRC assesses the licensee's site emergency plans for adequacy and makes decisions with regard to the overall state of emergency preparedness.

EMERGENCY PLAN: EMERGENCY PLANNING ZONE

The Commission's regulations preclude an Emergency Planning Zone (EPZ) radius significantly in excess of 10 miles. An EPZ of about 10

miles is considered large enough to provide a response base which would support activity outside the planning zone should this ever be needed.

EMERGENCY PLAN: EVACUATION PLAN

The Commission has adopted an approach to emergency planning in which evacuation is only one of several possible responses to an emergency. It is unlikely that evacuation of the entire plume EPZ would be required in the event of an accident. Pending a final determination regarding the adequacy of evacuation time estimates, it is reasonable to conclude that the public health and safety will be reasonably assured in the interim by continued licensee compliance with Commission requirements regarding emergency planning and other health and safety requirements aimed at keeping the probability of serious accidents very low.

INTERIM DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

INTRODUCTION

In its "Petition of the Massachusetts Public Interest Research Group for Emergency and Remedial Action" (Petition) dated July 20, 1983, the Massachusetts Public Interest Research Group (hereinafter referred to as Petitioner) requested that the Nuclear Regulatory Commission (NRC) take action to remedy alleged serious deficiencies in the offsite emergency response plans for the Pilgrim Nuclear Power Station in Plymouth, Massachusetts. Among the specific relief requested was the initiation of the 4-month period specified by the Commission's regulations, specifically 10 C.F.R. § 50.54(s)(2)(ii), within which to correct the alleged deficiencies at the Pilgrim facility and consideration by the Commission as to whether the state of emergency preparedness in conjunction with the alleged poor safety record[1] at the Pilgrim facility

[1] The Petition, in the relief it requested, made reference to the poor safety record at the Pilgrim facility as a reason for granting the relief. As stated in the September 6, 1983 letter to the Petitioner, with regard to Pilgrim's safety record since 1981, in mid 1982 the licensee initiated a Performance Improvement Plan pursuant to an NRC Order (47 Fed. Reg. 4171 (1982)) to improve the plant's performance. This plan, which was submitted to the NRC on July 30, 1982, has senior utility management involvement in assuring quality and has resulted in marked improvement in Pilgrim's operating record over the *(Continued)*

warrants immediate shutdown or operation of the facility at reduced power.

The Petitioner's request is based upon a report by the Petitioner entitled "Blueprint for Chaos II: Pilgrim Disaster Plans Still a Disaster" (hereinafter referred to as the Chaos II Report), the "Comments of Attorney General Francis X. Bellotti Relative to Off-Site Emergency Planning for the Pilgrim Nuclear Power Station" (hereinafter referred to as the Comments of the Attorney General), and upon two reports by the Federal Emergency Management Agency (FEMA) – "Interim Findings: Joint State and Local Radiological Emergency Response Capabilities for the Pilgrim Nuclear Power Station, Plymouth, Massachusetts," dated September 29, 1982, and "Report on the Pilgrim Nuclear Power Station Siren Test, June 19, 1982," dated January 1983.

In its Chaos II Report, the Petitioner has reviewed offsite emergency planning for the Pilgrim facility and claims to have identified certain deficiencies with regard to the size of the plume exposure pathway Emergency Planning Zone (EPZ), advance information provided to the public on what actions to take in the event of an emergency, required notifications during an accident itself, and evacuation planning and sheltering including the adequacy of reception and medical facilities. In each of these areas, the Petitioner makes various recommendations as to actions which it believes are required to improve the state of preparedness at the Pilgrim facility. The Petition states that the findings of the Chaos II Report are supported in part by a telephone survey of 100 residents of the EPZ conducted by the Petitioner. The survey was conducted between February and May of 1983.

In further support of its Petition, Petitioner references the Comments of the Attorney General which also question the adequacy of emergency planning for the Pilgrim facility. Specifically, Petitioner argues that the Comments of the Attorney General support Petitioner's claims that the EPZ has been drawn too small and that evacuation plans are inadequate.[2] The Comments of the Attorney General are based in part upon a study prepared for the Attorney General by MHB Technical Associates of San Jose, California.

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past 2 years. The last Systematic Assessment of Licensee Performance report, for the period July 1, 1982 to June 30, 1983, gave Pilgrim a Category 1 ("high-level performance") rating in emergency planning, a Category 2 ("satisfactory performance") rating in plant operations, and an overall Category 2 rating in the eight functional areas assessed. Since late 1981, there has been continued improvement in Pilgrim's performance with respect to operational safety. A satisfactory level of management attention and involvement in plant safety matters now exists.

[2] The Comments of the Attorney General were forwarded to FEMA on August 25, 1982. While the Comments of the Attorney General raise other issues related to the Pilgrim facility, the Comments are relied upon by the Petitioner only to support its claims regarding the adequacy of the current EPZ size and evacuation planning. *See* Petition at 6; Chaos II Report at 26.

DISCUSSION

Emergency preparedness at the Pilgrim facility has been reviewed by both the NRC and FEMA. The NRC Final Rule on Emergency Planning (45 Fed. Reg. 55,402) became effective on November 3, 1980. FEMA and the NRC have jointly developed criteria for implementing these regulations; specifically the agencies have developed a guidance document entitled, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654/FEMA REP-1, Rev. 1 (NUREG-0654). The cooperative relationship between NRC and FEMA is described in a "Memorandum of Understanding Between NRC and FEMA Relating to Radiological Emergency Planning and Preparedness" of January 1, 1980 (45 Fed. Reg. 5847). Under the Memorandum of Understanding, FEMA takes the lead in offsite emergency planning and reviews and assesses State and local emergency plans for adequacy. The NRC assesses the licensee's site emergency plans for adequacy and makes decisions with regard to the overall state of emergency preparedness. The NRC and FEMA undertook a review of the state of emergency preparedness at the Pilgrim facility in accordance with the requirements of the final rule in emergency planning.

NRC REVIEW

The NRC initiated the process of reviewing the licensee's emergency plan in 1979 in connection with its review of the construction permit application for Pilgrim Unit 2. Following the rule change in November 1980, an upgraded site emergency plan was submitted for the Pilgrim facility. The results of the NRC's evaluation of the licensee's upgraded emergency plan and an examination of the implementation of the plan, conducted during an Emergency Preparedness Implementation Appraisal (EPIA) on July 13-24, 1981, are summarized in Inspection Report 50-293/81-15 dated June 22, 1982. The findings of the EPIA indicated that certain corrective actions were required by the licensee in the emergency plan and in the implementation of its emergency plan in order to achieve an effective emergency preparedness program. The EPIA also identified areas of lesser significance where the licensee could improve its emergency preparedness. The licensee responded to the concerns identified by the NRC in a letter dated July 28, 1982, wherein the licensee concluded that the significant findings which had been identified in the EPIA report had been adequately addressed. Following the receipt of the licensee's response to the EPIA report, on August 5, 1982, the

NRC met with the licensee to discuss the status of EPIA findings. The NRC agreed with the licensee's actions on sixteen of the twenty significant findings, and only four of the twenty significant findings required further discussion. These four areas were dose assessment, recommended protective actions, in-plant surveys, and procedures related to emergency repair and corrective actions. After discussion of these four items, it was resolved that the licensee would take the necessary corrective actions. In its November 1, 1982 correspondence, the licensee reported that all planned actions relevant to the significant findings had been completed, informed the NRC of the progress on actions planned pertaining to the improvement items, and transmitted its response to the emergency plan evaluation findings. The licensee's response addressed each item identified in the EPIA. On December 29, 1982, the NRC Region I Office acknowledged the corrective actions that had already been taken and those planned by the licensee and informed the licensee that all corrective actions would be examined during a future inspection.

The licensee's action on the significant findings was verified during follow-up inspections conducted by Region I of the NRC on March 1-4, 1983, and June 21-August 15, 1983, and summarized in Inspection Reports 50-293/83-05 dated April 20, 1983 and 50-293/83-17 dated September 8, 1983. Within the scope of the follow-up inspections, no violations were observed and only one inspector follow-up item was identified.

In addition, on March 3, 1982 and June 29, 1983, the licensee conducted full-scale emergency exercises which were observed by both the NRC and FEMA. The NRC's findings are presented in Inspection Reports 50-293/82-09 dated March 24, 1982 and 50-293/83-16 dated July 29, 1983, in which it was determined that the emergency response actions taken by licensee personnel were adequate to provide protective measures for public health and safety. As a result of these review activities, there continues to be reasonable assurance that onsite emergency preparedness is adequate to protect the public health and safety.

FEMA REVIEW

FEMA, in accordance with the Memorandum of Understanding, has reviewed the adequacy of offsite emergency preparedness at the Pilgrim facility. A preliminary review of the Massachusetts State Radiological Plan was conducted in October 1981 by the Regional Assistance Com-

mittee (RAC).[3] Based on the preliminary review, the RAC concluded that the plan was in an advanced but incomplete stage and that further revision to the plan was required in order to conform to the guidance criteria of NUREG-0654. The NRC requested that FEMA review the process for prompt protective action decisionmaking in Massachusetts based on draft State plans and information submitted to the RAC in early 1982. On June 11, 1982, FEMA issued an interim finding that the current protective action decisionmaking process in Massachusetts was adequate to provide for public protection. Formal submission of emergency plans to the RAC by State and relevant local jurisdictions was followed by the first joint radiological emergency response exercise on March 3, 1982. The exercise involved emergency preparedness organizations at both the State and local levels. The performance of these organizations in implementing their radiological emergency response plans was observed. Deficiencies were identified as a result of this exercise and corrective actions initiated by the parties involved. On September 10, 1982, FEMA Region I issued its "Exercise Report – Joint State and Local Radiological Emergency Response Exercise for the Pilgrim Nuclear Power Station, Plymouth, Massachusetts, March 3, 1982." By memorandum dated November 2, 1983, FEMA provided to the NRC its "Interim Findings – Joint State and Local Radiological Emergency Response Capabilities for the Pilgrim Nuclear Power Station, Plymouth, Massachusetts" dated September 29, 1982. The interim findings were based on a summary evaluation of the Massachusetts Radiological Emergency Response Plan and the exercise of the State and local emergency response plans held on March 3, 1982. Although deficiencies were identified which required corrective action, FEMA found that the Massachusetts State and local emergency plans and preparedness for coping with the offsite effects of radiological emergencies that may occur at the Pilgrim Nuclear Power Station were adequate to protect the public.

The second joint radiological emergency response exercise at Pilgrim was held on June 29, 1983. A seventeen-member Federal team was assigned to evaluate State, local and field activities. By memorandum dated November 29, 1983, FEMA transmitted to NRC its "Final Report of the Joint State and Local Radiological Emergency Response Exercise

[3] There exists in each of the ten standard Federal Regions a Regional Assistance Committee (RAC) (formerly the Regional Advisory Committee) chaired by a FEMA Regional official and having members from the Nuclear Regulatory Commission, Department of Health and Human Services, Department of Energy, Department of Transportation, Environmental Protection Agency, the United States Department of Agriculture and Department of Commerce. The RACs assist State and local government officials in the development of their radiological emergency response plans, review plans, and observe exercises to evaluate the adequacy of these plans and related preparedness. A description of the RAC authority and responsibilities is found in 44 C.F.R. Part 350.

for the Pilgrim Nuclear Power Station, Plymouth, Massachusetts," dated September 26, 1983 (1983 Exercise Report). The 1983 Exercise Report identifies no deficiencies that would lead to a negative finding.[4] Deficiencies requiring corrective action were identified by FEMA in two areas — the State police radio notification system and the transmission of meteorological information. FEMA also identified other deficiencies and additional areas of improvement for consideration by the State and local authorities regarding their offsite emergency preparedness program. FEMA will furnish a copy of the 1983 Exercise Report to the Commonwealth of Massachusetts and will request a schedule of actions for the correction of deficiencies. A copy of the 1983 Exercise Report was sent to NRC Region I on January 12, 1984 for its use in coordinating with FEMA Region I in ensuring that the identified deficiencies are addressed in a timely manner.

Following receipt of the Petition, the Petition and the supporting Chaos II Report were forwarded to FEMA for its evaluation and review since the Petition questioned the adequacy of offsite emergency preparedness at the Pilgrim facility. By memorandum dated November 9, 1983, FEMA provided to the NRC its final report entitled "Analysis of Emergency Preparedness Issues at Pilgrim Nuclear Power Station Raised by the Massachusetts Public Interest Research Group (MASSPIRG)," dated November 3, 1983, attached hereto as Appendix A. The November 3, 1983 report indicates that FEMA has reviewed the Petition and has also consulted with members of the RAC and officials of the Commonwealth of Massachusetts. This review resulted in FEMA confirming its interim finding referred to above that the Commonwealth of Massachusetts has demonstrated that there is reasonable assurance that the public would be adequately protected if there were an accident at the Pilgrim Nuclear Power Station. In addition, in its November 3, 1983 report, FEMA indicated that the results of the 1982 Exercise Report have been superceded by the results of the 1983 Exercise Report. In effect, the numerous deficiencies identified by FEMA in its 1982 Exercise Report have been corrected or otherwise resolved. Thus only two deficiencies requiring corrective action, as described above, remain outstanding.

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[4] On August 5, 1983, FEMA Headquarters revised their procedural policy on exercise observation and evaluation in order to provide a more uniform, workable approach for use by the ten FEMA regional offices in their exercise reporting process. The guidance provides for reporting deficiencies which would lead to a negative finding, deficiencies which require corrective action but otherwise would not lead to a negative finding, and other deficiencies where a correctable weakness is noted for which corrective action should be considered. Deficiencies that would lead to a negative finding would cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures could be taken to protect the health and safety of the public.

The NRC has reviewed the November 9, 1983 FEMA response and concurs with the conclusions reached therein. However, further discussion is appropriate regarding the following issues raised by the Petitioner and addressed in the FEMA report.

I. Capability of the Licensee to Make Accurate Release Estimates

The FEMA report notes at 6-7 that the role of the licensee in preparing release estimates upon which to make protective action determinations is more properly an NRC evaluation responsibility than that of FEMA. The NRC agrees that the licensee's capability is a proper area for NRC evaluation. During the EPIA, described previously, NRC inspectors conducted walk-through inspections with members of the licensee's onsite emergency organization. These inspections were conducted in the areas of control room dose projections, dose assessment, event classification, offsite notification, offsite monitoring and environmental assessment. The inspections identified deficiencies in the areas of the dose assessment scheme, basis for recommended protective actions and related procedures and training. The licensee took corrective actions on these deficiencies and, as mentioned above, follow-up inspection on the EPIA findings conducted by NRC Region I verified that corrective action had been taken by the licensee on all significant findings identified during the EPIA. Additionally, on March 3, 1982, a team of NRC observers was on hand to witness the full-scale exercise held at Pilgrim. During the conduct of the exercise, eleven NRC team members made detailed observations in various areas including: detection, classification and assessment; direction and coordination of the emergency response; notification; and dose projection and consideration of protective actions. The NRC team concluded that, while there was some room for improvement, there were no items which exhibited a potential for significant degradation of emergency response. Similar observations were made at the second full-scale exercise at Pilgrim on June 29, 1983. In this instance, the NRC team concluded that the licensee demonstrated the capability to implement its emergency plan and emergency plan implementing procedures in a manner which would adequately provide for the health and safety of the public.

II. Size of the EPZ

The Petitioner suggests that the EPZ size may require considerable expansion. However, this is in effect an attack on the Commission's regulations, specifically 10 C.F.R. § 50.47(c)(2). The Commission's

regulation sets EPZ size at "about 10 miles." While the regulation would allow leeway for a mile or two in either direction based upon local factors, it clearly precludes an EPZ radius significantly in excess of 10 miles as suggested by the Petitioner. *See Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-82-39, 15 NRC 1163, 1177-84 (1982), *aff'd,* ALAB-717, 17 NRC 346 (1983). However, even considering the Petitioner's assertion on its merits, the information provided by the Petitioner does not support enlargement of the EPZ.

The FEMA report of November 3, 1983 makes reference to the MHB Technical Associates Study used by Petitioner to support its request that the EPZ size for the Pilgrim facility should be enlarged. Petitioner's request is based in part on a review of preliminary Calculation of Reactor Accident Consequences (CRAC) results conducted by MHB Technical Associates for the Attorney General. The MHB Study is entitled "Review of Calculation of Reactor Accident Consequences (CRAC 2) Results and Liquid Pathways (NUREG-1596) Study: Implications for Emergency Planning in the Vicinity of the Pilgrim Nuclear Power Station." Under contract to the Department of the Attorney General for the Commonwealth of Massachusetts, MHB Technical Associates reviewed the CRAC computer code and its results for the Pilgrim Station and NUREG/CR-1596 "Consequences from Liquid Pathways After a Reactor Meltdown Accident," August 1981. The Petitioner argues that the MHB conclusions regarding the CRAC code require enlargement of the Pilgrim EPZ. The MHB study attempts to apply a generic study to a site-specific case. The CRAC calculations were carried out for a report which was written to support the formulation and comparison of possible siting criteria for nuclear power plants, and generic rather than site-specific parameters were used.[5] A realistic estimate of the risk from severe accidents at each plant was not attempted for that report.

The plume EPZ[6] for the Pilgrim facility is based upon NUREG-0654 guidance criteria.[7] The joint NRC/EPA Task Force that developed NUREG-0396 considered several possible rationales for establishing the

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[5] Technical Guidance for Siting Criteria Development, NUREG/CR-2239, December 1982. In NUREG/CR-2239, a generic rather than plant-specific power level was used; regional rather than site-specific assumptions regarding evacuation and relocation were used; and generic releases were assumed, as opposed to the design-specific release categories used for licensing.

[6] The plume exposure pathway Emergency Planning Zone (EPZ) established for the site is located entirely within the State of Massachusetts. Its boundary extends 9.5 to 12 miles from the site and includes portions of five townships.

[7] The guidance criteria of NUREG-0654 are derived from NUREG-0396, EPA 520/1-78-016, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Reactors," December 1978, which provides the concept of generic Emergency Planning Zones.

size of the EPZs. These included risk, probability, cost effectiveness and an accident consequence spectrum. The Task Force chose to base EPZ size on a full spectrum of accidents and corresponding consequences tempered by probability considerations. It was the consensus of the Task Force that a plume EPZ of about 10 miles would provide an adequate planning base beyond which actions could be taken on an *ad hoc* basis using the same considerations that went into the initial action determinations. In its statement on "Planning Basis for Emergency Response to Nuclear Power Accidents," 44 Fed. Reg. 61,123 (1979), the Commission noted that an EPZ of about 10 miles is considered large enough to provide a response base which would support activity outside the planning zone should this ever be needed.

The Petitioner contends that, based upon the referenced CRAC code results, an enlargement of the current Pilgrim plume EPZ is warranted because the projected doses exceed the EPA Protective Action Guides (PAGs)[8] outside the 10-mile EPZ. Both NUREG-0654 and NUREG-0396 recognize, based upon CRAC code results, that the PAGs might be exceeded beyond the 10-mile plume exposure EPZ in the event of the worst possible accident and meteorological conditions. However, a 10-mile plume exposure EPZ was still chosen as a planning basis in NUREG-0654 because:

a. projected doses from the traditional design basis accidents would not exceed Protective Action Guide levels outside the zone;
b. projected doses from most severe fuel degradation sequences would not exceed Protective Action Guide levels outside the zone;
c. for the worst fuel degradation sequences, immediate life-threatening doses would generally not occur outside the zone; and
d. detailed planning within 10 miles would provide a substantial base for expansion of response efforts in the event that this proved necessary.

On balance, the MHB Study referred to in the Comments of the Attorney General and used by Petitioner in support of its Petition does not

[8] The EPA has developed and the NRC has adopted a "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," EPA-520/1-75-001, revised February 1980, which provides guidance criteria for public health officials in determining the need for and in choosing the appropriate protective actions. The Protective Action Guide (PAG) is the projected dose to individuals in the population which warrants taking protective action, *e.g.*, sheltering or evacuation.

provide an adequate basis for reconsideration of the specific size of the Pilgrim plume EPZ.[9]

III. Evacuation Time Estimates

In reviewing the Petition, the NRC staff considered information available to it concerning Evacuation Time Estimates (ETEs) and determined that, as Petitioner suggested, potential bottlenecks to effective evacuation of the EPZ may exist on the periphery of the EPZ. It would be important to control traffic beyond the EPZ so that such traffic, *e.g.*, on Route 3, did not lead to evacuation traffic congestion. Two notable points beyond the plume EPZ which could cause congestion are Route 3 at Route 128 and Route 3 at the Sagamore Bridge. These points could lead to larger ETEs than those now used. The NRC staff reviewed the ETEs now used while reviewing the construction permit application for Pilgrim, Unit 2, and has now determined that this matter should be specifically brought to the attention of FEMA for its consideration in the review of ETEs for the Pilgrim facility. Consequently, this matter was referred to FEMA on January 20, 1984 for consideration and my staff has requested a response from FEMA by March 30, 1984. Therefore I am deferring resolution of this part of the Petition until after I receive FEMA's response.

I see no adequate reason to suspend operation of the Pilgrim facility pending this response. The overall state of emergency preparedness is adequate. No deficiencies which would lead to a negative finding on preparedness have been identified by FEMA. The sole remaining issue is the adequacy of ETEs for planning an emergency evacuation. The Commission has adopted an approach to emergency planning in which evacuation is only one of several possible responses to an emergency. *See* NUREG-0654, NUREG-0396 and 10 C.F.R. § 50.47(b)(10). It is unlikely that evacuation of the entire plume EPZ would be required in the event of an accident. Pending a FEMA determination on the adequacy of the ETEs, it is reasonable to conclude that the public health and safety will be reasonably assured in the interim by continued licensee compliance with Commission requirements regarding emergency planning and other health and safety requirements aimed at keeping the

[9] In its November 3, 1983 report, FEMA notes that current NRC studies related to accident source terms, probabilities, and consequences are expected to result in a revision to NUREG-0654, which could lead to reconsideration of existing EPZ requirements. Current NRC proposals include a graduated response capability within the present EPZ, involving additional requirements for predetermined prompt actions within the first few miles of the reactor. The NRC is not considering at this time altering the overall size of the EPZ.

probability of serious accidents very low.[10] *Cf. Consolidated Edison Co. of New York* (Indian Point, Unit No. 2), CLI-83-16, 17 NRC 1006 (1983).

In view of the overall adequacy of emergency preparedness for Pilgrim and the low likelihood that an evacuation would be required as a response in the event of a radiological emergency at Pilgrim, Petitioner's requests that the NRC (1) issue a finding that the state of emergency preparedness at Pilgrim does not provide reasonable assurance that protective measures can and will be taken in the event of a radiological emergency, (2) suspend operation of the plant or order operation at reduced power, or (3) start the 4-month time period for correction of deficiencies are denied at this time.

CONCLUSION

In summary, both onsite and offsite emergency preparedness at the Pilgrim facility have been given continued review by both the NRC and FEMA. Onsite preparedness has been determined to be adequate based upon direct NRC evaluation of the licensee's emergency planning capabilities and based on the results of the continuing inspection program in this area conducted by Region 1 of the NRC. Offsite emergency preparedness has been reviewed by FEMA and it has been found that offsite plans are adequate and capable of being implemented. The most recent examination of offsite emergency preparedness by FEMA specifically considered the allegations raised by Petitioner and specifically found continued assurance of the adequacy of offsite emergency preparedness to protect the public health and safety. Consequently, I conclude that the overall state of emergency preparedness at the Pilgrim facility is sufficient to assure the public health and safety while the remaining issue of Evacuation Time Estimates is considered by FEMA.

Accordingly, the Petition's request for action pursuant to 10 C.F.R. § 2.206 has been denied in part and deferred in part as described in this decision. Once FEMA provides the Commission with its findings regarding Evacuation Time Estimates, the staff will provide the Petitioner with a copy of FEMA's evaluation and will inform the Petitioner of the staff's decision as to whether further action should be taken.

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[10] On December 10, 1983, the Pilgrim facility was shut down for inspection of pipe cracking in the recirculation system and for replacement of defective pipes. It is anticipated that the facility will be shut down for approximately 6 months. This should enable the staff to resolve the issue of the adequacy of the ETEs prior to plant start-up.

As provided by 10 C.F.R. § 2.206(c), a copy of this decision will be filed with the Secretary for the Commission's review.

Richard C. DeYoung, Director
Office of Inspection and
Enforcement

Dated at Bethesda, Maryland,
this 27th day of February 1984.

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