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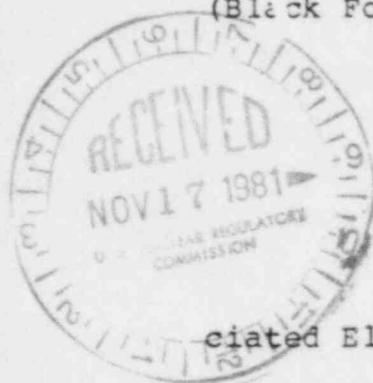
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of the Application of)	
Public Service Company of Oklahoma,)	
Associated Electric Cooperative, Inc.)	Docket Nos. STN 50-556
and)	STN 50-557
Wes Farmers Electric Cooperative)	
)	
(Black Fox Station, Units 1 and 2))	



APPLICANTS' MOTION TO REOPEN THE RECORD

Public Service Company of Oklahoma ("PSO"), Associated Electric Cooperative, Inc., and Western Farmers Electric Cooperative ("Applicants"), by their attorneys, move the Atomic Safety and Licensing Board ("Licensing Board") to reopen the record in this proceeding in order to receive additional evidence on the following four issues: Intergranular Stress Corrosion Cracking (Board Question 15-1);^{1/} Load Combination Methodology (Additional Matter Under Contention 16); Post-Accident Monitoring (Board Question 13-1); and Quality Assurance (Board Question 10-3). In addition, Applicants wish to bring to the attention of the Licensing Board the consideration of the "geologic

^{1/} References are to Board Questions and Contentions from the previous radiological health and safety hearings.

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anomalies" discovered during excavation for the foundation of Black Fox Station.

I. PROCEDURAL BACKGROUND

This Nuclear Regulatory Commission (the "NRC" or the "Commission") proceeding concerns the application for construction permits to build a nuclear plant known as the Black Fox Station which will consist of two boiling water reactors to be located in Rogers County, Oklahoma. The parties to this proceeding are Applicants, the NRC Staff and Citizens' Action for Safe Energy, Lawrence Burrell and Ilene Younghein ("Intervenors"); the State of Oklahoma is participating in this matter as an interested state pursuant to 10 C.F.R. § 2.715(c).

Evidentiary hearings were conducted on environmental and site suitability issues, and the Licensing Board issued a "Partial Initial Decision Authorizing Limited Work Authorization" on July 24, 1978. This Limited Work Authorization ("LWA"), issued by the Director of Nuclear Reactor Regulation on July 26, 1978, was subsequently amended three times. Applicants have completed a substantial portion of the work which was authorized under the LWA. Applicants have suspended any further work under the LWA because of the

uncertainty in the licensing process due to the NRC's post-Three Mile Island licensing moratorium.

In a decision dated December 7, 1979, the Atomic Safety and Licensing Appeal Board ("Appeal Board") affirmed the Partial Initial Decision, with the exception of an issue concerning the environmental effects of radon emissions, over which the Appeal Board retained jurisdiction.^{2/}

Radiological health and safety issues were addressed in evidentiary hearings held on October 10-20, 1978, December 5-13, 1978, and February 19-28, 1979. The record was closed on the last day of hearings. Applicants, Intervenor, and the NRC Staff filed proposed findings of fact and conclusions of law on the radiological health and safety matters. The State of Oklahoma declined to file proposed findings.

This was the posture of the case when, on March 28, 1979, the accident at Unit 2 of the Three Mile Island nuclear plant occurred. In the wake of that event, the State of Oklahoma and Intervenor individually requested relief from the Licensing Board, the relief sought being a stay in the issuance of an initial decision and a reopening

^{2/} Public Service Company of Oklahoma (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775 (1979).

of the record on certain issues, respectively. The Licensing Board denied some of the relief asked for and deferred ruling on the remainder of the requests in an Order dated June 13, 1979. Subsequently, in August 1979, Applicants moved the Licensing Board to hold further hearings in order to explore the aspects of the TMI accident which were applicable to the Black Fox proceeding.

After the Commission had issued its October 4, 1979, Policy Statement concerning the effect of TMI on the licensing process,^{3/} the Licensing Board ruled that both Applicants' request for a hearing and the undecided portions of the State of Oklahoma's and Intervenors' requests for relief were mooted and were thus denied.^{4/} In that Order, the Licensing Board also directed that the parties, after reviewing the NRC Staff's generic letter of October 10, 1979, to construction permit applicants setting forth post-TMI licensing requirements,^{5/} confer in an effort to agree upon the scope of and schedule for the reopened Black Fox hearings.

3/ 44 Fed. Reg. 58559 (October 10, 1979).

4/ Order dated October 25, 1979.

5/ Letter dated October 10, 1979, from Domenic B. Vassallo, Acting Director, Division of Project Management, to All Pending Construction Permit Applicants.

The NRC's consideration of the Black Fox application and, thus, the licensing process remained at a standstill from the date of that Order, October 25, 1979, until August 7, 1981, when counsel for the NRC Staff notified the Licensing Board that the Staff had issued a new generic letter detailing post-TMI construction permit requirements,^{6/} and that a meeting of the parties would be arranged in order to discuss the scope of and schedule for hearings, as the Licensing Board had previously suggested. As a result of that meeting, Applicants, the State of Oklahoma, and Intervenors filed a "Joint Motion to Establish Hearing Schedule" on September 25, 1981. Because the proposed schedule provided for the filing of rule-challenge petitions under 10 C.F.R. § 2.758, the NRC Staff opposed the joint motion in "Response of the NRC Staff to Joint Motion to Establish Hearing Schedule," filed October 2, 1981. By Order dated October 14, 1981, the Licensing Board overruled the Staff's objection and adopted, with slight modifications, the schedule proposed by Applicants, the State of Oklahoma, and Intervenors. Under the terms of that schedule,

^{6/} Letter dated July 14, 1981, from Darrell G. Eisenhut, Director, Division of Licensing, Office of Nuclear Reactor Regulation, to All Applicants with Pending Construction Permits and Manufacturing License Applications.

Contentions challenging the sufficiency of the Applicant's Emergency Plan and TMI PSAR Amendments to meet NRC regulations and motions to reopen the hearing record on other issues will be filed by November 5, 1981, which is 30 days after the Applicant filed the TMI Amendments to its PSAR.
Order at 2.

Accordingly, Applicants submit this motion to reopen the Black Fox hearing record on the matters specified above.

II. A MOTION TO REOPEN THE RECORD IS GOVERNED BY THE STANDARDS OF VERMONT YANKEE

The framework within which a motion to reopen the record must be analyzed is the set of legal precepts fashioned by the Appeal Board in a series of related decisions concerning Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-124, 6 AEC 358 (1973); ALAB-138, 6 AEC 520 (1973); ALAB-167, 6 AEC 1151 (1973). In that case, an intervenor group had, prior to the issuance of the Initial Decision authorizing an operating license, submitted a motion to the Licensing Board to reopen the record so that certain letters between the NRC Staff and the applicant could be admitted into evidence. According to the intervenor,

these letters set forth serious unresolved safety questions concerning the Vermont Yankee plant. The Licensing Board denied the motion and issued the Initial Decision. The Appeal Board, finding that the Licensing Board had not fully articulated its reasons for denying the motion, remanded the case for a new determination of whether the record should be reopened.

Because the subject of reopening the record of a proceeding had not been touched upon to any extent in previous decisions,^{7/} the Appeal Board engaged in lengthy discussions of the standards governing reopening in the Vermont Yankee opinions. In ALAB-124, the Appeal Board pointed out that both the timeliness of the motion and the significance of the matters raised should be considered, for a Licensing Board is required to reopen the record only when the matters raised are of major significance to plant safety.^{8/}

In addition, the Appeal Board examined the type of evidence which must be presented in order to support a motion to reopen the record. As the Appeal Board acknowledged,

^{7/} In Wisconsin Electric Power Company (Point Beach Nuclear Plant, Unit 2), ALAB-86, 5 AEC 376 (1972), the Appeal Board discussed the Licensing Board's authority to reopen the record before issuance of the complete Initial Decision. General standards to be used in doing so were not articulated, however.

^{8/} 6 AEC at 364-65.

in most cases the proponent of a motion to reopen the record must supply the affidavit of a competent expert setting forth his belief that the matter in question raises serious safety concerns which must be explored. In Vermont Yankee, the Appeal Board found that an affidavit would not be required if the letter from the NRC Staff concerning the plant at issue which the intervenor relied upon raised a serious safety question on its face. If the seriousness or relevance of the matter raised by the letter were not apparent, the intervenor would need to reinforce the letter with a suitable affidavit.^{9/}

The use of affidavits was elaborated upon, and another facet of the test for reopening was set forth, in ALAB-138. There, the Appeal Board explained that:

In other words, to justify the granting of a motion to reopen, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition. Thus, even though a matter is timely raised and involves significant safety considerations, no reopening of the evidentiary hearing will be required if the affidavits submitted in response to the motion demonstrate that there is no genuine unresolved issue of fact, i.e., if the undisputed facts establish that the

^{9/} Id. at 364.

apparently significant safety issue does not exist, has been resolved, or for some other reason will have no effect upon the outcome of the licensing proceeding. 6 AEC at 523 (footnote omitted).

Thus, in order to prevail on a motion to reopen the record, the proponent must show that the outcome of the proceeding could be affected by a consideration of the matter presented.^{10/}

The standards delineated in the Vermont Yankee decisions have consistently been cited and followed in the opinions of NRC tribunals faced with a motion to reopen the

^{10/} The Appeal Board in Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 64 n. 35 (1977), affirmed, CLI-78-1, 7 NRC 1 (1978), relied upon Vermont Yankee and stressed the fact that normally a request for reopening must be accompanied by a showing that the outcome of the proceeding might be affected thereby. An even stricter standard was articulated in Kansas Gas And Electric Company (Wolf Creek Generating Station, Unit No. 1), ALAB-462, 7 NRC 320, 338 (1978), in which the Appeal Board held that in order to reopen the record, it must be found that "a different result would have been reached initially" had the information submitted in support of the motion been considered. It should be noted, however, that this portion of the test to reopen is not applicable here, given the procedural context of Black Fox. As no initial decision on radiological health and safety matters has been rendered, there has been no "result," and therefore a party cannot be required to show that "a different result would have been reached initially" in order to justify a motion to reopen the record.

record. For example, in Georgia Power Company (Alvin W. Vogtle Nuclear Plant, Units 1 and 2), ALAB-291, 2 NRC 404 (1975), the Appeal Board found that the Vermont Yankee test also applied to the reopening of the record on an environmental issue.^{11/} The Seabrook and Wolf Creek decisions discussed in footnote 10, supra, were also founded upon the Vermont Yankee concepts.

More recently, the Commission itself has addressed the matter of motions to reopen and has given specific guidance concerning the type of evidence necessary to justify such motions in Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-81-5, 13 NRC 361 (1981). After the Commission reiterated the test of "significant new evidence not included in the record, that materially affects the decision," it went on to say:

We emphasize that bare allegations or simple submission of new contentions is not sufficient. Only significant new evidence requires reopening. Of course, in moving to reopen, a party need not supply written testimony of independent experts, but is free to rely on admissions and statements from applicant and NRC staff and official NRC documents or other documentary evidence. 13 NRC at 363. (emphasis supplied).

^{11/} 2 NRC at 409 n. 6.

With these standards for judging a motion to reopen in mind, Applicants will turn to an analysis of the issues previously specified which require reopening.

III. THE RECORD SHOULD BE REOPENED TO RECEIVE
ADDITIONAL EVIDENCE ON FOUR ISSUES

Applicants, after having reviewed both the record of the radiological health and safety hearings and the events which have occurred in this docket since the close of the record, have identified four subject matters for which reopening that record is appropriate under Vermont Yankee. As to each of the four subjects, significant new evidence that materially affects a safety-related question to be decided by the Licensing Board is available and must be admitted into the record. The new evidence relevant to each issue will be discussed in detail below.

A. Intergranular Stress Corrosion Cracking
("IGSCC") (Board Question 15-1)

At the radiological health and safety hearings in the Black Fox docket, the following question was at issue:

Will General Electric be committed to remedial measures in parts of the Black Fox system where very recent (or future) experience indicates IGSCC may occur, as well as in parts of

the system where such cracking has occurred in the past 10-15 years?

This matter was raised because austenitic stainless steel piping (304 stainless steel) in the reactor coolant pressure boundary of boiling water reactors is susceptible to IGSCC due to the presence of oxygen in the coolant, high residual stresses and sensitization of the metal adjacent to welds.^{12/} At the hearing, Applicants' witness, Dr. John B. West, testified that PSO and General Electric were pursuing the selection of other acceptable piping materials in order to mitigate the IGSCC phenomenon and that one such material, 316K stainless steel, was being considered for use in the reactor recirculation system piping.^{13/}

After the close of the hearing record, Applicants notified the Licensing Board, in accordance with the tenets of the McGuire^{14/} full-disclosure doctrine, that the decision

^{12/} NRC Exhibit 6, Appendix A, p. 5-11, and NRC Exhibit 13, p. xiii; and Tr. 4690-91. For a discussion of IGSCC, see "Applicants' Proposed Findings of Fact, Conclusions of Law, and Proposed Order in the Form of a Partial Initial Decision Covering Radiological Health and Safety Matters" (hereinafter "Applicants' Proposed Findings") at Paragraphs 49-56.

^{13/} Written supplemental testimony of West, pp. 1-2, following Tr. 8583.

^{14/} Duke Power Company (William D. McGuire Nuclear Station, Units 1 and 2), ALAB-143, 6 AEC 632 (1973).

had been made to change the piping material for the Black Fox reactor recirculation system from 304 stainless steel to 316K stainless steel in order to mitigate the occurrence of IGSCC.^{15/} Such a notification letter does not, of course, have the effect of incorporating any information into the Black Fox evidentiary record. Because of this, and because the change from 304 to 316K stainless steel represents significant new safety-related information which could materially affect the decision with respect to Board Question 15-1, the record must be reopened to receive testimony regarding the change.^{16/}

In support of the motion to reopen the record on Board Question 15-1, Applicants submit the attached affidavit of Dr. John B. West, who is Manager, Black Fox Station Engineering. As the affidavit explains, 316K stainless

^{15/} Letter from Joseph Gallo to Judges Wolfe, Purdom, and Shon, dated September 27, 1979, with enclosures.

^{16/} Applicants note that Vermont Yankee and its progeny stress the element of the timeliness of the new information in assessing a motion to reopen. While the Licensing Board was first notified of the change in the piping material in September 1979, there can be no real question of the timeliness of this information given the procedural posture of Black Fox. Due to the licensing moratorium which has been in effect for over two years because of Three Mile Island, the Licensing Board's Order of October 14, 1981, establishing a hearing schedule and inviting motions to reopen the record on health and safety questions represents the first time it would have been fruitful for Applicants to file such a motion.

steel, which has a closely controlled carbon content, retains the desirable mechanical properties of 304 stainless, such as strength, while exhibiting resistance to the IGSCC phenomenon. Thus, Applicants have concluded that the use of 316K stainless steel in place of 304 stainless for the recirculation system piping provides the best currently available technical means of mitigating IGSCC problems.^{17/}

Due to the importance of this safety-related new information, and the material effect it would have on the resolution of Board Question 15-1, the record must be re-opened on the IGSCC matter.

B. Load Combination Methodology
(Additional Matter Under Contention 16)

In its Order of September 8, 1978, ruling on motions for summary disposition, the Licensing Board stated that it would hear evidence on the methods used to combine two or more dynamic loads for purposes of designing structures and systems for the Black Fox Station.

Therefore, the question of the acceptability of certain methods for combining dynamic loads in the design of the Black Fox Station was litigated at the hearing, with the

^{17/} The change to 316K stainless steel is also reflected in Amendment 17 to Applicants' Preliminary Safety Analysis Report ("PSAR"). See 5.2.3.2 and Table 5.2-7.

NRC Staff and Applicants differing over the methodology to be employed.^{18/} The two methodologies being advocated were the Square-Root-of-the-Sum-of-the-Squares ("SRSS") method and the Absolute Sums ("AS") method. Simply put, the NRC Staff took the position that the AS method must be used exclusively in combining two or more dynamic loads in the design of Black Fox, except that SRSS could be used in the design of components and piping to combine Loss-of-Coolant Accident ("LOCA") and Safe-Shutdown Earthquake ("SSE") loads within the reactor coolant pressure boundary.^{19/} Applicants, however, agreed to the use of the AS method for the design of structures at Black Fox Station, but submitted evidence justifying the use of SRSS for the design of all components and piping at Black Fox Station.^{20/}

In support of its position, the NRC Staff relied solely on the views set forth in NUREG-0484, "Methodology for Combining Dynamic Responses," as the basis for its regulatory position.^{21/} The version of NUREG-0484 being

^{18/} Applicants' position with respect to load combination methodology is set forth in detail in "Applicants' Proposed Findings of Fact Concerning Load Combination Methodology" (hereinafter "Load Combination Findings") at Paragraphs 1-14.

^{19/} Load Combination Findings at Paragraph 2.

^{20/} Id.

^{21/} Id. at Paragraph 3, Tr. 8226-29.

discussed was a preliminary report on load combination methods.^{22/} After the close of the hearing record, however, in May 1980, the NRC Staff issued Revision 1 to NUREG-0484, which significantly extends the NRC Staff's endorsement of the SRSS method in combining loads. Specifically, the NRC Staff now approves using SRSS for combining the loads from a LOCA and SSE for both the reactor coolant pressure boundary and the balance of plant. In addition, the SRSS method can now be used for other dynamic load combinations as long as a non-exceedance probability of 84 percent or higher is achieved for the combined SRSS response.^{23/}

Obviously, the change in position regarding load combination methodology on the part of the NRC Staff since the hearings constitutes significant new information which both relates to a safety matter and will materially affect the Licensing Board's decision on this issue. Therefore, the record on load combination methodology must be reopened so that additional evidence with respect to the NRC Staff's changed position may be admitted. As the Commission recently stated in Diablo Canyon, supra, p. 10, a party is free to

^{22/} Load Combination Findings at Paragraph 3; Tr. 8266-67, 8271.

^{23/} NUREG-0484, Rev. 1, at p. 23.

rely on official NRC documents in order to support a motion to reopen the record; thus, Applicants' reliance on NUREG-0484, Rev. 1, is appropriate. Because all of the requirements of Vermont Yankee have been satisfied, the record should be reopened on this matter.

C. Post-Accident Monitoring
(Board Question 13-1)

Board Question 13-1, which pertains to post-accident monitoring, states as follows:

What revision, if any, of Reg. Guide 1.97 applies to BFS? If no revision applies, what evaluation of the post-accident monitoring plan has been made and against what standard was it judged?

With respect to Reg. Guide 1.97, Applicants took the position during the hearings that neither Rev. 0 nor Rev. 1 applied to the Black Fox Station; instead, Applicants stated that Black Fox should be reviewed against the version of Reg. Guide 1.97 which would result from the completion of Task Action Plan A-34, "Instruments for Monitoring Radiation and Process Variables During Accidents."^{24/}

Subsequent to the closing of the hearing record, however, the entire question of post-accident monitoring

^{24/} Applicants' Proposed Findings at Paragraph 119-22.

became subsumed within the larger matter of the post-TMI requirements which are to be imposed upon pending construction permit applicants.^{25/} As a result of this, Applicants have now committed to meeting the requirements of Reg. Guide 1.97, Rev. 2, as clarified in Amendment 17 to the PSAR.^{26/}

It is obvious that this complete change of position with respect to which version, if any, of Reg. Guide 1.97 Black Fox should be reviewed against represents significant new evidence concerning a safety-related matter, evidence which would certainly affect the decision reached by the Licensing Board on Board Question 13-1. For this reason, the record on that Board question must be reopened to admit Applicants' new evidence regarding their commitment to the post-accident monitoring requirements. In support of this motion, Applicants rely upon Amendment 17 to the PSAR, a sworn document, which details the nature of the commitment to Rev. 2 of Reg. Guide 1.97. Having thus satisfied the strictures of Vermont Yankee, the motion to reopen should be granted.

^{25/} NRC generic letter to Construction Permit Applicants dated July 14, 1981, Enclosure 1 at p. 70 (10 C.F.R. § 50.34(e)(2)(xix) (proposed rule).

^{26/} PSAR Amendment 17, Addendum II at pp. 149-50.

D. Quality Assurance
(Board Question 10-3)

The experience of Applicants' quality assurance staff was the subject of Board Question 10-3, which asked:

What experience in the nuclear quality assurance area do the members of Applicant's Q/A staff have?

At the health and safety hearings, it was Applicants' position that their quality assurance organization was sufficiently staffed to perform their required quality assurance responsibilities in connection with the commencement of construction of Black Fox Station. Mr. Perez, Manager, Quality Assurance, testified as to the experience of the Black Fox quality assurance staff in the nuclear quality assurance area.^{27/} In addition to detailing his own credentials, Mr. Perez described the experience of the other members of the Black Fox quality assurance staff.^{28/} It was based upon the readiness of the quality assurance organization and the qualifications of this staff that Applicants concluded that the Licensing Board should find that Applicants' staff had adequate experience in the nuclear quality assurance area.^{29/}

^{27/} Written testimony of J. B. Perez following Tr. 5710. See also Applicants' Proposed Findings at Paragraphs 85-90.

^{28/} Id.

^{29/} Applicants' Proposed Findings at Paragraph 90.

After the close of the hearing record, and due to the licensing moratorium imposed by the Commission as a result of the accident at Three Mile Island, Applicants reduced the staff assigned to the Black Fox project, including the quality assurance staff. As is explained in detail in Amendment 17 to the PSAR, because of the prevailing licensing uncertainties, PSO decided to put the Black Fox project into a holding status by suspending hiring, suspending or cancelling selected contracts, and reducing existing staff.^{30/} This holding status is planned to continue until the receipt of construction permits for the Black Fox Station, at which time PSO will restaff the project.^{31/}

These changes in readiness philosophy and staffing levels arguably constitute significant new information concerning a safety-related matter which may affect the Licensing Board's decision on Board Question 10-3. For this reason, the record on this Board question should be reopened. While Applicants are confident that the Licensing Board will be able to conclude that PSO's commitment to provide sufficient qualified quality assurance personnel for the Black Fox project has been demonstrated, the record should be updated

^{30/} PSAR Amendment 17, Addendum II at pp. 244-270

^{31/} Id. at pp. 245, 257; Table (3)(vii)-1.

so as to reflect the present status. As Applicants have satisfied the tests set forth in Vermont Yankee, the record on Board Question 10-3 should be reopened.

IV. OTHER MATTERS

A. Geologic Anomalies

When determining the scope of the reopened hearings to be held in this docket, the Licensing Board must consider the subject of geologic anomalies, which was raised by the Appeal Board in ALAB-573. In the course of its opinion reviewing the Black Fox Partial Initial Decision concerning environmental and site suitability matters, ALAB-573, supra, the Appeal Board referred to the geologic anomalies which had been discovered during excavation at the Black Fox site, after the issuance of the Partial Initial Decision. In a footnote, the Appeal Board stated:

Subsequent to the decision below, applicants encountered 'geological anomalies' [sic] in the course of excavating the Black Fox site. Geologists for the staff and the applicants have examined these features and according to reports furnished us (and all parties), determined them to be noncapable faults resulting from 'penecontemporaneous non-tectonic deformation' during the Pennsylvania Period (280-320 million years ago). See letters to the Appeal Board, from L. D. Davis (Staff Counsel)

dated September 29, 1978; from J. Gallo (Applicants' Attorney) dated November 14, 1978; and from W. D. Paton (Staff Counsel) dated November 22, 1978. We pass no judgment on those conclusions. Rather we instruct the Licensing Board (which is preparing to conduct further hearings on other safety matters in any event) to decide whether these reports constitute newly discovered evidence of a kind that warrants reopening the record. See Vermont Yankee Nuclear Power Corp. (Vermont Yankee Power Station, ALAB-124, 6 AEC 358, 359 (1973) (sua sponte reopening of the record required when a Board becomes aware of a significant unresolved safety issue).

10 NRC at 796 n. 85

Applicants wish to bring this matter to the attention of the Licensing Board and, at the same time, to voice the view that this matter does not warrant a reopening of the record sua sponte by the Board.^{32/}

The geologic anomalies were discovered during excavation of Unit 1 at the Black Fox site in September 1978. Because the health and safety hearings were taking place during this time, counsel for the NRC Staff, Applicants and Intervenors reported on this matter to the Licensing

^{32/} Similarly, Applicants would remind the Licensing Board that, in their Order of October 25, 1979, they requested the NRC Staff to respond to certain questions concerning Station Blackout (Task Action Plan A-44) in the course of reopened hearings in the Black Fox docket.

Board at the hearings, although no witnesses were presented.^{33/} The preliminary opinion of the NRC Staff geologist, as expressed through counsel, was that there was no indication that the fault was capable within the meaning of 10 C.F.R. Part 100, Appendix A.^{34/} Intervenors' counsel stated that their geologist concurred^{35/} with the views of the NRC Staff. Applicants' geologists believed, after a preliminary investigation, that the fault was a non-tectonic structure.^{36/}

After further investigations had been completed, Applicants provided the Licensing Board with a preliminary report concerning the geologic anomalies on October 16, 1978,^{37/} and another report on November 8, 1978.^{38/} The latter report contained the following conclusion:

The geologic investigations to date have revealed three main anomalous structures in the excavation. The evidence disclosed in the trench exposures and from the subsurface investigations for the PSAR indicate

^{33/} Tr. 4474-77.

^{34/} Tr. 4474-75.

^{35/} Id.

^{36/} Tr. 4476.

^{37/} Tr. 5545-47.

^{38/} Letter from Joseph Gallo to Judges Wolfe, Purdom, and Shon dated November 8, 1978, with enclosure.

that: 1) these structures occur within a restricted part of the Pennsylvania bedrock, and 2) they resulted from penecontemporaneous deformation. They appear to have formed in Pennsylvanian time (280-320 m.y. ago), either shortly after or during deposition of the sediments, as a result of stress from depositional loading. There is no indication that these features are tectonic in origin. Therefore, they are not considered faults, as defined in 10 C.F.R. Part 100, Appendix A, Seismic and Geologic Siting Criteria, paragraph III (e); and hence, they have no impact on the safety of the proposed Black Fox Station.

The NRC Staff's geologists also concluded in their final report that the anomalies found within the excavation of Black Fox Station, Unit 1, were the result of penecontemporaneous deformation during the Pennsylvania Period, were not tectonic, and thus were not capable within the meaning of NRC regulations.^{39/}

Because of the uncontradicted conclusions reached by the geological consultants for Applicants and the NRC Staff that the anomalies discovered at the Black Fox site are not capable faults, the existence of the anomalies does not constitute the type of significant new information which would justify reopening the record sua sponte by the

^{39/} Letter from William D. Paton to Judges Salzman, Johnson, Sharfman, et al., dated November 22, 1978, with enclosure.

Licensing Board. Since the geologic structure encountered during the excavation of Unit 1 is not a capable fault, there can be no reason to change the conclusions reached in the Partial Initial Decision that the Black Fox site is suitable. Thus, this matter does not meet the test articulated by the Appeal Board in Wolf Creek, supra, that it must be shown that a different result would have been reached initially had the information been considered in order to justify a motion to reopen the record. As a decision has been issued on site suitability matters, the Wolf Creek stricture must be adhered to here.

B. PSAR Amendments 16, 17, and 18

When the reopened Black Fox hearings on health and safety matters convene, Applicants intend to offer into evidence Amendments 16, 17, 18, and any subsequent amendments to the PSAR. These documents were filed with the Licensing Board and the parties in September, October, and November, 1981.^{40/}

Amendment 16 contains Applicants' Emergency Response Report, which was prepared in accordance with the post-TMI

^{40/} Letters from Joseph Gallo to Judges Wolfe, Purdom, and Shon dated September 8, October 8, and November 5, 1981, respectively, with enclosures.

revisions to the emergency planning requirements in 10 C.F.R. §§ 50.33, 50.47, 50.54, and Appendix E to Part 50. Except for the hydrogen control matters, Amendment 17 contains Applicants' response to the the post-TMI requirements which were imposed upon construction permit applicants by a letter from the NRC Staff dated July 14, 1981.^{41/} Amendment 18 to the PSAR contains Applicants' response to the section of the post-TMI requirements relating to hydrogen control. Those requirements will be codified in 10 C.F.R. § 50.34(e); the regulations were approved by the Commission on August 27, 1981, and are currently awaiting publication in the Federal Register.

In addition to Applicants' responses to TMI requirements, however, Amendment 17 also contains updated information relating to three matters which were previously the subject of notification letters to the Licensing Board by Applicants pursuant to the McGuire doctrine. The first of those matters is the schedule for completion of the Black Fox Station. The Licensing Board was last informed of a change in the scheduled completion and operation dates by letter dated April 30, 1979.^{42/} Newly revised dates are set

^{41/} See note 6, supra.

^{42/} Letter from Joseph Gallo to Judges Wolfe, Purdom, and Shon dated April 30, 1979, with enclosures.

forth in § 1.1.8 of Amendment 17. The second matter concerns the phenomenon of containment vessel ringing. Applicants' actions with respect to resolving the effects of that phenomenon were brought to the attention of the Licensing Board by letter dated July 18, 1979.^{43/} That letter and its exhibits explained that PSO concurred in Black & Veatch's recommendation to incorporate the extended mat design into the containment vessel and the foundation mat. There are references to this subject throughout Amendment 17 to the PSAR, see, e.g., §§ 1.1.6 and 1.2.2.4.9.1. Lastly, the overexcavation of the Unit 2 foundation area, which was the subject of two McGuire letters,^{44/} is discussed in various sections of Amendment 17, see, e.g., §§ 2.5.4 and 3.8.5. Overexcavation of the foundation area was necessary to remove certain underlying soft, siltstone material; that material will be replaced with concrete fill to bring the excavation surface to design grade.

V. CONCLUSION

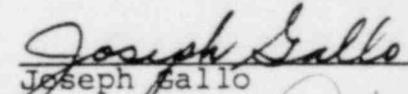
For the reasons set forth above, the record should be reopened on the four matters discussed in Section III,

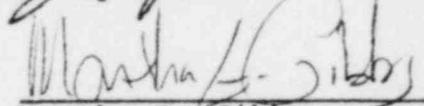
^{43/} Letter from Joseph Gallo to Judges Wolfe, Purdom, and Shon, dated July 18, 1979, with enclosures.

^{44/} Letters from Joseph Gallo to Judges Wolfe, Purdom, and Shon, dated October 23, 1979, and January 2, 1980, with enclosures.

supra: Intergranular Stress Corrosion Cracking, Load Combustion Methodology, Post-Accident Monitoring, and Quality Assurance. The question concerning geologic anomalies, remanded by the Appeal Board, does not justify a reopening of the record, however.

Respectfully submitted,



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