

technical specifications such tubes would have to be plugged and removed from service. For the reasons discussed below, we affirm.

I.

The applicant filed its license amendment request on July 2, 1981. Decade petitioned to intervene and requested a hearing on the amendment application.¹ The questions raised with regard to the sleeving repair proposal were determined by, in essence, a summary disposition proceeding on Decade's contentions.² In LBP-82-88, 16 NRC 1335 (1982), the Board granted summary disposition of all but one of the contentions and ordered a hearing on the issue of whether eddy current testing can adequately detect corrosion in

¹ The history of this proceeding is discussed in greater detail in ALAB-719, 17 NRC ____, ____, & n.4 (Mar. 22, 1983) (slip opinion at 2-3 & n.4) and ALAB-696, 16 NRC 1245, 1250-54 (1982).

² The Board ordered Decade to file a "Motion for Litigable Issues," in which Decade was required to come forward with evidence indicating the existence of genuine issues of fact concerning the sleeving program. The applicant and the staff responded with motions for summary disposition of the issues raised in Decade's filing. The Board's intent was that this procedure parallel the summary disposition mechanism provided in 10 CFR § 2.749 in all respects except that the intervenor was required to demonstrate, ab initio, the existence of actual disputed issues. See LBP-82-88, 16 NRC 1335, 1339 (1982); LBP-82-10, 15 NRC 341, 344-45 (1982); Tr. 890-92, 1192-93. See also Tr. 867-68, 882. Our admonition in ALAB-696, supra, 16 NRC at 1262 (handed down the same day as LBP-82-88) applies here as well: "In the future . . . procedures such as those employed by the Licensing Board should be avoided."

sleeved steam generator tubes. Id. at 1337, 1350. In addition, the Board asked the parties to address contingently the safety implications of sleeving should eddy current testing prove inadequate for detecting corrosion and cracking in sleeved tubes. Id. at 1338; LBP-83-4, supra, 17 NRC at ___ n.8 (slip opinion at 5 n.8). After a hearing, the Board authorized the license amendment permitting the applicant to undertake sleeving at Point Beach. The Board found eddy current testing adequate for detecting flaws in sleeved tubes that might lead to rupture under normal operating or accident conditions. It went on to find that sleeved tubes are not only "safer than other unsleeved tubes," but also "safe . . . without reference to whether they are safer than unsleeved tubes." LBP-83-4, supra, 17 NRC at ___ (slip opinion at 1-2).³ This appeal followed.

³ The applicant recently completed sleeving repairs in Unit 2 pursuant to the Board's authorization. As we noted in our prior decisions, the applicant now intends to replace both steam generators in Unit 1 and thus does not plan further sleeving in that unit. The applicant still seeks authorization to repair Unit 1, however, so that it retains the option of making further sleeving repairs before replacing the steam generators if that should become necessary. See ALAB-719, supra, 17 NRC at ___ n.4 (slip opinion at 3 n.4); ALAB-696, supra, 16 NRC at 1251 n.5.

II.

As best we can determine from its brief, Decade appears to raise two issues on appeal.⁴ The first issue relates to

⁴ This is the fourth time in as many appellate decisions that we have had occasion to comment on Decade's failure to conform its appellate filings to the Commission's Rules of Practice. See ALAB-719, *supra*, 17 NRC at ___ (slip opinion at 18-19); ALAB-696, *supra*, 16 NRC at 1254-55; ALAB-666, 15 NRC 277, 278 (1982). We have said before that those Rules are not mere niceties; rather,

[t]hey were drafted to insure that the arguments and positions of all parties -- applicants, staff and intervenors -- would be spread fully upon the record in order to permit fair rebuttal by those holding opposing views and to facilitate our ultimate evaluation of the competing contentions. Disregard of the Rules frustrates those salutary purposes and burdens rather than assists the adjudicator's task.

Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-693, 16 NRC 952, 955 (1982), quoting Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-270, 1 NRC 473, 476 (1975). Thus, at a minimum, briefs must identify the particular exceptions addressed and the precise portions of the record relied upon in support of the assertion of error. 10 CFR § 2.762(a); ALAB-696, *supra*, 16 NRC at 1255; Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Unit 1), ALAB-650, 14 NRC 43, 49-50, *aff'd sub nom. Township of Lower Alloways Creek v. Public Service Electric and Gas Co.*, 687 F.2d 732 (3d Cir. 1982). Because Decade's brief fails in this regard, we cannot accurately discern which of its exceptions, if any, it pursues in its brief. Accordingly, Decade must "bear full responsibility for any possible misapprehension of its position caused by the inadequacies of its brief." ALAB-666, *supra*, 15 NRC at 278.

It should also be evident to Decade that it cannot preserve its unbriefed exceptions merely by stating its lack of

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its Exception C.1. In its brief (at 3), Decade asserts that the Board should not have dismissed the contention it proposed concerning the effects of steam generator tube failures during accident and normal operating conditions.⁵ In LBP-82-88, supra, the Board ruled that, absent a showing that sleeving would lead to tube failures, the issue of the consequences of steam generator tube failure was not relevant to this amendment proceeding and thus the contention should be dismissed. 16 NRC at 1342. We agree.

In a license amendment proceeding, a licensing board has only limited jurisdiction. The board may admit a party's issues for hearing only insofar as those issues are within the scope of matters outlined in the Commission's notice of hearing on the licensing action. Portland General Electric Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289 n.6 (1979); Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC

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intent to waive them. Decade Brief at 1. See ALAB-696, supra, 16 NRC at 1255 and cases cited. See also ALAB-719, supra, 17 NRC at ___ (slip opinion at 18-19).

⁵ That contention stated that degradation of as few as one to ten steam generator tubes in a pressurized water reactor, such as Point Beach, could induce essentially uncoolable conditions during a loss of coolant accident.

167, 170-71 (1976). See Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426 (1980).⁶ Here, the notice of hearing stated the proceeding would concern the repair of steam generator tubes by sleeving and the operation of the Point Beach plant with sleeved tubes. See 46 Fed. Reg. 40359 (Aug. 7, 1981). See generally ALAB-696, supra, 16 NRC at 1250. Thus, Decade had to put forth a cognizable claim that some element of the sleeving process gives rise to an enhanced likelihood of tube rupture and the allegedly concomitant consequences.⁷ As the Licensing Board stated:

This is not an application to build or operate a nuclear power reactor. In an amendment proceeding, the relationship of steam generators to the remainder of the plant is not germane. In this case, applicant already has an operating license, granted after the safety of its reactor was considered. . . . The test of relevance [therefore] . . . is to ask whether an issue is relevant to

⁶ The Board, of course, has authority to raise, sua sponte, relevant health and safety matters other than those contained in an intervenor's contentions. In this instance, the Board explicitly decided not to investigate additional issues. See LBP-83-4, supra, 17 NRC at ___ & n.60 (slip opinion at 24 & n.60).

⁷ The Licensing Board fully reviewed the evidence that supports its conclusion that tubes sleeved with heat treated Inconel 600 are less susceptible to corrosive attack than the original steam generator tubes at Point Beach. LBP-83-4, supra, 17 NRC at ___ (slip opinion at 18-23, 25, 32-33). The Board also notes that the sleeve will, in effect, partially insulate the surrounding tube, thus reducing the potential for corrosion and the resultant exposure of the sleeve to the secondary system water. Id. at ___ (slip opinion at 20-21).

"how the sleeving program would cause problems" or whether it reflects "unfavorably on the safety of sleeving."

LBP-82-88, supra, 16 NRC at 1342 (citation omitted; emphasis in original). Decade was aware it had to make this showing (see Tr. 1204-05), yet it failed to provide any link demonstrating that sleeving may lead, or be related, to tube failures. Indeed, only on brief does Decade mention, without elaboration, that it is concerned with the consequences of "sleeve induced" tube failure. Decade Brief at 3.

Decade's second argument apparently relates to its Exception D.1. Decade claims the Board erred in not establishing "the degree of assurance [necessary] to anticipate steam generator tube failures that is required in order to protect the public safety before it proceeded to determine whether the level of assurance shown was adequate." Decade Exceptions at 2. In essence, Decade believes the Board first had to ascertain the probability and consequences of steam generator tube failures in order to conclude that Point Beach could operate safely with sleeved tubes. Decade Brief at 8. Absent this information, Decade argues, the Licensing Board could not conclude that Point Beach may operate safely after sleeving. In this regard, Decade points out that the Commission has not fully investigated the safety consequences of steam generator tube

failures, in particular those occurring during a loss of coolant accident. Id. at 7-11.⁸

Decade's argument fails. In evaluating the efficacy of eddy current testing to detect flaws in sleeved tubes and in reaching its ultimate conclusion whether the amendment should issue, the Board could apply only existing safety standards. See Nader v. NRC, 513 F.2d 1045, 1052-54 (D.C. Cir. 1975); Nader v. Ray, 363 F. Supp. 946, 954 (D.D.C. 1973). Consideration of the probability and magnitude of steam generator tube failures is not required by the Commission's existing regulations. Nor were such general issues encompassed within the scope of this license amendment proceeding. Absent a demonstration that sleeving would contribute to steam generator tube failure, the Licensing Board did not have to consider the probabilities

⁸ Decade is correct that the agency has not yet studied the consequences of multiple steam generator tube failures. Indeed, the agency has extant a long standing commitment to study these issues. See, e.g., Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-343, 4 NRC 169, 171 (1976); NUREG-0410, "NRC Program for the Resolution of Generic Issues Related to Nuclear Power Plants," Appendix F, Technical Activity No. A-3 (1978). We note that in the staff's February 1982 "Steam Generator Status Report," attached to SECY-82-72, "Overall Steam Generator Program" (Feb. 18, 1982), the staff acknowledges (at 2) that the multiple tube failure problem has not yet been rigorously studied, but states (at 6-7) that many steam generator issues are resolved in a draft report (NUREG-0844). To our knowledge this document has not yet been published in either final or draft form.

and consequences of tube failures before considering whether sleeving of Point Beach steam generators would be inimical to the public health and safety. But, in any event, the Board did consider the safety aspects of sleeving -- including the failure of eddy current testing to detect flaws in sleeved tubes -- before authorizing issuance of the license amendment. See LBP-83-4, supra, 17 NRC at __ (slip opinion at 13-34).

III

Independent of the issues raised by Decade's appeal, we have examined the Licensing Board's initial decision and the underlying record pursuant to our long standing practice to review, sua sponte, "'any final disposition of a licensing proceeding that either was or had to be founded upon substantive determinations of significant safety or environmental issues.'" Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), ALAB-655, 14 NRC 799, 803 (1981), quoting Washington Public Power Supply System (WPPSS Nuclear Project No. 2), ALAB-571, 10 NRC 687, 692 (1979). Our review of the record below on the substantive safety issues has disclosed no error requiring corrective action. Indeed, with one minor exception noted below (see note 9, infra), we generally agree with the Licensing Board's conclusions regarding the acceptability of sleeving as a repair technique for steam generator tubes at

Point Beach.⁹ An additional matter, however, merits our attention.

As we discussed earlier, the Licensing Board took evidence on the safety implications of sleeving so that the record would nevertheless be complete in the event it found eddy current testing inadequate to detect flaws in sleeved tubes. The Board then made findings on the safety of sleeved tubes even though this contingency did not arise. We have evaluated the complete record and believe that a brief discussion of the basis for the Board's safety finding

⁹ There is one aspect of the Licensing Board's analysis that we do not endorse. The Board concluded there was no genuine issue concerning eddy current testing of the upper joint between the sleeve and its surrounding tube. LBP-83-4, supra, 17 NPC at ___ (slip opinion at 22); LBP-82-88, supra, 16 NRC at 1346. Consequently, when it ordered the applicant and the staff to address the question of the safety implications of sleeving in the event the Board might find eddy current testing inadequate for detecting flaws in sleeved tubes, no evidence was presented regarding the efficacy of eddy current testing in this portion of the sleeve. Decade appears to take exception to the Board's handling of this point, but did not brief the issue and we therefore do not consider it before us on Decade's appeal. On sua sponte review, however, we note that the ability to inspect the upper tube joint is a matter of importance. Such inspections are, in our opinion, required by General Design Criterion 32, 10 CFR Part 50, App. A. The ability to inspect this region is analogous to the ability to inspect the upper transition region in the replacement steam generators, a matter we addressed in our July 8, 1983 Memorandum and Order in Docket No. 50-266 OLA-2. Our previous inquiry regarding eddy current testing at the transition in the steam generator replacement proceeding, and our new inquiry here with respect to the ability to inspect the upper sleeve joint, are the subject of a companion memorandum and order issued with this decision.

may help answer Decade's apparent concern that sleeving will cause multiple tube failures.

Before a steam generator tube composed of Inconel 600 (a tough, ductile material) can be weakened by corrosion cracking to the point that it would rupture during an accident, the crack must attain a certain critical length. Fletcher, fol. Tr. 1422, at 7-8; Appl. Exh. I (WCAP-9960 Rev. 1) at 6.121-122, 6.126. This fact bears upon the safety of steam generator operation in two ways. First, despite the limitations of the eddy current technique in detecting small tube flaws (see LBP-83-4, supra, 17 NRC at ___ (slip opinion at 2, 13-15); Tr. 1500-01, 1691-92, 1704), if a crack is of such size as to threaten the structural integrity of the tube, it is likely to be large enough to be detected in an eddy current examination. LBP-83-4, supra, 17 NRC at ___ (slip opinion at 17); Tr. 1846, 1848. Second, and perhaps of greater consequence in terms of the assurance of safety, before a tube crack reaches the size that it structurally weakens the tube, the crack likely would penetrate the tube wall, causing primary-to-secondary leakage. Fletcher, fol. Tr. 1422, at 7-9; Tr. 1747-49.¹⁰

¹⁰ This is the so called "leak-before-break" phenomenon. The history of steam generator tube failures reflects over 200 instances of tube leakage. Murphy, fol. Tr. 1828, at 10; Tr. 1783 (Fletcher). In contrast, there have been only
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Because the radioactivity present in primary system water provides a sensitive means of detecting such leakage into the nonradioactive secondary system water, there is a mechanism to provide a timely warning of the serious degradation of even a single tube. See LBP-83-4, supra, 17 NRC at ___ (slip opinion at 26-27). Thus, there seems to be a progressively decreasing likelihood that, through corrosion cracking, one or more tubes could be weakened to the point that they could fail under accident conditions without this situation being heralded by detectable leakage.

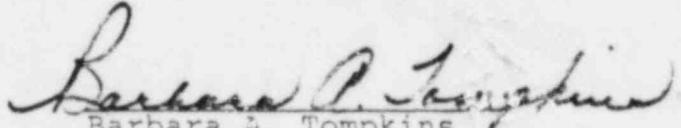
We recognize the evidence just outlined does not constitute the equivalent of a rigorous, quantitative determination of the likelihood and consequences of multiple tube failures. Nevertheless, we believe that the record in this proceeding supports the current staff requirement that only single, random tube failures be analyzed.

The decision of the Licensing Board authorizing the grant of the license amendment (LBP-83-4, 17 NRC ___) is affirmed.

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four cases of catastrophic tube failure-rupture, and the circumstances surrounding each of these are distinguishable from the type of corrosive attack and cracking that may be expected at Point Beach. Tr. 1596, 1775-81 (Fletcher); Marsh, fol. Tr. 1822, at 3.

It is so ORDERED.

FOR THE APPEAL BOARD

A handwritten signature in cursive script, reading "Barbara A. Tompkins".

Barbara A. Tompkins
Secretary to the
Appeal Board