



which had been rejected by the Licensing Board at the threshold in 1982 and reinstated by us last year in ALAB-875,<sup>2</sup> relates to the impact of aquatic organisms on the performance of cooling systems.

The basis of the Licensing Board's action in the May 12 order was the Coalition's announced election not to litigate further Contention IV. But, as noted in ALAB-894, that election was founded upon a previous Licensing Board ruling that, although addressed to the possibility of a coolant flow blockage resulting from the buildup of macrobiological organisms, Contention IV did not also encompass microbiologically-induced corrosion. The Coalition informed the Licensing Board that it did not accept that interpretation of the contention and, moreover, continues to believe that the applicants' program for detecting and controlling microbiologically-induced corrosion is inadequate.

In essence, then, the appeal at hand calls upon us to determine whether, as the Coalition insists, the Licensing Board erred in concluding that Contention IV did not embrace the issue of microbiologically-induced corrosion. For the

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<sup>2</sup> 26 NRC 251, 275 (1987). Contrary to the conclusion of the Licensing Board, we determined that the contention had an adequately stated basis and did not traverse territory covered in the Seabrook construction permit proceeding. Id. at 261-63.

reasons that follow, we agree with the applicants and the NRC staff that the Board below correctly construed the contention.<sup>3</sup>

A. Contention IV reads as follows:

Blockage of Coolant Flow to Safety-Related Systems and Components by Buildup of Biological Organisms.

The Applicant must establish a surveillance and maintenance program for the prevention of the accumulation of mollusks, other aquatic organisms, and debris in cooling systems in order to satisfy the requirements of GDC 4, 30, 32, 33, 34, 35, 36, 38, and 39, which require the maintenance and inspection of reactor cooling systems. The design, construction, and proposed operation of Seabrook fail to satisfy these requirements.

At the time it submitted this contention in June 1982, the Coalition offered this as the entire basis:

On May 19, 1982, the Commission published in the Federal Register a notice of abnormal occurrences at a number of nuclear reactors around the country. 47 FR 21653. The notice described the accumulation of asiatic clams, mussels, and other aquatic organisms in reactor cooling systems which had hitherto gone unnoticed. At one reactor, Brunswick Unit One, blockage of coolant flow paths resulted in the "total loss of both redundant trains of the residual heat removal system." 47 FR at 21653.

Noting that the dissipation of heat to the environment is an essential safety function, the Commission found that blockage of coolant systems by biological organisms and debris could cause "possible degradation of the heat transfer capabilities of redundant safety systems to the

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<sup>3</sup> It is thus unnecessary to consider certain other arguments advanced by the Coalition on its appeal, all of which rest on the premise that Contention IV encompassed microbiologically-induced corrosion.

point where system function is lost." Id. at 21655.

The abnormal occurrences at the six reactors showed that "preventive measures and methods of detecting gradual degradation have been inadequate in certain areas to preclude the occurrence." Id. The licensees in each case agreed to improve design features and detection techniques to prevent future significant fouling.

The Seabrook reactor uses ocean water for cooling and is particularly susceptible to fouling by aquatic organisms. The fouling does not occur only in the intake pipes of reactors. Organisms may find their way into the entire cooling system and even into the heat exchangers. Id. at 21654. In addition, the buildup of fouling organisms or corrosion products on piping walls, although not severe enough to block water flow during normal operation, could be dislodged by seismic activity and "collect in equipment bearing or seal coolers blocking the cooling water flow." Id. Because it is particularly vulnerable to intrusion by aquatic organisms, the Seabrook plant should be equipped with a maintenance and inspection program adequate to prevent the kind of degradation<sup>4</sup> which current measures obviously do not achieve.

The question respecting the scope of Contention IV came to the fore in a discovery motion filed by the Coalition in the wake of our reinstatement of the contention in ALAB-875. In that motion, the Coalition sought, inter alia, a declaration that microbiologically-induced corrosion is within the contention's ambit "for purposes of this litigation, or at minimum, for purposes of this, and all

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<sup>4</sup> NECNP's Supplemental Contentions (June 17, 1982) at 1-3.

future, discovery."<sup>5</sup> Denying the motion in its entirety, the Licensing Board observed that, in terms, Contention IV is confined to concerns regarding the accumulation of mollusks, other aquatic organisms, and debris in Seabrook's cooling systems. In this regard, the Board found nothing in the contention, or the basis stated for it in 1982, that might reflect a concern that fouling by microbiological organisms might occasion leaks in and degradation of safety-related equipment. Still further, the Board noted that there was no mention by the Coalition of microbiologically-induced corrosion when it referred in the stated basis to the possibility that corrosion products might be dislodged by seismic activity and block cooling water flow.<sup>6</sup>

B. The body of Contention IV does not mention either blockage or corrosion. It is apparent from both its heading

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<sup>5</sup> New England Coalition on Nuclear Pollution's Motion to Compel Applicants to Respond [to] NECNP's Second Set of Interrogatories and Request for Production of Documents on NECNP Contention IV (January 25, 1988) [hereinafter, Coalition's January 25 Motion to Compel] at 16.

<sup>6</sup> See Memorandum and Order (Granting NECNP's Motion for Leave; Denying NECNP's Motion to Compel) (February 17, 1988) at 5-7 (unpublished). On March 1, the Coalition filed a motion for reconsideration that the Licensing Board denied on March 18. In another filing on March 22, the Coalition pressed anew its claim that the issue of microbiologically-induced corrosion was embraced by Contention IV. This endeavor was summarily rejected by the Board in an unpublished April 1 order.

and the basis offered for it, however, that the contention is, in fact, addressed exclusively to the possibility of a blockage of coolant flow to safety-related systems. Indeed, the heading conveys precisely that message.<sup>7</sup> And, for its part, the assigned basis relies solely on a May 1982 Federal Register notice in which the Commission called attention to the fact that several nuclear facilities had experienced a previously undiscovered cooling system blockage as a consequence of the accumulation of asiatic clams, mussels, other aquatic organisms, and debris. Thus, according to the Coalition, because the Seabrook facility uses ocean water for cooling, it is particularly susceptible to fouling by aquatic organisms and may suffer a like cooling water blockage.<sup>8</sup>

The reach of a contention necessarily hinges upon its terms coupled with its stated bases. We have long held that one purpose of the requirement in 10 CFR 2.714(b) that the bases of a contention be set forth with reasonable specificity is to put the other parties on notice as to what issues they will have to defend against or oppose.<sup>9</sup> Thus,

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<sup>7</sup> See supra p. 3.

<sup>8</sup> See supra pp. 3-4.

<sup>9</sup> Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20, modified on other grounds, CLI-74-32, 8 AEC 217 (1974).

where a question arises as to the admissibility of a contention, we look to both the contention and its stated bases.<sup>10</sup> Similarly, where, as here, the issue is the scope of a contention, there is no good reason not to construe the contention and its bases together in order to get a sense of what precise issue the party seeks to raise.<sup>11</sup> In this case, therefore, a fair reading of the Coalition's Contention IV and its stated basis compels us to conclude that that contention was intended to embrace only cooling system blockage.

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<sup>10</sup> See, e.g., Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-869, 26 NRC 13, 20-25, reconsideration denied, ALAB-876, 26 NRC 277 (1987); Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-845, 24 NRC 220, 229-33 (1986).

<sup>11</sup> In Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 709 (1985), aff'd in part and review otherwise declined, CLI-86-5, 23 NRC 125 (1986), we stated that an intervenor "is bound by the literal terms of its own contention." Thus, an intervenor is not free to change the focus of its admitted contention, at will, as the litigation progresses. We did not mean to suggest that, for the purpose of determining the scope of a contention, a board should exclude consideration of the contention's originally stated basis. In fact, in Limerick, it is apparent that we considered both the contention and its basis in an effort to ascertain the real scope of the issue intervenor sought to raise. See id. at 708 n.35, 709.

The realities of NRC practice are such that contentions and their bases must always be considered in tandem. As Peach Bottom, 8 AEC at 20, points out, section 2.714 does not impose technical pleading requirements. Consequently, every intervenor seems to follow a different format for

(Footnote Continued)

The overall record in this proceeding lends further support to our construction of Contention IV. Barely a year ago, one of the Coalition's attorneys had this to say about Contention IV in the course of an exchange with a then member of this Board during the oral argument on the appeal from the Licensing Board's threshold rejection of the contention:

MS. CURRAN [Coalition Counsel]: . . . The contention asserts that the applicants must have a sufficient maintenance and inspection program to prevent the fouling of the Seabrook cooling systems by marine organisms such as mollusks, tube worms and barnacles.

It's based on a May [1982] notice of abnormal occurrences at six nuclear reactors around the country where the previous maintenance and inspection programs failed to show these problems up and they had serious problems with the cooling systems.

JUDGE EDLES: What about the applicants' argument, as I understand it, that that Commission notice really only related to situations where the cooling water involved the ultimate heat sink?

MS. CURRAN: Well, I think that is kind of a red herring because the problem is if something is fouling your cooling system and if there are clams blocking the heat exchangers, it doesn't really matter if you've got another source of water. The water is not going to go through the heat exchangers anyway. So the fact that there is a cooling tower there really is irrelevant to this contention.

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(Footnote Continued)

contentions and bases, making it essential for boards to consider both when making any ruling in connection with a contention.

What is relevant is that the safety equipment that is fed by these cooling tunnels may be blocked by these organisms. The argument that this was litigated at the construction permit phase again is misplaced.

First of all, we are talking about the blockage of these cooling systems. The construction permit case dealt with whether or not there was an earthquake and these cooling tunnels collapsed there might be another source of water for the heat exchangers. Again, that's a different issue.<sup>12</sup>

Subsequently, on her rebuttal argument, counsel once again characterized the contention as involving the "blockage of cooling systems."<sup>13</sup>

Further, throughout the Licensing Board examination of Contention IV following its reinstatement in ALAB-875, the Coalition eschewed any mention of potential blockage when referring to microbiologically-induced corrosion. This is not surprising. For it is quite apparent from one of its filings below that the Coalition views such corrosion as troublesome because it can lead to the through-wall pitting of tubes "in a matter of weeks"<sup>14</sup> -- which would, of course, produce leakage but not blockage. The same dichotomy

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<sup>12</sup> App. Tr. 33-34 (July 24, 1987) (emphasis supplied).

<sup>13</sup> App. Tr. 158.

<sup>14</sup> See Coalition's January 25 Motion to Compel at 10-13. In support of that view, the Coalition erroneously referred to NUREG/CR-4724, Volume 1. The correct reference is NUREG/CR-4626, Volume 2 (March 1987).

between the effects of the accumulation of macrobiological, as opposed to microbiological, organisms appears in a subsequent submission to the Licensing Board, where the Coalition (focusing only on the contention itself and ignoring its heading and assigned basis) stated:

The literal terms of Contention IV plainly encompasses [sic] all of the detrimental effects of the "accumulation" of "aquatic organisms" in cooling systems. This includes both blockage and subsequent heat transfer impairment caused by the build-up of macro-biological organisms, and microbiologically induced corrosion and subsequent leakage, caused by the accumulation of microbiological organisms.<sup>15</sup>

It need be added only that the Coalition has not taken a different tack in its brief to us. Once again, it uses the term blockage solely in the context of the accumulation of macrobiological organisms and debris.<sup>16</sup>

In these circumstances, it is manifest that the Coalition pursued the wrong course when, at some point after our reinstatement of Contention IV, it focused for seemingly the first time upon the possibility that extremely small marine organisms in cooling systems could bring about pipe

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<sup>15</sup> New England Coalition on Nuclear Pollution's Reply to Applicants' and the Staff's Responses to NECNP's Motion for Reconsideration of the Board's Denial of NECNP's Motion to Compel, Dated February 17, 1988 (March 22, 1988) at 6 (emphasis in original).

<sup>16</sup> See New England Coalition on Nuclear Pollution's Brief in Support of Its Appeal of the Licensing Board's Dismissal of NECNP Contention IV (July 1, 1988) at 7-11.

or tube corrosion and thus cause leakage. Rather than endeavor to fit that concern within the four corners of an existing contention that related to an entirely different potential problem -- i.e., blockage from the accumulation of larger marine organisms and debris -- the Coalition should have submitted a new contention. To be sure, the admission of such a contention at that late date would not have been automatic. Among other things, the Licensing Board would have had to determine that a balancing of the five factors that govern the disposition of late-filed contentions favored acceptance in this instance.<sup>17</sup> We need not speculate here on whether a determination to that effect would have been appropriate. For, be that as it may, the divergent path the Coalition chose to follow instead was doomed to certain failure from the very outset.

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The Licensing Board's May 12, 1988 Memorandum and Order is affirmed.<sup>18</sup>

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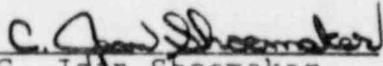
<sup>17</sup> See 10 CFR 2.714(a); Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041 (1983).

<sup>18</sup> This disposition of the Coalition's appeal does not, of course, relieve the staff of its obligation to ensure the adequacy of the applicants' program for detecting and controlling microbiologically-induced corrosion. Stated otherwise, the admission or rejection of a particular contention advanced by an intervenor (or petitioner for intervention) has no bearing upon the nature and extent of

(Footnote Continued)

It is so ORDERED.

FOR THE APPEAL BOARD

  
C. Jean Shoemaker  
Secretary to the  
Appeal Board

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(Footnote Continued)  
staff's responsibilities in the fulfillment of its general  
regulatory function.