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LBP-92-28

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ivan W. Smith, Chairman
Dr. Charles N. Kelber
Dr. Jerry R. Kline

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In the Matter of NORTHEAST NUCLEAR ENERGY COMPANY (Millstone Nuclear Power Station, Unit No. 2)	Docket Nos. 50-336-OLA FOL No. DPR-65 (ASLBP No. 92-665-02-OLA) (Spent Fuel Pool Design)

September 30, 1992

MEMORANDUM AND ORDER
(Ruling on Petitions for Leave to Intervene)

I. SYNOPSIS

This is a spent fuel pool design proceeding occasioned by Amendment 158 to the Millstone Unit 2 facility operating license. In this Order the Board rules that the Co-Operative Citizen's Monitoring Network (CCMN) has filed a timely petition for leave to intervene and request for hearing; has standing to intervene in the proceeding; and has submitted an acceptable contention. Therefore CCMN has satisfied all of the requirements to intervene in NRC proceedings and is admitted as a party. A hearing is

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ordered. Other petitions for leave to intervene are rejected.

II. BACKGROUND

On April 16, 1992, Northeast Nuclear Energy Company, the Licensee herein, submitted Millstone Nuclear Power Station Unit 2 Proposed Revision to Technical Specifications, Spent Fuel Pool Reactivity (Amendment 158). The Amendment modified administrative controls over the use of the spent fuel pool so as to impose additional restrictions upon use of the pool. Prior to Amendment 158, fuel storage racks in the spent fuel pool were administratively partitioned into two regions. The Amendment authorized Licensee to divide the same racks into three regions and, by installation of blocking devices, reduced the number of fuel bundles that can be stored in one of the three regions. As a result, the overall fuel storage capacity of the Unit 2 spent fuel pool was reduced from 1112 to 1072 fuel bundles. According to the Licensee, Amendment 158 is restrictive in nature -- a point giving rise to an important legal issue in this proceeding.

Amendment 158 was preceded by circumstances reported in Licensee Event Report (LER) 92-003-00, dated March 13, 1992. There the Licensee reported the discovery of criticality analysis calculational errors with respect to the Millstone Unit No. 2 spent fuel pool. The Licensee reported that:

> The safety consequence of this event is a potential uncontrolled criticality event in the spent fuel pool. Upon consideration of the following factors, a significant margin to a critical condition was always maintained and, therefore, the safety consequences of this event were minimal: [factors omitted].

As Licensee explains the event, the actual K_{eff} in the spent fuel pool was still subcritical and less than the Technical Specification limit of 0.95 when the calculational error was discovered. However, a revised calculation of K_{eff}, assuming a spent fuel pool at full capacity and other conservatism, determined a maximum K_{eff} to be 0.963 rather than the previously-calculated 0.922. This result was inconsistent with previous safety analyses. Licensee's Answer at 4-5.[1]

Further, according to Licensee:

> Amendment 158 ensures that K_{eff} will be less than 0.95 in all cases, by requiring that a portion of the existing fuel racks be designated for spent fuel that has undergone a specified burnup, and that blocking devices be installed in a portion of the existing racks to reduce the amount of fuel to be stored in these racks. This increases the distance between fuel bundles, which results in a lower K_{eff}.

Licensee's Answer at 5. This claim is the focus of the contention accepted by the Board below.

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[1]Northeast Nuclear Energy Company's (1) Answer to the Licensing Board's Questions and (2) Answer to Petitions and Supplemental Petitions to Intervene (Licensee's Answer), September 8, 1992.

On April 28, 1992, the NRC Staff, for the Commission, issued a preliminary determination that Amendment 158 involved "no significant hazards consideration," and published a Notice of Opportunity for Hearing.[2] The notice required that written requests for hearing and petitions for leave to intervene in accordance with 10 C.F.R. § 2.714 be filed by May 28, 1992. On June 4, 1992, the NRC Staff issued Amendment No. 158 after considering comments from intervention petitioners in accordance with 10 C.F.R. § 50.92.

Petitions for leave to intervene and requests for hearing were filed by several entities.[3] The petition granted by this Order was filed by Mary Ellen Marucci on behalf of herself and CCMN on May 28, 1992. Other petitions remain significant only because some petitioners authorize CCMN to represent their interests. See Preliminary Ruling, Section III, infra.

By Memorandum and Order of July 29, 1992, the Board established a schedule for the filing of amended and

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[2]"Northeast Nuclear Energy Co.; Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing," 57 Fed. Reg. 17934 (April 28, 1992).

[3]The NRC Staff and Licensee filed answers to the earliest petitions, but as intervention pleadings continued to be filed, the Board reduced the number of pleadings by deferring further Staff and Licensee answers until the final round of petitioning. Orders of June 30 and July 15, 1992.

supplemental intervention petitions. The Order stated that each petitioner was to file by August 14, 1992 a list of contentions,[4] and set forth the main requirements contentions must satisfy. The Order further set forth regulatory provisions applicable to nontimely petitions (those filed after May 28, 1992) and cited the five factors to be balanced in evaluating nontimely petitions. See 10 C.F.R. § 2.714(a)(1). The Board also invited the parties to address three questions related to standing to intervene in NRC proceedings. On August 24, 1992, CCMN filed its contentions.[5]

The Licensee filed its answer opposing the petitions on grounds of lateness, no standing to intervene, and failure to file an acceptable contention. Licensee's Answer, passim. The NRC Staff opposed all petitions on the last two grounds.[6]

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[4]By Memorandum and Order of August 18, 1992, CCMN was given until August 24, 1992 to file amended and supplemental petitions containing contentions.

[5]By Memorandum and Order of September 17, 1992, the Board, on its own motion, struck from the record CCMN's "Final Version" of its contentions dated August 24, 1992 and CCMN's Amendment to Intervention and Hearing Request dated August 13, 1992 as nontimely and not in compliance with service requirements.

[6]NRC Staff Response to Supplemental Petitions and CCMN Contentions (Staff's Answer), September 14, 1992.

III. PRELIMINARY RULING

By letter dated May 27, 1992, Patricia R. Nowicki filed an intervention petition and request for hearing on behalf of Earthvision, Inc. By letter dated July 29, 1992, Ms. Nowicki advised the Board that Earthvision, Inc. lacked corporate status in Connecticut and that she wished to continue to participate in this proceeding as an individual. Michael J. Pray filed intervention pleadings on May 29 and July 2, 1992. Rosemary Griffiths filed a petition on June 29. On August 13, Ms. Griffiths clarified that she wanted CCMN to represent her interests. Joseph M. Sullivan filed a petition on July 6. Don't Waste Connecticut filed on June 26 and Frank X Lo Sacco petitioned on August 13. However, none of these petitioners filed contentions by August 14, 1992, the date set by the Board scheduling Order of July 29, or at any time until the issuance of this Order. The intervention rule states that any petitioner who fails to file at least one contention will not be permitted to participate as a party to a proceeding. 10 C.F.R. § 2.714 (3)(b)(1). Accordingly, in our Order below, the Board rejects the Nowicki, Pray, Griffiths, Sullivan, Don't Waste Connecticut, and Lo Sacco intervention petitions.

However, Mr. Pray and Ms. Griffiths are members of CCMN. Mr. Sullivan is associated with CCMN. Each expressly authorize CCMN to represent their interests in this

proceeding. We take these authorizations into account in assessing whether CCMN has standing to intervene. See Section V.D, infra.

IV. TIMELINESS OF CCMN'S PETITION

The Licensee challenges CCMN's petition on the ground of lateness. The NRC Staff does not. Since the Board may not entertain nontimely petitions absent a balancing of the traditional five factors of Section 2.714(a)(1)(i)-(1)(v), we address the issue of timeliness at the threshold.

The broad factual issue is whether Ms. Marucci filed a timely petition to intervene as an agent and officer of CCMN.

As noted above, the Federal Register notice set May 28, 1992 as the last date for filing timely petitions for leave to intervene and requests for hearing. Ms. Marucci filed an undated petition letter received by the Secretary of the Commission on Monday, June 1, 1992. Licensee states that the petition was postmarked May 29 and was, therefore, late. The NRC Staff states that Ms. Marucci filed on May 28, 1992 and that she filed timely.

In the worst case, Ms. Marucci's filing was only slightly late. Therefore the burden of satisfying the five factors for granting nontimely petitions would be commensurately lightened. For reasons that follow, we rule that Ms. Marucci's petition was timely. Therefore, we need

not address the balancing factors with respect to that pleading.

Under NRC practice, filing is deemed complete as of the time it is deposited in the mail -- not postmarked. 10 C.F.R. § 2.701(c). Normally the postmark would establish the date of deposit, but, necessarily, the postmark must follow the deposit. A common experience is that the date of a postmark may fall on a date after the date of actual deposit. The Board is not inclined to deny intervention on circumstances that involve, at most, a matter of hours.

Licensee also makes an argument that CCMN's petition is nontimely because CCMN, as an organization, did not act until it filed its petition on June 23, 1992.[7] If so, it follows that CCMN must prevail on the five balancing factors before its nontimely petition can be entertained. Since CCMN did not satisfy, or even address these factors, its petition, according to Licensee, may not be entertained. Licensee's Answer at 36-41.

The key to resolving this factual issue is the nature and effect of Ms. Marucci's timely filing of May 28, and CCMN's motions of June 23. On May 28, Ms. Marucci explained in separate paragraphs that:

> I am using this format to <u>request a hearing</u> also. I am co-ordinator for Co-operative Citizen's

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[7]CCMN Motion to amend petition to intervene and Motion for leave to file additional affidavit, June 23, 1992.

> Monitoring Network and need time to approach my organization on what part they wish to play.
>
> I as a concerned citizen wish to intervene and as an individual am requesting a hearing.

Petition letter (emphasis added).

Licensee misperceives Ms. Marucci's action in the May 28 petition letter. Licensee states "Ms. Marucci submitted a nontimely petition which, she emphasized, was filed on her own behalf and not on behalf of CCMN." Licensee's Answer at 36.

Ms. Marucci emphasized nothing of the sort. The best and fairest inference is that Ms. Marucci requested a hearing in two respects -- once in connection with her role as CCMN's coordinator and once as an individual.

In its June 23 motion, CCMN describes Ms. Marucci's action on May 28 as: "She made that request as an individual pending the approval of our board." Ms. Marucci's personal intervention was then abandoned. Id.

In both the May 28 or June 23 pleadings, it is evident that, on May 28, Ms. Marucci acted on behalf of, but without advance express authority from CCMN.

Neither intervention pleading would qualify as a learned treatise on principal/agent law. We understand that CCMN, as an environmental group, does not ponder the nuances of agency law. Our responsibility is to apply the law to the facts before us.

Under either of two general principal/agent legal concepts, Ms. Marucci's May 28 petition constituted timely petitioning by CCMN. First, Ms. Marucci was the coordinator and the highest ranking officer of CCMN at the time of her May 28 petitioning. The action she took was well within the mission and purposes of CCMN.[8] Her general authority to act on behalf of CCMN without immediate express authority should be inferred -- at least pending CCMN approval. One of the important purposes of having corporate officers is to act broadly for the corporation within its charter and by-laws without express consent. Under this theory, Ms. Marucci would be empowered to intervene on behalf of CCMN until CCMN's official approval or disapproval.

Second, even assuming that the policies of CCMN did not permit Ms. Marucci to bind CCMN on May 28, CCMN's June 23 petition plainly ratified that act. The effect of ratification by a principal of its agent's previous acts is to adopt those acts as the principal's own as of the time the agent acted.

The tenuous nature of the May 28 intervention petition could not injure Licensee, nor is it offensive to orderly intervention procedure. NRC intervention rules provide for later-filed intervention pleadings as a matter of course. 10 C.F.R. § 2.714(a)(3). Licensee and the NRC staff were

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[8]See Articles of Incorporation attached to the June 13, 1992 CCMN motions.

timely apprised that CCMN was a likely player in the proceeding.

We rule that Ms. Marucci's May 28 intervention for CCMN was valid and timely on May 28 but voidable at the option of CCMN. CCMN supported the petition on June 23. CCMN's petition is timely.

V. STANDING TO INTERVENE

A. General Principles

Not everyone has a right to intervene in NRC proceedings. This is fundamental law. It derives from Section 189(a)(1) of the Atomic Energy Act which states that the "Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding."

The intervention rule implementing Section 189 of the Act provides "[a]ny person whose interest may be affected by a proceeding and who desires to participate as a party shall file a written petition for leave to intervene." 10 C.F.R. § 2.714(a)(1). Section 2.714(a)(2) states that such petitions:

> shall set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, including the reasons why petitioner should be permitted to intervene, with particular reference to the factors in paragraph (d)(1) of this section, and the specific aspect or aspects

of the subject matter of the proceeding as to which petitioner wishes to intervene.

Under Section 2.714(d)(1), a petition for leave to intervene must also address the following factors:

(i) The nature of the petitioner's right under the Act to be made a party to the proceeding.

(ii) The nature and extent of the petitioner's property, financial, or other interest in the proceeding.

(iii) The possible effect of any order that may be entered in the proceeding on the petitioner's interest.

The Commission has applied judicial concepts of standing in determining whether a petitioner has sufficient interest in an NRC proceeding to be entitled to intervene. It has been generally recognized that these judicial concepts involve a showing that "(a) the actions will cause 'injury in fact' and (b) the injury is arguably within the 'zone of interests' protected by the statutes governing that proceeding." Florida Power and Light Co. (St. Lucie, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989), citing Portland General Electric Co. (Pebble Springs, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976); Metropolitan Edison Co. (Three Mile Island, Unit 1), CLI-83-25, 18 NRC 327, 332-33 (1983). These principles have most recently been reaffirmed by the Commission in Sacramento Municipal Utility District (Rancho Seco Station), CLI-92-2, 35 NRC 47, 56 (1992).

B. Causation and Standing

Amendment proceedings initiated by NRC licensees where the amendment is designed to improve safety seldom create intervention issues. This is because there must be a causal nexus between the licensing action in issue and any injury in fact. In their respective answers to the initial petitions, Licensee and the NRC Staff seemed to argue that, if the amendment reduces risks from the pre-amendment condition, the amendment itself cannot cause "injury in fact" within the scope of the notice of opportunity for a hearing. The Board could find no decisional precedents for this position.

Therefore in our Order of July 29, 1992, we requested the participants to answer questions about the injury in fact and causation issue. In answering, they were to assume that the amendment simply imposes additional restrictions on the use of the Unit 2 fuel pool and therefore would not increase risks from the pre-amendment condition. To better focus the analysis, we requested the pleaders to assume even that the amendment actually decreases the risk of offsite releases from a spent fuel pool accident at Unit 2.

The key question, No. 1, was:

> Assuming as above stated, could an allegation that the technical specifications, as amended, do not bring the spent-fuel pool up to the licensing basis and do not satisfy NRC criticality requirements, establish injury-in-fact? In simpler terms, can nearby Petitioners suffer

> injury-in-fact from postulated offsite releases if the amendment increases safety, but not enough?

Order at 6.[9]

With respect to the first part of Question No. 1, the Staff answered:

> Yes. A specific allegation, meeting the requirements of 10 C.F.R. § 2.714(b)(2), that a spent fuel pool's criticality requirements were not being met, would raise sufficient public health and safety concerns to constitute injury-in-fact, since this would call into question the adequacy of a safety margin. [footnote omitted.] To establish standing to intervene in a particular proceeding, as distinguished from a generic matter applicable to all plants, a petitioner would have to show possible harm to one or more of its protected interests arising from a spent fuel pool's criticality requirements not being met.

Staff Answer at 3-4.

Addressing the second part of the question, the Staff added that "if a petitioner could show that a license amendment, while improving safety, left a plant system outside its design basis, this would constitute injury-in-fact." Staff Answer at 4.

However, the Staff also cautioned that "nearby petitioners would have to show a causal relationship between

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[9]Question No. 2 asked what relief would be available from post-amendment risks to nearby residents if Question No. 1 is answered in the negative. Question No. 3 alluded to a discussion of the "no significant hazards consideration" procedures where the Commission provided examples of amendments that are considered likely, and examples that are considered unlikely to involve significant hazards considerations. Order at 7, citing Final Procedures and Standards on No Significant Hazards Consideration, 51 Fed. Reg. 7744, 7751, March 6, 1986. Based upon Licensee's and Staff's answers, we agree that Question No. 3 is not relevant.

the licensing action at issue and harm to their protected interests in order to establish their standing to intervene." Id. The Staff went on to argue that CCMN has failed to make this showing. Id. at 10-11.

Licensee argues that the issuance of a license amendment imposing restrictions designed to increase safety cannot cause injury in fact. Licensee's position can be summed as follows:

> While it is true, under the hypothesis of Question 1, that the potential concern is not rectified by the license amendment, neither is it caused by the license amendment. For standing, the licensing action (i.e., issuance of the license amendment) must cause the injury in fact. [Citation omitted.] In our case, a prior calculational error, not the Amendment at issue, caused a reduced margin of safety. The Amendment itself will not cause an injury, and in fact is intended to reduce the risk of potential offsite exposures.

Licensee's Answer at 20.

Licensee argues further that the issue of whether the amendment will return the spent fuel pool to the design-basis level of safety is simply not before the Board; that the Commission alone has the authority to define and to limit the scope of a proceeding under Section 189(a) of the Atomic Energy Act. Licensee's Answer at 21-22, citing Bellotti v. Nuclear Regulatory Comm'n., 725 F.2d 1380 (D.C. Cir. 1983).

The Bellotti decision turned on the issue of where the authority to define the scope of a proceeding lies; that is, does it lie with a petitioner or with the Commission? The

petitioner in Bellotti, the Attorney General of Massachusetts, appealed the Commission's denial of his petition to intervene in a proceeding to determine whether a Commission enforcement order to the Pilgrim Nuclear Station licensee should be sustained. That order, issued by the NRC Staff, directed the licensee to develop a plan to improve management functions. Bellotti, 725 F.2d at 1381-82. Attorney General Bellotti challenged the adequacy of the corrective action ordered by the Commission and requested intervention on that issue.

Part of the discussion in Bellotti seemingly supports Licensee's argument that intervention must be denied here:

> The Commission's power to limit the scope of a proceeding will lead to denial of intervention only when the Commission amends a license to require additional or better safety measures. Then, one who . . . wishes to litigate the need for still more safety measures, perhaps including the closing of the facility, will be remitted to Section 2.206's petition procedures.

Licensee's Answer at 21-22, citing Bellotti, 725 F.2d at 1383. But the Pilgrim enforcement proceeding discussed in Bellotti was unlike the license amendment proceeding here.

As Licensee here notes, the Pilgrim order considered in Bellotti had narrowly defined the scope of the proceeding to encompass only the question of whether the order imposed by the Staff on the Pilgrim licensee should be sustained. This is typical language in license-modification enforcement actions brought by the NRC Staff. However, in the instant

proceeding, it is the Licensee, not the Staff, who seeks the amendment. The Notice of Opportunity for Hearing on Amendment 158 places no express restrictions on the issues to be raised in a respective hearing. Any hearing must, of course, be within the scope of the Amendment 158 notice. That notice describes the scope simply as "with respect to issuance of the amendment." 57 Fed. Reg. 17934-17935.

Fatal to Licensee's argument is the fact that, in Bellotti, the Attorney General's petition was in response to the Notice of an Order Modifying License which offered a hearing to the Pilgrim licensee, but to no one else.[10] The Pilgrim licensee did not request a hearing. Bellotti, 725 F.2d at 1835. Here the petitions are in response to the notice of an opportunity to petition for a hearing and to intervene in a proceeding brought about by the Licensee's application for Amendment 158. The opportunity to intervene was expressly afforded to anyone whose interests may be affected by the proceeding, specifically petitioners under 10 C.F.R. § 2.714. 57 Fed. Reg. 17934-17945.

Despite the peripheral discussion by the Court of the nature of the issues that do not support a request for intervention, see 16, supra, the essence of Bellotti was simply that the Commission, as it deems best, may offer a

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[10]Order Modifying License Effective Immediately, 47 Fed. Reg. 4171, 4173 (January 18, 1982).

hearing to potential petitioners or leave them to seek redress under 10 C.F.R. § 2.206.

Also related to the Licensee's causality arguments, is "the companion mandate that the injury is 'likely to be redressed by a favorable decision in the proceeding.' Seabrook, CLI-91-14, 34 NRC at 267." Licensee's Answer at 19. According to Licensee, if the licensing action challenged in the proceeding is not the cause of the potential injury, a favorable decision cannot redress the injury. Thus, in a license amendment proceeding limited in scope to whether the amendment should be issued, a decision in favor of the petitioners (i.e., to not issue the amendment) would not redress the potential injury.

We do not believe the Notice established the scope of the proceeding to be as restrictive as "whether the amendment should be issued," as Licensee states. But, practically speaking, denying the amendment may be the outer reach of any order the Board might issue in the proceeding. For the sake of argument, we accept the premise.

We return to Licensee's argument that it was the prior calculational error, not the amendment, which caused a reduced margin of safety, therefore any injury in fact. That argument depends too heavily on compartmentalized reasoning. The potential for reduced safety here (injury in fact) is both the prior calculational error and an amendment which does not redress that error but permits operation of

the spent fuel pool according to its terms. The two concepts are logically inseparable.

Assuming that the record of the proceeding were to demonstrate that the risk from the calculational error is not abated by Amendment 158, interested persons may have redress by a denial of that amendment.[11] True, as Licensee states, that action would not correct the prior calculational error, but it would remove the authority to operate the spent fuel pool under an inadequate amendment. Such a denial would return the matter to the Licensee and the NRC enforcement staff for a proper resolution of the problem.

C. Standing Based Upon Proxirity

Often in NRC proceedings, whether a petitioner would sustain an "injury in fact" as a result of an action covered by a proceeding has been determined by whether the petitioner lives or engages in activities near the nuclear plant in question. Thus a petitioner may demonstrate the potential for injury if the petitioners live, work, or, as here, have children in school, in an area which might be affected by the release of nuclear radiation from the plant. A leading case on this point is Virginia Electric and Power

[11]In the real world of NRC adjudications, applicants for licenses and amendments to licenses accept modification as a condition of issuance. Seldom are NRC adjudicators faced with an up or down choice.

Co. (North Anna, Units 1 and 2), ALAB-522, 9 NRC 54, 56-57 (1979), where the proceeding involved a proposed operating license amendment which would authorize the expansion of the spent fuel pool capacity. There the Appeal Board would not rule out as a matter of law derivative standing where a member of the petitioning organization lived about 35 miles from the facility, and where another member lived 45 miles away but engaged in canoeing in close proximity to the plant. Id. at 57.

Also, in North Anna, the Appeal Board noted that it had never required a petitioner in close proximity to a facility in question to specify the:

> causal relationship between injury to an interest of a petitioner and the possible results of the proceeding [footnote omitted]. Rather, close proximity has always been deemed to be enough, standing alone, to establish the requisite interest.

Id. at 56, citing, e.g., Gulf States Utility Co. (River Bend, Units 1 and 2), ALAB-183, 7 AEC 222, 223-24 (1974) and cases there cited. See also Armed Forces Radiology Research Institute (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 154 (1982).

However, as the Commission noted in St. Lucie, supra, cases conferring standing based on a specific distance from the plant "involved the construction or operation of the reactor itself, with clear implications for the offsite environment, or major alterations to the facility with a

clear potential for offsite consequences." 30 NRC 325, 329. The Commission contrasted such cases with those involving minor license amendments: "Absent situations involving such obvious potential for offsite consequences, a petitioner must allege some specific 'injury in fact' that will result from the action taken . . . ." Id. at 329-30 (emphasis added).

D. Whether CCMN Has Derivative Standing

Both the Licensee and NRC Staff acknowledge that an organization may establish injury in fact and standing to intervene if it represents and identifies members who have such injury and standing.[12]

Mr. Pray is a member of CCMN and authorizes that organization to represent him. He lives within five miles of Millstone. He is worried about an accident at the Millstone 2 spent fuel pool and is concerned that Amendment 158 does not protect him and his family. He is particularly concerned about offsite releases reaching him and his family by the ground-water pathway. Letters, May 29 and July 2, 1992.

Ms. Griffiths is a member of CCMN and authorizes CCMN to represent her in this proceeding. She lives about 1.5

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[12]NRC Staff Answer at 8, citing, e.g., Warth v. Seldin, 422 U.S. 490, 511 (1775); Licensee's Answer at 28, citing, e.g., Turkey Point, ALAB-752, 33 NRC at 529.

miles from Millstone, and her children attended school two miles from the plant. She too is concerned about a spent fuel pool accident and shares Mr. Pray's concern that Amendment 158 does afford safety to her and her family. Letter, June 29, 1992.

Mr. Sullivan is "associated" with CCMN and authorizes that organization to represent him. He lives three miles from the plant and his children attend school two miles from the plant. He is concerned about inadvertent criticality at the spent fuel pool. Letter, July 6, 1992.

If Mr. Pray, Ms. Griffiths, or Mr. Sullivan have demonstrated injury in fact from the proposed licensing action in their own right, CCMN has derivative standing to intervene. As noted above, we learned from the Commission's decision in St. Lucie, supra, that "[a]bsent situations involving such offsite potential for offsite consequences, a petitioner must allege some specific 'injury in fact' that will result from the action taken." Id. 30 NRC at 329-30. In other words, we may not infer injury in fact solely from proximity to the facility unless the licensing action implies such potential.

In this case CCMN, through its members, meets both St. Lucie standards, i.e., injury in fact may be inferred and they allege such injury.

They and their families reside and live very close to the facility. As Licensee reported in the LER, "[t]he

safety consequences of the [calculational error] is a potential uncontrolled criticality event in the spent fuel pool." LER, supra, at 3. As discussed in St. Lucie, such an event presents "clear implications for the offsite environment." Although the corrective redesign of the pool may not be regarded as a "major alteration to the facility," operation authorized by an amendment which fails to correct a calculational error carries with it "a clear potential for offsite consequences." This injury in fact is inferred from proximity to the plant.

However, even if such were not the case, the petitioners meet the second St. Lucie test. They have specifically alleged concerns that, if well founded, constitute injury in fact. One must look to CCMN's contentions to determine whether the concerns are well founded.

We find that by virtue of injury in fact, both inferred and as alleged by CCMN members, CCMN has standing to intervene in this proceeding.

VI. CONTENTIONS

A. General Principles

As pertinent here, 10 C.F.R. § 2.714(b) provides:

> (2) Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide the following information with respect to each contention:

(i) A brief explanation of the bases of the contention.

(ii) A concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing, together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion.

(iii) Sufficient information (which may include information pursuant to paragraphs (b)(2)(i) and (ii) of this section) to show that a genuine dispute exists with the applicant on a material issue of law or fact. This showing must include references to the specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

54 Fed. Reg. 33168, 33180 (August 11, 1989).

The Statement of Considerations for the rule, as amended in 1989, provided additional explanation:

This requirement [to provide information] does not call upon the intervenor to make its case at this stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention.

In addition to providing a statement of facts and sources, the new rule will also require intervenors to submit with their list of contentions sufficient information (which may include the known significant facts described above) to show that a genuine dispute exists between the petitioner and the applicant or licensee on a material issue of law or fact. This

> will require the intervenor to read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, and to state the applicant's position and the petitioner's opposing view. When the intervenor believes the application and supporting material do not address a relevant matter, it will be sufficient to explain why the application is deficient.

54 Fed. Reg. 33170.

The Licensee especially directs our attention to the Commission's decision in Arizona Public Service Co. (Palo Verde Nuclear Station, Unit Nos. 1, 2, and 3), CLI-91-12, 34 NRC 149 (1991). There the Commission reversed a licensing board decision which had applied rules of construction to infer a challenge by a petitioner when none was explicitly stated.[13] The Commission stated that Section 2.714(b)(2)(i)-(iii) is to be interpreted strictly: "If any one of these requirements is not met, a contention must be rejected." 34 NRC at 155 (citing the Statement of Considerations, 54 Fed. Reg. at 33168, 33171).

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[13]Palo Verde, LBP-91-15, 33 NRC 397 (1991).

B. CCMN's Contentions

CCMN submitted four contentions.[14] Only Contentions 1 and 2 are arguably within the scope of the proceeding on Amendment 158.

1. Contention 1

> That there is no basis for the NRC to contend that no significant risk is involved in the issuance of the design change that was issued to address the criticality errors found at Millstone 2.

CCMN explained that Contentions 1 and 2 were supported by additional Sections A, B, and C and by the attached affidavits of Dr. Gordon Thompson and Dr. Michio Kaku. Id. Contention 1, it turns out, depends entirely upon the affidavit of Dr. Kaku, which we deem to be a part of the contention itself.[15] Sections A, B, and C of the CCMN Contention pleading and the affidavit of Dr. Gordon Thompson were of no value in explaining either Contention 1 or 2.

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[14]CCMN's "FINAL VERSION" of its contentions dated August 24, 1992 and served September 8, 1992 was struck by Board Order. Note 5, supra. Contentions covered by this Order were also dated August 24, 1992, and were served by the Office of the Secretary (for CCMN) on August 28 1992.

[15]In requesting an extension of time to file contentions, CCMN explained that its experts would actually be filing the contentions. CCMN letter, August 12, 1992, at 1. Consistent with that plan, CCMN's contentions are terse descriptions of its concern while the essence of the contentions were set out in the experts' affidavits.

(a) Dr. Kaku's Affidavit

Dr. Michio Kaku is a full professor of theoretical nuclear physics at the Graduate Center of the City University of New York and the City College of New York. He received his Ph.D. in theoretical physics from the Lawrence Radiation Laboratory at the University of California, Berkeley. Kaku Affidavit, ¶ 1. He discusses the calculational errors and corrective measurements pertaining to Amendment 158. Id., ¶¶ 5-11.

Licensee, however, does not even refer to Dr. Kaku's discussion except to state that:

> The "Background" material, including the accompanying affidavits, obviously asserts a great many purported problems with the spent fuel pool design and the accident analyses used to support that design. However, these concerns are never coherently articulated in a contention. It is not incumbent upon either the Licensee or the Licensing Board to comb through the material provided by a would-be intervener to find what are the "real" proposed contentions.

Licensee's Answer at 50-51.

Licensee's failure to address Dr. Kaku's affidavit on the grounds that it required too much effort deprived the Board of the benefit of its views on important aspects of CCMN's case. As we explain below, the affidavit was well organized. The Board did not have to "comb" through it to locate the relevant sections.

Dr. Kaku begins with his understanding of the fuel-pool rearrangement (Kaku Affidavit, ¶ 2); accurately describes Licensee's main argument in the proceeding (id., ¶ 3); and states that he will address three main areas including: "(a) reanalysis of the criticality study, showing that the calculation of neutron reactivity may not be as rigorous as previously thought" (id., ¶ 4).

Dr. Kaku, next clearly identified his discussion as "Errors in Criticality Analysis". Id., ff. ¶ 4. Then in consecutive, logically progressing paragraphs, Dr. Kaku explains exactly what may be wrong with the criticality analysis and why he believes that the analysis does not adequately address all that should be addressed. Id., ¶¶ 5-12. His cohesive discussion tracks the amendment application and raises a genuine dispute with Licensee as to the Amendment 158 criticality analysis. Id.

As noted above the Commission has stated, "[w]hen the intervenor believes the application and supporting material do not address a relevant matter, it will be sufficient to explain why the application is deficient." 54 Fed. Reg. 33170. Contention 1 must be considered with this guidance in mind.

Dr. Kaku provided a summary of his concerns:

> The previous reactivity study by CE done on the spent fuel pool was in error by 5%, mainly because of the difficulty in modeling the Boroflex

> boxes by the neutron diffusion equation. I am not convinced that the newer neutron reactivity study is sensitive enough to truly calculate the effect of neutron absorption by the Boroflex boxes, especially because of the degradation and unexpected erosion of the boxes (wh: e full extent has never been determined by the utility). The neutron reactivity calculations using Monte [Carlo] techniques studies have inherent uncertainties in them (given the assumptions inherent within the model) that may be too large to make reliable estimates of k_{eff}. for the fully loaded pool.

Id., ¶ 30.

(b) Summary and Proposed Issues Regarding Contention 1

Dr. Kaku's main argument is that Licensee's belief that the rearrangement can only reduce the pool's storage capacity and hence make the pool less dangerous, represents premature optimism. Affidavit, ¶ 4. More information is required. Id., passim. A reanalysis of the criticality study is needed and should address the following issues:

1. What is the actual state of the Boroflex box degradation, and what is the corresponding disposition of the water gaps? Id., ¶ 8. According to Dr. Kaku, the licensee examined only 16% of the Boroflex boxes. Id., ¶ 7.[16] If the

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[16]Apparently Dr. Kaku is mistaken about the sampling. The NRC Staff notes that the defect rate is 16%. The sampling consisted of approximately half of the poisoned rack cells. Staff Answer at 19, citing Licensee's

(continued...)

sample is not representative, the gaps may be larger than expected, or locally concentrated. A concentration of gaps would cause local enhancement of the neutron distribution with an effect of increasing k_{eff}.

2. To what extent are the benchmark data used by the Licensee representative of the arrangement of Boroflex boxes, fuel boxes, and water in the storage pool? Id., ¶ 9.

3. Have the Monte Carlo calculations incorporated enough iterations to provide a good estimate of the pool's reactivity? Id., ¶ 10(d).

4. If a vertical buckling term has been used, has it been used correctly? Id., ¶ 10(c).

The foregoing summary and proposed issues will constitute a basis for discussion at the forthcoming prehearing conference.

The Staff argues that Dr. Kaku fails to specify how the Licensee's revised criticality calculations are not conservative, or how gaps concentrated in certain areas would significantly affect the calculations. Staff Answer

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[16](...continued)
Application, Attachment 2, at 1-3.
If Dr. Kaku agrees that he is mistaken, we expect him to promptly inform the Board and parties, through CCMN, whether the error changes his conclusions.

at 19. Dr. Kaku states that one suspects that an unusually large number of iterations will be necessary to provide any reasonable approximation. Affidavit at ¶ 10. The specific claim is that, barring an unusually large number of iterations the calculation of k_{eff} will be uncertain. There is no indication that Dr. Kaku expects the estimated value to be biased in one direction or the other; simply that it will be uncertain. Dr. Kaku points out that a local concentration of gaps in the Boroflex will lead to a local distribution of neutrons much higher than the computer calculation for the entire pool. Id., ¶ 7. This is a well-known phenomenon; and clearly a high local concentration of neutrons near a group of fuel boxes would affect the calculation.

(c) Significant Risk Versus NSHC Determination

Both the Licensee and the NRC Staff construe Contention 1 as a legal argument challenging the Staff's authority to make a "No Significant Hazards Consideration" (NSHC) determination. To support this construction, however, each asserts that CCMN intended to say "no significant hazards consideration" in the language of the pertinent NSHC regulations, rather than "no significant risk" as the contention states. Licensee's Answer at 49-50; Staff's Answer at 16-17.

We have learned from the Commission's decision in Palo Verde, supra, that a licensing board may not infer missing thoughts to find that a contention is acceptable. 34 NRC at 155. By the same reasoning, the Board may not impute different wording to a contention in order to reject it. More important, the entire tenor of Contention 1, as explained by Dr. Kaku, is a factual expression of concern about risk. The contention is void of the legal meaning ascribed to it by Licensee and the Staff.

(d) Dr. Thompson's Affidavit

Dr. Gordon Thompson's affidavit (apparently in support of Contention 1) generally advocates alternative means of storing spent fuel such as onsite dry-cask storage. Thompson Affidavit at 1, attached to CCMN Contentions. His discussion is entirely beyond the scope of Amendment 158. That amendment does not bring into question whether the use of pool storage is generally appropriate for Millstone 2. Dr. Thompson does not cite any NRC requirements for dry-cask storage in any event.

Contention 1 is accepted based upon Dr. Kaku's affidavit.

2. Contention 2

> That an environmental and health study needs to be done so we can know the effects from releases of

> varying amounts of the current allowable radioactive inventory of the spent fuel pool.

We look to Dr. Kaku's discussion of "Maximum Credible Accidents" to determine whether Contention 2 raises an issue suitable for hearing. Affidavit, ff. ¶ 12, ¶¶ 13-28. Dr. Kaku starts out well enough by stating: "[t]he rearrangement advocated by NU will increase the fission product inventory of the spent fuel pool, so it is vital that one analyze the maximum credible accident." Id., ¶ 13. His argument fails, however, when he challenges the original FSAR design basis accident. Id., ¶¶ 14-28. He makes no further connection between Amendment 158 and the FSAR accident. Id. We agree with the Licensee that we may not revisit the original exploration of environmental issues without some showing that the amendment itself would result in significant effects. Licensee's Answer at 52-53. Contention 2 is rejected.

3. Contention 3

> That the removal of requirements for neutron flux monitors in the Millstone spent fuel pool was improper in light of the fact that before the license amendment was issued to allow no inpool criticality monitors the NRC was aware that the criticality safety margins were being questioned. Therefore we contend that without criticality monitors in that pool we will have no prior warning if a dangerous neutron multiplication were to occur.

CCMN has not explained how neutron flux monitors relate to Amendment 158. See CCMN Contentions, Sections A, B, and C. We have examined Licensee's amendment papers and the Staff's SER and can find no connection. CCMN has not correlated its discussion with the amendment papers. CCMN seems to be referring to an event before Amendment 158. See Licensee's Answer at 53-54. The Staff argues that the issue is beyond the scope of the notice of opportunity for hearing. Staff's Answer at 19-20. We agree. There is no basis for admitting Contention 3. It is therefore rejected.

4. Contention 4

> That immediate action should be taken to stop NU from contaminating the new steam generators until our concerns for the safe storage of the spent and new fuel is addressed.

Contention 4 is clearly beyond the scope of the proceeding on Amendment 158 and is, therefore, rejected.

VII. ORDER

A. CCMN Contention 1, based upon the respective parts of Dr. Kaku's affidavit, is admitted to be heard in this proceeding.

B. CCMN's petition is granted and CCMN is admitted as a party to the proceeding.

C. A hearing is ordered. A notice of hearing and notice of prehearing conference will be issued.

D. The petitions for leave to intervene and requests for hearing submitted by Patricia R. Nowicki, Michael J. Pray, Rosemary Griffiths, Joseph M. Sullivan, Don't Waste Connecticut, and Frank Lo Sacco are wholly denied.

VIII. APPEALS

A. Appeals from this Order to the Commission may be taken in accordance with the provisions of 10 C.F.R. § 2.714a.

B. The Nowicki, Pray, Griffiths, Sullivan, Don't Waste Connecticut, and Lo Sacco petitioners may appeal on the question whether each of their petitions should have been granted in whole or in part.

C. The Licensee, Northeast Nuclear Energy Company, and the NRC Staff may appeal on the question whether the petition of Co-Operative Citizen's Monitoring Network should have been wholly denied.

D. Appeals shall be asserted by the filing of a notice of appeal and accompanying supporting brief within ten days of the service of the order from which the appeal is taken.

E. Any other party may file a brief in support of or in opposition to the appeal within ten days after the service of the appeal.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND LICENSING BOARD

Charles N. Kelber
ADMINISTRATIVE JUDGE

Jerry R. Kline
ADMINISTRATIVE JUDGE

Ivan W. Smith, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland

September 30, 1992

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of NORTHEAST NUCLEAR ENERGY COMPANY (Millstone Nuclear Power Station, Unit No. 2)	Docket No.(s) 50-336-OLA

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB M&O (LBP-92-28) DTD 9/30/92 have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR Sec. 2.712.

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Docket No.(s)50-336-OLA
LB M&O (LBP-92-28) DTD 9/30/92

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Dated at Rockville, Md. this
1 day of October 1992

Emile L. Julian
Office of the Secretary of the Commission