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NUCLEAR REGULATORY COMMISSION ISSUANCES

April 1999

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NUCLEAR REGULATORY COMMISSION ISSUANCES

April 1999

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

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

U.S. NUCLEAR REGULATORY COMMISSION

Prepared by the
Office of the Chief Information Officer
U.S. Nuclear Regulatory Commission
Washington, DC 20555–0001
(301–415–6844)

COMMISSIONERS

Shirley A. Jackson, Chairman
Greta J. Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

G. Paul Bollwerk III, Acting Chief Administrative Judge
Atomic Safety & Licensing Board Panel

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta J. Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 40-8968-ML**

HYDRO RESOURCES, INC.
(2929 Coors Road, Suite 101,
Albuquerque, NM 87120) **April 6, 1999**

The Commission denies Intervenors' petition for interlocutory review of the Presiding Officer's Memorandum and Order (Questions Concerning Radioactive Air Emissions) (LBP-99-15, 49 NRC 261), issued on March 18, 1999.

RULES OF PRACTICE: INTERLOCUTORY REVIEW

In determining whether to grant a petition for interlocutory review, the Commission considers whether the Presiding Officer's action either (1) threatens the party adversely affected with immediate and serious irreparable harm that could not be remedied by a later appeal or (2) affects the basic structure of the proceeding in a pervasive or unusual manner. *See* 10 C.F.R. § 2.786(g)(1) and (2).

PRESIDING OFFICER: AUTHORITY TO QUESTION PARTIES

The Commission's rules grant the Presiding Officer discretion to seek additional information. *See* 10 C.F.R. § 2.1233(a).

MEMORANDUM AND ORDER

On March 26, 1999, Intervernors Eastern Navajo Diné Against Uranium Mining ("ENDAUM") and Southwest Research and Information Center ("SRIC") filed a petition with the Commission for interlocutory review of the Presiding Officer's Memorandum and Order (Questions Concerning Radioactive Air Emissions) (LBP-99-15, 49 NRC 261), issued on March 18, 1999, and reaffirmed on March 23 in response to a motion for reconsideration. In particular, the Presiding Officer's order posed a series of questions to the parties related to the radioactive air emissions from the project. The Intervenors seek reversal of the March 18 order because, in their view, the Presiding Officer has inappropriately provided Hydro Resources, Inc. (HRI), and the NRC Staff with a second opportunity to address issues that these parties had failed to address earlier. Intervenors argue that the Presiding Officer is not conducting this case impartially but has shown bias toward the NRC Staff and HRI.

In determining whether to grant a petition for interlocutory review, the Commission considers whether the Presiding Officer's action either (1) threatens the party adversely affected with immediate and serious irreparable harm that could not be remedied by a later appeal or (2) affects the basic structure of the proceeding in a pervasive or unusual manner. 10 C.F.R. § 2.786(g)(1) and (2); *see Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-15, 40 NRC 319 (1994); *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-94-2, 39 NRC 91, 93 (1994). Intervenors seek review and reversal pursuant to the second standard. The Commission, however, does not agree with Intervenors that the Presiding Officer's order has altered the basic structure of the proceeding in a pervasive or unusual manner. We recently denied a similar petition for interlocutory review in this proceeding, *see* CLI-99-7, 49 NRC 230 (1999), and do so again here.

As we stated in CLI-99-7, the propriety of the Presiding Officer's inquiry turns on fact-specific questions. We see no reason to interfere in the proceeding at this time, especially where such interference is likely to cause delay while we obtain appellate briefs and undertake the detailed inquiry necessary to resolve Intervenors' bias complaint. However, our denial of interlocutory review does not reflect any position on the substance of the bias question. Intervenors may raise their bias concerns on appeal if, in the end, they do not prevail before the Presiding Officer on the merits of a particular issue and can show prejudice from information that entered the record improperly or unfairly as a result of the Presiding Officer's questions.

Contrary to Intervenors' view, our refusal at this time to review the propriety of the Presiding Officer's supplemental inquiries does not undercut our commitment to resolve this licensing proceeding as expeditiously as possible. The

Presiding Officer appears on course to decide all issues before him promptly. Our rules give him discretion to seek additional information. *See* 10 C.F.R. § 2.1233(a). For the Commission now to decide on a question-by-question basis whether the Presiding Officer properly exercised that discretion would delay rather than expedite the proceeding.

Intervenors also sought a stay of the Presiding Officer's March 18 and March 23 orders pending disposition of the petition for review. In view of our denial of the petition, the stay request is moot.

For the foregoing reasons, the petition is denied.

IT IS SO ORDERED.

For the Commission[1]

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 6th day of April 1999.

[1] Commissioner Dicus was not available for the affirmation of this Order. Had she been present, she would have affirmed the Order.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta J. Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 11005070**
(License No. XSNM-03060)

TRANSNUCLEAR, INC.
(Export of 93.3% Enriched Uranium) **April 8, 1999**

ORDER

The Nuclear Control Institute (NCI) has requested leave to intervene and a hearing on an application of Transnuclear, Inc. (Transnuclear), filed on October 29, 1998, for a license to export highly enriched uranium (HEU) to Canada. After reviewing the pleadings[1] submitted by both parties and the Executive Branch views on the merits of the application, we have determined that more information is required to fully address the merits of this case.

We request that the participants, including the Executive Branch, address the questions set out as an Appendix to this Order. The NRC must receive responses by April 22, 1999. Submissions should be served on other participants in accordance with 10 C.F.R. § 110.89.

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[1] On February 22, 1999, Transnuclear filed a motion for leave to file a brief in response to NCI's February 12, 1999 reply brief. Section 110.83 of 10 C.F.R. provides for an applicant in an export licensing proceeding to file an answer to a hearing request or intervention petition, and for a reply to that answer, but makes no provision for further pleadings. Because NCI does not oppose Transnuclear's additional brief, and in the interest of fully informing the Commission on this matter, Transnuclear's motion is granted. NCI filed a motion for leave to file a rejoinder to Transnuclear's supplemental reply, dated March 1, 1999. Because Transnuclear raised no objection, and in the interest of informing the Commission, NCI's motion is likewise granted.

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of April 1999.

APPENDIX

I. The MAPLE reactors

1. What is the status of DOE's funding of the U.S. (Argonne National Laboratory) (ANL) program to develop alternative LEU targets for Canada?

2. Please describe additional steps taken since the November 5, 1998 meeting between AN and MDS Nordion to further the objectives of the Reduced Enrichment for Research and Test Reactors (RERTR) program. Transnuclear's March 1, 1999 pleading, and the March 5, 1999 Executive Branch views reference a January 12, 1999 meeting between DOE representatives and MDS Nordion. What further agreements, if any, were reached, as a result of that, or any subsequent, meeting?

3. When will the first LEU targets be ready and scheduled for testing at the MAPLE reactors? Is it possible that existing HEU target designs can be modified for use with LEU? Is it possible the LEU targets being developed for use in Indonesia could be used in Canada? When will the Indonesian targets be available for commercial use, in the Indonesian reactor, and in other reactors?

4. Where will the first irradiated Indonesian and Canadian LEU test targets be processed? How many irradiation and processing test campaigns may be required for economic and FDA licensing feasibility determinations?

II. Conversion of the MAPLE Reactors to LEU Targets if Startup Occurs with HEU Targets

1. When will sufficient information be available to enable MDS Nordion to assess the economic feasibility of using LEU targets?

2. Under what circumstances would it make "business sense" for MDS Nordion to convert to LEU targets? If HEU targets are available from the United States, Russia, or other sources now or in the future, is there any incentive to assume the extra costs involved in converting to LEU targets?

3. Please discuss the feasibility of converting the MAPLE reactors to LEU targets if initial startup is implemented with HEU targets. Include the duration of possible shutdowns and the effect on the supply of medical isotopes to the U.S. In addition, discuss whether existing waste processing and storage facilities will be adequate if LEU targets are used. If not, how will the issue of additional waste processing and/or storage facilities be addressed?

III. NRU Reactor

1. What is the projected shutdown date for the NRU reactor?

2. Will the NRU reactor be shut down immediately following (or shortly thereafter) the date on which the MAPLE reactors become operational, or will it continue to operate until its projected shutdown date?

IV. U.S. Production Capability for Mo-99

1. When will the facilities at Sandia/Los Alamos National Laboratory be ready to produce medical isotopes? Please discuss how this project has progressed since publication of the Record of Decision (*see* 60 Fed. Reg. 48,921 (Sept. 17, 1996)).

2. What percentage of the U.S. medical isotope supply will this facility supply when it is fully operational? In an emergency (e.g., nonavailability of medical radioisotopes from Canada) can the Sandia/LANL production be expanded? If so, what percentage of the U.S. supply could it provide, and for how long?

3. Why will this facility use HEU targets?

4. Is there a schedule in place for conversion to LEU targets at this facility? If not, why not?

V. General Questions

1. What is the status of the use of LEU targets (or plans for conversion to LEU targets) at other producers of medical isotopes for the world market?

2. Approximately how large is the economic advantage of using HEU as opposed to LEU targets, as a general matter?

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 72-22-ISFSI**

PRIVATE FUEL STORAGE, L.L.C.
(Independent Spent Fuel Storage Installation)

April 15, 1999

The Commission affirms the Board's decision, LBP-99-3, 49 NRC 40 (1999), to grant the late-filed intervention petition of the Southern Utah Wilderness Alliance (SUWA). In doing so, the Commission upholds the Board's findings that SUWA has established its representational standing to intervene and has proffered at least one litigable contention.

RULES OF PRACTICE: STANDING TO INTERVENE

Under section 189a of the Atomic Energy Act, the Commission must grant a hearing upon the request of any person "whose interest may be affected by the proceeding." 42 U.S.C. § 2239(a). Accordingly, NRC regulations require a petition for intervention to "set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, . . . and the specific aspect or aspects of the subject matter of the proceeding as to which [the] petitioner wishes to intervene." 10 C.F.R. § 2.714(a)(2). In evaluating whether a petitioner's asserted interest provides an appropriate basis for intervention, the Commission has long looked for guidance to judicial concepts of standing.

RULES OF PRACTICE: STANDING (REPRESENTATIONAL)

Where an organization asserts a right to represent the interests of its members, "judicial concepts of standing" require a showing that: (1) its members would otherwise have standing to sue in their own right; (2) the interests that the organization seeks to protect are germane to its purpose; and (3) neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit. Longstanding NRC practice also requires an organization to demonstrate that at least one of its members has authorized it to represent the member's interests.

RULES OF PRACTICE: STANDING (REPRESENTATIONAL)

To determine whether an organization's individual members have standing, a petitioner must allege (1) a particularized injury (2) that is fairly traceable to the challenged action and (3) is likely to be redressed by a favorable decision.

RULES OF PRACTICE: STANDING TO INTERVENE; APPELLATE REVIEW (DEFERENCE TO PRESIDING OFFICER)

The Commission has historically accorded "substantial deference" to Board determinations for or against standing, except where the Board has clearly misapplied the facts or law.

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT)

Intervenors who fail to provide specific information regarding either the geographic proximity *or* timing of their visits will only complicate matters for themselves. In many instances, a lack of specificity will be sufficient to reject claims of standing.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

NRC regulations require that an admissible contention consist of: (1) a specific statement of the issue to be raised or controverted; (2) a brief explanation of the bases for the contention; (3) a concise statement of the alleged facts or expert opinion supporting the contention on which the petitioner intends to rely in proving the contention at any hearing; and (4) sufficient information to show that a genuine dispute exists on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2). A failure to comply with any of these requirements is grounds for dismissing the contention.

MEMORANDUM AND ORDER

I. INTRODUCTION

This proceeding arises from the application of Private Fuel Storage, L.L.C. ("Applicant" or "PFS") for a license to store spent nuclear fuel at an Independent Spent Fuel Storage Installation (ISFSI) on the Skull Valley Goshute Indian Reservation in Skull Valley, Utah. In this decision, we review an Atomic Safety and Licensing Board Memorandum and Order, LBP-99-3, 49 NRC 40 (1999), that granted the late-filed intervention petition of the Southern Utah Wilderness Alliance (SUWA). The Board found that (1) a balancing of the late-filing criteria in 10 C.F.R. § 2.714(a)(1) supports entertaining the petition and the accompanying contentions; (2) SUWA has established its representational standing to intervene; and (3) SUWA has proffered one litigable contention. Pursuant to 10 C.F.R. § 2.714a, the Applicant, PFS, has appealed the Board's ruling on the grounds that SUWA has neither submitted an admissible contention nor established standing to intervene in this proceeding. We affirm the Board's decision.

II. BACKGROUND

On July 31, 1997, the agency published in the *Federal Register* a notice of opportunity for hearing on PFS's license application. *See* 62 Fed. Reg. 41,099. On April 22, 1998, the Board resolved several petitions for intervention stemming from this notice and set the case for hearing. LBP-98-7, 47 NRC 142 (1998). We considered appellate challenges to some aspects of the Board's rulings on standing to intervene, but we ultimately approved the Board's rulings. CLI-98-13, 48 NRC 26 (1998).

On August 28, 1998, PFS submitted a license amendment application making several changes in the transportation scheme set out in the original license application. In particular, the license amendment application outlines a revised proposal to construct a rail spur (i.e., the "Low Junction" rail spur) off the existing Union Pacific rail mainline that would be used to transport flatbed rail cars holding spent fuel shipping casks to the PFS facility approximately 30 miles to the south. The Board denied late-filed contentions related to this license amendment submitted by Intervenors State of Utah, the Confederate Tribes of the Goshute Reservation, and Ohngo Gaudadeh Devia. LBP-98-29, 48 NRC 286 (1998).

In a November 18, 1998 hearing request, SUWA sought to intervene in the proceeding, either as of right or as a discretionary intervenor, to challenge the August license amendment. In its petition, SUWA describes itself as a nonprofit

organization dedicated to identifying and protecting the "wilderness character" of roadless areas under the jurisdiction of the United States Department of the Interior's Bureau of Land Management (BLM) until such time as Congress has an opportunity to designate those areas as wilderness under the Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136, and the Federal Land Policy and Management Act of 1976 (FLPMA), 43 U.S.C. §§ 1701-1784. In separate replies, Applicant PFS and the NRC Staff asserted that the SUWA petition should be denied. They argued that (1) the SUWA hearing request did not merit admission under the section 2.714(a)(1) late-filing standards; (2) SUWA had failed to establish its standing as of right; (3) SUWA had not made a case for permitting discretionary intervention; and (4) SUWA had failed to provide an admissible contention. On December 8, 1998, SUWA filed a reply to the PFS and Staff responses. On December 11, 1998, the Board convened a videoconference to hear arguments from SUWA, the State, PFS, the Skull Valley Band, and the Staff concerning the SUWA petition and its contentions. *See* Private Fuel Storage, L.L.C. Prehearing Conference (hereinafter "Prehearing Conference Tr.") (Dec. 11, 1998).

In its February 3, 1999 Memorandum and Order, the Board concluded that SUWA had met the five criteria of 10 C.F.R. § 2.714(a)(1) for admitting of late-filed intervention petitions and contentions. LBP-99-3, 49 NRC at 46-49. In addition, the Board found that SUWA had successfully established its standing to intervene. Of the various hurdles that must be met for an organization to establish standing,[1] the only issue before the Board was whether one or more of SUWA's members would otherwise have standing to sue in his or her own right. With regard to the standing of the individual SUWA member in question (Dr. Jim Catlin), only the issues of injury in fact and redressability were in dispute. *Id.* at 50.

The Board found that the injury claimed by Dr. Catlin "would constitute a sufficiently direct and concrete injury to an intervenor's legitimate interests under NEPA to provide standing to contest that action." *Id.* at 51. The Staff and PFS emphasized that Dr. Catlin had not specified the number of times he had visited the area in the past and the number of times he planned to visit in the future but merely indicated that he had visited "frequently" in the past and planned to do so frequently in the future. According to PFS and the NRC Staff, Dr. Caitlin's contacts with the land proposed for the rail spur were insufficiently particularized and, as such, fail to establish personal injury. *See* Prehearing Conference Tr. at 1066-67, 1078-79. In ruling against PFS and the Staff on this issue, the Board concluded that Dr. Catlin's "adoption of the term 'frequently' in this context demonstrates that his bond with the area is sufficiently concrete to establish his standing and, consequently, that of his representative SUWA." LBP-99-3,

[1] *See* CLI-98-13, 48 NRC at 30-31.

49 NRC at 52. The Board also found that SUWA had met the redressability requirement, concluding that if, as a result of NEPA consideration urged by SUWA, the "PFS proposal is implemented in a way that is not inconsistent with SUWA's asserted interest in the land, then SUWA has won all it can expect from this proceeding and its potential injury has been redressed." *Id.*

The Board also reviewed the two contentions that SUWA had raised in its November 18, 1998 petition. First, SUWA claimed that the license application amendment failed to adequately consider the impacts of the rail spur on the wilderness character of the area in question. Second, SUWA asserted that the amendment failed to develop and analyze a meaningful range of alternatives to the rail spur. The Board rejected the first contention. However, the Board found the second contention and its supporting basis "sufficient to establish a genuine dispute adequate to warrant further inquiry." *Id.* at 53.

On February 16, 1999, PFS appealed the Board's decision and urged the Commission to reverse the Board's Order and deny SUWA's petition to intervene in its entirety for failure to proffer an admissible contention and for lack of standing. SUWA has filed a brief opposing PFS's appeal and the NRC Staff has filed a brief supporting it.

III. ANALYSIS

On appeal, PFS first urges the Commission to find that SUWA has no standing in this proceeding because its member, Dr. Catlin, failed to demonstrate sufficient past and future contacts with the area in question. *See* Applicant's Appeal Brief at 12-15 (Feb. 16, 1999). PFS also argues that SUWA's contention on alternatives to the proposed rail spur is inadmissible because the contention did not, as initially filed, suggest an alternative of its own and because the alternatives raised by SUWA in a reply before the Board came too late to meet the five-part test for late-filed contentions. *Id.* at 5-10.

A. Standing

Under section 189a of the Atomic Energy Act, the Commission must grant a hearing upon the request of any person "whose interest may be affected by the proceeding." 42 U.S.C. § 2239(a). Accordingly, NRC regulations require a petition for intervention to "set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, . . . and the specific aspect or aspects of the subject matter of the proceeding as to which [the] petitioner wishes to intervene." 10 C.F.R. § 2.714(a)(2). In evaluating whether a petitioner's asserted interest provides an appropriate basis for intervention, the Commission has long looked for guidance

to judicial concepts of standing. *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976). *Accord Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

Where an organization asserts a right to represent the interests of its members "judicial concepts of standing" require a showing that: (1) its members would otherwise have standing to sue in their own right; (2) the interests that the organization seeks to protect are germane to its purpose; and (3) neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit. *See Hunt v. Washington State Apple Advertising Commission,* 432 U.S. 333, 343 (1977). Longstanding NRC practice also requires an organization to demonstrate that at least one of its members has authorized it to represent the member's interests. *See Georgia Tech Research Reactor,* 42 NRC at 115. Of the four requirements that an organization must meet to establish standing, the only one at issue here is whether any of SUWA's members would otherwise have standing to sue in their own right, an issue similar to the tribal standing question we addressed earlier in this proceeding. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 30-31 (1998).

To determine whether an organization's individual members have standing, a petitioner must allege (1) a particularized injury, (2) that is fairly traceable to the challenged action, and (3) is likely to be redressed by a favorable decision. *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998); *see also Steel Co. v. Citizens for a Better Environment,* 118 S. Ct. 1003, 1016-17 (1998). On appeal, the only issue before the Commission is whether Dr. Catlin has demonstrated a particularized injury here.

As discussed above, SUWA relied on the declarations of Dr. Catlin, to support the organization's argument for standing. In his second declaration filed before the Board, Dr. Catlin specifically indicates that:

> I have visited these areas, including the exact tract of land within the North Cedar Mountains area that will be traversed by the proposed rail spur, and have developed an ongoing and deep bond with the land and its wilderness character which I will continue to cultivate in the future. I frequently enjoyed and will, in the future with some frequency, enjoy hiking, camping, bird-watching, study, contemplation, solitude, photography, and other activities in and around the North Cedar Mountains roadless area, including the exact tract of land — the bench of the North Cedar Mountains — over which the proposed rail spur will traverse.

SUWA Reply, Second Declaration of Jim Catlin for Petitioner [SUWA] at 4-5 (Dec. 8, 1998). In its appeal brief, the Applicant argues that SUWA lacks standing because Dr. Catlin has failed to demonstrate, as a matter of law,

sufficient contact with the area that would be affected by the PFS proposal. Specifically, the Applicant believes that Dr. Catlin's use of the word "frequently" does not provide specific information regarding "the time or duration of his contact with this area." Applicant's Appeal Brief at 12. In its decision, the Board indicated that Dr. Catlin's imprecision in describing the number of contacts was not a substantial concern because of his "actual physical contact" with the area in question. LBP-99-3, 49 NRC at 52 n.7.

We historically have accorded "substantial deference" to Board determinations for or against standing, except where the Board has clearly misapplied the facts or law. *See International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 118 (1998); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996); *Georgia Tech Research Reactor*, 42 NRC at 116; *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 47-48 (1994). PFS's arguments do not persuade us that we need to override the Board's judgments on SUWA's standing. We agree with the Board that, in this case, Dr. Catlin has demonstrated that he maintains contacts with the site that are sufficient to establish standing. While mere interest in an area alone does not establish standing for an individual,[2] we note that Dr. Catlin is no casual bystander or generalist interested in environmental issues. He appears to have a significant and genuine personal attachment to the affected area, as demonstrated by his work in developing a reinventory of BLM lands in the area for the Utah Wilderness Coalition. SUWA Petition to Intervene, Declaration of Jim Catlin for Petitioner [SUWA] at 1-4 (Nov. 18, 1998).[3]

Most importantly, however, he has demonstrated actual contact with the area based on his "frequent" physical presence on the very parcel of land that would be altered by the proposed action. While his declaration does not specify the exact number of times he has visited in the past or plans to visit in the future, it was reasonable for the Board to conclude that his visits to the site are numerous enough to demonstrate that his "bond with the area is sufficiently concrete to establish his standing." LBP-99-3, 49 NRC at 52. As we held in our prior standing decision in this proceeding (CLI-98-13), "standing does not depend on the precise number of . . . visits," but turns on "the likelihood of an ongoing connection and presence." 48 NRC at 32. Dr. Catlin appears to meet this test.

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[2] *See, e.g., Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95 n.10 (1993).

[3] We are not swayed by the decision cited by the Applicant. *See Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-79-10, 9 NRC 439, 456-57 (1979). While the facts in that case may hold some passing similarities to the controversy at hand, it provides little in the way of useful guidance for this case. In that case, the contacts in question involved fishing activities "about once a month within 40 or 50 miles of the plant." *Id.* at 457. In the case at hand, Dr. Catlin's visits involve use of the very site where the rail line would be constructed.

We have seen to add, however, that a speculative contact will not pass muster. *See, e.g., Lujan v. Defenders of Wildlife*, 504 U.S. 555, 563-64 (1992). In particular, as the Supreme Court indicated in *Lujan*, mere intentions to visit "some day" are not sufficient to establish standing. *Id.* at 564. However, in this case, Dr. Catlin's declaration taken as a whole demonstrates that he has more than just "some day" intentions to visit the area that would be affected by the rail spur. He lives in the State of Utah, is director of the Wild Utah Project, and works with the Utah Wilderness Coalition putting to use his expertise in geographical information systems (GIS) to conduct land studies of the North Cedar Mountain area. *See* Dr. Catlin's First Declaration, *supra*, at 1-5. Given Dr. Catlin's overall involvement with issues related to the area and given his sworn declaration indicating he has used the site in the past and will do so in the future, we see no reason to doubt his intent to revisit this area and, as such, see no need to look behind the meaning of the word "frequently" as used in his declaration.[4]

This is not to say, as the NRC Staff suggests, that future intervenors will be able to use the word "frequently" as a talisman to ward off all challenges to their claims of standing. To the contrary, as this very case demonstrates, intervenors who fail to provide specific information regarding either the geographic proximity *or* timing of their visits will only complicate matters for themselves. In many instances, a lack of specificity will be sufficient to reject claims of standing. However, given the facts in this particular case, we cannot say that the Board erred in finding that Dr. Catlin had offered enough specific information to demonstrate the necessary injury in fact.

B. Admissibility of SUWA Contention B (Alternatives)

NRC regulations require that an admissible contention consist of: (1) a specific statement of the issue to be raised or controverted; (2) a brief explanation of the bases for the contention; (3) a concise statement of the alleged facts or expert opinion supporting the contention on which the petitioner intends to rely in proving the contention at any hearing; and (4) sufficient information to show that a genuine dispute exists on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2). *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248-49 (1996); *Georgia Tech Research Reactor*, 42 NRC at 117-18. A failure to comply with any of these requirements is grounds for dismissing the contention. *Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991).

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[4] *See, e.g., Sierra Club v. Simkins Industries, Inc.*, 847 F.2d 1109, 1112 n.3 (4th Cir. 1988) (an affidavit from the member of the Sierra Club which indicated that the member "regularly" hiked along the river was sufficiently specific to confer standing), *cert. denied*, 491 U.S. 904 (1989).

The contention in question involves the range of alternatives to the Low Corridor rail spur and reads as follows:

> The License Application Amendment fails to develop and analyze a meaningful range of alternatives to the Low Corridor Rail Spur and the associated fire buffer zone that will preserve the wilderness character and the potential wilderness designation of a tract of roadless Bureau of Land Management (BLM) land — the North Cedar Mountains — which it crosses.

SUWA Contentions at 5 (Nov. 18, 1998). PFS believes that this contention is inadmissible because (1) it does not show a material dispute in that it ignores material submitted in the application, and (2) it fails to propose at least a "colorable alternative" to those put forth by the Applicant. *See* Applicant's Appeal Brief at 6.

PFS is correct in pointing out that the application did consider a range of alternatives. *Id.* at 10 n.15. However, those alternatives addressed only general transportation options (e.g., trucking vs. railroad) and did not reflect consideration of alternative configurations to the proposed Low Corridor rail spur alignment. In the light of the fact that the rail spur has now become PFS's preferred option, we agree with the Board that a failure to consider alternative configurations to the specific alignment in question is at least worthy of further consideration on the merits.

In opposing the contention, PFS suggests that an intervenor must offer alternatives of its own in order to raise an admissible contention related to the adequacy of an applicant's alternatives. *See id.* at 7, citing *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 412 (1976). We frankly are puzzled by PFS's heavy reliance on the *Catawba* decision. *Catawba* merely states that "further examination may be called for [when] an intervenor suggests a 'colorable alternative.'" *Catawba*, 4 NRC at 412. The case established no rigid rule requiring intervenors to propose their own alternatives as a prerequisite to a NEPA claim resting on a failure to consider alternatives. The facts in *Catawba* were starkly different from ours. There, the Appeal Board considered, and understandably rejected, an "eleventh hour suggestion," advanced during the "last week of a reopened hearing," that the NRC had failed to consider the possibility of power purchases as an alternative to building the Catawba nuclear power plant. Here, by contrast, SUWA offers its "alternatives" contention prior to a hearing and at its earliest opportunity.

We recognize that in NEPA cases where no additional conceivable alternatives are apparent, the Commission sensibly could insist that a prospective intervenor offer its own alternatives in order to show that a genuine dispute over alternatives exists. But as a general matter NEPA places responsibility to consider alternatives on the applicant and ultimately on the NRC itself. SUWA's grievance here is not that PFS's environmental analysis fails to examine general

transportation alternatives (e.g., trucks rather than railroads), but that it leaves unaddressed ready alternatives to the actual proposal at hand, the construction of a rail spur over a specific tract of land. We agree with the Board that SUWA can litigate the question whether, in the circumstances of this case, NEPA requires PFS and the NRC to consider alternative rail routes that might prove more environmentally benign than PFS's chosen route.

SUWA's reply before the Board did propose a specific alternative alignment for the Low Junction rail line. *See* SUWA Reply Brief at 15 (Dec. 8, 1998); Second Declaration of Jim Catlin at 3 (Dec. 8, 1998) (attached to SUWA Reply Brief). While PFS labels this additional information as "a late-filed supplement without justification" (Applicant's Appeal Brief at 8), we view it as an elaboration of an already-admissible contention. The reply's suggested alternative simply reinforced SUWA's basic thesis that PFS had not considered alignments for the spur other than the one proposed in PFS's license amendment. PFS and the NRC Staff view SUWA's proposed rail route as unworkable because it would traverse land owned by Utah, and Utah strongly opposes the PFS project. *See* Staff's Appeal Brief at 19-21; Applicant's Appeal Brief at 9-10. But that argument merely raises questions about the practical feasibility of the SUWA proposal.[5] It does not abrogate the Applicant's, and the NRC's, NEPA obligation to perform an analysis of alternatives. We see no basis for second-guessing the Board's decision to permit further consideration of SUWA's "alternatives" contention.

III. CONCLUSION AND ORDER

For the reasons stated in this Decision, the Commission hereby *affirms* LBP-99-3.

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of April 1999.

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[5] Our decision to allow further examination of this issue is reinforced by a March 19, 1999 letter to the Office of the Secretary from PFS's counsel which indicates that a corridor of approximately 500 feet may exist between the State-owned land and SUWA's proposed wilderness area. We commend PFS's counsel for bringing this matter to the Commission's attention as it identifies an additional possibility that may warrant consideration by the parties and the Board.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket Nos. 50-269-L**
50-270-L
50-287-LR

DUKE ENERGY CORPORATION
(Oconee Nuclear Station,
Units 1, 2, and 3) **April 15, 1999**

The Commission reviews and affirms an Atomic Safety and Licensing Board Memorandum and Order, LBP-98-33, 48 NRC 381 (1998), that denied a petition for leave to intervene and request for hearing. The Commission agrees that the Petitioners failed to submit an admissible contention.

RULES OF PRACTICE: CONTENTIONS

To gain admission as a party, a petitioner for intervention must proffer at least one admissible contention for litigation. 10 C.F.R. § 2.714(b). A contention must specify the particular issue of law or fact the petitioner is raising, and contain: (1) a brief explanation of the bases of the contention; and (2) a concise statement of the alleged facts or expert opinion that support the contention and upon which the petitioner will rely in proving the contention at the hearing. The contention should refer to those specific documents or other sources of which the petitioner is aware and upon which he intends to rely in establishing the validity of the contention.

RULES OF PRACTICE: CONTENTIONS

A contention must show that a genuine dispute exists with the applicant on a material issue of law or fact. The dispute at issue is material if its resolution would make a difference in the outcome of the licensing proceeding.

RULES OF PRACTICE: CONTENTIONS

The 1989 revisions to the content on rule insist upon some factual basis for an admitted contention. The intervenor must be able to identify some facts at the time it proposes a contention to indicate that a dispute exists between it and the applicant on a material issue. These requirements are intended to preclude a contention from being admitted where an intervenor has no facts to support its position and instead contemplates using discovery or cross-examination as a fishing expedition that might produce relevant supporting facts.

RULES OF PRACTICE: CONTENTIONS

To satisfy the Commission's contention rule, petitioners must do more than rest on the mere existence of RAIs as a basis for their contention. RAIs generally indicate nothing more than that the Staff requested further information and analysis from the licensee. The NRC's issuance of RAIs does not alone establish deficiencies in the application, or that the NRC Staff will go to find any of the applicant's clarifications, justifications, or other responses to be unsatisfactory.

RULES OF PRACTICE: CONTENTIONS

The extent to which an RAI might help support a contention must be considered on a case-by-case basis, but the Commission expects that in almost all instances a petitioner must go beyond merely quoting an RAI to justify admission of a contention into the proceeding.

RULES OF PRACTICE: CONTENTIONS

To show a genuine dispute with the applicant, petitioners must use the RAI to make the issue of concern their own. This means they must develop a fact-based argument that actually and specifically challenges the application. If an RAI does nothing more than request further information, it is not unreasonable to expect a petitioner to provide additional information corroborating the existence of an actual safety problem.

RULES OF PRACTICE: GENERIC ISSUES (10 C.F.R. § 51.53(c)(3)(i))

An applicant's environmental report need not contain an analysis of issues identified as Category 1 issues in Appendix B to Part 51, Subpart A, because the Commission already has addressed those issues in a generic fashion. Category 1 issues include the radiological impacts of spent fuel and high-level waste disposal, low-level waste storage and disposal, mixed waste storage and disposal, and onsite spent fuel. The Commission's generic determinations governing onsite waste disposal preclude the petitioners from attempting to introduce such waste issues into an adjudication.

RULES OF PRACTICE: GENERIC ISSUES (10 C.F.R. § 51.23(a))

The Commission has chosen to address high-level waste disposal generically rather than unnecessarily revisit the same waste disposal questions, license-by-license, when reviewing individual applications. High-level waste storage and disposal is a national problem of essentially the same degree of complexity and uncertainty for every renewal application and it would not be useful to have a repetitive reconsideration of the matter.

RULES OF PRACTICE: GENERIC ISSUES (PENDING RULEMAKING)

It has long been agency policy that licensing boards should not accept in individual license proceedings contentions that are (or are about to become) the subject of general rulemaking by the Commission.

MEMORANDUM AND ORDER

I. INTRODUCTION

In this Decision we review an Atomic Safety and Licensing Board Memorandum and Order, LBP-98-33, 48 NRC 381 (1998), that denied a petition for leave to intervene and request for hearing filed by the Chattooga River Watershed Coalition and Messrs. Norman "Buzz" Williams, William "Butch" Clay, and William Steven "W.S." Lesan (collectively referred to as the "Petitioners"). The Petitioners seek to challenge an application by Duke Energy Corporation ("Duke Energy") to renew for an additional 20-year period the operating licenses for its three Oconee Nuclear Station units. The Licensing Board found that the Petitioners have standing to challenge the proposed license renewal, but

that they had not submitted an admissible contention. The Board accordingly denied their request for hearing.

Pursuant to 10 C.F.R. § 2.714a, the Petitioners have appealed the Board's ruling. Duke Energy and the NRC Staff support the Board's decision. We affirm the decision, for the reasons given by the Board itself and for the reasons we give below.

II. BACKGROUND

On July 6, 1998, Duke Energy filed a license renewal application for the Oconee Nuclear Station, Units 1, 2, and 3. On August 11, 1998, the NRC Staff published a notice in the *Federal Register* stating that the application had been found complete and acceptable for docketing and giving notice of an opportunity for a hearing on the application. *See* 63 Fed. Reg. 42,885 (1998). In a short letter dated September 8, 1998, the Petitioners requested leave to intervene. The Commission soon thereafter referred the intervention petition to the Licensing Board and called on the Board to follow a schedule that would accommodate a final "Commission decision on the pending application in about 2½ years from the date that the application was received." CLI-98-17, 48 NRC 123, 126 (1998). The Commission suggested various milestones for Board action, including a Board decision on intervention petitions within 90 days of the Commission's referral order (issued on September 15). *Id.* at 127.[1]

Upon receipt of the case, the Board gave the Petitioners the opportunity to amend their petition to "address any shortcomings in their initial pleading" and to supplement it with their proffered contentions. *See* Unpublished Board Memorandum and Order, dated Sept. 18, 1998. The order set as deadlines September 30, for the Petitioners to amend their original pleading, and October 19, for filing all contentions. *Id.* The Petitioners responded on September 27, requesting an additional 30 days in which to file an amended petition. On September 30, they filed a letter stating that they had "neither adequate notice nor funds available to retain counsel," and that they objected to the "expedited nature of these proceedings," which they said left them only a "slim window of opportunity to gain expertise on . . . certain issues" before petitions to intervene were due to be filed. The Board denied their request for a full 30-day extension but, noting that the Petitioners were acting *pro se*, allowed them until

[1] Previously, in anticipation of an imminent series of license renewal and license transfer proceedings, the Commission had issued a *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18 (1998), which suggested a number of mechanisms, including the milestones device, to assure a fair, timely, and efficient hearing process. *See also Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 339-40 (1998) (explaining "the need to deal with license renewal in a fair and efficient way") (petition for judicial review pending).

October 30 to amend their intervention petition and to submit their contentions. *See* Unpublished Board Order, dated Oct. 1, 1998. The Board further provided the Petitioners guidance on the need to establish standing to intervene, and also advised them to "strictly adhere" to "the requirements of 10 C.F.R. § 2.714(b)(2) in framing their contentions." *Id.*

The Petitioners timely filed an amended petition with four proposed contentions on October 30. *See* Petitioners' First Supplemental Filing (Oct. 30, 1998) ("Amended Petition"). In it, they set forth the purposes of the Chatooga River Watershed Coalition ("Coalition") and the arguments in support of their standing to intervene, both as individual Petitioners and as members of the Coalition. Messrs. Williams, Clay, and Lesan stated that they reside and work within 20 miles of the Oconee Nuclear Station, and that they are members of the Coalition, which seeks to protect and restore the Chattooga River Watershed ecosystem. Mr. Williams stated that he is the Executive Director of the Coalition and serves as its official representative.

The Petitioners' four contentions alleged that Duke Energy's license renewal application for Oconee: (1) is incomplete, and thus should be withdrawn or summarily dismissed; (2) does not meet the "aging management and other safety-related requirements mandated by law and NRC regulations, and therefore should be withdrawn and/or summarily dismissed"; (3) does not meet NEPA requirements; and (4) fails to address (a) the status and capacity of the spent fuel storage facility, (b) the transportation of radioactive waste to other locations if and when storage capacity is exceeded, and (c) the availability of other High Level Waste storage sites in the event that the proposed Yucca Mountain, Nevada site does not prove to be a viable repository.

The Petitioners also requested a stay of the license renewal proceeding, to allow them time to review all Requests for Additional Information (RAIs) that the NRC Staff might submit to Duke Energy and to review the Applicant's responses to these potential RAIs. Specifically, the Petitioners requested that they be permitted to file additional contentions until "at least 90 days" after Duke Energy has responded to all Staff RAIs. *See* Amended Petition at 5.

Neither the NRC Staff nor Duke Energy contested the Petitioners' standing. They argued, however, that none of the Petitioners' contentions met the agency's requirements for an admissible contention. The Licensing Board agreed. In LBP-98-33, the Board found that the Petitioners had standing to intervene (48 NRC at 384-86), but denied their intervention petition for failure to state an admissible contention (*id.* at 386-92).

The Board rejected the Petitioners' claim that mere pendency of NRC Staff inquiries to Duke Energy, or "RAIs," establishes admissible contentions. "Petitioners . . . have not shown," stated the Board, "how the presence of these RAIs evidence credible safety significance, how the Oconee application is materially incomplete because of the RAI matters, or how the application

fails to provide sufficient information to frame contentions." *Id.* at 387-88. The Board also rejected the Petitioners' spent fuel and waste claims, on the ground that these issues were the subject of prior or ongoing generic rulemakings and therefore were not appropriate subjects for an adjudication. *Id.* at 391-92. Finally, the Board refused to stay proceedings pending disposition of the NRC Staff RAIs. *Id.* at 393-94. The Board reasoned that "speculation that the RAIs may reveal later potential problems" does not amount to "irreparable injury," does not suggest a "valid contention," and does not override the public interest in the "timely completion" of license renewal proceedings. *Id.* at 393.

On appeal before the Commission, the Petitioners argue that their Contentions Nos. 1, 2, and 4 should have been admitted. They do not appeal the Board's rejection of their Contention 3, which involved NEPA claims. The NRC Staff and Duke Power support the Board's decision. We affirm.

III. ANALYSIS

For the second time in recent months, we are called upon to consider the admissibility of contentions in the license renewal setting. *See Calvert Cliffs*, 48 NRC at 348-50. Before addressing the Petitioners' particular arguments on appeal, we again review our requirements and standards for admitting contentions into our proceedings.

To gain admission as a party, a petitioner for intervention must proffer at least one admissible contention for litigation.[2] 10 C.F.R. § 2.714(b). A contention must specify the particular issue of law or fact the petitioner is raising, and contain: (1) a brief explanation of the bases of the contention; and (2) a concise statement of the alleged facts or expert opinion that support the contention and upon which the petitioner will rely in proving the contention at the hearing. The contention should refer to those specific documents or other sources of which the petitioner is aware and upon which he "intends to rely in establishing the validity of [the] contention." *See* 10 C.F.R. § 2.714(b)(2); Final Rule, Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989) ("Final Rule, Contentions"). A contention also must show that a "genuine dispute" exists with the Applicant on a "material" issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). The dispute at issue is "material" if its resolution would "make a difference in

[2] A prospective intervenor also must establish a sufficient "interest" in the licensing proceeding, or in other words, "standing" to intervene. *See* 10 C.F.R. § 2.714(a)(2). No party here contests Petitioners' standing. Although noting that it was "not necessary for a determination in this case," the Licensing Board's discussion on standing indicated that a "50-mile presumption" — a presumption of standing for those residing within 50 miles of the reactor that sometimes has been applied in NRC reactor licensing cases — applies in the license renewal context. *See* 48 NRC at 387 n.1. Because the Petitioners' standing is not an issue on this appeal, the Commission finds it unnecessary to consider the validity of the Board's view on the 50-mile presumption question.

the outcome of the licensing proceeding." Final Rule, Contentions, 54 Fed. Reg. at 33,172.

Our strict contention rule serves multiple interests. First, it focuses the hearing process on real disputes susceptible of resolution in an adjudication. For example, a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations, or to express generalized grievances about NRC policies. *See North Atlantic Energy Services Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 217 n.8 (1999); *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974). Second, the rule's requirement of detailed pleadings puts other parties in the proceeding on notice of the Petitioners' specific grievances and thus gives them a good idea of the claims they will be either supporting or opposing. Finally, the rule helps to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions.

In 1989 the Commission toughened its contention rule in a conscious effort to raise the threshold bar for an admissible contention and ensure that only intervenors with genuine and particularized concerns participate in NRC hearings. *See* Final Rule, Contentions, 54 Fed. Reg. at 33,168. By raising the admission standards for contentions, the Commission intended to obviate serious hearing delays caused in the past by poorly defined or supported contentions. At the time, hearings often were "delayed by months and even years of prehearing conferences, negotiations, and rulings on motions for summary disposition." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 n.7 (1996) (citing *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant), LBP-85-5, 21 NRC 410 (1985), where 500 contentions were submitted, 60 were admitted, and only 10 were actually litigated after a period of 2½ years of negotiations).

Prior to the contention rule revisions, licensing boards had admitted and litigated numerous contentions that appeared to be based on little more than speculation. Indeed, in practice, intervenors could meet the rule's requirements merely "by copying contentions from another proceeding involving another reactor." Proposed Rule, Contentions, 51 Fed. Reg. 24,365, 24,366 (July 3, 1986). Admitted intervenors often had negligible knowledge of nuclear power issues and, in fact, no direct case to present, but instead attempted to unearth a case through cross-examination. *See* Cotter, Nuclear Licensing: Innovation Through Evolution in Administrative Hearings, 34 Admin. L. Rev. 497, 505, 508 (1982). Congress therefore called upon the Commission to make "fundamental changes" in its public hearing process to ensure that "hearings serve the purpose for which they are intended: to adjudicate genuine, substantive safety and environmental issues placed in contention by qualified intervenors." H.R. Rep. No. 97-177, at 151 (1981).

The 1989 revisions to the contention rule thus insist upon "some factual basis" for an admitted contention. 54 Fed. Reg. at 33,171. The intervenor must "be able to identify some facts at the time it proposes a contention to indicate that a dispute exists between it and the applicant on a material issue." *Id.* These requirements are intended to "preclude a contention from being admitted where an intervenor has no facts to support its position and [instead] contemplates using discovery or cross-examination as a fishing expedition which might produce relevant supporting facts." *Id.* Although in quasi-formal adjudications like license renewal an intervenor may still use the discovery process to develop his case and help prove an admitted contention, contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by "some alleged fact or facts" demonstrating a genuine material dispute. *Id.* at 33,170.

This is not to say that our contention rule should be turned into a "fortress to deny intervention." *Peach Bottom*, 8 AEC at 21. The Commission and its boards regularly continue to admit for litigation and hearing contentions that are material and supported by reasonably specific factual and legal allegations. *See, e.g., Seabrook*, 49 NRC at 219-21; *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, *aff'd*, CLI-98-13, 48 NRC 26 (1998).

We turn now to the Petitioners' arguments that their Contentions 1, 2, and 4 are admissible in this case.

A. Contention 1

Contention 1 alleges that "[a]s a matter of law and fact," Duke Energy's license renewal application for the Oconee Nuclear Station, Units 1, 2, and 3 "is incomplete, and should be withdrawn and/or summarily dismissed." *See* Petitioners' Appeal Brief at 2 (Jan. 14, 1999). In support of their contention, the Petitioners submitted two bases before the Licensing Board. As their first basis, the Petitioners explained that the license application incorporates by reference several generic Babcock and Wilcox Owners Group topical reports applicable to the Oconee reactor coolant system, and also incorporates by reference a 1996 Duke Energy report to the NRC on the reactor building (containment). The Petitioners go on to conclude that because the NRC Staff has not completed its review of these generic reports, the license application must be deemed incomplete. The Licensing Board correctly rejected this basis as a ground for the contention, noting that all the Petitioners "ha[d] done is search the record for instances of uncompleted Staff review of the Oconee application." 48 NRC at 386. The mere fact that the Staff review is ongoing says nothing about whether the application is deficient or will be found to satisfy all applicable requirements. Apparently, the Petitioners have accepted the Licensing Board's

rejection of this basis because they do not reiterate it in their appeal brief's discussion of Contention 1.

On appeal, the Petitioners rely solely on the NRC Staff's issuance of Requests for Additional Information (RAIs) to the Applicant. The Petitioners' contention is said to include "each of the [RAIs] filed *or forthcoming*" by the NRC Staff to the Applicant. *See* Amended Petition at 3 (emphasis added). They argue on appeal:

> [T]he numerous Requests for Additional Information (RAIs) submitted by Nuclear Regulatory Commission staff (NRC) to Duke regarding the subject application are prima facie evidence . . . that the application is incomplete. The simple and clear logic supporting this contention is that if the application were complete, then the NRC staff would not need to solicit follow-up information.

Appeal Brief at 2. We cannot agree.

As the Commission recently made clear, "RAIs are a standard and ongoing part of NRC licensing reviews." *Calvert Cliffs*, 48 NRC at 349. They are a routine means for our Staff to request clarification or further discussion of particular items in the application. What would be unusual in a license renewal case is if by now no RAIs had been issued, not that some have been. Even the *Federal Register* notice for this proceeding indicated that the "docketing of the renewal application does not preclude requesting additional information as the review proceeds, nor does it predict whether the Commission will grant or deny the application." 63 Fed. Reg. 42,885, 42,886 (Aug. 11, 1998). The NRC does not "violate[ ] any clear legal duty by proceeding first to docket [an application] and thereafter to request additional information." *Concerned Citizens of Rhode Island v. NRC*, 430 F. Supp. 627, 634 (D. R.I. 1977). *See also* 10 C.F.R. § 2.102(a) (Staff during its review may request applicant to supply additional information). In short, "the NRC Staff's mere posing of questions does not suggest that the application [is] incomplete." *Calvert Cliffs*, 48 NRC at 349.

To satisfy the Commission's contention rule, then, Petitioners must do more than "rest on [the] mere existence" of RAIs as a basis for their contention. *Id.* at 350. RAIs generally "indicate[ ] nothing more than that the Staff requested further information and analysis from the Licensee." *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 147 (1993). The NRC's issuance of RAIs does not alone establish deficiencies in the application, or that the NRC Staff will go on to find any of the Applicant's clarifications, justifications, or other responses to be unsatisfactory.

Here, to support Contention 1, the Amended Petition simply referred to all RAIs "filed or forthcoming"; the contention is bereft of supporting detail. *See* Amended Petition at 3. This is a far cry from the reasonable specificity our contention rule demands. A contention alleging that an application is deficient must identify "each failure and the supporting reasons for the petitioner's belief."

10 C.F.R. § 2.714(b)(2)(iii). "The Commission expects parties to bear their burden and to clearly identify the matters on which they intend to rely with reference to a specific point." *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 241 (1989). All the Petitioners did here was attach to their Amended Petition an NRC memo discussing the status of particular RAIs the Staff had issued. The Petitioners point to no specific safety deficiency identified in the NRC memo. The memo simply reflects areas where the NRC Staff has made inquiries and Duke Energy's agreement "to consider . . . additional clarification."

The Petitioners themselves provided no analysis, discussion, or information of their own on any of the issues raised in the RAIs — which, we note, cover a wide variety of disparate subject matters, such as door locking mechanisms and the Oconee coatings program. At bottom, the RAIs show only an ongoing Staff dialogue with Duke Energy, not any ultimate Staff determinations. Apart from a broad reference to these follow-up questions posed by the Staff, the Petitioners did not posit any reason or support of their own — no alleged facts and no expert opinions — to indicate that the application is materially deficient. Petitioners seeking to litigate contentions must do more than attach a list of RAIs and declare an application "incomplete." It is their job to review the application and to identify *what* deficiencies exist and to explain *why* the deficiencies raise material safety concerns.

We find, therefore, that Contention 1 does not meet the requirements for an admissible contention. It lacks specificity, presents no underlying support other than a general reference to assorted RAIs issued by the Staff, and cannot be viewed as showing a genuine dispute with the Applicant on a material issue. Indeed, the Petitioners effectively concede as much in their appeal brief. Their overarching complaint throughout this proceeding has been the time limits our regulations impose upon those seeking a hearing. The Petitioners want the Commission to grant them "until at least 90 days" after Duke has responded to the last RAI in which to file contentions. This time extension would, the Petitioners explain, enable them to review all the RAIs and responses "and then, *if warranted,* set forth contentions." Appeal Brief at 3 (emphasis added). They do not believe that the renewal application provided adequate material for them "to determine grounds to frame contentions, if *warranted.*" *Id.* at 2-3 (emphasis added).

The Petitioners, it appears, are still in the process of determining whether contentions even are "warranted." This is not so much a case, then, of Petitioners who, after reviewing all relevant licensing documents, have isolated specific issues they dispute and wish to litigate. It is more a case of Petitioners who simply desire more time and more NRC Staff information to determine whether they even have a genuine material dispute for litigation.

The Petitioners' demand that initiation of the NRC hearing process await completion of NRC Staff reviews would turn our adjudicatory process on its head. Under our practice, a petitioner has "an ironclad obligation" to examine the application, and other publicly available documents, with sufficient care to uncover any information that could serve as the foundation for a contention. *See Rancho Seco*, 37 NRC at 147; Final Rule, Contentions, 54 Fed. Reg. at 33,170. Petitioners must articulate at the outset the specific issues they wish to litigate as a prerequisite to gaining formal admission as parties. *See, e.g., Business and Professional People for the Public Interest v. AEC*, 502 F.2d 424, 428 (D.C. Cir. 1974). "[I]t is the license application, not the NRC Staff review, that is at issue in our adjudications." *Calvert Cliffs*, 48 NRC at 350. It is reasonable to expect a person or organization seeking to participate in a proceeding to study the portions of the application addressing the issues of concern and identify exactly what these concerns are.

The Petitioners have not done so, and instead have come forward only with what amounts to generalized suspicions, hoping to substantiate them later as the NRC Staff conducts its own safety review. But the 1989 revisions to our contention rule effectively work to bar ill-defined "anticipatory" contentions like the Petitioners'. *See Union of Concerned Scientists v. NRC*, 920 F.2d 50, 53 (D.C. Cir. 1990); Final Rule, Contentions, 54 Fed. Reg. at 33,171. Our revised rules do not permit "vague, unparticularized contentions," or "notice pleading, with details to be filled in later." *See Seabrook*, 49 NRC at 219. Petitioners do not have the right to wait and "have the [NRC] Staff studies as a sort of pre-complaint discovery tool." *Union of Concerned Scientists*, 920 F.2d at 56. Moreover, "much of what those [NRC] reports will bring to light will . . . not be new issues but new evidence on issues that [already] were apparent at the time of application," had the application been carefully reviewed. *See id.* at 55.

On the other hand, if genuinely new and material safety or environmental issues later emerge from RAIs or other NRC Staff documents, our contention rule does not prevent their litigation. *See* 10 C.F.R. §§ 2.714(a), (b)(2)(iii). In fact, the Commission today affirmed a Licensing Board decision granting late intervention under our rules. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318 (1999). We believe that our procedural rules thus strike a fair balance between ensuring that interested persons can raise significant environmental and safety issues and providing for expeditious hearings.

The Commission acknowledges that our rules require individuals concerned about a licensing action to work within a limited time frame to review the license application and any available related licensing documents and to submit their intervention petition and contentions. Admittedly, this can pose a significant burden, especially for *pro se* petitioners who are likely to have less available time and resources. But it has long been a "basic principle that a person who

invokes the right to participate in an NRC proceeding also voluntarily accepts the obligations attendant upon such participation." *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048 (1983). "A second fundamental principle applicable here is that there is a substantial public interest in efficient and expeditious administrative proceedings. Although this interest is undoubtedly subordinate to the public's interests in health, safety, and the environment, it is an interest which the Commission incorporates" into the NRC's procedural rules. *Id.* (citations omitted). "The NRC Staff," of course, "will consider and resolve all safety questions regardless of whether any hearing takes place." *Calvert Cliffs*, 48 NRC at 350.

In sum, we agree with the Licensing Board that Contention 1 is inadmissible, and we deny the Petitioners' request to "reschedule" this proceeding until all "the RAIs have been resolved." *See* Appeal Brief at 2. As the Commission quite recently stated, if we "allow[ed] Petitioners to await completion of the RAI process before framing specific contentions, the hearing process frequently would take months or years even to begin, and expedited proceedings, such as the Commission contemplated for license renewal, would prove impossible." *Calvert Cliffs*, 48 NRC at 350.

B. Contention 2

Contention 2 alleges that "[a]s a matter of law and fact," Duke Energy's license renewal application "does not meet the aging management and other safety-related requirements mandated by law and NRC regulations, and therefore should be withdrawn and/or summarily dismissed." As with Contention 1, however, on appeal the Petitioners' only basis for this contention is NRC Staff RAIs. For the reasons given above, Staff RAIs generally do not suffice to show that Petitioners *themselves* have sufficient knowledge and concern to trigger our adjudicatory apparatus.

We first note that the Petitioners have dropped most of the bases originally relied upon in their Amended Petition for Contention 2. For instance, one of the arguments featured in their Amended Petition suggested that the Applicant failed to include a program for the "sample inspection of small bore Reactor Coolant System piping." *See* Amended Petition at 4. As the Board pointed out, however, the Petitioners apparently had misread the application, which in fact *had* provided a discussion of this program. *See* 48 NRC at 388-89; NRC Response to Petitioners' First Supplemental Filing, at 12-13 (Nov. 16, 1998). Instead of directly challenging the adequacy of the Applicant's program, the Petitioners merely — and incorrectly — assumed that the application had not addressed the issue. The Petitioners originally also relied on the claim that the Staff had yet to complete their review of all the generic topical reports incorporated by reference in the application. *See* Amended Petition at 4. But,

again, as we stated in regard to Contention 1, the Staff's ongoing review of the application does not provide a basis for a contention. The Petitioners could have reviewed the particular topical reports themselves to see if there were any information or finding in them that they wished to controvert or that called Duke Energy's application into question.

Having dropped the above arguments, on appeal the Petitioners turn solely to the NRC Staff RAIs. On this point, their Amended Petition contained only the simple declaration that an "[a]dditional basis for this Contention shall also be set forth in each of the RAIs that *will be* filed by the NRC staff." *See* Amended Petition at 4 (emphasis added). As we already have held (*see* discussion above), such vague, open-ended, and prospective references to RAIs cannot support a litigable contention, which requires a reasonably specific explanation of an actual safety-related deficiency.

Several weeks after filing their original intervention petition, the Petitioners made an effort to introduce specificity into their contention by submitting to the Board additional information on particular RAIs. They entitled their new pleading (filed on December 9, 1998), "New Information for the ASLB to Consider." At the time, the Board had given all the parties an opportunity to comment on an issue involving Contention 4, which addresses high-level waste. The Petitioners not only commented on the waste issue, but also took the occasion to cite and quote several RAIs which they claimed "directly name the matters of law and fact that are discussed in the Petitioners' Contentions." *See* New Information Supplement at 2. These RAIs, the Petitioners explained, had not been available when they filed their Amended Petition.

The NRC Staff argues in its appeal brief that if these RAIs "are considered [ ] new information," the Petitioners should have addressed the agency standards for late-filed contentions, and their failure to do so "amounts to an untimely, unauthorized supplement to their contentions that should not be considered." *See* Staff Appeal Brief at 16 n.2. We fully agree. In virtually identical circumstances in *Calvert Cliffs*, where the petitioners attempted to introduce new, RAI-driven claims well after the deadline for contentions, we refused to permit the claims in the absence of a showing of good cause for lateness. *See* 48 NRC at 347-48. Here, too, the record is barren of any effort by the Petitioners to justify the lateness of their submission.

Moreover, even were we to overlook the fatal lateness of the Petitioners' December 9 filing, the filing adds no persuasive substantive support to the Petitioners' contention and therefore cannot serve as the basis for a hearing. The Petitioners' basic premise is that follow-up inquiries by the Staff during its review of the application represents "prima facie" evidence that the application is materially in error or deficient. The Petitioners believe, therefore, that "each of the RAIs" filed by the NRC Staff supplies a basis for a contention. *See* Amended Petition at 4. Although the Petitioners did not attach a copy of the

RAIs they referenced, they quoted selected language from them, arguing that these RAIs demonstrate a "fundamental void" in the application. *See* Appeal Brief at 3.

Read in context and in their entirety, the particular RAIs noted by the Petitioners do not by themselves present any genuine material dispute or litigable issue. They represent nothing more than what RAIs by definition are — requests for further information. Far from showing a definitive Staff conclusion that a program proposed in the application is deficient or flawed, many of the cited RAIs suggest that the Staff may be inclined to accept a particular program or schedule as proposed in the application, as long as Duke Energy better explains its underlying reasons and procedures. *See, e.g.*, RAI 4.3.9-2. Other cited RAIs simply request that Duke Energy further describe or explain specific technical issues, such as the engineering analysis, to aid the Staff in completing its evaluation and assessment of the particular item under review. *See, e.g.*, RAI 3.5.3-2. In all instances, though, the RAIs show issues that are still under review and as yet inconclusive; in every case, whatever the issue, the Staff has accorded Duke Energy the opportunity to expand upon or otherwise justify the approach taken in the application.

The Petitioners' extensive reliance on RAIs, and a similar approach taken in another recent license renewal case, *Calvert Cliffs*, causes us to elaborate, briefly, our understanding of the use of RAIs in adjudications. We said in *Calvert Cliffs* that RAIs are not always "irrelevant to the adjudicatory process." 48 NRC at 350 (citation omitted). They can, for instance, provide a jumping-off point for the petitioners to focus upon particular parts of the application and thereby develop potential issues of concern. The extent to which an RAI might help support a contention must be considered on a case-by-case basis, but the Commission expects that in almost all instances a petitioner must go beyond merely quoting an RAI to justify admission of a contention into the proceeding.

To show a genuine dispute with the Applicant, Petitioners must use the RAI to make the issue of concern their own. This means they must develop a fact-based argument that actually and specifically challenges the application. Where, for example, as in this case, the NRC Staff issues an RAI that questions a particular inspection schedule — directing the Applicant to further describe and support it — a genuine and material dispute for litigation does not arise from a petitioner's mere mention of the RAI. The petitioner's contention must indicate *why* the petitioner believes the particular inspection schedule makes the license renewal application unacceptable, not just that the NRC Staff has

requested a better explanation or description of it.[3] As the Licensing Board has aptly stated, a contention "that fails directly to controvert the license application . . . is subject to dismissal." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998). Moreover, if the RAI in question does nothing more than request further information, it is not unreasonable to expect a petitioner to provide additional information corroborating the existence of an actual safety problem. Documents, expert opinion, or at least a fact-based argument are necessary. The Petitioners here have provided none of this.

It is surely legitimate for the Commission to screen out contentions of doubtful worth and to avoid starting down the path toward a hearing at the behest of Petitioners who themselves have no particular expertise — or expert assistance — and no particularized grievance, but are hoping something will turn up later as a result of NRC Staff work. Our contention rule would soon be rendered insignificant if any petitioner with standing had only to cite an RAI to gain entitlement to an adjudicatory hearing.

The Petitioners in this case effectively concede they have no independent knowledge or expertise to bring to the adjudicatory process, but intend to rely solely upon the "Staff's technical and scientific assessment of the application," which they understand is ongoing and as yet inconclusive. *See* Appeal Brief at 2-3. Because they were unable before filing their petition to see how the NRC Staff RAIs will be ultimately resolved, they are unsure if contentions are even "warranted." Distilled, the Petitioners' pleadings reveal only one clearly defined dispute — not with the contents of the application, but with the very structure of the Commission's adjudicatory process — which requires Petitioners to come forward now, rather than later, with contentions. But generic changes in our adjudicatory rules can be accomplished only through the rulemaking process, not through individual adjudications. The Board was correct in refusing to allow the Petitioners to litigate generalized grievances.

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[3] Several of the specific RAIs the Petitioners have cited here involve one-time inspection programs for different plant systems. These RAIs question why the Applicant proposes to complete these inspections only by the end of the initial license term. For example, one RAI states the following: "Provide a justification for not completing the inspection activities at the time of application. Along with your justification, describe the methodology, identify any applicable acceptance criteria, identify planned corrective actions, and provide a schedule for implementation" (RAI-4.3.9-2). Apart from merely quoting this language from the RAI, the Petitioners present no health or safety argument for why the inspection already should have been completed, which presumably is their concern. Although they claim that their earlier Amended Petition was "totally misinterpreted" by the Board, the plain reading of their Amended Petition suggests that they originally believed these types of one-time inspections should be conducted *later*, not sooner. In their Amended Petition, the Petitioners argued that if the one-time inspection were conducted "well in advance of the expiration date for the Oconee Nuclear Station's current operating license . . . . then at the beginning of the nuclear station's extended term there could be ten years of 'wear and tear' . . . that would be unaccounted for." Amended Petition at 4. Now on appeal, they simply declare, without more, that it is "unacceptable to delay these inspections." Appeal Brief at 4. Regardless, though, of whether the Petitioners have changed their position on these one-time inspections, they present no argument or rationale for why the schedule should be one way or the other.

C. Contention 4

Contention 4 is phrased as follows: "The Petitioners submit that the specific issue of the storage of spent fuel and the other radioactive substances on the site of the Oconee Nuclear Station must be addressed in these proceedings. In addition, the status and capacity of the current spent fuel storage facility must be disclosed and addressed. The real and potential availability and viability of other High Level Waste storage sites must be disclosed and addressed." *See* Appeal Brief at 4. The basis for the contention is the failure of Duke Energy's environmental report to address the onsite storage, transportation, and ultimate disposal of the Oconee facility's spent fuel.

We begin by noting generally that agencies are free either to determine issues on a case-by-case basis through adjudications or, when appropriate, to resolve matters generically through the rulemaking process. Otherwise, the agency would be required "continually to relitigate issues that may be established fairly and efficiently in a single rulemaking proceeding." *See Heckler v. Campbell*, 461 U.S. 458, 467 (1983). *Accord Kelley v. Selin*, 42 F.3d 1501, 1511 (6th Cir.), *cert. denied*, 515 U.S. 1159 (1995). In the area of waste storage, the Commission largely has chosen to proceed generically. *See generally id.* at 1512-14, 1519-20; *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 204-05, 211-13 (1998). Thus, where the Commission can determine that particular analyses or findings are applicable to all nuclear power plants with common plant characteristics, the Commission frequently has chosen to codify these findings in environmental protection regulations.

Here, the Petitioners' concerns in Contention 4 are, with one exception, already addressed generically by Commission regulation, and Duke Energy therefore did not have to provide a plant-specific discussion of these items in its environmental report. For instance, 10 C.F.R. § 51.53(c)(3)(i) explicitly states that an applicant's site-specific environmental report for operating license renewals need not contain an analysis of any issues identified as "Category 1" issues in Appendix B to Part 51, Subpart A, because the Commission already has addressed those issues in a generic fashion. Category 1 issues include the radiological impacts of spent fuel and high-level waste disposal, low-level waste storage and disposal, mixed waste storage and disposal, and onsite spent fuel. *See* Table B-1, Part 51, Subpart A, Appendix B. The Commission's generic determinations governing onsite waste storage preclude the Petitioners from attempting to introduce such waste issues into this adjudication.

The Commission expressly has decided to address the environmental and radiological effects of onsite spent fuel storage generically in the context of license renewal. *See, e.g.*, "Environmental Review for Renewal of Nuclear Power Plant Operating Licenses," 61 Fed. Reg. 66,537, 66,538 (Dec. 18, 1996). Our rules state:

> [I]f necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations.

10 C.F.R. § 51.23(a). Our rules also state that "[t]he expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with small environmental effects through dry or pool storage at all plants if a permanent repository is not available." *See* Table B-1, Part 51, Subpart A, Appendix B. An applicant's environmental report therefore "need not discuss any aspect of the storage of spent fuel for the facility within the scope of [these] generic determinations.[4] 10 C.F.R. § 51.53(c)(2). *See also* NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants."

We turn next to the Petitioners' claim that the environmental report should have addressed the "real and potential availability and viability of other High Level Waste storage sites." Again, the Commission has chosen to address this matter generically by rule. *See* 10 C.F.R. §§ 51.53(c)(2); 51.23(a) ("the Commission believes . . . that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor"). On appeal, the Petitioners attack this finding, stating that it "appears suspect" because the candidate site of Yucca Mountain has yet to be licensed; the Department of Energy's target date for the repository has been missed; the capacity of the repository may be insufficient; and there have been safety-related incidents involving dry cask spent fuel storage. *See* Appeal Brief at 5.

Petitioners' effort to attack the Commission's "waste confidence" determination is unpersuasive. First, Petitioners raise their waste confidence claim for the first time on appeal. That alone defeats the argument at a procedural level. *See, e.g., Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 221 (1997). Substantively, the Petitioners' claims, even read in the most generous light, do not come close to showing why this proceeding presents such special or different circumstances that it warrants disregarding or waiving the application of our generic spent fuel storage and high-level waste disposal rules. *See* 10 C.F.R. § 2.758. At bottom, the Petitioners voice concerns only about uncertainties in high-level waste disposal, uncertainties that the Commission has

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[4] On a related point, the Commission handles as a separate licensing matter any applications for an onsite ISFSI. ISFSI licenses are granted under 10 C.F.R. Part 72. The Commission, for example, in 1990 granted Duke Energy a 20-year license to store spent fuel in an ISFSI at the Oconee facility. 55 Fed. Reg. 4035 (Feb. 6, 1990). The Commission provided an opportunity for a hearing on this license. 53 Fed. Reg. 26,122 (July 11, 1988). A request for an expansion of the spent fuel pool also would entail an opportunity for hearing. *See* 10 C.F.R. § 2.1107.

always acknowledged, but has decided will be overcome in the next several decades.

The Commission sensibly has chosen to address high-level waste disposal generically rather than unnecessarily to revisit the same waste disposal questions, license-by-license, when reviewing individual applications. High-level waste storage and disposal, we have said, "is a national problem of essentially the same degree of complexity and uncertainty for every renewal application and it would not be useful to have a repetitive reconsideration of the matter." 61 Fed. Reg. 66,537, 66,538 (Dec. 11, 1996). The Petitioners have presented no reason for the Commission to depart from its generic waste storage determinations in this proceeding and instead litigate the question in an individual case. If Petitioners are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication.

Lastly, pointing to 10 C.F.R. § 51.53(c)(3)(ii)(M), the Petitioners claim that Duke Energy's environmental report should have addressed the impacts of transporting high-level waste to a high-level waste repository site. This is a matter not governed by a *current* Commission rule. But the Licensing Board correctly found that the transportation of spent fuel rods to an offsite repository is not an appropriate subject for a contention because it is the subject of a *pending* rulemaking. It has long been agency policy that Licensing Boards "should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission." *See Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-813, 22 NRC 59, 86 (1985); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179 (1998).

In a Staff Requirements Memorandum (SRM), dated January 13, 1998, the Commission directed the NRC Staff to proceed with a rulemaking to amend 10 C.F.R. § 51.53(c)(3)(ii)(M) to categorize the impacts of transporting high-level waste as a generically addressed Category 1 issue. The Commission explicitly stated that current license renewal applicants should not address these transportation issues unless waiting for the rulemaking to be final would delay the license renewal proceeding. As the Licensing Board in this case indicated, a final rule on this question is expected no later than September 1999, and therefore this rulemaking is not expected to delay the anticipated December 2000 completion of the license renewal proceeding. *See* 48 NRC at 392.

On appeal, the Petitioners merely argue that there is "no guarantee that the proposal to change the HLW rule will proceed unimpeded." Appeal Brief at 5-6. We note, however, that there have been no delays to date in the process and formal notice of the proposed rule already has been published. *See* 64 Fed. Reg. 9884 (Feb. 26, 1999). The Petitioners may, of course, raise any concerns

about the proposed rule by participating in this rulemaking. In any event, Duke Energy's license renewal application will not be granted without the resolution of this matter. Given current information, we agree with the Licensing Board that it would be "counterproductive" (and contrary to longstanding agency policy) to initiate litigation on an issue that by all accounts very soon will be resolved generically.

IV. CONCLUSION AND ORDER

For the reasons stated in this Decision, the Commission hereby *affirms* LBP-98-33 in its entirety.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 15th day of April 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 40-8948-MLA**

SHIELDALLOY METALLURGICAL CORPORATION
(Cambridge, Ohio Facility) **April 26, 1999**

The Commission affirms a Licensing Board order, LBP-99-12, 49 NRC 155 (1999), denying an intervention petition and hearing request for failure to demonstrate standing.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY); ADMISSIBILITY OF CONTENTIONS; CONTENTIONS (APPEALABILITY OF DISMISSAL); CONTENTIONS (SPECIFICITY AND BASIS); CONTENTIONS (REQUIREMENTS FOR INTERVENTION); INTERVENTION (STANDING); STANDING TO INTERVENE

EVIDENCE: DUTY TO PROVIDE

The Commission differs from Article III courts in that we do not permit "notice pleadings." *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999). Rather, we insist on detailed descriptions of the petitioner's positions on issues going to both standing and the merits. 10 C.F.R. § 2.1205(e) (petitioner "must describe in detail" these positions). *Cf.* 10 C.F.R. §§ 2.1211(b) (requiring governmental participants in Subpart L proceedings to state their areas of concern "with reasonable

specificity"), 2.714(a)(2) (requiring petitioners in Subpart G proceedings to set forth their positions "with particularity").

RULES OF PRACTICE: INTERVENTION PETITIONS (AFFIDAVIT); AFFIDAVITS; RESPONSIBILITIES OF COUNSEL; INTERVENTION (STANDING); STANDING TO INTERVENE; STANDARDS OF PRACTICE

EVIDENCE: DUTY TO PROVIDE

"In order to establish the factual predicates for these various elements [of standing], when legal representation is present, it *generally* is necessary for the individual to set forth any factual claims in a sworn affidavit." LBP-99-12, 49 NRC at 158 (emphasis added), *citing Atlas Corp.* (Moab, Utah Facility), LBP-97-9, 45 NRC 414, 427 n.4, *aff'd*, CLI-97-8, 46 NRC 21 (1997). The Commission's Subpart L procedures governing this proceeding do not now contain, nor have they ever contained, such a requirement. Although our Subpart G procedural rules once contained such a requirement (*see* 10 C.F.R. § 2.714(a) (1977)), we rescinded that provision more than 20 years ago. *See* 43 Fed. Reg. 17,798, 17,799 (Apr. 26, 1978). *See also Washington Public Power Supply System* (WPPSS Nuclear Project No. 1), LBP-83-59, 18 NRC 667, 669 (1983).

RULES OF PRACTICE: INTERVENTION PETITIONS (AFFIDAVITS); AFFIDAVITS

EVIDENCE: DUTY TO PROVIDE

The Commission does not interpret the Presiding Officer's order as stating that an affidavit was *absolutely* required, for indeed it is not.

RULES OF PRACTICE: RESPONSIBILITIES OF COUNSEL; REPRESENTATION (BY ATTORNEY); STANDARDS OF PRACTICE

Petitioners represented by counsel are generally held to a higher standard than *pro se* litigants. *See, e.g., Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 546 (1980), and cited cases.

RULES OF PRACTICE: INTERVENTION (STANDING); STANDING TO INTERVENE

EVIDENCE: DUTY TO PROVIDE

Section 2.1205(e) of our procedural regulations requires petitioners seeking a hearing to provide a detailed description as to why they have standing. Petitioners' dual assertions that two of their number own land within a mile of the SMC facility and that their property contains radioactive slag from the SMC facility may well be true, but the assertions are cursory at best, do not constitute the requisite detailed description, and are unsupported by evidence — affidavit or otherwise — that would help to provide the requisite detail. Nor do petitioners even allege that they are required to do anything at all with the slag and soil, or state how much greater their costs would be compared with the expense of returning the slag and soil to the Cambridge facility grounds. These omissions render their economic injury argument woefully deficient.

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING

Because Petitioners' dual economic assertions do not go to the question whether the proffered amendment should be granted, they fall outside the scope of this proceeding.

RULES OF PRACTICE: INTERVENTION (STANDING); STANDING TO INTERVENE (INJURY IN FACT)

EVIDENCE: DUTY TO PROVIDE

Petitioners to intervene are required under our rules of practice to provide some form of substantiating evidence for their factual assertions regarding standing. Petitioners' failure to offer such support for its claims of non-economic injury (despite their having been served with a copy of the relevant Environmental Report) rendered those claims deficient and absolved the Presiding Officer of any need to discuss them in detail.

RULES OF PRACTICE: INTERVENTION (STANDING); STANDING TO INTERVENE (INJURY IN FACT)

Because Petitioners never assert that they actually use the geographical areas that they claim to be associated with their purported aesthetic, recreational, and environmental/conservation interests, they fail to show that they would be "personally and individually" injured, as required under the Supreme Court's decision in *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 n.1, 561-62 (1992).

See also United States v. AVX Corp., 962 F.2d 108, 118 (1st Cir. 1992) ("a plaintiff, to secure standing, must show that he or she uses the specific property in question" (citation and internal quotation marks omitted)). *Compare Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 31-32 (1998) (sworn affidavits showing regular and frequent visits to a home near the facility are sufficient to establish standing).

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT); INTERVENTION (STANDING); SCOPE AND TYPE OF PROCEEDING

Because Petitioners' claim of economic injury falls outside the scope of this proceeding and thus cannot be redressed herein, any evidence they would present on redressability of economic injury is irrelevant.

RULES OF PRACTICE: INFORMAL PROCEEDINGS; DISCOVERY

Subpart L proceedings offer no right to discovery. *See* 10 C.F.R. § 2.1231(d).

RULES OF PRACTICE: INTERVENTION (STANDING); STANDING TO INTERVENE (REDRESSABILITY)

It is well established in both federal and Commission case law that redressability is an essential element of standing. *See, e.g., Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185 (1998); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995); *Bennett v. Spear*, 520 U.S. 154, 162, 167 (1997).

RULES OF PRACTICE: NOTICE OF APPEARANCE; INTERVENTION (STANDING); STANDING TO INTERVENE (INJURY IN FACT)

It is the Commission's general rule that, to establish individual standing, persons seeking to intervene must identify themselves. *See generally Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389-400 (1979). The general need for such identification should be obvious. If the Commission does not know who the petitioners are, it is usually difficult or impossible for the licensee to effectively question, and for us to ultimately determine, whether petitioners as individuals have "personally" suffered or will suffer a "distinct and palpable" harm that constitutes

injury in fact — a determination required for a finding of standing. *Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988). *See generally* Atomic Energy Act, § 189a, 42 U.S.C. § 2239(a); 10 C.F.R. § 2.1205(e)(1), (2).

RULES OF PRACTICE: CONFIDENTIAL INFORMATION (PROTECTION FROM DISCLOSURE)

Although this agency has never gone so far as to admit an anonymous party into a proceeding, we have repeatedly shown in other contexts our willingness to make the necessary accommodations to protect the privacy of individuals who show us that such protection is appropriate — something Citizens have not done. *See International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-97-14, 46 NRC 55, 57 n.3 (1997) (noting that fear for the safety of the people whom an organization purports to represent could justify the omission of those people's names from a petition opposing the licensing action at issue in an NRC proceeding), *aff'd*, CLI-98-6, 47 NRC 116 (1998); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 17 n.8 (1985) (using protective orders and expurgated copies of affidavits to protect affiants' anonymity); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-775, 19 NRC 1361, 1367 n.18 (1984) ("in camera filings and requests for protective orders are available in appropriate circumstances to protect the legitimate interests of a party or other person"), *aff'd sub nom. Deukmejian v. NRC*, 751 F.2d 1287 (D.C. Cir. 1984), *reh'g granted and opin. vacated*, 760 F.2d 1320 (D.C. Cir. 1985), *Commission decision reaff'd on reh'g sub nom. San Luis Obispo Mothers for Peace v. NRC*, 789 F.2d 26 (D.C. Cir.) (*en banc*), *cert. denied*, 479 U.S. 923 (1986).

MEMORANDUM AND ORDER

Four citizens of Guernsey County, Ohio ("Citizens"), have sought intervention and a hearing to contest a request by Shieldalloy Metallurgical Corporation ("SMC") to amend the 10 C.F.R. Part 40 source materials license for its Cambridge, Ohio facility. On February 23, 1999, the Nuclear Regulatory Commission's Presiding Officer issued a Memorandum and Order, LBP-99-12, 49 NRC 155, denying Citizens' intervention petition and hearing request for failure to demonstrate standing. On March 5, Citizens appealed LBP-99-12 to the Commission pursuant to 10 C.F.R. § 2.1205(o). Both SMC and the NRC Staff oppose Citizens' appeal. We deny the appeal, affirm LBP-99-12, and terminate the proceeding.

BACKGROUND

This proceeding stems from SMC's application to amend its Source Material License No. SMB-1507 which currently authorizes SMC to possess radioactive slag (currently totaling about 7 million cubic feet) that resulted from alloy production processes previously conducted at SMC's Cambridge facility. If approved, the license amendment would allow SMC to take possession of an additional 81,000 cubic feet of slag and associated soil that was gathered from offsite residential properties in 1997[1] and is currently owned and held by another company in roll-off boxes (containers) at a temporary staging area which that company rents from SMC within the Cambridge facility grounds. The amendment would also permit SMC to move this offsite slag/soil from the containers to a nearby slag pile that is also within the SMC facility.[2]

Citizens ask this agency to deny the application on the grounds that it would (1) violate various state statutory and regulatory provisions, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-9657, and NRC requirements in 10 C.F.R. Part 61; (2) increase the costs of proper disposal of offsite radioactive slag from the Cambridge facility that was not accounted for in the amendment; (3) increase the public health and safety risk from needless handling of radioactive material; and (4) adversely affect Citizens' aesthetic, recreational, environmental/conservational, and economic interests, including visual blight and contaminated runoff into nearby streams.

Regarding their fourth ground, Citizens argue that (a) their aesthetic values will be adversely affected by looking from state or township roads upon additional slag/soil commingled with the solid wastes in the slag pile; (b) their recreational interests will be adversely affected by this commingling adjacent to open fields, wetlands, and Chapman's Run that drain into nearby Will's Creek; (c) their environmental/conservational interests will be adversely affected by the commingling being in violation of federal and Ohio laws enacted to protect the public health, safety, welfare and environmental resources; and (d) their economic interests (also addressed in the second ground) are adversely affected by the amendment's failure to permit two of the four Petitioners to place the slag now on their property onto the SMC slag pile, thereby requiring them to dispose of their slag elsewhere at a substantially greater cost.

The Presiding Officer concluded that the only specific factual assertion Citizens made in support of their various claims of injury was that two of the Petitioners own real property (within a mile of the SMC facility) known

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[1] Apparently, some of the slag from the plant was sold or given away for offsite use as fill material, primarily in the 1980s. Environmental Report, July 24, 1998, at 1, *attached to* NRC Staff's Response, dated Jan. 11, 1999.

[2] On February 16, the NRC Staff granted the license amendment application. The Staff also concluded that the existing license already authorized movement of the material from its onsite containers to the slag pile. Letter of John W. N. Hickey to James Valenti, dated Feb. 16, 1999, at 1.

to contain radioactive slag from the SMC facility — a fact relevant only to two Petitioners' claim of economic injury. The Presiding Officer concluded that this claim of economic injury was unsupported by the requisite sworn statement affirming the factual assertions upon which the claim rests, lacked the requisite concreteness to establish an injury in fact, and was unlikely to yield a favorable decision that would redress the alleged injurious effects to the interest in question. Regarding the redressability of the injuries, the Presiding Officer further ruled that, because his authority extended only to determining whether to permit the material now on site to be moved from the containers to the slag pile, he lacked the authority to grant Citizens the relief they sought — removal of slag and soil from their property — to redress their alleged economic injury.[3] Finally, regarding the remaining allegations of aesthetic, recreational, and environmental/conservational injury, the Presiding Officer ruled that the petition contained no verified claim to these injuries from any individual who had indicated an intent to become a party to this proceeding. Based on these rulings, the Presiding Officer dismissed the intervention petition and terminated the proceeding.

On appeal, Citizens proffer five grounds for reversing the Board's order denying them standing, all of which are opposed by the Staff and SMC. As we have recently reiterated, any individual seeking standing to participate in a Commission adjudication must establish that (1) he or she will suffer a distinct and palpable "injury in fact" within the zone of interests arguably protected by the statutes governing the proceeding, (2) the injury is fairly traceable to the challenged action, and (3) the injury is likely to be redressed by a decision in the petitioning individual's favor. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998).

ANALYSIS

1. Adequate Level of Specificity

Citizens argue that the Presiding Officer erred in concluding that they must *establish* the factual predicates for the various elements of a request for hearing. According to Citizens, their request for hearing need only *allege* that they will suffer a distinct and palpable injury, fairly traceable to the proposed action that is likely to be redressed by a favorable decision.

Citizens' argument reflects a basic misunderstanding of the Commission's rules of practice. We differ from Article III courts in that we do not permit

[3] The Presiding Officer raised, but did not rule on, the questions whether this purported economic interest falls within applicable zone of interests arguably protected by the statutes governing the proceeding and whether any of the areas of concern specified in the petition are germane to the subject matter of this proceeding.

the kind of "notice pleadings" to which Citizens allude. *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999). Rather, we insist on detailed descriptions of the Petitioner's positions on issues going to both standing and the merits. 10 C.F.R. § 2.1205(e) (Petitioner "must describe in detail" these positions). *Cf.* 10 C.F.R. §§ 2.1211(b) (requiring governmental participants in Subpart L proceedings to state their areas of concern "with reasonable specificity"), 2.714(a)(2) (requiring petitioners in Subpart G proceedings to set forth their positions "with particularity").

2. *Higher Standard; Economic Injury*

Citizens assert that the Presiding Officer improperly held them to a higher standard merely because they were represented by counsel. Specifically, they challenge the Presiding Officer's ruling that petitioners who are represented by counsel must generally set forth any factual claims in a sworn affidavit. Citizens do not deny that their request for hearing was unverified by affidavit. Rather, they allege that an affidavit verifying the factual basis of their request for hearing is not a necessary element of the request.

This line of argument is flawed in several respects. Citizens misconstrue the overall thrust of the Presiding Officer's ruling. Although the Presiding Officer does refer to "the requisite sworn statement" (LBP-99-12, 49 NRC at 159), this reference follows a correct statement on the immediately preceding page that, "in order to establish the factual predicates for these various elements [of standing], when legal representation is present, it *generally* is necessary for the individual to set forth any factual claims in a sworn affidavit."[4] We construe the Presiding Officer's perhaps-inartful later reference to "the requisite sworn statement" as merely a shorthand reference to his earlier accurate description of the law. Consequently, we do not interpret his order as stating that an affidavit was *absolutely* required, for indeed it is not.

We also agree with the Presiding Officer that petitioners represented by counsel are generally held to a higher standard than *pro se* litigants. *See, e.g., Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 546 (1980), and cited cases.

More to the point, however, section 2.1205(e) of our procedural regulations requires petitioners seeking a hearing to provide a detailed description as to why they have standing. We agree with the Presiding Officer that Citizens have made

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[4] LBP-99-12, 49 NRC at 158 (emphasis added), *citing Atlas Corp.* (Moab, Utah Facility), LBP-97-9, 45 NRC 414, 427 n.4, *aff'd*, CLI-97-8, 46 NRC 21 (1997). The Commission's Subpart L procedures governing this proceeding do not now contain, nor have they ever contained, such a requirement. Although our Subpart G procedural rules once contained such a requirement (*see* 10 C.F.R. § 2.714(a) (1977)), we rescinded that provision more than 20 years ago. *See* 43 Fed. Reg. 17,798, 17,799 (Apr. 26, 1978). *See also Washington Public Power Supply System* (WPPSS Nuclear Project No. 1), LBP-83-59, 18 NRC 667, 669 (1983).

no such showing. Citizens' dual assertions that two Petitioners own land within a mile of the SMC facility and that their property contains radioactive slag from the SMC facility may well be true, but they are cursory at best, do not constitute the requisite detailed description, and are unsupported by evidence — affidavit or otherwise — that would help to provide the requisite detail. Nor do Citizens even allege that they are required to do anything at all with the slag and soil, or state how much greater their costs would be compared with the expense of returning the slag and soil to the Cambridge facility grounds. These omissions render Citizens' economic injury argument woefully deficient.

Finally, because Citizens' dual economic assertions do not go to the question whether the proffered amendment should be granted, they fall outside the scope of this proceeding. As the Presiding Officer correctly indicated, the scope of this case extends *only* to the issue whether the Commission should permit both the transfer of responsibility for material *now on site* and the movement of that material from the onsite containers to the onsite slag pile. *See* "Notice of Consideration of Amendment Request for Shieldalloy Metallurgical Corp.," 63 Fed. Reg. 64,976 (Nov. 24, 1998). By their own admission, Citizens' radioactive slag is located off site and is "unaccounted for in the license amendment request." Citizens' Hearing Request, dated Dec. 21, 1998, at 1. Consequently, Citizens' claims of economic injury fall outside the scope of this proceeding, their specific claims of both causation of economic harm and redressability of economic injury fail, and their overarching claim to economic standing must be rejected.[5]

3. *Non-Economic Injuries*

Citizens assert that the Presiding Officer erred in addressing only the specific factual assertions (regarding economic injury to the two owners of real estate near the SMC facility) and ignoring the remaining claims of injury (i.e., those non-economic injuries to Citizens' health-and-safety, aesthetic, recreational, and environmental/conservation interests). The Presiding Officer did not ignore the

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[5] In any event, the grant or denial of the instant amendment in no way precludes Citizens from reaching an agreement with SMC for the latter to take their slag and soil. It currently appears that Citizens have no contractual grounds for insisting that SMC take their slag and soil. *See* SMC's Reply Brief, dated Feb. 22, 1999, at 5. However, there is nothing in SMC's license or the instant license amendment that would preclude Citizens and SMC from entering into such a contract. Indeed, the Staff's Safety Evaluation Report specifically states that

> This action [i.e., the grant of the license amendment] does not preclude return of additional material to the site at some future time. In fact, we have increased the amount authorized for transfer to Shieldalloy from approximately 1% . . . to 3% (or 10,000 cubic yards). . . . Shieldalloy could request that even greater amounts of material be permitted to return to the site, but would have to submit another amendment request to do so.

Safety Evaluation Report at 3, *attached to* the NRC Staff's Feb. 16, 1999 letter granting the amendment, *supra* note 2. Given that the current material totals only 3000 cubic meters, plenty of volume appears still to be available, within the parameters of the instant license amendment, to accommodate Citizens' own slag and soil, assuming Citizens were to reach an agreement with SMC. *Id.* at 4.

remaining claims of injury. He expressly noted that they lacked evidentiary support (LBP-99-12, 49 NRC at 159 n.2) — a conclusion with which Citizens have not taken issue and with which we agree. As discussed above, petitioners to intervene are required under our rules of practice to provide some form of substantiating evidence for their factual assertions regarding standing. Citizens' failure to offer such support for its claims of non-economic injury (despite their having been served with a copy of the relevant Environmental Report, *supra* note 1) rendered those claims deficient and absolved the Presiding Officer of any need to discuss them in detail.

In addition to failing to offer any supporting evidence, Citizens never assert that they actually use the geographical areas which they claim to be associated with their purported aesthetic, recreational, and environmental/conservation interests. *See* Citizens' Reply Brief, dated Feb. 5, 1999, at 13. In this respect, Citizens fail to show that they would be "personally and individually" injured, as required under the Supreme Court's decision in *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560 n.1, 561-62 (1992). *See also United States v. AVX Corp.*, 962 F.2d 108, 118 (1st Cir. 1992) ("a plaintiff, to secure standing, must show that he or she uses the specific property in question" (citation and internal quotation marks omitted)). *Compare Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26, 31-32 (1998) (sworn affidavits showing regular and frequent visits to a home near the facility are sufficient to establish standing).

4. Redressability of Injuries

Citizens argue that the Presiding Officer erred in concluding that denial of the license amendment application would not redress the alleged economic injury. They claim that the Presiding Officer is reaching a conclusion on the merits of their request for hearing without giving them an opportunity to present evidence or to discover how denial of the application might redress all of their alleged injuries (not just the economic injury).

We disagree with both prongs of this argument. First, as explained above, the scope of this proceeding encompasses only radioactive material currently on site, not material located on the two Petitioners' own property. Consequently, as a matter of law, Citizens' claim of economic injury falls outside the scope of this proceeding and thus cannot be redressed herein. This conclusion of law renders irrelevant any evidence Citizens would present on redressability of economic injury.[6] Second, Citizens' complaint regarding a denial of opportunity

[6] Although Citizens may be correct that its claims of non-economic injury could theoretically be redressed through the denial of SMC's license amendment application, those claims are nevertheless flawed for the reasons set forth elsewhere in this Order.

for discovery ignores the fact that Subpart L proceedings such as this one offer no right to discovery. *See* 10 C.F.R. § 2.1231(d). Citizens' argument again reflects their failure to recognize that they had, but failed to take advantage of, their opportunity to present a minimal level of evidence supporting their claims of injury. Moreover, their claim that a decision on redressability constitutes a merits decision is legally unsupportable. It is well established in both federal and Commission case law that redressability is an essential element of standing. *See, e.g., Yankee Nuclear, supra*; *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995); *Bennett v. Spear*, 520 U.S. 154, 162, 167 (1997).

5. Need to Identify Clients

Citizens object to the Presiding Officer's instruction that their counsel, in any appeal he might file, must enter an appearance that includes a statement identifying his clients in terms much more specific than "unnamed citizens," the only phrase used by counsel to identify his clients while the proceeding was pending before the Presiding Officer. Citizens apparently consider the instruction to be one of the grounds on which the Presiding Officer based his adverse ruling regarding Citizens' standing.

This argument is flawed in several respects. Initially, counsel's March 5 submittal of the required notice of appearance — which identified his clients by name — renders much of this argument moot. As to the remaining portion, we disagree with Citizens' apparent conclusion that the Presiding Officer in any way based his rejection of Citizens' standing on their counsel's prior failure to enter an appearance identifying his clients. The Presiding Officer's discussion of the entry of appearance and identification of clients is found not in the "Analysis" section of LBP-99-12 but rather in a footnote attached to the "Conclusion" section. Thus, it does not form a basis for the Presiding Officer's ruling on standing.

However, we would be remiss if we did not note that the Presiding Officer correctly enunciated the Commission's general rule that, to establish individual standing, the individuals seeking to intervene must identify themselves.[7] The

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[7] *See generally Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389-400 (1979) (a petitioning organization must disclose the name and address of at least one member with standing to intervene so as to afford the other litigants the means to verify that standing exists). Although this agency has never gone so far as to admit an anonymous party into a proceeding, we have repeatedly shown in other contexts our willingness to make the necessary accommodations to protect the privacy of individuals who show us that such protection is appropriate — something Citizens have not done. *See International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-97-14, 46 NRC 55, 57 n.3 (1997) (noting that fear for the safety of the people whom an organization purports to represent could justify the omission of those people's names from a petition opposing the licensing action at issue in an NRC proceeding), *aff'd*, CLI-98-6, 47 NRC 116

(Continued)

general need for such identification should be obvious. If the Commission does not know who the Petitioners are, it is usually difficult or impossible for the Licensee to effectively question, and for us to ultimately determine, whether Petitioners as individuals have "personally" suffered or will suffer a "distinct and palpable" harm that constitutes injury in fact[8] — a determination required for a finding of standing.

CONCLUSION

For the reasons set forth above, Citizens' appeal is denied, LBP-99-12 is affirmed, and this proceeding is terminated.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

(1998); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-812, 22 NRC 5, 17 n.8 (1985) (using protective orders and expurgated copies of affidavits to protect affiants' anonymity); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-775, 19 NRC 1361, 1367 n.18 (1984) ("in camera filings and requests for protective orders are available in appropriate circumstances to protect the legitimate interests of a party or other person"), *aff'd sub nom. Deukmejian v. NRC*, 751 F.2d 1287 (D.C. Cir. 1984), *reh'g granted and opin. vacated*, 760 F.2d 1320 (D.C. Cir. 1985), *Commission decision reaff'd on reh'g sub nom. San Luis Obispo Mothers for Peace v. NRC*, 789 F.2d 26 (D.C. Cir.) (*en banc*), *cert. denied*, 479 U.S. 923 (1986).

[8] *Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988). *See generally* Atomic Energy Act, § 189a, 42 U.S.C. § 2239(a) (requiring that a person's "interest . . . be affected by the proceeding"); 10 C.F.R. § 2.1205(e)(1), (2) (requiring a detailed showing of the petitioner's interest and how it would be affected by the result of the proceeding).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 40-8681-MLA-4**

INTERNATIONAL URANIUM (USA) CORPORATION
(Receipt of Material from Tonawanda, New York) **April 26, 1999**

In this materials license amendment proceeding, the Commission grants the State of Utah's petition for review of a decision by the Presiding Officer, LBP-99-5, 49 NRC 107 (1999), upholding a license amendment granted to the International Uranium (USA) Corporation.

ORDER

In this Subpart L proceeding, the State of Utah has petitioned the Commission for review of a decision by the presiding officer, LBP-99-5, 49 NRC 107 (1999), upholding a license amendment granted to the International Uranium (USA) Corporation. Utah maintains that the license amendment improperly permits IUSA to operate a waste disposal facility. The NRC Staff opposes Commission review, but IUSA does not. IUSA states that Commission review would "eliminate uncertainty" and "end the waste of resources involved in repeated litigation." We agree. Thus, in accordance with the considerations set forth in 10 C.F.R. § 2.786(b)(4), the Commission has decided to grant the petition and will review LBP-99-5 in its entirety. *See* 10 C.F.R. § 2.1253.

The Commission sets the following briefing schedule:

(1) The State of Utah shall file its brief within 21 days of the date of this Order. The brief shall be no longer than 25 pages.

(2) The NRC Staff and IUSA shall file their responsive briefs within 21 days after receipt of the State of Utah's brief. Their briefs shall be no longer than 25 pages.

(3) The State of Utah may file a reply brief within 14 days of receiving the briefs of the NRC Staff and IUSA. The reply brief shall be no longer than 15 pages.

All briefs shall be filed and served in a manner that ensures their receipt on their due date. Electronic or facsimile submissions are acceptable, but shall be followed by hard copies within a reasonable time. Briefs in excess of 10 pages must contain a table of contents, with page references, and a table of cases (alphabetically arranged), statutes, regulations, and other authorities cited. Page limitations on briefs are exclusive of pages containing a table of contents, and of any addendum containing statutes, rules, regulations, etc.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. IA 97-068**

AHARON BEN-HAIM, Ph.D. **April 26, 1999**

The Commission denies petitions for review filed by both the Staff and Dr. Ben-Haim.

RULES OF PRACTICE: PETITIONS FOR REVIEW

LICENSING BOARDS: SCOPE OF REVIEW

To obtain Commission review, a petitioner must show the existence of a *substantial* question regarding one or more of the following five considerations, as set forth in 10 C.F.R. § 2.786(b)(4):

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy, or discretion has been raised;
> (iv) The conduct of the proceeding involved prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.

RULES OF PRACTICE: PETITIONS FOR REVIEW

LICENSING BOARDS: SCOPE OF REVIEW

The Commission denies the Staff's petition for review on the ground that the Staff has not persuaded us that the issues it raises are sufficiently "substantial" to justify our granting a discretionary review of the Licensing Board's order. 10 C.F.R. § 2.786(b)(4). *See generally Emerick S. McDaniel* (Denial of Application for Reactor Operator License), CLI-96-11, 44 NRC 229, 230 (1996) (denying reactor operator candidate's petition for review for failure to present substantial issues); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-9, 44 NRC 112, 113 (1996) (denying intervenors' petition for review for failure to present substantial issues).

RULES OF PRACTICE: PETITIONS FOR REVIEW (DEFERENCE)

ADJUDICATORY PROCEEDINGS: APPELLATE REVIEW

ADJUDICATORY HEARINGS: EVIDENCE

EVIDENCE: CREDIBILITY (DEMEANOR OF WITNESS)

Given that the Board's ruling regarding the length of the suspension period was based in part on Dr. Ben-Haim's demeanor at the hearing, the ruling is subject to deference on appeal. *See Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-772, 19 NRC 1193, 1218 (1984) (where the credibility of evidence turns on the demeanor of a witness, an appellate board will give the judgment of the trial board, which saw and heard the testimony, particularly great deference), *rev'd in part on other grounds*, CLI-85-2, 21 NRC 282 (1985), and cited authority.

RULES OF PRACTICE: PRECEDENTIAL EFFECT OF BOARD DECISIONS

Board orders have no precedential effect. *See Sequoyah Fuels Corp.*, CLI-95-2, 41 NRC 179, 190 (1995).

MEMORANDUM AND ORDER

This proceeding stems from an August 27, 1997 enforcement order of the NRC Staff against Aharon Ben-Haim, Ph.D. In that order, the Staff found that Dr. Ben-Haim had deliberately caused the Newark Medical Associates ("NMA,"

a company for which Dr. Ben-Haim was consulting) to be in violation of several Commission requirements. The Staff therefore found Dr. Ben-Haim in violation of 10 C.F.R. § 30.10 (the "deliberate misconduct" rule) and prohibited him from participating in any NRC-licensed activities for a 5-year period beginning July 31, 1997. 62 Fed. Reg. 47,224 (Sept. 8, 1997).

On February 8, 1999, the Atomic Safety and Licensing Board issued an Initial Decision (LBP-99-4, 49 NRC 55) affirming the NRC Staff's findings of violation but reducing from 5 to 3 years the prohibition period. The Board based this reduction on its conclusion that the Staff had not considered, either adequately or at all, five factors: Dr. Ben-Haim's age (65 at the onset of the suspension), his admission of error and his apology as set forth in a post-hearing pleading, the absence of safety consequences from the violations, the violations' duration, and the fact that Dr. Ben-Haim's violation was influenced by Dr. Elamir (NMA's owner). The Board also considered the fact that the Staff's settlement with Dr. Elamir (involving the same set of facts) had imposed on him only a 3-year prohibition period.

On February 24th, the Staff filed a timely petition for Commission review of LBP-99-4, challenging the Board's reduction of the prohibition period. Dr. Ben-Haim did not contest the Staff's petition. However, he did submit his own untimely Petition for Review on March 14th, justifying his tardiness on the grounds that he had belatedly received the Board's order and that he had been incapacitated with the flu. Staff has objected to Dr. Ben-Haim's petition. We deny both petitions.

Discussion

I. THE STAFF'S PETITION FOR REVIEW

The Staff recognizes that, to obtain Commission review, it must show the existence of a *substantial* question regarding one or more of the following five considerations:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
>
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
>
> (iii) A substantial and important question of law, policy, or discretion has been raised;
>
> (iv) The conduct of the proceeding involved prejudicial procedural error; or
>
> (v) Any other consideration which the Commission may deem to be in the public interest.

10 C.F.R. § 2.786(b)(4). Applying the standards of section 2.786(b)(4)(iii), (iv), and (v), the Staff argues that the Board erred in considering the six factors set forth *supra*.

Although the Staff presents colorable arguments (especially its assertion regarding the inappropriateness of the Board comparing a suspension period resulting from a settlement with one resulting from a hearing), the Staff has not persuaded us that the issues themselves are sufficiently "substantial" to justify our granting a discretionary review of LBP-99-4.[1] The Board's conclusion regarding a 3-year suspension does not, on its face, appear unreasonable and, given that it was based in part on Dr. Ben-Haim's demeanor at the hearing (*see* 49 NRC at 100), it is subject to deference on appeal.[2] In any event, because the Board's order has no precedential effect, any arguably incorrect rulings by this Board will have no adverse effect on the Staff in future enforcement proceedings. *See Sequoyah Fuels Corp.*, CLI-95-2, 41 NRC 179, 190 (1995) ("Licensing Board decisions . . . have no precedential effect beyond the immediate proceeding in which they were issued"). Under these circumstances, we do not consider it an appropriate use of the Commission's resources to set this case for briefing and to engage in a full review of the "penalty" portion of LBP-99-4.

II. DR. BEN-HAIM'S PETITION FOR REVIEW

Dr. Ben-Haim in his petition objects principally to the Board's finding that he had "deliberately" caused the Licensee NMA to be in violation of several of the Commission's requirements. He insists that his errors stemmed from an inadequate understanding of the regulations rather than from a conscious attempt to circumvent them. The remainder of his petition consists of either challenges to specific findings of fact or reiterations of his good intentions.

Dr. Ben-Haim does not attempt to satisfy the requirements of section 2.786(b)(4), *supra*, and our review of his pleading reveals no arguments that rise to the level of substantiality necessary for us to grant discretionary review. The Board's finding appears to be supported by the record, including Dr. Ben-Haim's own admissions, leaving us doubtful that any purpose would be served by plenary briefing and decision on the issues Dr. Ben-Haim raises.

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[1] 10 C.F.R. § 2.786(b)(4). *See generally Jack S. McDaniel* (Denial of Application for Reactor Operator License), CLI-96-11, 44 NRC 229, 230 (1996) (denying reactor operator candidate's petition for review for failure to present substantial issues); *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-9, 44 NRC 112, 113 (1996) (denying intervenors' petition for review for failure to present substantial issues).

[2] *See Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), ALAB-772, 19 NRC 1193, 1218 (1984) (where the credibility of evidence turns on the demeanor of a witness, an appellate board will give the judgment of the trial board, which saw and heard the testimony, particularly great deference), *rev'd in part on other grounds*, CLI-85-2, 21 NRC 282 (1985), and cited authority.

Conclusion

The Commission denies the Staff's and Dr. Ben-Haim's petitions for review.
IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 11005070**
(License No. XSNM-03060)

TRANSNUCLEAR, INC.
(Export of 93.3% Enriched Uranium) **April 26, 1999**

EXPORT LICENSING PROCEEDING: STANDING TO INTERVENE

The Commission has applied judicial standing tests to its export licensing proceedings.

EXPORT LICENSING PROCEEDING: STANDING TO INTERVENE

An organization's institutional interest in providing information to the public and the generalized interest of its membership in minimizing danger from proliferation are insufficient to confer standing as a matter of right under section 189a of the Atomic Energy Act of 1954, as amended.

EXPORT LICENSING PROCEEDING: HEARING REQUEST

A discretionary hearing is not warranted where such a hearing would impose unnecessary burdens on participants and would not provide the Commission with additional information needed to make its statutory determinations under the AEA.

The Commission may, in its discretion, direct further public proceedings if it determines that these proceedings, such as a public meeting, would be in the public interest even though petitioner has not established a right to intervene under section 189a of the AEA.

MEMORANDUM AND ORDER

On October 29, 1998, Transnuclear, Inc., filed an application with the Commission seeking authorization to export over a 5-year period 130.65 kilograms of high-enriched uranium in the form of fabricated UO_2 targets. These targets will be used for the production by MDS Nordion of medical isotopes in the Maple 1 and 2 reactors currently under construction by Atomic Energy of Canada Limited's Chalk River Nuclear Laboratories. On December 30, 1998, the Nuclear Control Institute (NCI) filed a petition for leave to intervene and a request for hearing on the application. NCI is a nonprofit, educational corporation which disseminates information to the public concerning the proliferation, safety, and environmental risks associated with the use of weapons-useable nuclear materials, equipment, and technology.

On March 5, 1999, the Department of State provided the Commission with Executive Branch views on the merits of the application. The Executive Branch concluded that the application satisfied the applicable export licensing criteria and requested that the Commission issue the license. After receiving these views and evaluating the pleadings filed in this proceeding, and without ruling on the intervention petition and hearing request, we posed written questions to the participants. CLI-99-9, 49 NRC 314 (1999).

In this Order we address the intervention petition and hearing request. We have concluded that Petitioner NCI lacks standing to intervene in this proceeding as a matter of right. The Commission has previously held that NCI does not meet the judicial standing tests that we apply in export licensing proceedings. *Transnuclear, Inc.* (Export of 93.3% Enriched Uranium), CLI-98-10, 47 NRC 333, 336 (1998), *citing Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 4-6 (1994). In those decisions, the Commission held that NCI's institutional interest in providing information to the public and the generalized interest of its membership in minimizing danger from proliferation are insufficient to confer standing under section 189a of the Atomic Energy Act. NCI itself has conceded that it is unable to meet the

Commission's criteria for intervention as of right.[1] Therefore, we deny NCI's petition for intervention and request for a hearing under section 189a.

The Commission has further considered whether to order a discretionary hearing in this proceeding. In view of the numerous pleadings filed by the parties, and the submissions filed in response to CLI-99-9, we find that a hearing under the procedures set forth in 10 C.F.R. Part 110, Subparts H and I, is not necessary to provide the Commission with the information it needs to make its statutory findings. Furthermore, a discretionary hearing would impose unnecessary burdens on the participants. Consequently, we hold that a discretionary hearing is not warranted in this case. The Commission has concluded, however, that a public meeting, which would provide an opportunity for the Applicant and other interested participants to summarize their positions and respond to any follow-up questions the Commission might have on responses to CLI 99-9, would assist the Commission in reaching a decision in this matter. To that end, we invite the Applicant, Transnuclear, Inc., NCI, and the Executive Branch to attend a Commission meeting on Wednesday, June 16, 1999, from 9:00 a.m. to 11:30 a.m. in the Commissioners' Meeting Room at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

The Commission requests presentations from Transnuclear, Inc., NCI, and the Executive Branch expressing their respective views on the application and whether the statutory requirements for issuance of this export license have been met. In addition, the Commission requests that a knowledgeable official from the Argonne National Laboratory be present at the meeting, as a part of the Executive Branch contingent, to answer any questions the Commission may pose. Presentations will be made in the order listed, and each participant shall be allotted 30 minutes. No other presentations will be permitted; however, the Commission will accept, prior to June 16, 1999, written submissions from any individual or group not listed above. Only the Commission may pose questions to the presenters during the meeting. The Secretary of the Commission will notify the participants if the Commission desires that particular issues be addressed in the presentations.

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[1] *See* Reply of Petitioner Nuclear Control Institute to the Opposition of Transnuclear, Inc. and Atomic Energy of Canada, Ltd. to the Petition for Leave to Intervene and Request for a Hearing, Feb. 12, 1999, at 3.

We request that each participant provide the name(s) of its presenter(s) to the Secretary of the Commission by Friday, June 11, 1999.

It is so ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 50-443-LT**

NORTH ATLANTIC ENERGY SERVICE CORPORPATION, *et al.*
(Seabrook Station, Unit 1) **April 26, 1999**

Because the sole intervenor has withdrawn its petition for intervention, the Commission terminates this proceeding.

RULES OF PRACTICE: DISMISSAL OF PROCEEDING; WITHDRAWAL OF INTERVENOR

ADJUDICATORY PROCEEDINGS: DISMISSAL

Under Commission case law, the withdrawal of all intervenors brings a licensing proceeding to a close. *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185, 188 n.1 (1991); *Public Service Co. of Colorado* (Fort St. Vrain Independent Spent Fuel Storage Installation), *attached to Turkey Point, supra*, 34 NRC 190 (1990).

MEMORANDUM AND ORDER

The Montaup Electric Company ("Montaup") seeks to transfer its ownership interest in Seabrook Station, Unit 1, to the Little Bay Power Corporation ("Little

Bay"). On Montaup's behalf, the North Atlantic Energy Service Corporation (Seabrook's operator), submitted the transfer application to the Commission for approval. Such approval is required pursuant to section 184 of the Atomic Energy Act, 42 U.S.C. § 2234. Two co-owners — New England Power Company ("NEP") and United Illuminating Company ("United") — filed intervention petitions opposing the transfer application. In CLI-99-6, 49 NRC 201 (1999), we granted NEP's petition and denied United's petition.

The Applicants and NEP have settled their differences and, on April 15th, NEP filed a notice of withdrawal. Under Commission case law, the withdrawal of all intervenors brings a licensing proceeding to a close. *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185, 188 n.1 (1991); *Public Service Co. of Colorado* (Fort St. Vrain Independent Spent Fuel Storage Installation), *attached to Turkey Point, supra,* 34 NRC 190 (1990). As the sole Intervenor has withdrawn, this proceeding is terminated.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Shirley Ann Jackson, Chairman
Greta Joy Dicus
Nils J. Diaz
Edward McGaffigan, Jr.
Jeffrey S. Merrifield

In the Matter of **Docket No. 50-293-LT**

BOSTON EDISON COMPANY and
ENTERGY NUCLEAR GENERATION COMPANY
(Pilgrim Nuclear Power Station) **April 26, 1999**

Because all intervenors have withdrawn their petitions for intervention, the Commission terminates this proceeding.

RULES OF PRACTICE: DISMISSAL OF PROCEEDING; WITHDRAWAL OF INTERVENOR

ADJUDICATORY PROCEEDINGS: DISMISSAL

Under Commission case law, the withdrawal of all intervenors brings a proceeding to a close. *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-16, 49 NRC 370 (1999) and cited cases.

MEMORANDUM AND ORDER

On December 21, 1998, pursuant to section 184 of the Atomic Energy Act, 42 U.S.C. § 2234, Boston Edison Company ("BECo," the sole owner and operator of the Pilgrim Nuclear Power Station) and Entergy Nuclear Generation Company

("Entergy Nuclear") filed an application jointly seeking the Commission's authorization, pursuant to 10 C.F.R. § 50.80, to transfer from BECo to Entergy Nuclear both the Facility Operating and the Materials Licenses for Pilgrim. Under the Applicants' proposal, Entergy Nuclear would assume BECo's ongoing obligations for capital investment and operating expenses and also for any escalations in decommissioning obligations above the amount prefunded by BECo. The Applicants also seek conforming amendments to the two licenses, pursuant to 10 C.F.R. § 50.90.

On January 26, 1999, the Commission published a notice of this request in the *Federal Register*, announcing that affected persons could file intervention petitions and hearing requests. On February 16th, the Attorney General for the Commonwealth of Massachusetts ("the AG") and Locals 369 and 387 of the AFL-CIO's Utility Workers Union of America (collectively "the Unions") filed timely hearing requests and intervention petitions in opposition to BECo's license transfer request. However, the Applicants and Petitioners subsequently settled their differences and, on April 7th and 16th, respectively, the Unions and the AG filed notices of withdrawal. Under Commission case law, the withdrawal of all intervenors brings a proceeding to a close. *North Atlantic Energy Service Corp.* (Seabrook Station, Unit 1), CLI-99-16, 49 NRC 370 (1999) and cited cases.

As all Petitioners to intervene have withdrawn their petitions, this proceeding is terminated.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 1999.

Atomic Safety and Licensing Boards Issuances

LICENSING BOARDS

ATOMIC SAFETY AND LICENSING BOARD PANEL

G. Paul Bollwerk III,* *Acting Chief Administrative Judge*
Vacant,* *Deputy Chief Administrative Judge (Executive)*
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Dr. George F. Tidey

**Permanent panel members*

Cite as 49 NRC 375 (1999) LBP-99-17

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Charles Bechhoefer, Chairman
Dr. Thomas S. Elleman
Thomas D. Murphy

In the Matter of

Docket No. 50-029-LA-R
(ASLBP No. 99-754-01-LA-R)
(License Termination Plan)

YANKEE ATOMIC ELECTRIC COMPANY
(Yankee Nuclear Power Station)

April 22, 1999

In a proceeding concerning the adequacy of the License Termination Plan (LTP) for the Yankee-Rowe Reactor, the Atomic Safety and Licensing Board denies a motion by the Licensee for reconsideration of the admission of one of four contentions admitted by the Board in its Prehearing Conference Order of March 17, 1999 (LBP-99-14, 49 NRC 238). The Board clarifies the scope of that contention.

REGULATIONS: PRESCRIBED DOSES

Where an LTP includes specified doses, and where those doses are advanced to meet a specific regulatory criterion, the doses cannot be regarded as a voluntary commitment and the method of calculation of those doses in the LTP is subject to challenge.

MEMORANDUM AND ORDER
(Denying Motion for Reconsideration of Contention 4)

This proceeding concerns the License Termination Plan (LTP) for the Yankee Nuclear Power Station (YNPS), in Rowe, Massachusetts, for which Yankee Atomic Electric Co. (YAEC or Licensee) is seeking approval. In our Prehearing Conference Order dated March 17, 1999, LBP-99-14, 49 NRC 238, we considered numerous proposed contentions proffered (in many cases, jointly) by the New England Coalition on Nuclear Pollution (NECNP) and the Citizens Awareness Network (CAN), and we accepted four of them (designated Contentions 1-4).

Pending before us is a motion filed by YAEC on March 29, 1999, seeking reconsideration of our allowance of Contention 4, which was a consolidation of contentions that had been submitted jointly by NECNP and CAN.[1] Timely responses opposing the Reconsideration Motion have been filed by NECNP, CAN, and the Franklin Regional Council of Governments (FRCOG, participating as an interested governmental entity pursuant to 10 C.F.R. § 2.715(c)).[2] A response in support of the motion (agreeing in toto with everything put forth by YAEC) was filed by the NRC Staff.[3] YAEC seeks to file a reply to the responses of NECNP and CAN,[4] and NECNP seeks to reply to YAEC's reply.[5] (Inasmuch as YAEC's reply includes references to criteria adopted in the decommissioning plan that is not otherwise before us, we *accept* both YAEC's reply and NECNP's reply to the reply.)[6] For reasons set forth, we are denying YAEC's motion, although clarifying to some degree the basis for our earlier Prehearing Conference Order ruling on this contention.

The contention under review reads as follows:

> *Contention 4.* Contrary to the requirements of 10 C.F.R. § 50.82, the methodology YAEC employs in the LTP for the selection of applicable scenarios for the calculation of its

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[1] "Objection to and Motion of Yankee Atomic Electric Company for Reconsideration of a Portion of Prehearing Conference Order," dated March 29, 1999 (hereinafter, "Reconsideration Motion").

[2] "[NECNP's] Opposition to [YAEC's] Motion to [Reconsider] Part of Prehearing Conference Order," dated April 9, 1999; [CAN's] Reply to [YAEC's] Objection to and Motion for Reconsideration of a Portion of Prehearing Conference Order," dated April 9, 1999; [FRCOG] Opposition to Objection to and Motion for Reconsideration of Portion of Prehearing Conference Order Filed by [YAEC]," dated April 8, 1999.

[3] "NRC Staff Response to [YAEC's] Objection to and Motion for Reconsideration of a Portion of Prehearing Conference Order," dated April 9, 1999.

[4] YAEC's "Motion for Leave to Reply (Reconsideration of a Portion of Prehearing Conference Order), dated April 12, 1999.

[5] NECNP's "Motion for Leave to Reply to [YAEC's] Motion for Leave to Reply (Reconsideration of a Portion of Prehearing Order) and YAEC's Reply," dated April 12, 1999.

[6] In addition, YAEC on April 13, 1999, submitted an item that was intended to have been attached to its April 12 Reply motion but was inadvertently omitted, and on April 14, 1999, submitted an "Erratum (Reconsideration of a Portion of Prehearing Conference Order)." We *accept* both filings.

final release doses is not adequate to demonstrate that the LTP will assure the protection of the public health and safety.

YAEC in its Reconsideration Motion takes issue with this contention on essentially four grounds (although some of them tend to overlap each other). We deal with them *seriatim*.

First, and most important, it claims that, by imposing criteria for Total Effective Dose Equivalent (TEDE) release values set forth in the LTP (here, 15 mrem/yr; *see, e.g.*, LTP at 1-1, 1-2, 4-1), the contention, by exploring one aspect of the means by which the 15 mrem/yr is to be calculated, could subject YAEC to criteria that are not applicable to the site in question.

YAEC goes on to explain that, at least in its view, there are no TEDE dose requirements applicable to the site at all, inasmuch as the LTP is not subject to the requirements of 10 C.F.R. § 20.1402 (source of a TEDE requirement) but rather to the Site Decommissioning Management Plan (SDMP) Action Plan requirements (set forth at 57 Fed. Reg. 13,389 (Apr. 16, 1992)) applicable prior to the adoption by the Commission of the TEDE requirements. YAEC describes the SDMP site release criteria as dependent "primarily" on surface activity readings and an exposure rate pass value of 5 microroentgen/hr and as not requiring the determination of a TEDE to the average member of the critical group, or even that a critical group be defined (Reconsideration Motion at 2). YAEC adds that it "voluntarily" subjected itself to a TEDE requirement that it could drop from its LTP without violating any governing regulatory requirement.

The Intervenors counter this argument of YAEC on a number of grounds. Some are matters of policy that we are not able to resolve — such as whether the site should be subject to the SDMP criteria or, if so, whether the LTP must be finally approved by the Commission by August 20, 1999, for the SDMP criteria to be applicable. We only hold that the site is currently subject to the SDMP criteria, given the apparent previous submission and prior Commission approval of a decommissioning plan compatible with SDMP criteria (*see* 10 C.F.R. § 20.1401(b)(2)) and that we will judge the validity of Contention 4 in light both of the SDMP criteria and YAEC's utilization of the 15-millirem/yr dosage in the LTP. Nor need we consider NECNP's claim that the SDMP criteria are not entitled to regulatory force. Although the SDMP criteria clearly were not initially adopted as formal regulations, they (and their applicability to particular sites, such as the YNPS site) are referenced by current regulations and may thus be accorded weight on that score.

The Intervenors' next point is more telling. They claim that YAEC is relying on the TEDE figure in its LTP and, accordingly, to be a meaningful commitment, YAEC must calculate it correctly. That YAEC might amend its LTP to withdraw the TEDE commitment is irrelevant to the Intervenors, who claim that a modified LTP would still be subject to Commission approval.

As we perceive the argument, the Intervenors claim that the Licensee is bound by its TEDE dose commitment, even if voluntary, and in that circumstance the dose must be calculated properly. Otherwise, it is no more than a facade or an advertising gimmick, not worth the paper on which it may be printed. That the "voluntary" commitment may later be withdrawn or watered down is of no consequence, except to engender another Commission review of the LTP.

After consideration of the various arguments, we conclude the TEDE commitment in the LTP is something more than "voluntary." The Licensee has itself acknowledged that the 15-mrem/yr TEDE requirement has been included in the approved YNPS Decommissioning Plan, which was inserted into the FSAR and then carried forward to the LTP.[7] Whether or not it was voluntarily initiated, it becomes binding when included as an FSAR condition.

Moreover, both the SDMP and the TEDE requirement in 10 C.F.R. § 20.1402 are subject to ALARA[8] requirements. The LTP utilizes the 15-mrem/yr requirement to fulfill its SDMP ALARA requirements. Thus, for example, the LTP states (at 4-1):

> The purpose of this section [Section 4] is to identify the remediation methods that may be used, describe the areas on site that may be subject to remediation, *and demonstrate that the site release criterion of 15 mrem/year is adequate to ensure that residual levels of radioactivity at YNPS will be As Low As is Reasonably Achievable (ALARA).* [Emphasis supplied.]

The LTP goes on to explain (at 4-4) that "[t]his [ALARA] analysis will show that, in areas with dose levels already lower than 15 mrem/year for an *average member of the critical population group,* the benefits of further remediation are not proportionate to the total costs" (emphasis supplied).

Thus, in summary, the LTP itself reflects that the TEDE value contained therein is not a purely "voluntary" commitment but rather has been submitted to reflect what already is included in the approved Decommissioning Plan and to fulfill the SDMP ALARA requirement.[9] Beyond that, this section of the LTP demonstrates the significance of the average population group and, *perforce,* its

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[7] "Erratum (Reconsideration of a Portion of Prehearing Conference Order)," submitted by YAEC on April 14, 1999, at 1.

[8] ALARA (acronym for "as low as is reasonably achievable") is defined as

> making every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest.

10 C.F.R. § 20.1003.

[9] In addition to the ALARA requirement, the SDMP criteria refer to "an overall dose objective of 10 millirem per year." 57 Fed. Reg. at 13,390.

method of calculation (which, we reiterate, is what this contention challenges). Accordingly, this aspect of YAEC's challenge to Contention 4 is rejected.

YAEC's second ground for challenging Contention 4 is that, even assuming that the YNPS were not an SDMP plant but was subject to the criteria of 10 C.F.R. § 20.1402, the contention, if proved, would subject YAEC to proving the sufficiency of a dose criterion lower (15 mrem/yr) than the 25-mrem/yr limit specified in 10 C.F.R. § 20.1402. What YAEC neglects to mention, however, is that the 25-mrem/yr maximum dose specified in 10 C.F.R. § 20.1402 is itself subject to ALARA considerations, and that the 15 mrem/yr in the LTP was submitted as an ALARA figure. As noted above, the ALARA dose must be calculated correctly for it to be meaningful. In that connection, the Licensee is required to adopt a relevant exposure scenario and make site measurements of distributed exposure to an average individual in the reference scenario, irrespective of the specific annual dose to be met. Accordingly, this aspect of YAEC's challenge to Contention 4 is also rejected.

The third aspect of YAEC's challenge to Contention 4 is that it would substitute a particular defined individual (a gardener) for an average member of a particular group. YAEC characterizes a "gardener" as a "member of the critical group who is atypically exposed." (Reconsideration Motion at 7.) Whether or not LBP-99-14 may be read that way, the Board did not intend to require any particular defined group, gardener or otherwise. Rather, the Board read the various presentations of the Intervenors as demonstrating that the critical group adopted by the Licensee did not necessarily reflect the likely average member of the critical group that would occupy the site.

The answer to the contention may well be that the average member of the critical group is not the resident utilized by YAEC but an individual engaged in a higher percentage of onsite activities, including gardening. As NECNP observes, "[t]he scenario YAEC uses in the LTP may be reasonable for window-box gardeners and joggers in the city. It does not apply to potential site occupants who will, like so many New Englanders, try to get all of their vegetables from the 'patch' they began cultivating in April." (NECNP Response at 8.) The bases relied on in LBP-99-14 tended to support such a scenario. But the answer may also be that the group presented by the LTP accurately reflects potential site usage. The contention merely opens the door to evidence of what the most appropriate critical group will be. Accordingly, this portion of YAEC's objection to the contention is based on a misunderstanding of the intent of the contention and is accordingly rejected.

YAEC's final challenge is that the contention is hopelessly vague, giving no guidelines as to what YAEC would have to prove. CAN's April 9, 1999 filing with respect to the Reconsideration Motion (at 10-12) demonstrates that all the contention seeks to establish is a "reasonable and typical scenario for the region" in order to determine TEDE values. CAN would have us accept an

average farmer, or gardener, and has provided information supporting that result. As explained above, the Intervenors have established only that an appropriate controversy is to be adjudicated by the Board. YAEC will be required to show that the LTP uses the appropriate scenario to calculate the final release doses for the decommissioning of the YNPS.

* * *

For all of the above reasons, YAEC's motion for reconsideration of the portion of LBP-99-14 that admitted NECNP/CAN Contention 4 is hereby *denied.*

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Charles Bechhoefer, Chairman
ADMINISTRATIVE JUDGE

Dr. Thomas S. Elleman (by CB)
ADMINISTRATIVE JUDGE

Thomas D. Murphy
ADMINISTRATIVE JUDGE

Rockville, Maryland
April 22, 1999

Directors' Decisions Under 10 CFR 2.206

DIRECTORS' DECISIONS

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

In the Matter of

ENTERGY GULF STATES, INC., and ENTERGY OPERATIONS, INC. (River Bend Station, Unit 1)	**Docket No. 50-458 (License No. NPF-47)**
FIRSTENERGY NUCLEAR OPERATING COMPANY (Perry Nuclear Power Plant, Unit 1)	**Docket No. 50-440 (License No. NPF-58)**
	April 18, 1999

By letters dated September 25, 1998, and November 9, 1998, David A. Lochbaum, acting on behalf of the Union of Concerned Scientists (UCS), submitted two petitions pursuant to section 2.206 of Title 10 of the *Code of Federal Regulations* (10 C.F.R. § 2.206).

In the petition of September 25, 1998, UCS requested that the U.S. Nuclear Regulatory Commission (NRC) order the River Bend Station (River Bend), operated by Entergy Operations, Inc. (the Licensee), to be immediately shut down and its operating license suspended or modified until the facility's design and licensing bases were properly updated to permit operation with failed fuel assemblies or until all failed fuel assemblies were removed from the reactor core. In the Petition of November 9, 1998, UCS filed a similar request that the NRC order the Perry Nuclear Power Plant, Unit 1 (Perry), operated by FirstEnergy Nuclear Operating Company (the Perry Licensee), to also be immediately shut down for the same reasons stated for River Bend. Attached to the two petitions was a copy of a UCS report entitled, "Potential Nuclear Safety Hazard — Reactor Operation with Failed Fuel Cladding," dated April 2, 1998. UCS also requested a hearing in the Washington, D.C. area to present new plant-specific information

regarding the operation of River Bend and Perry, as well as to discuss the April 1998 UCS report.

The Director of the Office of Nuclear Reactor Regulation issued a Director's Decision on April 18, 1999, denying the specific actions requested in the September 25, 1998, and November 9, 1998 petitions. The Staff did not agree with the UCS's contention that preexisting fuel cladding defects and resultant fuel leakage necessarily violate a plant's licensing basis. The Director's Decision cited a number of references where the plants' licensing basis considered the effects of, or did not preclude, preexisting fuel cladding failures.

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

I. INTRODUCTION

By petitions submitted pursuant to 10 C.F.R. § 2.206 on September 25, 1998, and November 9, 1998, respectively, Mr. David A. Lochbaum, on behalf of the Union of Concerned Scientists (UCS or Petitioner), requested that the U.S. Nuclear Regulatory Commission (NRC) take immediate action with regard to the River Bend Station (River Bend) and the Perry Nuclear Power Plant (Perry).

In the petitions, the Petitioner requested that the NRC take immediate enforcement action by suspending the operating license for River Bend and Perry until all leaking fuel rods were removed from the reactor core or until the facilities' design and licensing bases were updated to permit operation with leaking fuel assemblies. Accompanying the petitions was the UCS report "Potential Nuclear Safety Hazard — Reactor Operation with Failed Fuel Cladding," dated April 2, 1998. Entergy Operations, Inc. (the River Bend Licensee), provided the NRC with its response to its petition in a letter dated February 11, 1999. FirstEnergy Nuclear Operating Company (the Perry Licensee) provided a response to its petition in a letter also dated February 11, 1999. On February 22, 1999, the NRC held an informal public hearing at which the Petitioner presented information related to the safety concerns in the petitions. The NRC Staff has determined that the information presented in the petitions and at the informal public hearing did not support the action requested by the Petitioner. The basis for my Decision in this matter follows.

II. BACKGROUND

In support of the requests presented in the petition dated September 25, 1998, the Petitioner raised concerns stemming from NRC Daily Event Report No. 34815, filed on September 21, 1998, in which Entergy Operations, Inc.,

reported a possible fuel cladding defect at River Bend. The Petitioner repeated the concerns raised in the UCS report of April 2, 1998, regarding nuclear plant operation with fuel cladding leakage. The UCS considers such operation to be potentially unsafe and to be in violation of federal regulations. In addition, the Petitioner cites instances in the licensing basis for River Bend that it believes prohibit operation of the facility with leaking fuel.

In the November 9, 1998 Petition, the Petitioner raised similar concerns originating from the NRC Weekly Information Report for the week ending October 30, 1998, in which fuel leaks detected at Perry on September 2, 1998, and on October 28, 1998, were discussed. The Petitioner also repeated the concerns raised in the UCS report of April 2, 1998. The matters raised in support of the Petitioner's requests are discussed herein.

III. DISCUSSION

The September 25, 1998 Petition presents safety concerns for River Bend along with the associated generic concerns addressed in the UCS report of April 2, 1998. The plant-specific concerns are based on portions of the River Bend Updated Safety Analysis Report (USAR) cited in the petition. The November 9, 1998 Petition presents safety concerns for Perry arising essentially from the associated generic concerns addressed in the UCS report of April 2, 1998. The Perry petition does not reference plant-specific licensing basis documentation.

Since the generic concerns presented in the UCS report bear upon the plant-specific concerns cited in the two petitions, the Staff's evaluation first considers the UCS report and follows with a discussion of the plant-specific concerns.

A. Generic Safety Concerns

In the UCS report of April 2, 1998, UCS expresses the opinion that existing design and licensing requirements for nuclear power plants preclude their operation with known fuel cladding leakage. The UCS position is based on the assessment of updated final safety analysis reports (UFSARs) of four plants, vendor documentation, standard technical specifications, and pertinent NRC correspondence. The report states that the following regulatory and safety concerns exist for plants operating with leaking fuel:

- Section 50.59 of 10 C.F.R., "Changes, tests and experiments," is violated because operation with fuel cladding leakage constitutes an unapproved change to the licensing basis for a plant. The report states that such operation is an unresolved safety question because the criteria of 10 C.F.R. § 50.59(a)(2) are satisfied (e.g., probability and consequences of an accident may be increased by operating with leaking fuel).

- Section 50.71 of 10 C.F.R., "Maintenance of records, making of reports," is violated because the licensing basis as documented in the technical specifications and the analyses contained in the UFSAR for the facility do not accommodate operation with leaking fuel.
- Safety analyses for postulated accidents assume intact fuel cladding before the event; therefore, plants with known fuel leakage could have accidents with more severe consequences than predicted as a result of fuel damage. The report further states that no information was available showing that operation with leaking fuel has been previously evaluated.
- Section 50.34a of 10 C.F.R., "Design objectives for equipment to control releases of radioactive material in effluents — nuclear power reactors," and other regulations related to the as low as is reasonably achievable (ALARA) principle for radioactive materials release are violated since plant workers are exposed to a greater risk than necessary because of higher coolant activity levels attributable to leaking fuel.

In addition to requesting that the NRC take steps to prohibit nuclear power plants from operating with fuel cladding damage, the report specifically requests that plants be shut down upon detection of fuel leakage, and that safety evaluations be included in plant licensing bases that consider the effects of operating with leaking fuel to justify operation under such circumstances.

Before addressing the regulatory concerns raised in the April 1998 UCS report, the following discussion provides background and bases for current NRC guidance and practices with regard to fuel defects.

1. Defense-in-Depth and ALARA Considerations

In order to protect public health and safety from the consequences of potential uncontrolled releases of radioactive fission products resulting from the operation of nuclear power plants, plants are designed with multiple barriers to fission-product release. This traditional "defense-in-depth" philosophy is key to ensuring that radiological doses from normal operation and postulated accidents will be acceptably low, as outlined in 10 C.F.R. Part 100, "Reactor Site Criteria." Fuel cladding is integral to the defense-in-depth approach to plant safety, serving as the first barrier to fission-product release.

The premise of the defense-in-depth philosophy with regard to the potential for fission-product release is that plant safety does not rely on a single barrier for protection. In this way, a limited amount of leakage from each of the barriers — the fuel cladding, the reactor coolant system pressure boundary, and the containment — is a design consideration and some leakage from each barrier, within prescribed limits, is acceptable during operation. These limits, defined within the technical specifications, are established as a key component of a plant's design and licensing basis. The leakage associated with fuel cladding

defects is accounted for in plant safety analyses, as discussed later in this evaluation under "Safety Analysis Assumptions."

Therefore, to meet its defense-in-depth objectives, fuel is not required to be leak-free. A limited amount of fuel cladding leakage is acceptable during operation since (1) in the event of an accident, other fission-product barriers besides the fuel cladding (i.e., the reactor coolant system pressure boundary and the containment) help prevent uncontrolled releases, (2) limits for reactor coolant system activity, as prescribed in the technical specifications, limit the level of fuel leakage that is permitted so that the release guidelines of 10 C.F.R. Part 100, "Reactor Site Criteria," will not be exceeded during accidents, and (3) plant design features and operating procedures anticipate leaking fuel and provide means to deal with the effects.

Sources of activity in reactor coolant are fission products released from fuel, corrosion products activated in the reactor during operation, and fission products released from impurities in fuel cladding, tritium produced from the irradiation of water, lithium, and boron. Although reactor operators should strive to maintain low levels of coolant activity from all of these sources, the Staff has long recognized that reactor coolant activity cannot be entirely eliminated and that some fission products from leaking fuel could be present (*see* Standard Review Plan (SRP), NUREG-0800, § 4.2, "Fuel System Design"). Thus, plant design considerations, such as reactor coolant cleanup systems, shielding, and radwaste controls, have been devised to minimize risk to plant workers from exposure to radiation from reactor coolant. Plants also implement procedures to respond to leaking fuel when leakage is discovered, as was demonstrated by the example of the follow-up actions taken by the River Bend and Perry operators to limit the production of fission products in the vicinity of the leaking fuel rods.

By containing fuel and fission products, cladding also helps maintain radioactive releases to as low a level as is reasonably achievable. As previously stated, the technical specifications contain limits for the maximum level of coolant activity so that the dose guidelines in 10 C.F.R. Part 100 are not exceeded during accidents. These are the maximum levels of activity assumed to exist in the reactor coolant from normal operating activities. The limits on reactor coolant system specific activity are also used for establishing standardization in radiation shielding and procedures for protecting plant personnel from radiation (*see* section B3.4.16 of NUREG-1431, "Standard Technical Specifications, Westinghouse Plants"). Thus, they are consistent with NRC regulations requiring licensees to follow an ALARA approach to radiation protection.

The connection between technical specification limits for coolant activity and ALARA requirements is key to demonstrating that limited fuel leakage during operation is consistent with safe plant operation. The ALARA requirement is given in 10 C.F.R. §§ 50.34a and 50.36a. The Statement of Considerations for these NRC regulations (35 Fed. Reg. 18,385 (Dec. 3, 1970)) contains a

discussion of the "reasonableness" aspect of the ALARA approach. When the Statement of Considerations was written, the Commission believed that releases of radioactivity in plant effluents were generally within the range of "as low as practicable." The Commission also stated, therein, that "as a result of advances in reactor technology, further reduction of those releases can be achieved." Advances in fuel integrity, design of waste treatment systems, and appropriate procedures were cited as areas in which the plants had taken steps to meet the reasonableness standard. It is important to note that the Commission did not require leak-free fuel as a means to satisfy ALARA requirements. In addition to the physical barriers to the release cited above, other factors, such as radwaste cleanup and plant procedures, provide confidence that fission-product release from the fuel can be controlled so as to prevent undue risks.

Later in the same Statement of Considerations, the Commission acknowledged the need to allow flexibility of plant operation. "Operating flexibility is necessary to take into account some variation in the small quantities of radioactivity, as a result of expected operational occurrences, which may temporarily result in levels of radioactive effluents in excess of the low levels normally released" but still within regulatory limits. The Commission recognized that a balance should be maintained between limiting exposure to the public and plant operational requirements. Therefore, the NRC regulations allow the possibility of increased reactor coolant activity levels that might result from limited fuel cladding leaks, but require the use of plant equipment to maintain control over radioactive materials in gaseous and liquid effluents produced during normal reactor operations, including expected operational occurrences. The Commission went as far as to define "as low as practicable" (the phrase later replaced with "as low as is reasonably achievable" in 40 Fed. Reg. 19,440 (May 5, 1975)) in terms of the state of technology, the economics of improvements in relation to benefits to public health and safety that could be derived by improved technology and methods of controlling radioactive materials, and "in relation to the utilization of atomic energy in the public interest." This definition appears in section 50.34a itself, mandating that the Commission maintain the balance between safety and plant operational requirements.

By publishing 10 C.F.R. Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," the Commission took steps to provide more definitive guidance for licensees to meet the "as low as practicable" requirement. Appendix I was published as guidance that presented an acceptable method of establishing compliance with the "as low as practicable" requirement of 10 C.F.R. §§ 50.34a and 50.36a. In the Statement of Considerations for Appendix I (40 Fed. Reg. 19,439 (May 5, 1975)), the Commission characterized the guidance as the "quantitative expression of the meaning of the requirement that

radioactive material in effluents released to unrestricted areas from light-water nuclear power reactors be kept 'as low as practicable.' " The technical basis for Appendix I contained assumptions for a small fraction of leaking fuel rods, as is stated in the Atomic Energy Commission's report of July 1973, WASH-1258, "Final Environmental Statement Concerning Proposed Rule Making Action: Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as Practicable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents."

2. *Associated Regulations and Guidance*

Fuel integrity is explicitly addressed in NRC regulations in several instances, and plant licensing bases specifically discuss fuel performance limits. To implement NRC regulations, the Staff developed a number of guidance documents for licensees to use in developing their licensing basis. This section outlines the regulatory framework on fuel integrity during normal plant operation and discusses instances in which the Staff has considered the safety implications of fuel integrity.

a. Regulatory Requirements

The General Design Criteria (GDC) of 10 C.F.R. Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," contain references to fuel design criteria. When fuel performance is used as a criterion for a safety function, system, or component, the phrase "specified acceptable fuel design limits" (SAFDLs) appears in the following GDC:

- GDC 10, "Reactor Design";
- GDC 12, "Suppression of Reactor Power Oscillations";
- GDC 17, "Electric Power Systems";
- GDC 20, "Protection System Functions";
- GDC 25, "Protection System Requirements for Reactivity Control Malfunctions";
- GDC 26, "Reactivity Control System Redundancy and Capability";
- GDC 33, "Reactor Coolant Makeup";
- GDC 34, "Residual Heat Removal."

GDC 10, 17, 20, and 26 use this wording in conjunction with anticipated operational occurrences and conditions of normal operation. For example, GDC 10 requires "appropriate margin to assure that specified acceptable fuel design limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences." As discussed later in this section, SAFDLs for a plant are described in plant documentation, typically the

UFSAR or the FSAR, and are met by operating within technical specifications limits.

NRC regulations also specify that certain conditions beyond steady-state operation be included in evaluations of the normal operating regime for a plant. These are called anticipated operational occurrences (AOOs) and are sometimes referred to as "anticipated operating transients." In Appendix A to 10 C.F.R. Part 50, the Staff defines AOOs as "those conditions of normal operation which are expected to occur one or more times during the life of the nuclear power unit." GDC 29, "Protection Against Anticipated Operational Occurrences," gives a general requirement for protection system and reactivity control system performance during AOOs, but does not mention fuel integrity. Examples of AOOs are the loss of all reactor coolant pumps, turbine trip events, and loss of control power. Such occurrences are distinct from events termed "accidents," such as a loss-of-coolant accident (LOCA) or a main steamline break. The references to fuel integrity requirements related to accidents and those regarding emergency core cooling system (ECCS) performance are beyond conditions of normal operation.

The UCS report relates other regulations beyond the GDC to fuel integrity during normal operation as follows:

- 10 C.F.R. § 50.34a, "Design objectives for equipment to control releases of radioactive material in effluents — nuclear power reactors";
- 10 C.F.R. § 50.36, "Technical specifications";
- 10 C.F.R. § 50.59, "Changes, tests and experiments";
- 10 C.F.R. § 50.71, "Maintenance of records, making of reports";
- Appendix I to 10 C.F.R. Part 50, "Numerical Guides for Design Objectives and Limiting Conditions for Operation To Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents."

Although 10 C.F.R. § 50.36a, "Technical specifications on effluents from nuclear power reactors," was not directly referenced in the report, by citing 10 C.F.R. § 50.36, the Staff inferred that section 50.36a is linked to fuel integrity when considering the discussion on the UCS report.

b. NRC Staff Guidance Documents

To implement NRC regulations, several NRC Staff guidance documents are used, including the following:

- Regulatory Guide 1.3, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for Boiling Water Reactors";

- Regulatory Guide 1.4, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for Pressurized Water Reactors";
- Regulatory Guide 1.77, "Assumptions Used for Evaluating a Control Rod Ejection Accident for Pressurized Water Reactors";
- Regulatory Guide 1.112, "Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Power Reactors";
- SRP § 4.2, "Fuel System Design";
- SRP § 4.4, "Thermal and Hydraulic Design."

Along with the regulations, licensees use the guidance documents listed above to form the licensing basis for fuel integrity at their plant. The licensing basis for a nuclear power plant, as defined in 10 C.F.R. Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Reactors," is "the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis . . . that are docketed and in effect." The definition continues by listing elements of the licensing basis, such as technical specifications, the FSAR, and licensee commitments documented in NRC safety evaluations. Several components form the plant's licensing basis for fuel performance: (1) NRC regulations that specifically refer to fuel integrity; (2) technical specification limits on coolant activity; (3) fuel rod performance specifications and analysis assumptions defined in the plant's FSAR and referenced topical reports; and (4) commitments to NRC regulatory guidance and to generic communications addressing fuel performance.

Acceptance criteria in the SRP sections, which may be adopted by licensees to implement the regulations, are based on meeting the requirements of GDC 10 with appropriate margin to ensure that SAFDLs are not exceeded during normal operation, including AOOs. Specifically, SRP § 4.2 has as an objective of the safety review "to provide assurance that the fuel system is not damaged as a result of normal operation and anticipated operational occurrences." The reviewer should ensure that fuel does not leak as a result of specific causes during normal operation and AOOs, and that leaking fuel is accounted for in the dose analyses for postulated design-basis accidents. Further, fuel rod failure is defined in SRP § 4.2 as "the loss of fuel rod hermiticity," meaning fuel rod leakage. However, in SRP § 4.2, the Staff also states that "it is not possible to avoid all fuel rod failures and that cleanup systems are installed to handle a small number of leaking rods." Such leaks typically occur as a result of manufacturing flaws or loose parts wear. Therefore, on the basis of this review guidance, the Staff accepts the possibility that fuel may leak during normal operation.

In the case of the Calvert Cliffs Nuclear Plant, a plant cited as an example in the UCS report, the plant's licensing basis contains a commitment to adhere

to the guidance in the SRP. The following four objectives for fuel design given in SRP § 4.2 may be used as fuel design objectives within a plant's licensing basis as is done in the Calvert Cliffs FSAR:

- Fuel is not damaged as a result of normal operation and AOOs.
- Fuel damage is never so severe as to prevent control rod insertion when required.
- The number of fuel rod failures is not underestimated for postulated accidents.
- Coolability is always maintained.

SRP § 4.4 has as an objective that the thermal and hydraulic design of the core should provide acceptable margins of safety from conditions that would lead to fuel damage during normal reactor operation, including anticipated operational transients. It gives two examples of acceptable approaches to meet the acceptance criteria: one based on a 95% probability at a 95% confidence level that the hottest rod in the core does not exceed prescribed thermal limits during normal operation, including AOOs, and the other using a limiting value for thermal limits so that at least 99.9% of the fuel rods are not expected to exceed thermal limits during normal operation, including AOOs. These criteria are limits that strive to maintain a very low likelihood of fuel damage during operation; however, they do not preclude the possibility that some fuel defects could occur.

A plant's licensing basis contains fuel performance criteria that are specified for normal operation, including AOOs, and analyses are conducted to ensure that these criteria will not be exceeded. The criteria are related to the SAFDLs mentioned in the GDC and are normally presented in terms of prescribed thermal limits, which can be calculated and are reliable predictors of the onset of fuel damage. For boiling-water reactors (BWRs), critical heat flux or the critical power ratio is used as the predictor of fuel damage onset, and for pressurized-water reactors (PWRs), the criterion is the departure from nucleate boiling (DNB), or the DNB ratio (DNBR).

An example of fuel design limits given in plant documentation is found in the FSAR for Calvert Cliffs Units 1 and 2. Section 3.6 of the FSAR presents fuel design and analysis bases. Fuel rod cladding is designed to stress and strain limits, considering the operating temperature, the cladding material, the expected property changes as a result of irradiation, and the predicted life span of the fuel. Extensive fuel mechanical analyses are detailed, along with pertinent fuel test data, which help to confirm the analysis results. The calculations are used to demonstrate that the criteria are satisfied for limiting cases under limiting assumptions. Chapter 14 of the Calvert Cliffs FSAR gives the fuel behavior acceptance criteria for each category of design-basis event analyzed. For AOOs, the minimum DNBR is chosen to provide at least a 95% probability with a 95% confidence level that DNB will not be experienced along the fuel rod with

that DNBR (i.e., the SRP § 4.4 criteria). This limit ensures that there is a low probability of fuel rod damage as a result of overheated cladding. The fuel temperature SAFDL is set so that no significant fuel melting will occur during steady-state operation or during a transient. Compliance with the limit offers assurance that the fuel rod will not be damaged as a result of material property changes and increases in fuel pellet volume, which could be associated with fuel melting. Again, as with the limits discussed in SRP § 4.4, these limits are set to prevent fuel damage, but the possibility of fuel leakage is recognized.

The key to plant licensing bases regarding fuel integrity is the technical specification limiting the concentration of activity allowed in reactor coolant during plant operation. These limits are based on maintaining a margin to the dose guidelines in 10 C.F.R. Part 100 for steam generator tube rupture (SGTR) accidents in PWRs and main steamline break (MSLB) accidents in BWRs. The specific activity limits of the reactor coolant system are stated in terms of dose equivalent iodine-131, which is attributable solely to fuel leaks. That is distinct from gross coolant activity, which is the aggregate activity from all sources, including fuel leaks and corrosion product activation. The technical basis for these limits can be traced to the guidance given in Appendix I, which is, in turn, based on assumptions that fuel leaks would exist during operation. Technical specifications for reactor core safety limits, including the reactor protection system setpoints, are set so that the SAFDLs are not exceeded during normal operation or AOOs. The technical specifications for protection system action are intended to prevent fuel damage, but the specifications for coolant activity levels recognize that some small amount of fuel leakage is allowable during operation. The technical specifications concerning coolant activity are based on meeting the dose acceptance criteria in the SRP for the limiting design-basis accident (usually SGTR or MSLB for PWRs and MSLB for BWRs). These limits are used as assumptions in design-basis accident dose analyses to show compliance with dose acceptance criteria for the control room operators and the public. By maintaining the levels of coolant activity within these limits during normal operation, the continued validity of the design-basis analyses is maintained.

The Staff has addressed fuel performance problems in several generic communications to licensees. Prominent among these were NRC Information Notice (IN) 93-82, "Recent Fuel and Core Performance Problems in Operating Reactors," and Generic Letter (GL) 90-02, "Alternative Requirements for Fuel Assemblies in Design Features Section of Technical Specifications." In IN 93-82, the Staff discussed fuel leaks occurring during normal operation from a specific cause — fretting wear in PWR fuel, which was partly attributed to mixed fuel core designs. The Staff alerted licensees to the introduction of modified fuel designs that require added attention to ensure that the core design basis is not violated. This information notice is an example of Staff action to use operating information gathered from fuel leaks at a few plants to avoid similar problems

at other reactors, thus reducing the potential for more widespread fuel leakage. In GL 90-02, the Staff provided licensees with added flexibility to take actions to reduce fission-product releases during operation by removing defective fuel rods during refueling outages.

The Staff has previously considered the safety implications of operation with fuel leakage on a generic basis. Generic Safety Issue (GSI) B-22, "LWR [Light Water Reactor] Fuel," which is related to fuel leakage, is discussed in NUREG-0933, "A Prioritization of Generic Safety Issues," Supplement 22, March 1998. In GSI B-22, the Staff considered the ability to accurately predict fuel performance under normal and accident conditions. The GSI review was conducted to determine if predictions of fuel behavior under normal operating and accident conditions were sufficient to demonstrate that regulatory requirements were being met. In its evaluation of the issue, the Staff concluded that releases during normal operation would be increased because of fuel defects, but would not be increased beyond regulatory limits. The Staff also stated that, "additional requirements would not decrease the number of fuel defects significantly." Furthermore, the Staff concluded that the release from fuel damaged during design-basis accidents and severe accidents would be much larger than the release attributed to preexisting fuel defects, and the magnitude of the release would not be significantly affected by preexisting fuel defects. Thus, the consequence from leaking fuel was determined to be very small. The Staff concluded that because fuel manufacturers have taken an active role to improve fuel performance, fuel leaks are now rare, and the significance of the issue has diminished. Therefore, the issue was dropped from further consideration.

In the resolution of GSI B-22, the Staff concluded that the influence of additional restrictions to operation with fuel leaks on core damage frequency and public consequence would be insignificant. Thus, operation with a limited number of fuel defects and leaks under normal operating conditions is not associated with an excessive level of risk, provided that the plant continues to operate within technical specifications limits for reactor coolant activity.

3. *Evaluation of Generic Concerns*

The Staff evaluated the generic concerns associated with fuel leakage identified previously by the Petitioner, as follows:

a. 10 C.F.R. § 50.59, "Changes, tests and experiments"

A premise of the UCS report is that section 50.59 is violated because reactor operation with limited fuel leakage constitutes an unapproved change to the licensing basis for a plant. The report states that "Federal regulations require

formal NRC approval prior to any nuclear plant operating with fuel cladding failures." The attachment to the report is an assessment of operation with fuel leaks as an unreviewed safety question on the basis of the criteria in section 50.59. The report states that such operation is an unreviewed safety question because operation with leaking fuel (1) increases the probability and consequences of an accident, (2) creates an accident different from any in the safety analysis for the plant, and (3) reduces safety margins.

The Staff does not agree that operation with leaking fuel necessarily constitutes a change to or violation of the licensing basis for a plant. A small amount of fuel leakage during operation is permitted by NRC Staff guidance implementing NRC regulations and is accounted for in plant licensing bases. A key component of the licensing basis regarding fuel performance is the technical specification limiting reactor coolant system activity. The fission-product release from the level of leaking fuel associated with the technical specification limit is included in the design-basis accident dose analyses described in the FSAR for a plant to show compliance with the dose acceptance criteria in the SRP. Therefore, operating with leaking fuel, within the coolant activity technical specification limits, does not constitute a change in the plant licensing basis, and 10 C.F.R. § 50.59 does not apply.

b. 10 C.F.R. § 50.71, "Maintenance of records, making of reports"

The Petitioner states in the report that "any plant operating with fuel cladding failures is violating its design and licensing bases requirements, a condition not allowed by Federal safety regulations." The Petitioner further states that when plants operate with leaking fuel, section 50.71 is violated since the licensing basis for a plant, as documented in the technical specifications and in the analyses contained in the FSAR, does not accommodate such operation.

This concern is closely linked to the previous discussion regarding section 50.59, in that FSARs for plants operating with leaking fuel should, in the view of the UCS, include safety analyses accounting for the effects of fuel leaks. As previously discussed, plant licensing bases do incorporate assumptions for limited levels of fuel leakage through technical specifications requirements and designs for plant reactor water cleanup systems. Plant FSARs, including the example discussed earlier in this evaluation, typically contain information on fuel leakage effects, and the safety analyses explicitly allow for coolant activity levels attributable to leaking fuel under normal operation. Thus, the Staff does not consider section 50.71 to be violated by operation with fuel leakage.

c. Safety Analysis Assumptions

The UCS report states that "safety analyses assume that *all* three barriers [to radioactive material release] are intact prior to any accident." Therefore, according to the UCS, plants with known fuel leakage could have accidents with more severe consequences than predicted. The report also states the following: "Pre-existing fuel cladding failures have not been considered in the safety analyses for this accident [LOCA], or any other accident."

In the discussion that follows, the Staff explains that preexisting fuel cladding leaks are accounted for in plant licensing bases and that safety analyses do not assume that all the fission-product barriers are fully intact before an accident.

The analyses of limiting postulated design-basis releases do not assume that all the fission-product barriers are fully intact before an accident. For the loss-of-coolant accident, which typically yields the most limiting postulated releases, all three barriers are assumed to allow the release of some fission products. The methodology used to analyze this accident is given in Regulatory Guides 1.3 and 1.4, and SRP § 15.6.5, "Loss-of-Coolant Accidents Resulting from Spectrum of Postulated Piping Breaks Within the Reactor Coolant Pressure Boundary."

For the containment and reactor coolant system (RCS) barriers, these assumptions are explicitly given. The containment is assumed to leak at the leak rate incorporated in the plant technical specifications when the containment is at positive pressure. The RCS inside the containment is assumed to completely fail as a fission-product barrier at the beginning of the accident. Systems outside the containment that interface with the RCS are also assumed to experience failures.

The assumption of preexisting leakage for the fuel cladding barrier, although not explicitly given, is inherent in the assumption of a conservative nonmechanistic release from the fuel. The entire iodine and noble gas inventory of the core is assumed to be released to the reactor coolant. A conservative fraction of this inventory is assumed to be released into the containment and subsequently released to the environment. Assuming that this release occurs instantaneously further enhances the conservatism of these analyses. This assumption disregards the fission-product containment function of the fuel cladding at the beginning of the accident.

Accidents, which may not be bounded by the radiological consequences of a LOCA, include the control rod drop accident for BWRs and MSLB outside of containment for PWRs. However, the conservatism of the source-term assumptions for these analyses parallels those for a LOCA. Some of the same assumptions used for radiological consequence evaluation of a LOCA are used for the analysis of MSLB outside of containment. Appendix A to SRP § 15.1.5, "Radiological Consequences of Main Steam Line Failures Outside Containment of a PWR," contains an acceptance criterion that references Regulatory Guide 1.4. The radiological assumptions for the control rod drop analysis are similar

to those for a LOCA, as stated in Appendix A to SRP § 15.4.9, "Radiological Consequences of Control Rod Drop Accident (BWR)," and Regulatory Guide 1.77. For example, the guidelines assume that the nuclide inventory in the potentially breached fuel elements should be calculated and it should be assumed that all gaseous constituents in the fuel cladding gaps are released.

The radioactivity assumed for release from the LOCA is much greater than that associated with preexisting fuel leakage allowed by plant technical specifications. The Staff has compared releases from preexisting defects with the release resulting from fuel damage during an accident. In its consideration of GSI B-22, the Staff concluded that, "the magnitude of a release from failed fuel during an accident is much larger than the release from a preexisting fuel defect" and that "the resultant consequence from failed fuel was determined to be very small" (NUREG-0933). These assumptions are made despite the provisions of 10 C.F.R. § 50.46 requiring an ECCS that must be designed to prevent exceeding thermal limits that cause such gross fuel failure. In addition, for design-basis accidents in which fuel damage is not assumed, the preexisting fuel cladding defects are typically assumed to serve as release paths facilitating a spike in radioiodine concentration in the coolant.

Additional NRC fuel design requirements complement the conservative defense-in-depth assumptions as previously described to prevent an unanalyzed large release of fission products. To illustrate its concern about fuel leakage influences on accident progression, the UCS report describes a LOCA sequence and postulates that hydraulic loads on the fuel rods could lead to cladding failures, which would result in a large release of fission products into the coolant and prevent control rod insertion. Fuel design requirements and guidance specifically address the ability to insert control rods, and Staff review guidance recognizes that preexisting fuel cladding defects could have an effect on fuel performance during accidents. In GDC 27, "Combined Reactivity Control Systems Capability," the Staff requires that reactivity control systems, including the control rod system, have the capability to control reactivity changes under postulated accident conditions in order to ensure core cooling. SRP § 4.2 includes the objective that "fuel system damage is never so severe as to prevent control rod insertion when it is required."

To ensure that the preceding objective is met, fuel designs consider external loads on fuel rods. This is discussed in the appendix to SRP § 4.2, "Evaluation of Fuel Assembly Structural Response to Externally Applied Forces." The basis for much of the appendix to SRP § 4.2 is contained in NUREG/CR-1018, "Review of LWR Fuel System Mechanical Response with Recommendations for Component Acceptance Criteria," prepared by EG&G Idaho in September 1979. This report states that "Cyclic fatigue and material degradation may cause a failure [of a fuel system component] at any point in the transient [i.e., a LOCA]." Thus, material degradation that could lead to fuel leakage during operation is considered in

accident analyses. Furthermore, design considerations, such as control guide tubes in PWRs and fuel channel boxes in BWRs, help separate control rods from the fuel. The separation provided protects control rods from material degradation of fuel that might occur in accidents, thus helping to prevent control rod obstruction. Such safety analysis assumptions as these (which assume preexisting failures of the fission-product barriers) provide confidence that the preexisting cladding defects allowed by technical specifications limits on coolant activity will not erode the safety margin assumed for accident analyses.

d. 10 C.F.R. § 50.34a, "Design objectives for equipment to control releases of radioactive material in effluents — nuclear power reactors"

In its report, the UCS claims that section 50.34a and other regulations related to the ALARA principle for radioactive materials release are violated since plant workers are exposed to a greater risk than necessary because of higher coolant activity levels attributable to leaking fuel. The UCS report continues: "Federal regulations require nuclear plant owners to keep the release of radioactive materials as low as reasonably achievable. Therefore, it is both an illegal activity and a serious health hazard for nuclear plants to continue operating with fuel cladding damage." The UCS report cites Appendix I to 10 C.F.R. Part 50 when contending that fuel releases pose an undue risk to plant workers. Appendix I contains the numerical dose guidelines for power reactor operation to meet the ALARA criterion. These dose values are a small fraction of the 10 C.F.R. Part 20 annual public dose limit of 100 millirem (i.e., 3 millirem from liquid effluents and 5 millirem from gaseous effluents).

The bases for the guidelines in Appendix I are given in WASH-1258, which acknowledges that radioactive material from a number of sources, including fission-product leakage to the coolant from defects in the fuel cladding, will be present in the primary coolant during normal operation. Further, in the "Bases" section on RCS specific activity in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," April 1995, the limits on specific activity are linked to exposure control practices at plants. The section clearly states that the limits on RCS specific activity are used in the design of radiation shielding and plant personnel radiation protection practices.

In addition, occupational dose considerations were discussed in the resolution of GSI B-22. The Staff acknowledged that localized dose rates were expected to increase as a result of fuel defects, but effects are limited by requirements for plants to operate within their technical specifications for coolant activity and releases. In some cases, plants will often stay within allowable release limits and coolant activity levels by operating at reduced power until the next refueling outage allows the problem to be corrected.

On the basis of the preceding discussion, operation with a limited amount of leaking fuel is within a plant's licensing basis and, in itself, does not violate ALARA-related regulations. Operation involving leaking fuel, however, will likely require plant operators to take additional measures in order to ensure that ALARA requirements are being met, but these would need to be considered on a case-by-case basis.

4. UCS Report Recommendations

In the report, the UCS recommends that the NRC take steps to prohibit nuclear power plants from operating with fuel cladding damage until the safety concerns raised by the report are resolved. The following steps are specifically recommended: (1) requiring plant shutdown upon detection of fuel leakage, and (2) requiring that safety evaluations that consider the effects of operating with leaking fuel be included in plant licensing bases to justify operation under such circumstances. Further, the UCS recommends that UFSARs be revised to establish safe operating limits to accommodate operation with leaking fuel.

On the basis of the Staff's consideration of the stated safety concerns in the report, there is no technical or regulatory basis to require that plants operating with leaking fuel be shut down, provided they are operating within their technical specifications limits and in accordance with their licensing basis. The UCS report, in raising its concerns, does not offer any new information to demonstrate that the overall risk of operating with fuel defects presents an undue hazard to plant workers or the public.

Further, since the Staff does not consider plants operating with leaking fuel to be violating section 50.59 or 50.71, there is no basis for requiring plants to perform additional safety analyses to model the effects of fuel defects on accident progressions to update plant safety analysis documentation.

B. Plant-Specific Concerns — River Bend Station

On the basis of the reported fuel leakage at River Bend, the Petitioner states that the generic concerns contained in its report apply to River Bend. The September 25, 1998 Petition then presents a number of references to the River Bend USAR as instances in which, in the opinion of the Petitioner, plant licensing bases do not permit operation of the plant with known fuel leakage.

A reference to the USAR in the petition is the USAR definition of unacceptable consequences (USAR Table 15A.2-4), which lists as an unacceptable consequence "Failure of the fuel barrier as a result of exceeding mechanical or thermal limits." The Petitioner considers this criterion violated since a fuel failure exists in advance of any design-basis accident that may now occur.

The petition then discusses USAR Chapter 15 accident analysis descriptions, which state either (1) that fuel cladding integrity will be maintained as designed or (2) radioactive material is not released from the fuel for the event. The following events cited in the petition have event descriptions in the River Bend USAR, which state that fuel cladding will function and maintain its integrity as designed:

- Loss of Feedwater Heating (USAR § 15.1.1.4),
- Feedwater Controller Failure — Maximum Demand (USAR § 15.1.2.4),
- Pressure Regulator Failure — Open (USAR § 15.1.3.4),
- Pressure Regulator Failure — Closed (USAR § 15.2.1.4).

The following two events cited in the petition have event descriptions in the River Bend USAR, which state that "no radioactive material is released from the fuel" during the event:

- Control Rod Withdrawal Error at Power (USAR § 15.4.2.5),
- Recirculation Flow Control Failure with Increasing Flow (USAR § 15.4.5.5).

The Petitioner also states that the River Bend licensing basis for worker radiation protection is violated by operation with leaking fuel. Again, the petition cites the USAR (§§ 12.1.1 and 12.1.2.1) as the pertinent reference to the licensing basis.

1. Evaluation of Plant-Specific Concerns

As discussed in the consideration of generic safety concerns, the Staff does not agree that preexisting fuel cladding defects and resultant fuel leakage violate plant licensing bases. The Staff also considers that conclusion valid for River Bend. The basis for this conclusion is supported in the following discussion.

a. USAR Appendix 15A

The Petitioner referenced two sections of USAR Appendix 15A, "Plant Nuclear Safety Operational Analysis (NSOA)" (as stated):

> UFSAR 15A.2.8, "General Nuclear Safety Operational Criteria," stated:
>
> > The plant shall be operated so as to avoid unacceptable consequences.
>
> UFSAR Table 15A.2-4, "Unacceptable Consequences Criteria Plant Event Category: Design Basis Accidents," defined "unacceptable consequences" as follows:
>
> > 4-1 Radioactive material release exceeding the guideline values of 10 CFR 100.
> >
> > 4-2 Failure of the fuel barrier as a result of exceeding mechanical or thermal limits.

4-3 Nuclear system stresses exceeding that allowed for accidents by applicable industry codes.

4-4 Containment stresses exceeding that allowed for accidents by applicable industry codes when containment is required.

4-5 Overexposure to radiation of plant main control room personnel.

The current operating condition at the River Bend Station apparently violates the spirit, if not the letter, of Criterion 4-2 since the fuel barrier has already failed, albeit to a limited extent. This UFSAR text does *not* accept a low level of fuel barrier failure based on meeting the offsite and onsite radiation protection limits. Integrity of the fuel barrier is an explicit criterion in addition to the radiation requirements.

In the petition, the UCS highlights the table concerning the consequences for the design-basis accident. This plant condition is a highly improbable event, and safety analyses ensure that safety limits and regulatory requirements are not exceeded as a result of the accident occurring. This is why USAR Table 15A.2-4, Item 4-2 states, "Failure of a fuel barrier *as a result of exceeding mechanical or thermal limits*" (emphasis added). The unacceptable consequences of this type of event are independent of preexisting fuel cladding defects. The unacceptable consequences of this event are additional fuel failures as a result of the accident occurring.

Within the framework of the USAR, "unacceptable consequences" are specified measures of safety and analytically determinable limits on the consequences of different classifications of plant events. They are used for performing a nuclear safety operational analysis. Unacceptable consequences are described for various plant conditions, including "Normal (Planned) Operation," "Anticipated (Expected) Operational Transients," "Abnormal (Unexpected) Operational Transients," "Design Basis (Postulated) Accidents," and "Special (Hypothetical) Events." USAR Tables 15A.2-1 through 15A.2-5 identify the unacceptable consequences for each of the five plant conditions, and are different for each of the cases.

The USAR text clearly documents the acceptability of a low level of fuel cladding failures based on meeting the offsite and onsite radiation protection limits. For example, USAR Table 15A.2-1 discusses the unacceptable consequences for normal operation. This USAR table defines unacceptable consequences for normal operation as follows:

4-1 Release of radioactive material to the environs that exceeds the limits of either 10 C.F.R. Part 20 or 10 C.F.R. Par. 50.

4-2 Fuel failure to such an extent that were the freed fission products released to the environs via the normal discharge paths for radioactive material, the limits of 10 C.F.R. Part 20 would be exceeded.

4-3 Nuclear system stress in excess of that allowed for planned operation by applicable industry codes.

4-4 Existence of a plant condition not considered by plant safety analysis.

Item 4-2 in Table 15A.2-1 implies that fuel cladding failures are not an unanticipated condition during normal operations and is, therefore, consistent with other parts of the River Bend licensing basis. Fuel cladding defects are acceptable to the extent that they do not jeopardize radiation protection limits established in the plant technical specifications and other licensing-basis documents. USAR Table 15A.2-4 does not apply for normal operations; only USAR Table 15A.2-1 applies. Furthermore, the provisions found in USAR Table 15A.2-4 would continue to be met for postulated design-basis accidents.

USAR § 15.0.3.1.1 provides further clarification in its list of unacceptable safety consequences for "moderate frequency" events, which lists: "Reactor operation induced fuel-cladding failure as a direct result of the transient analysis above the minimum critical power ratio (MCPR) uncertainty level (0.1 percent)." Accordingly, preexisting cladding defects are considered during some postulated transients. In fact, the acceptance criteria for moderate-frequency event analyses, based on the GDC (10 C.F.R. Part 50, Appendix A) and the Standard Review Plan, and described in the Safety Evaluation Report (SER) for River Bend (NUREG-0989), state the following expectations for fuel cladding performance: "An incident of moderate frequency . . . should not result in a loss of function of any fission product barrier other than the fuel cladding. A limited number of fuel rod cladding perforations are acceptable."

USAR Chapter 11, "Radioactive Waste Management," Section 11.1, "Source Terms," details the expected reactor coolant and main steam activities to be used to form the basis for estimating the average quantity of radioactive material released to the environment during normal operations, including operational occurrences. This section further addresses that the offgas release rate of 304,000 μCi/s at a 30-minute delay time corresponds to design failed fuel conditions, that is, maximum acceptable cladding failure for normal operation, and is also conservatively based upon 105% of rated thermal power. This is consistent with limits prescribed in Technical Specification 3.7.4, "Main Condenser Offgas," which requires that the gross gamma activity rate of the noble gases shall be < 290 mCi/s (or < 290,000 μCi/s) after a decay time of 30 minutes.

In addition, two other parts of the fuel system licensing basis for River Bend show that limited fuel leakage during plant operation is a design consideration:

The fuel system design basis for River Bend is given in USAR § 4.2.1 by reference to the generic topical report "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A. The generic topical report details fuel cladding operating limits to ensure that fuel performance is maintained within

fuel rod thermal and mechanical design and safety analysis criteria. The limits are given for normal operating conditions and AOOs in terms of specific mechanical and thermal specifications. Evaluations of specific fuel failure mechanisms under normal operation and AOOs were discussed, such as stress/strain, hydraulic loads, fretting, and internal gas pressure to ensure that fuel failure did not result from these causes. The design basis did not preclude the possibility that fuel could fail for other reasons, such as preexisting cladding flaws leading to leakage.

The Technical Specifications (§ 3.4.8) for River Bend contain a limit for reactor coolant system specific activity. The basis for this limit is the same as that discussed in the consideration of the generic safety concerns. Section B 3.4.8 of the River Bend Technical Specifications "Bases" acknowledges that "the reactor coolant acquires radioactive materials due to release of fission products from fuel leaks." Thus, fission products released during plant operation are clearly considered to be contributors to the source term used for safety analysis of the MSLB release consequences. The Technical Specifications state that the limit is set to ensure that any release as a consequence of an MSLB is less than a small fraction of the 10 C.F.R. Part 100 guidelines. These portions of the River Bend licensing basis are consistent with NRC regulations regarding fuel performance and the associated NRC guidance used by licensees to implement those NRC regulations that were covered earlier in the discussion regarding generic concerns.

The River Bend licensing-basis items listed by the Petitioner are consistent with the parts of the fuel licensing basis discussed above with the exception of some minor inconsistencies in documentation (as discussed below). That is, fuel leakage during plant operation is not precluded by licensing-basis provisions requiring that fuel integrity be maintained as designed. The design basis itself allows the possibility of leakage while ensuring that cladding damage does not result from specific operationally related causes. Fuel is also designed to maintain its structural integrity to ensure core coolability and to ensure that control rods can be inserted.

b. Chapter 15 Accident Analysis

The Petitioner also cited references taken from accident analyses described in River Bend USAR Chapter 15 (as stated):

> UCS reviewed the UFSAR Chapter 15 description of accident analyses performed for the River Bend Station. UFSAR Section 15.1.1.4, "Barrier Performance," for the loss of feedwater heating event stated:

> The consequences of this event do not result in any temperature or pressure transient in excess of the criteria for which the fuel, pressure vessel, or containment are designed; therefore, these barriers maintain their integrity and function as designed.

UFSAR Sections 15.1.2.4 for the feedwater controller failure – maximum event, 15.1.3.4 for the pressure regulator failure – open event, and 15.2.1.4 for the pressure regulator failure – closed event all contain comparable statements that barrier performance was not performed because the fuel remained intact.

These analyzed events appear to be valid only when the River Bend Station is operated with no failed fuel assemblies. Operation with pre-existing fuel failures (i.e., the current plant configuration) appear to be outside of the design and licensing bases for these design bases events.

UFSAR Section 15.4.2.5, "Radiological Consequences," for the control rod withdrawal error at power event stated:

> An evaluation of the radiological consequences was not made for this event since no radioactive material is released from the fuel.

UFSAR Section 15.4.5.5, "Radiological Consequences," for the recirculation flow control failure with increasing flow event stated:

> An evaluation of the radiological consequences is not required for this event since no radioactive material is released from the fuel.

These analyzed events also appear valid only when the River Bend Station is operated with no failed fuel assemblies. Operation with pre-existing fuel failures (i.e., the current plant configuration) appear to be outside of the design and licensing bases for these design bases events.

The effect from pre-existing fuel failures was considered, at least partially, for one design bases event. UFSAR Section 15.2.4.5.1, "Fission Product Release from Fuel," for the main steam isolation valve closure event stated:

> While no fuel rods are damaged as a consequence of this event, fission prod... activity associated with normal coolant activity levels as well as that released from previously defective rods is released to the suppression pool as a consequence of SRV [safety relief valve] actuation and vessel depressurization.

The aforementioned design bases events (e.g., control rod withdrawal error at power, loss of feedwater heating, et al) are *not* bound by these results because the radioactive material is not "scrubbed" by the suppression pool water as it is in the MSIV [main steam isolation valve] closure event.

As previously stated, the Petitioner cited four references to the USAR accident analysis section entitled "Barrier Performance." At issue are essentially equivalent statements made where the USAR stated, in part, that the defense-in-depth "barriers maintain their integrity and function as designed." The UCS concluded that operation with preexisting fuel failures is, therefore, outside the River Bend design and licensing bases. In stating that barriers are "maintained," the USAR clearly implies that the events themselves do not result in additional

fuel cladding failures. To further support this conclusion, the radiological consequences described for three of the four events (§ 15.1.2, "Feedwater Controller Failure — Maximum Demand"; § 15.1.3, "Pressure Regulator Failure — Open"; and § 15.2.1, "Pressure Regulator Failure — Closed") are, indeed, bounded by an event that takes into consideration the effects of preexisting cladding failures. The three preceding events all result in actuation of the safety relief valves (SRVs) to the suppression pool. The USAR discussion (*see* USAR section titled "Radiological Consequences") notes that radioactivity is discharged to the suppression pool, and that the activity discharged is much less than those consequences identified in USAR § 15.2.4.5 (for the MSIV closure event).

The MSIV closure event, as described in the USAR, clearly considers the activity released from "previously defective rods" in determining dose consequences. The source term used in these calculations assumes the same iodine and noble gas activity as an initial condition as is used in the basis for determining RCS activity technical specifications limits. USAR § 15.2.4.5.1, "Fission Product Release from Fuel," also explains, "Since each of those transients identified previously which cause SRV actuation results in various vessel depressurization and steam blowdown rates, the transient evaluated in this section [the MSIV closure event] is that one which maximizes the radiological consequences for all transients of this nature." Thus, the USAR explicitly describes how "the aforementioned design-basis events" are bounded by the results for the MSIV closure event, for those events resulting in an SRV actuation. Furthermore, USAR § 15.1.1.5 describing the fourth event, the loss of feedwater heating, also states that "this event does not result in any additional fuel failures," further reinforcing the Staff's position.

The quotation taken from the control rod withdrawal error from power and recirculation flow control error event descriptions — "[a]n evaluation of the radiological consequences was not made for this event since no radioactive material is released from the fuel" — appears to be taken out of context. Considering the many references ostensibly permitting operation with preexisting fuel cladding failures found within the USAR, technical specifications, NRC regulations, Staff implementing guidelines, and other licensing-basis documents, the intent of this statement is clearly that no *additional* radioactive material is released from the fuel as a consequence of the event.

Finally, in each of the accident analysis cases listed in the petition, the event is classified as a "moderate frequency" event (or an "anticipated operational transient"). Specific criteria for unacceptable consequences are delineated in USAR Table 15A.2-2. For this type of anticipated transient, unacceptable performance of the fuel is described as, "[r]eactor operation induced *fuel cladding failure as a direct result of the transient* analysis above the MCPR [Minimum Critical Power Ratio] uncertainty level (0.1%)" (emphasis added).

Therefore, fuel cladding defects existing before the accident are not precluded from consideration.

c. Fuel Cladding Defect Propagation

The petition then raised concerns regarding the possibility that preexisting fuel cladding defects could propagate under design-basis transients (as stated):

> As detailed in UCS's April 1998 report on reactor operation with failed fuel cladding, it has not been demonstrated that the effects from design basis transients and accidents (i.e., hydrodynamic loads, fuel enthalpy changes, etc.) prevent pre-existing fuel failures from propagating. It is therefore possible that significantly more radioactive material will be released to the reactor coolant system during a transient or accident than that experienced during steady state operation. Thus, the existing design bases accident analyses for River Bend Station do not bound its current operation with known fuel cladding failures.

As previously stated in the evaluation of generic issues raised by the April 1998 UCS report, the Staff has previously considered the safety implications of operation with fuel leakage on a generic basis. In GSI B-22, the Staff considered the ability to accurately predict fuel performance under normal and accident conditions. In its evaluation of the issue, the Staff concluded that releases during normal operation would be increased because of fuel defects, but would not be increased beyond regulatory limits. The Staff also concluded that the release from fuel damage during design-basis accidents and severe accidents would be much larger than the release attributed to preexisting fuel defects, and the magnitude of the release would not be significantly affected by preexisting fuel defects. Therefore, the consequence from leaking fuel was determined to be very small.

The Petitioner has, however, noted some apparent inconsistencies in documentation of the licensing basis as found in the USAR for River Bend that could be taken out of context. The statements cited for two events — the control rod withdrawal error from power and recirculation flow control error — are not consistent with the other parts of the River Bend licensing basis discussed in this evaluation. The technical basis for coolant activity limits clearly permits operation with a limited amount of fuel leakage and, as discussed, the design basis does not preclude the possibility of limited fuel leakage during operation. Therefore, although these events should not cause fuel damage, preexisting leakage could still be a consideration, and only the activity in the reactor system coolant up to the technical specification limit would be available for release. The MSLB is considered the limiting event with respect to release of coolant activity from leaking fuel. The Staff expects that the consequences of the MSLB would bound those that would be predicted for the control rod withdrawal error from power or the recirculation flow control error events. Thus, the minor discrep-

ancies uncovered by the Petitioner in the documentation of the plant licensing basis do not constitute a safety concern requiring NRC action.

The Licensee has taken actions to limit the effects of the minor fuel rod defects at River Bend reported on September 21, 1998. The control rod pattern has been altered to achieve a depressed flux profile in the vicinity of the leaking rods, thereby suppressing the production of fission products as the plant continues operation at slightly less than full power. Following the initial detection of a leaking rod, the Licensee reduced the activity in the pretreatment offgas sample from 22.5 mCi/s to 1.8 mCi/s, which was very close to the prefuel-leak level of 1 mCi/s. The peak value was never more than a small fraction of the technical specification limit of 290 mCi/s. The offgas treatment system has been effectively eliminating any detectable radioactivity in offgas effluent, and only small dose rate increases were observed in areas of the plant in which offgas system components are located. Since work is not normally performed in those areas, the Licensee did not institute any additional exposure controls. However, the Licensee is continuing to closely monitor the offgas system to ensure that the coolant activity concentration remains within technical specifications limits.

d. ALARA Concerns

The Petitioner further stated that Entergy Operations, Inc., was violating its licensing basis with regard to the ALARA worker protection program (as stated):

> In addition to operating with non-bounding design bases accident analyses, it appears that the River Bend Licensee is also violating its licensing basis for worker radiation protection. UFSAR Section 12.1.1, "Policy Consideration," stated:
>
> > The purpose of the ALARA [as low as reasonably achievable] program is to maintain the radiation exposure of plant personnel as far below the regulatory limits as is reasonably achievable.
>
> UFSAR Section 12.1.2.1, "General Design Considerations for ALARA Exposures," stated that River Bend's efforts to maintain in-plant radiation exposure as low as is reasonably achievable included:
>
> > Minimizing radiation levels in routinely occupied plant areas and in vicinity of plant equipment expected to require the attention of plant personnel.
>
> According to the NRC Information Notice No. 87-39, "Control of Hot Particle Contamination at Nuclear Plants:"
>
> > A plant operating with 0.125 percent pin-hole fuel cladding defects showed a five-fold increase in whole-body radiation exposure rates in some areas of the plant when compared to a sister plant with high-integrity fuel (<0.01 percent leakers). Around certain plant systems the degraded fuel may elevate radiation exposure even more.
>
> Industry experience demonstrated that reactor operation with failed fuel cladding increased radiation exposures for plant workers. The River Bend licensee has a licensing basis

requirement to maintain radiation exposures for plant workers as low as is reasonably achievable. The River Bend licensee informed the NRC about potential fuel cladding failures. It could shut down the facility and remove the failed fuel assemblies from the reactor core. Instead, it continues to operate the facility with higher radiation levels.

In its letter to the NRC dated February 11, 1999, the River Bend Licensee stated that if the plant were to shut down solely to remove leaking fuel bundles, worker exposure would be increased since additional exposure would later be incurred for normal shutdown and maintenance activities. Also, during the February 22, 1999 informal public hearing on the petition, the River Bend Licensee stated that dose rates in the general plant areas are essentially unchanged and that the average daily dose to plant workers has remained at the historical level of approximately 0.14 person-rem per day during normal operations. River Bend has seen some increased levels in dose rates in isolated areas, such as in rooms containing offgas system equipment; however, these areas are not routinely occupied and access to the rooms is controlled by the health physics department. The Licensee stated that if a 14-day outage were conducted to remove defective fuel bundles, the outage would incur a worker dose on the order of 9 person-rem for reactor disassembly, reassembly, and refueling activities. This exposure would be in addition to that incurred from activities planned for the scheduled refueling outage. The Licensee contends that shutting down in this situation to replace leaking fuel would be an action contrary to ALARA. The Staff agrees that conducting plant shutdown only to address the current situation at River Bend would be contrary to the ALARA principle for plant workers, provided exposure levels remain at their current values.

River Bend has two independent radiation-detection systems capable of sensing fission-product release from leaking fuel rods — main steamline radiation monitors and offgas system radiation monitors. The main steamline radiation monitors are used to detect high radiation levels from gross fuel failure. The offgas system radiation monitors can detect low-level emissions of noble gases, which are indicative of minor fuel damage. The offgas system monitor indication signaled the recent fuel damage found at River Bend.

The actions taken by the Licensee to limit further fuel damage, as well as the continued attention to reactor coolant activity and offgas radiation levels, provide confidence that River Bend can continue safe operation, within its licensing basis, with the limited fuel leakage recently detected.

C. Plant-Specific Concerns — Perry Nuclear Power Plant

On the basis of the reported fuel leakage at Perry, the Petitioner states that the generic concerns contained in the UCS report apply to the Perry plant. In

the opinion of the Petitioner, plant licensing bases do not permit operation of the plant with known fuel leakage.

As discussed in the consideration of generic safety concerns, the Staff does not agree that preexisting fuel cladding defects and resultant fuel leakage violate plant licensing bases. The Staff also considers that conclusion valid for Perry. Fuel leakage during plant operation is not precluded by licensing basis provisions requiring that fuel integrity be maintained as designed. The Perry design basis itself allows the possibility of leakage while ensuring that cladding damage does not result because of specific operationally related causes. Fuel is also designed to maintain its structural integrity to ensure core coolability and to ensure that control rods can be inserted.

The Updated Safety Analysis report (USAR) for Perry contains unacceptable consequences criteria for different event categories (USAR Tables 15A.2-1 through 15A.2-4). The unacceptable consequences for normal operation do not preclude fuel leakage. The second criterion listed precludes fuel failure to the extent that the limits of 10 C.F.R. Part 20 would be exceeded. The unacceptable consequences for anticipated operational transients prohibit fuel failure predicted as a direct result of transient analysis. For abnormal transients and design-basis accidents, widespread fuel cladding perforations and fuel cladding fragmentation are prohibited.

Two parts of the fuel system licensing basis for Perry show that limited fuel leakage during plant operation is a design consideration. The fuel system design basis for Perry is given in the USAR § 15B by reference to the generic topical report "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A. The generic topical report details fuel cladding operating limits to ensure that fuel performance is maintained within fuel rod thermal and mechanical design and safety analysis criteria. The limits are given for normal operating conditions and AOOs in terms of specific mechanical and thermal specifications. Evaluations of specific fuel failure mechanisms under normal operation and AOOs were discussed, such as stress and strain, hydraulic loads, fretting, and internal gas pressure, to ensure that fuel failure did not result from these causes. The design bases did not preclude the possibility that fuel failure could occur for other reasons, such as preexisting cladding flaws leading to leakage.

The Technical Specifications for Perry (§ 3.4.8) contain a limit for RCS specific activity. The basis for this limit is the same as that discussed in the consideration of the generic safety concerns. Section B3.4.8 of the Perry Technical Specification "Bases" acknowledges that "the reactor coolant acquires radioactive materials due to release of fission products from fuel leaks." Thus, fission products released during plant operation are clearly considered to be contributors to the source term used for safety analysis of the main steamline break release consequences. The technical specifications state that the limit is set to ensure that any release as a consequence of a main steamline break is

less than a small fraction of the 10 C.F.R. Part 100 guidelines. These portions of the Perry licensing basis are consistent with NRC regulations regarding fuel performance and the associated NRC guidance used by licensees to implement those NRC regulations that were covered earlier in the discussion regarding generic concerns.

The Licensee has taken actions to limit the effects of the existing minor fuel leaks at Perry. The control rod pattern has been altered to achieve a depressed flux profile in the vicinity of the leaking rods, thereby suppressing the production of fission products as the plant continues operation. The offgas treatment system has been effectively eliminating radioactivity in offgas effluent, and there has been no change in general radiation area dose rates. However, the Licensee is continuing to closely monitor the offgas system pretreatment radiation levels and is ensuring that the coolant activity concentration remains within technical specifications limits.

Perry has two independent radiation detection systems capable of sensing fission product release from leaking fuel rods: main steamline radiation monitors and offgas system radiation monitors. The main steamline radiation monitors are used to detect high radiation levels from gross fuel failure. The offgas system radiation monitors can detect low-level emissions of noble gases, which are indicative of minor fuel damage.

In its letter to the NRC, dated February 11, 1999, the Perry Licensee stated that if the plant were to shut down solely to remove fuel bundles exhibiting leakage, plant worker exposure would be increased since additional exposure would later be incurred for normal shutdown and maintenance activities. The Licensee contends that shutting down in this situation to replace leaking fuel would be an action contrary to ALARA. The Staff agrees that conducting plant shutdown only to address the current situation at Perry would be contrary to the ALARA principle for plant workers, provided exposure levels remain at their current values.

The actions taken by the Licensee to limit further fuel damage, as well as the continued attention to reactor coolant activity and offgas radiation levels, provide confidence that Perry can continue safe operation, within its licensing basis, with the limited fuel leakage detected.

IV. CONCLUSION

The Petitioner's requests are denied for the reasons specified in the preceding sections that discuss the Petitioner's information supporting the request. The Petitioner did not submit any significant new information about safety issues. Neither the information presented in the petition nor any other subsequent

information of which the NRC is aware warrants the actions requested by the Petitioner.

A copy of this Director's Decision will be filed with the Secretary of the Commission for review in accordance with 10 C.F.R. § 2.206(c). This Decision will become the final action of the Commission 25 days after its issuance unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR
REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 18th day of April 1999.