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NUCLEAR REGULATORY COMMISSION ISSUANCES

February 1998



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NUCLEAR REGULATORY COMMISSION ISSUANCES

February 1998

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

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 **MASTER**

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.

B. Paul Cotter, Jr., Chief Administrative Judge, Atomic Safety & Licensing Board Panel

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COMMISSION

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

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

In the Matter of

**Docket Nos. 030-30266
030-30266-CivP**

**(License No. 42-23850-02E)
(EA 96-170)
(Confirmatory Order)**

**21st CENTURY TECHNOLOGIES, INC.
(Fort Worth, Texas)**

February 19, 1998

The Commission grants a motion filed jointly by the NRC Staff and the Licensee for termination of a Confirmatory Order proceeding initiated by the Licensee. The Licensee had requested a hearing on the Order, which modified the license to require that the Licensee develop and implement certain written procedures, and develop, and submit for NRC approval, training and audit plans. The joint motion was filed following a settlement agreement reached by the Licensee and the NRC Staff (and approved by the Licensing Board) in a related civil penalty proceeding, which was also initiated by the Licensee.

The Commission finds that the fundamental issue is the same in both proceedings: whether certain conditions in the license issued to 21st Century Technologies are justified on health and safety grounds. The Commission therefore concludes that good cause exists to terminate the Confirmatory Order proceeding in view of the approved settlement and termination of the civil penalty proceeding. For this reason, and because the terms of the Settlement Agreement suggest that the Staff and the Licensee will be able to reach mutually agreeable license terms, the Commission declines to undertake *sua sponte* review of the Licensing Board's approval of that agreement.

RULES OF PRACTICE: SETTLEMENT OF CONTESTED PROCEEDINGS

The Commission looks with favor upon settlements. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 205 (1997).

MEMORANDUM AND ORDER

On January 20, 1998, the NRC Staff and the Licensee, successor to Innovative Weaponry, Inc., which initiated this proceeding, filed a Joint Motion for Termination of this proceeding. For the reasons given below, we grant the motion.

BACKGROUND

On May 15, 1996, the Director of the NRC's Office of Enforcement issued a Notice of Violation and Proposed Imposition of Civil Penalty, and an immediately effective Confirmatory Order that modified 21st Century Technologies' license to require that the Licensee develop and implement certain written procedures, and develop, and submit for NRC approval, training and audit plans. The Confirmatory Order stated that the Licensee had committed to these actions at a predecisional enforcement conference and licensing meeting, and that the Licensee's attorney had agreed to the order in a telephone call. 61 Fed. Reg. 25,694-95 (May 22, 1996). The order gave affected persons *other* than the Licensee 20 days to request a hearing on the order. On June 14, 1996, the Licensee filed a request for a hearing on the Confirmatory Order, contending, among other things, that the Confirmatory Order "amount[ed] to unjustifiable regulatory duress."

On June 26, 1996, the Commission issued an order that directed the Licensee to file the bases for its contentions and to state whether the Licensee had in fact consented to the Confirmatory Order, and if so, why such consent should not have the legal effect of waiving the Licensee's hearing rights. In response to the Commission's order, the Licensee argued that the license conditions it had violated were "irrelevant to public health and safety" and "therefore beyond the jurisdiction of the NRC to regulate." Licensee's September 30, 1996 Response to Commission Order to Particularize Contentions at 6-10. On October 15, 1996, the NRC Staff filed an Answer to the Licensee's Response, opposing the Licensee's request for a hearing, arguing, in part, that the Licensee had failed to show that the Confirmatory Order was not based on the protection of public health and safety, and citing our remark in *Advanced Medical Systems, Inc.*

(One Factory Row, Geneva, OH 44041), CLI-94-6, 39 NRC 285, 312 (1994), that “[t]he Commission’s safety regulations and license conditions reflect the Commission’s considered judgment as to what is required to protect the public.”

On October 18, 1996, the Staff issued an “amendment” that terminated the one license and issued a new one. The new one contained a license condition that incorporated the substantive requirements of the Confirmatory Order. On December 12, 1996, the NRC Staff filed a motion to terminate this proceeding on the grounds that the license issued on October 18 contained the Confirmatory Order’s substantive requirements on training, audits, and procedures, and that the challenge to the Confirmatory Order was therefore moot. The Licensee opposed the Staff’s motion to terminate the proceeding.

At the same time that the Licensee had been challenging the Confirmatory Order, the Licensee had also been challenging the Staff’s imposition of a civil penalty. The Licensee answered the May 15, 1996 Notice of Violation and Proposed Imposition of Civil Penalty on October 1, 1996. On April 10, 1997, the Staff issued an Order Imposing Civil Monetary Penalty — \$2500, having mitigated the proposed civil penalty by \$5000 in light of the fact that “no adverse consequences to public health and safety actually occurred in this matter.” Order Imposing Civil Monetary Penalty, Appendix at 3-4. The Licensee asked for a hearing on the civil penalty, giving the same reasons for opposing the civil penalty that the Licensee had given for opposing the Confirmatory Order. A licensing board was established to hear the civil penalty proceeding. 62 Fed. Reg. 34,718 (June 27, 1997).

In the proceeding on the civil penalty, the Staff and the Licensee succeeded in reaching a Joint Settlement Agreement, which provides, among other things, that the civil penalty will be reduced to \$2000, and that the Staff will make itself available to meet with the Licensee to discuss possible changes to the license “to address the Licensee’s needs” Joint Settlement Agreement at 3. On January 12, 1998, the Board that had been established to rule on the Licensee’s challenge to the civil penalty approved the settlement and terminated the proceeding on the civil penalty. LBP-98-1, 47 NRC 1 (1998).

THE JOINT MOTION TO TERMINATE

On the basis of the settlement in the civil penalty proceeding, the Licensee asked on January 20, 1998, that it be allowed to withdraw its request for a hearing on the Confirmatory Order. On the same day, the Licensee and the Staff filed their joint motion for termination of the proceeding on the Confirmatory Order. The motion argues that the Licensee’s withdrawal of its request for a hearing on the Confirmatory Order is good cause for termination of the proceeding. The

motion also notes that the requirements imposed by the Confirmatory Order will remain in effect if this proceeding is terminated.

We agree with the parties that the settlement in the civil penalty proceeding and the Licensee's request to withdraw are good cause for terminating this proceeding on the Confirmatory Order. The fundamental issue in both proceedings was the same, namely, whether certain conditions in 21st Century Technologies' license were adequately justified on health and safety grounds. *See* Licensee's September 30, 1996 Response to Commission Order to Particularize Contentions at 6-7. *See also* Licensing Board's September 24, 1997 Prehearing Conference Order at 2. Thus, an approved settlement in the one proceeding and termination of that proceeding would seem to call for an end to the other proceeding also. Moreover, the Commission looks with favor upon settlements. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-97-13, 46 NRC 195, 205 (1997). The Licensing Board in the civil penalty proceeding, exercising authority under 10 C.F.R. § 2.203, has concluded that the settlement is "in full accord with the public interest" *See* LBP-98-1, 47 NRC at 2. We see no reason to disagree. For example, as the parties point out in their joint motion to us, the settlement does not lessen any of the safety requirements now applicable to the Licensee. Moreover, the terms of the settlement hold out the prospect that the Staff and the Licensee will be able to reach mutually agreeable license terms. Therefore, we will not undertake *sua sponte* review of the Licensing Board's approval of the settlement. Under these circumstances, to deny the parties' joint motion to terminate the proceeding on the Confirmatory Order could undermine a settlement judged to be in the public interest.

CONCLUSION

For the reasons given above, the parties' Joint Motion to Terminate the Confirmatory Order proceeding is hereby granted and the proceeding terminated.

It is so ORDERED.

For the Commission

JOHN C. HOYLE
Secretary of the Commission

Dated at Rockville, Maryland,
this 19th day of February 1998.

Atomic Safety and Licensing Boards Issuances

ATOMIC SAFETY AND LICENSING BOARD PANEL

B. Paul Cotter, Jr.,* *Chief Administrative Judge*
James P. Gleason,* *Deputy Chief Administrative Judge (Executive)*
Frederick J. Shon,* *Deputy Chief Administrative Judge (Technical)*

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*Permanent panel members

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

B. Paul Cotter, Jr., Presiding Officer
Thomas D. Murphy, Special Assistant

In the Matter of

Docket No. 40-8968-ML
(ASLBP No. 95-706-01-ML)

HYDRO RESOURCES, INC.
(2929 Coors Road, Suite 101,
Albuquerque, NM 87120)

February 9, 1998

RULES AND REGULATIONS: INTERPRETATION;
10 C.F.R. § 2.713(a)

By terms of section 2.713(a), the Commission's lack of tolerance for [undignified] conduct by attorneys applies equally to parties. Petitioners to become parties to NRC proceedings . . . are subject to the same requirements in their pleadings before [the ASLBP].

MEMORANDUM AND ORDER
(Denying Petition to Intervene and Setting Schedules)

On January 28, 1998, papers entitled "Red Devil's Petition for Leave to Intervene" with an attached "Affidavit," two documents hand lettered as Exhibits 1 and 2, and a paper entitled "The Red Devil's Entry of Appearance" were received by the Presiding Officer in this 10 C.F.R. Part 2, Subpart L proceeding concerning an application for a license to conduct *in situ* leachate mining of uranium in New Mexico. No certificate of service was attached. The papers

were filed by one Mervyn Tilden whose petition to intervene is pending in this proceeding. It does not appear that all parties were served.

These papers, set out in the form of pleadings in Nuclear Regulatory Commission administrative proceedings, are filled with language that, on its face, is intended to mock and excoriate this proceeding. Such language includes phrases in the "Entry of Appearance" such as "racist Rules and Regulations of the . . . NRC . . .," and "this ignominious, satanic mockery of justice. Hallelujah Amerika!" Language in the "Petition to Intervene" includes the following:

The consistent irregularities, treasonous disregard, and perfidious manipulation of the "NRC Rules and Regulations" by the NRC itself and the lack of key and important documents which is public information cannot explain the over abundance of meaningless, useless, abject, and long-winded propaganda in this dark and shameful proceeding. This clearly seizes the title of the "Father of Lies."

The foregoing "Petition" consists largely of: (1) a diatribe against the United States government and its agencies concerning their dealings with Native Americans such as the Navajo; and (2) the perceived inequity of permitting a filing by another group of Navajo who seek to intervene in support of the mining license application.

The "Affidavit" asserts, *inter alia*,

i [sic] acknowledge this disreputable and wandering proceeding by submitting *my lack of credentials, bogus degrees, and callous certifications . . .*

(emphasis in original). This paper concludes with a mock notarization.

Section 2.713 of the Commission's rules of practice governs appearance and practice before the Commission in adjudicatory proceedings. It provides in pertinent part

(a) . . . In the exercise of their functions under this subpart, the Commission . . . function[s] in a quasijudicial capacity. Accordingly, parties and their representatives in proceedings subject to this subpart are expected to conduct themselves with honor, dignity, and decorum as they should before a court of law.

. . .
(c) *Reprimand, censure or suspension from the proceeding.* (1) A presiding officer . . . may, if necessary for the orderly conduct of a proceeding, reprimand, censure or suspend from participation in the particular proceeding pending before it any party or representative of a party who shall . . . be guilty of . . . disruptive, or contemptuous conduct.

10 C.F.R. § 2.713 (1997).

The Commission has expressed its lack of tolerance for "intemperate, even disrespectful rhetoric" on the part of attorneys on more than one occasion.

Curators of the University of Missouri, CLI-95-17, 42 NRC 229, 232-33 n.1 (1995), citing, *inter alia*, *Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear-1), ALAB-204, 7 AEC 835, 838 (1974).¹ By the terms of section 2.713(a), the Commission's lack of tolerance for such conduct by attorneys applies equally to parties. Petitioners to become parties to our proceedings such as Mr. Tilden are subject to the same requirements in their pleadings before us.

The foregoing documents are frivolous on their face and shall be stricken from the record. The language of the petition belittling the proceeding indicates that, in addition to being contemptuous, the filer's purpose is to be disruptive. They demonstrate a total disregard for the adjudicatory process itself, as well as the time and resources of all those seeking to intervene in this proceeding who would be required to respond to these papers were it not for the Presiding Officer's action herein in dismissing them *ab initio*.²

In short, the papers serve solely as a vehicle for indulging in puerile antigovernment and anti-NRC rhetoric. Frivolous, disruptive, and contemptuous pleadings cannot and will not be entertained by the Commission.

In the instant case, some allowance will be made for the fact that Mr. Tilden is a first-time, *pro se* petitioner. Accordingly, no disciplinary action will be taken beyond striking the papers in question. Pursuant to 10 C.F.R. § 2.1209 (1997), this Order is being issued without awaiting responses from the parties to avoid delay and maintain order in the proceeding.

NRC STAFF REQUEST FOR EXTENSION OF TIME

On February 2, 1998, the Presiding Officer granted a request for an extension of time submitted by the Applicant (HRI) to file its responses to petitions for hearing in this proceeding. Subsequently, and because of the grant of the Applicant's request for an extension of time, the NRC Staff submitted a "Request for Clarification and for Extension of Time" dated February 4, 1998. The Staff filing seeks clarification of two procedural matters. First, it desires to know when it must file its response to the Mervyn Tilden petition dated January 16, 1998, and second, it desires to know whether it needs to respond to *all* the hearing

¹ That case quoted from the American Bar Association's Canons of Ethics that "Haranguing and offensive tactics by lawyers interfere with the orderly administration of justice and have no proper place in our legal system" (footnote omitted). The Appeal Board noted that "Name calling adds nothing to the stature of counsel or to the merits of his argument." *Bailly*, 7 AEC at 838.

² Were these filings legitimate they would fail on the merits because they make no attempt to address the factors in 10 C.F.R. § 2.1205 for intervention and late intervention, they fail to list any areas of interest in the proceeding, and they fail to identify any disagreement with the Hydro Resources license application. In addition, it is clear that the "petitioner's" participation in this proceeding would not contribute toward the resolution of any meaningful issues.

petitions filed in this proceeding since its inception, and not just those "amended hearing requests" filed by ENDAUM and SRIC and the Tilden petition. The Staff's request further seeks an extension of time to file responses to all hearing petitions until March 6, 1998, and further seeks the Presiding Officer's aid in directing the parties to serve all filings on the other potential parties to this proceeding.

In the interest of an orderly completion of the petition and response phase of this proceeding, the Staff's motion for an extension of time is granted. The Staff may respond to the original and amended petitions as it sees fit. It would be helpful to the Presiding Officer if the Staff responded to all points in both the original and amended petitions to the extent they are not duplicative. In the interest of efficiency, Staff's response to two petitions (where there are two by any one party) could be consolidated, rather than responding to each separately.

ORDER

For all the foregoing reasons and based on the entire record in this matter, it is, this 9th day of February 1998, ORDERED:

1. That pursuant to the powers granted the Presiding Officer by 10 C.F.R. § 2.1209 (1997), "The Red Devil's Petition for Leave to Intervene" and Affidavit should be, and it hereby is, denied and the filings shall be stricken from the record;
2. That the Staff shall have until close of business on March 6, 1998, to file its responses to petitions for hearing and amended petitions for hearing submitted in this proceeding, inclusive of the Tilden petition;
3. That from this date forward, all filings in this proceeding shall conform to the service requirements found in 10 C.F.R. §§ 2.712, 2.730, and 2.1203 (1997). Those requirements include serving all persons noted on the service list attached to this Order. Filings not conforming with such requirements will be returned, will not be entertained by the Presiding Officer, and will not become part of the official record of the proceeding.
4. That the portion of this Order rejecting "The Red Devil's Petition for Leave to Intervene" is effective immediately and, absent appeal and pursuant to 10 C.F.R. § 2.1251(a) (1997), will become the final order of the Commission thirty (30) days after the date of issuance.
5. That this Order is appealable to the Commission in accordance with the provisions of 10 C.F.R. § 2.1205(o). Any appeal must be filed within ten (10) days of service of this Order and may be taken by filing and serving upon all parties a statement that succinctly sets out, with supporting argument, the

errors alleged. Any other party may support or oppose the appeal by filing a counterstatement within fifteen (15) days of the service of the appeal brief.

**B. Paul Cotter, Jr., Presiding Officer
ADMINISTRATIVE JUDGE**

Rockville, Maryland
February 9, 1998

Directors' Decisions Under 10 CFR 2.206

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

In the Matter of	Docket Nos.	50-245
		50-336
		50-423
		50-213
	(License Nos.	DPR-21
		DPR-65
		NPF-49
		DPR-61)

NORTHEAST UTILITIES
(Millstone Nuclear Power Station,
Units 1, 2, and 3; and
Haddam Neck Plant)

February 11, 1998

By a petition dated March 3, 1997, submitted by Albert A. Cizek (Petitioner), Petitioner requested that the licenses of the three Millstone nuclear reactors and the Haddam Neck nuclear reactor held by Northeast Utilities (NU or Licensee) be modified by placing certain conditions on the operating licenses of each of these facilities. The conditions would call for automatic and specific enforcement sanctions based upon the occurrence of certain violations or events. Petitioner alleged that the license conditions were warranted based on the Licensee's poor past performance including knowing, willful, and reckless past violations of NRC requirements.

The Director of the Office of Nuclear Reactor Regulation issued a Director's Decision on February 11, 1998, concluding that the petition contained no information of which the NRC was not already aware and denying Petitioner's request for specific enforcement-related license conditions. The Director concluded that a mechanistic enforcement approach is neither necessary nor appropriate to ensure regulatory compliance at the Millstone and Haddam Neck

facilities. Extensive efforts have been and are being taken by the Licensee to ensure that future operation of the Millstone units and the decommissioning of the Haddam Neck facility are accomplished safely. The NRC Staff has in place an extensive oversight program to ensure that the Licensee meets its objectives.

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

I. INTRODUCTION

On March 3, 1997, Ernest C. Hadley, Esq., filed with the U.S. Nuclear Regulatory Commission (NRC or Commission) a petition pursuant to section 2.206 of Title 10 of the *Code of Federal Regulations* (10 C.F.R. § 2.206), on behalf of Mr. Albert A. Cizek, hereinafter referred to as Petitioner. This submittal will hereinafter be referred to as the petition. The petition was filed with the Executive Director for Operations of the NRC. The petition was referred to the Director of the Office of Nuclear Reactor Regulation for preparation of a response.

The Petitioner requested that the NRC impose the following license conditions on the operating licenses of Millstone Nuclear Power Station, Units 1, 2, and 3, and the Haddam Neck Plant held by Northeast Utilities (NU or Licensee):

1. Within 30 calendar days of receiving a total of three license violations from the U.S. Nuclear Regulatory Commission [NRC] during any [3-year] period, irrespective of the violation level, the operating license of the facility shall be suspended for a period of not less than 90 days and not more than 180 days.
2. Within 30 calendar days of receiving a total of three violations of 10 [C.F.R.] Part 50, including all applicable appendices, from the [NRC] during any [3-year] period, irrespective of the violation level, the operating license of the facility shall be suspended for a period of not less than 90 days and not more than 180 days.
3. Within 30 calendar days of receiving a total of three violations of the UFSAR [Updated Final Safety Analysis Report] from the [NRC] during any [3-year] period, irrespective of the violation level, the operating license of the facility shall be suspended for a period of not less than 90 days and not more than 180 days.
4. Within 30 calendar days of receiving any harassment, intimidation and discrimination ("HI&D") finding by the [NRC], the U.S. Department of Labor, or any [S]tate or [F]ederal court of competent jurisdiction, the operating license of the facility shall be suspended for a period of not less than 90 days and not more than 180 days.
5. If, within [5] years of a license suspension based on paragraphs 1 through 4 above, the licensee receives a total of three license violations from the [NRC], irrespective of the violation level; receives a total of three violations of 10 [C.F.R.] Part 50, including all applicable appendices, from the [NRC], irrespective of the violation

level; receives a total of three violations of the UFSAR from the [NRC], irrespective of violation level; or receives any HI&D finding by the [NRC], the U.S. Department of Labor, or any [S]tate or [F]ederal court of competent jurisdiction, the operating license of that facility shall be permanently revoked within 90 calendar days.

6. In the event that the license of a facility is revoked pursuant to paragraph 5, no operation of that facility for the purpose of generating electric power shall be permitted during the pendency of any administrative or judicial processes or appeals related to such revocation.

7. In the event that the license of a facility is suspended or revoked under paragraphs [1] through [5], the [NRC] shall designate an appropriate licensee to maintain the facility in shutdown mode for the duration of the suspension or until such time as a new licensee is found to operate the facility. [Footnote omitted.] NU [Northeast Utilities] shall be responsible for all expenses related to the operation of the facility during such shutdown. NU shall be required to post a bond in the amount of \$500,000,000 ([5] hundred million) as reasonable assurance that it can fulfill this requirement.

The Petitioner further requested that these license conditions be imposed on the operating licenses of Millstone Units 1, 2, and 3 before Commission approval to restart any of those plants, and further requested that these license conditions be imposed on the operating license of Haddam Neck before any decommissioning of that plant.

Additionally, the Petitioner requested that public hearings on the petition be scheduled in the immediate vicinity of the Millstone and Haddam Neck reactors for the presentation of further evidence in support of the petition. The Petitioner specifically requested that these public hearings be held and that a decision on this petition be issued before restart or decommissioning of any of these units.

The Petitioner sought the above license conditions on the basis of the following contentions:

1. NU has knowingly, willingly and recklessly operated Millstone Unit 1, Unit 2, Unit 3 at Waterford, [Connecticut], and its Connecticut Yankee Nuclear Power Plant [i.e., Haddam Neck Plant] at Haddam Neck, [Connecticut], in violation of their respective operating licenses, the regulations of the NRC, and their respective UFSARs for a prolonged period of time, which unnecessarily but significantly compromised public health and safety by eroding the required defense in depth philosophy.
2. NU has knowingly, willingly and intentionally harassed, intimidated and discriminated against its employees who raise safety concerns in violation of United States statutes and NRC regulations for a prolonged period of time, which unnecessarily but significantly compromised public health and safety by eroding the required defense in depth philosophy.
3. In the absence of express license conditions, there is no reasonable assurance that NU will cease and desist from engaging in these activities in the future.

A letter acknowledging receipt of the petition was sent to the Petitioner on April 8, 1997. In that letter, the NRC Staff informed the Petitioner that the NRC Staff had decided not to hold a public hearing as requested by the Petitioner. Instead, the NRC Staff requested that the Petitioner promptly supply, in writing, any additional information relevant to the petition. In letters of April 16 and July 19, 1997, the Petitioner reiterated his request for an informal public hearing. In a letter dated August 7, 1997, the NRC Staff responded to the Petitioner's letters of April 16 and July 19, 1997, and provided its detailed basis for concluding that an informal public hearing as requested by the Petitioner was not warranted. The NRC Staff also noted that the Petitioner had a public forum to raise his concerns through the regularly scheduled public meetings held in the vicinity of the Millstone site. The Petitioner did not provide the Staff with any additional evidence in support of the petition.

II. DISCUSSION

The NRC Staff has reviewed the petition and has not found any information regarding either the Millstone or the Haddam Neck facilities of which it was not already aware prior to receipt of the petition. As discussed below, these facilities have been the subject of close NRC scrutiny for several years.

A. Millstone Facility

With regard to the Millstone units, the NRC Staff has been concerned for the last several years about the number and duration of violations at the Millstone site in the broad programmatic areas of design and licensing bases, testing, and radiological controls. Programmatic concerns in these areas, along with concerns in other areas, were major contributors to the decline in performance at the Millstone site. In the cover letter to the most recent systematic assessment of licensee performance (SALP) report of August 26, 1994, the NRC Staff stated that it had noted several performance weaknesses, common to all three Millstone units. Among these were continuing problems with procedure quality and implementation, the informality in several maintenance and engineering programs (contributing to instances of poor performance), and the failure to resolve several longstanding problems at the site. In addition to these programmatic problems, the Licensee has had significant problems in dealing with employee concerns involving safety issues at the site.

On November 4, 1995, the Licensee shut down Millstone Unit 1 for a scheduled refueling outage. The NRC sent a letter to the Licensee on December 13, 1995, requiring the Licensee, before restarting Millstone Unit 1, to inform NRC, pursuant to section 182a of the Atomic Energy Act of 1954, as amended

(the Act), and 10 C.F.R. § 50.54(f), of the actions taken to ensure that, in the future, the Licensee would operate that facility according to the terms and conditions of the unit's operating license, the Commission's regulations, and the unit's Final Safety Analysis Report (FSAR).

In January 1996, NRC designated the three Millstone units as Category 2 on the NRC's Watch List. Plants on the Watch List in this category have weaknesses that warrant increased NRC attention until the licensees demonstrate improved performance for an extended period of time.

On February 20, 1996, the Licensee shut down Millstone Unit 2 when it declared both trains of the high-pressure safety-injection (HPSI) system inoperable because of a design issue. There was a potential that the HPSI throttle valves could become plugged with debris when taking suction from the sump during the recirculation mode.

On March 30, 1996, the Licensee shut down Millstone Unit 3 after finding that containment isolation valves for the auxiliary feedwater turbine-driven pump were inoperable because the valves did not meet NRC requirements. In response to a Licensee root-cause analysis of inaccuracies in the Millstone Unit 1 FSAR, identifying the potential for similar configuration control problems at Millstone Units 2 and 3 and the existing design configuration issues identified at these units, NRC sent section 50.54(f) letters to the Licensee on March 7 and April 4, 1996. These letters required that the Licensee inform the NRC of the corrective actions taken regarding design configuration issues at Millstone Units 2 and 3 before the restart of each unit.

In June 1996, the NRC designated the three units at Millstone as Category 3 on the NRC's Watch List. Plants in this category have significant weaknesses that warrant maintaining them in a shutdown condition until the licensee can demonstrate to NRC that it has taken adequate corrective actions to ensure substantial improvement. This category also requires Commission approval before operations can be resumed.

On August 14, 1996, the NRC issued a confirmatory order directing the Licensee to contract with a third party to implement an independent corrective-action verification program (ICAVP) to confirm the adequacy of its efforts to reestablish the design basis and configuration controls for each of the three Millstone units. The ICAVP is intended to provide additional assurance, before a unit restart, that the Licensee has identified and corrected existing problems in the design and configuration control processes for that unit.

On April 16, 1997, the NRC sent another section 50.54(f) letter, which superseded the earlier section 50.54(f) letters and consolidated its requests for information and periodic updates. The following information was requested: (1) significant items that needed to be accomplished before restart; (2) items that are to be deferred until after restart; (3) NU's process and rationale for deferring items; and (4) actions to be taken by NU to ensure that future operation will be

conducted in accordance with the terms and conditions of the operating licenses, the Commission's regulations, and the FSARs. In a letter dated May 29, 1997, the Licensee submitted the initial information requested. Additional information and updates will be submitted in accordance with the time intervals specified in the section 50.54(f) letter.

During eight NRC inspections conducted between October 1995 and August 1996, more than 60 apparent violations of NRC requirements were found at the Millstone site. These apparent violations were discussed at a public predecisional enforcement conference held at the Millstone site on December 5, 1996. During the meeting, the Licensee stated that management had failed to give clear direction and oversight, performance standards were low, management expectations were weak, and station priorities were inappropriate. A notice of violation and proposed imposition of civil penalties in the amount of \$2,100,000 was issued to the Licensee on December 10, 1997. This is the largest civil penalty ever proposed by the NRC. In the enforcement action, the NRC Staff identified violations relating to inadequate engineering, inadequate corrective actions, technical specifications violations, and quality assurance violations.

Additionally, the Licensee has had a chronic problem of not dealing effectively with employee concerns at the Millstone site. On December 12, 1995, the NRC set up a review group to conduct an independent evaluation of the history of the Licensee's handling of employee concerns related to licensed activities at the Millstone facility. The review group determined that, in general, an unhealthy work environment, which did not tolerate dissenting views and did not welcome or promote questioning attitudes, has existed at the Millstone facility for the last several years. To address this problem, the NRC issued an order on October 24, 1996, directing NU to devise and implement a comprehensive plan for handling safety concerns raised by Millstone employees and to ensure an environment free from retaliation or discrimination. In addition, the order required NU to have an independent third party oversee its employee concerns program. The third party is responsible for providing periodic reports to NU and NRC detailing its findings and recommendations. The third-party findings and the NU responses to them will be assessed by the NRC Staff for any restart issues.

The conduct of NRC regulatory oversight at the Millstone site is based on the recognition that the Licensee bears primary responsibility to demonstrate that corrective actions have been effectively implemented. Thus, before the NRC Staff can recommend that the Commission approve the restart of any Millstone unit, the Licensee must determine that a unit is in conformance with applicable NRC regulations, its license conditions, and its FSAR, and that applicable licensing commitments have been met. The Licensee's conformance with NRC regulations, license conditions, and licensing commitments is fundamental to

NRC's confidence in the safety of licensed activities. In short, the Licensee has the primary responsibility for the safe operation of its facilities.

In a June 20, 1996 letter to NRC, the Licensee described its Configuration Management Plan (CMP), which is its principal program to provide reasonable assurance that weaknesses at the Millstone units have been effectively corrected. The CMP includes efforts to understand and correct the licensing and design-bases issues that led NRC to send the section 50.54(f) letters and order actions to prevent recurrence of those issues. The Licensee stated that the objective of the CMP was to document and meet the licensing and design-bases requirements of each unit and to ensure that adequate programs and processes are in place to maintain control of these requirements. The Licensee's CMP must either correct each FSAR deficiency or evaluate it to ensure that the change to the facility does not involve any unreviewed safety question or change to the facility TSs. NU has documented a large number of deficiencies, which vary in scope and safety significance for each unit. These lists contain significant deficiencies that must be corrected before restart and others that the Licensee is planning to correct after restart. In its continuing reviews of the deficiency lists, the NRC Staff will determine whether the Licensee has appropriately scheduled safety-significant items for completion before restart and whether those items that the Licensee will defer until after restart are appropriate for each unit. The results of these efforts will be documented in NRC inspection reports.

The NRC's regulatory oversight of the Licensee's corrective actions requires extensive planning and program integration. To focus more regulatory attention on all of the restart issues related to the Millstone units, NRC has established a Special Projects Office (SPO) within the Office of Nuclear Reactor Regulation to oversee these activities. The SPO has developed a comprehensive and multifaceted oversight program to verify the adequacy of NU's corrective actions, programs, and processes. The breadth and significance of the problems identified at the Millstone site require this program. The SPO has developed a Restart Assessment Plan (assessment plan) for each of the Millstone units, which includes (1) the appropriate aspects of NRC Inspection Manual, Manual Chapter (MC) 0350, "Staff Guidelines for Restart Approval"; (2) oversight of NU's ICAVP; and (3) oversight of NU's corrective actions relating to employee concerns involving safety issues. The activities associated with the assessment plan are in addition to the normal inspection and licensing activities being carried out at the Millstone site.

MC 0350 establishes the guidelines for approving the restart of a nuclear power plant after a shutdown resulting from a significant event, a complex hardware problem, or serious management deficiencies. The primary objective of the guidelines in MC 0350 is to ensure that NRC's restart review efforts are appropriate for the individual circumstances, are reviewed and approved by the

appropriate NRC management levels, and provide objective measures of restart readiness.

The assessment plan for each unit includes those issues listed in MC 0350 that the NRC Staff has identified as relevant to the shutdown of the unit. Each assessment plan also includes additional issues determined to be applicable to the specific situation. The assessment plans include all actions the NRC expects NU to take before the NRC Staff recommends to the Commission that a unit be permitted to restart. Accordingly, the Staff will use the assessment plan for each Millstone unit to track and monitor all significant actions necessary to support a decision on restart approval of the unit.

The assessment plan for each Millstone unit includes the requirement to review the NU Operational Readiness Plan, the deficiency lists associated with the assessment plan, including restart and deferred items, the corrective action program, work planning and controls, the procedures upgrade program, the nuclear oversight function (quality assurance), outstanding enforcement items, and a Significant Issues List (SIL), which includes issues identified by both NU and NRC as issues requiring resolution before restart. NRC MC 93802, "Operational Safety Team Inspection" (OSTI), provides the framework for a team inspection to be performed during the later stages of the restart process. The inspection will be structured to focus on the pertinent issues at each of the Millstone units.

Within the SPO, a Millstone Restart Assessment Panel (RAP) has been formed in accordance with MC 0350. The RAP meets to assess the Licensee's performance and its progress in completing the designated restart activities. The RAP is composed of the Director, SPO (chairman); the Deputy Directors of Licensing, Inspections, and Independent Corrective Action Verification Program Oversight; the project managers for the three Millstone units; the Inspection Branch Chief; the senior resident inspectors for the three Millstone units; and the appointed Division of Reactor Safety representative. The RAP holds periodic meetings with the Licensee to discuss the Licensee's corrective actions and schedules of each Millstone unit. Notices of the meetings with the Licensee are issued and the meetings are open to the public. Additionally, NRC holds frequent meetings with the public near the Millstone facility that include a summary of the latest meeting with the Licensee, updates on NRC activities, and questions and comments from the public.

The purpose of the ICAVP, as stated in the confirmatory order, is to confirm that the plant's physical and functional characteristics are in conformance with its licensing and design bases. The ICAVP audit required by NRC is expected to provide independent verification, beyond NU's quality assurance and management oversight, that the Licensee has identified and satisfactorily resolved existing nonconformances with the design and licensing bases; documented and utilized the licensing and design bases to resolve nonconformances; and

established programs, processes, and procedures for effective configuration management in the future. NU has started programs to identify and understand the root causes of the licensing and design-bases issues that led to NRC issuance of the section 50.54(f) letters to NU and to implement corrective actions to ensure that NU maintains the design configuration and that each unit is in conformance with its licensing basis. NU has indicated that the scope of its corrective programs will include those systems that it has categorized as either Group 1 (safety-related *and* risk-significant) or Group 2 (safety-related *or* risk-significant). The ICAVP audit must provide insights into the effectiveness of NU's programs so that the results can be reasonably extrapolated to the structures, systems, and components that were not reviewed in the audit.

The NRC Staff has developed a comprehensive and multifaceted oversight process to provide a high level of confidence that the Licensee has implemented required corrective actions and that all of the issues on the SILs have been resolved. The independent third-party evaluations required by NRC will be used to enhance NRC confidence that the Licensee's corrective action programs have been effectively implemented at each unit.

NRC activities (including oversight of the ICAVP) to ensure that effective corrective actions are being taken by the Licensee will provide additional assurance that the Licensee's corrective action programs have been effectively implemented. These activities will include in-process reviews of the ICAVP contractor's activities, reviews of the ICAVP results, and additional independent reviews of compliance with the design and licensing bases of selected systems. The State of Connecticut's Nuclear Energy Advisory Council has provided input to the NRC Staff for selecting the systems that will be reviewed by the ICAVP contractor and has been invited to observe the NRC Staff's ICAVP inspections.

When the restart review process has identified, corrected, and reviewed relevant issues regarding each Millstone unit, a restart authorization process will be initiated for that unit. Upon receipt of an NRC Staff recommendation and a briefing on any ongoing investigations, the Commission will meet to assess the recommendation and vote on whether to allow the restart of the unit. The same process will be followed for the remaining units.

It is important to note that the Licensee and NRC are continuing to identify problems at the Millstone site, as documented in inspection reports issued after this petition was filed. These findings indicate that the corrective actions required to restart the Millstone units have not yet been fully implemented. The NRC Staff will not recommend that the Commission allow the restart of a Millstone unit until the NRC Staff has determined, in accordance with the assessment plan, that the necessary corrective actions have been effectively implemented for the unit. Following any positive Commission vote for restart, the unit will remain on NRC's Watch List, in Category 2, and will continue to be subject to a high level of NRC oversight. The unit will remain as a Category 2 Watch-List plant

until the NRC determines that the Licensee's performance warrants a normal level of NRC oversight.

B. Haddam Neck Facility

The Licensee shut down the Haddam Neck facility on July 22, 1996, as required by the facility's TSs, because of concerns that service water piping for the air recirculation fans in the containment may exceed design loads during certain accident scenarios. The Licensee determined that these concerns and other hardware and programmatic problems identified before and during the forced outage should be resolved before restarting the plant. Thus, the Licensee decided to begin Refueling Outage 19 on August 17, 1996. On October 9, 1996, the owners of the Haddam Neck Plant stated that a permanent shutdown of the plant was being considered by the Board of Trustees as a result of an economic analysis of operations, expenses, and the cost of replacement power. Subsequently, all fuel assemblies were removed from the reactor and placed in the spent fuel pool.

From November 21, 1995, to November 22, 1996, NRC conducted numerous inspections at the Haddam Neck Plant to review several facets of plant performance. These inspections included a special team inspection by NRC headquarters staff focused on engineering performance; a special augmented inspection team (AIT) inspection of a reactor vessel nitrogen intrusion event in late August and early September 1996, which lowered the reactor vessel water level; a special radiation protection inspection of a significant contamination event in November 1996; an emergency preparedness inspection to observe the Licensee's response during an emergency exercise held in August 1996; and several resident inspections. Numerous violations, as well as several significant regulatory concerns, were identified during these inspections. Most of the violations were discussed at a transcribed public predecisional enforcement conference at the Millstone training building in Waterford, Connecticut, on December 4, 1996. That conference was open to the public and focused on the broader programmatic deficiencies underlying the violations that contributed to the problems at Haddam Neck. A notice of violation and proposed imposition of civil penalties in the amount of \$650,000 was issued on May 12, 1997, and was subsequently paid by the Licensee.

By letter dated December 5, 1996, the Licensee certified to the NRC, pursuant to 10 C.F.R. § 50.82(a)(1)(i) and 10 C.F.R. § 50.82(a)(1)(ii), that it had decided to permanently cease operations at the Haddam Neck Plant and had permanently removed the fuel from the reactor. The Licensee further noted that a post-shutdown decommissioning activities report (PSDAR) and a site-specific decommissioning cost estimate would be submitted in accordance with 10 C.F.R. § 50.82, "Termination of License." Therefore, the NRC's restart

process oversight described for the three Millstone units is not applicable to the Haddam Neck Plant. However, the NRC Staff has taken pertinent actions at the Haddam Neck Plant.

A confirmatory action letter (CAL) was issued to the Licensee on March 4, 1997, concerning radiological-control problems at the Haddam Neck Plant to ensure that the limited activities at the site will be conducted in a safe manner and in accordance with regulatory requirements. The CAL confirms the Licensee's commitment to not perform any radiological work, except that required to maintain the plant in a safe configuration, until the corrective actions identified in the CAL have been implemented.¹

As with the Millstone site, it is important to note that the Licensee and NRC continue to identify problems at the Haddam Neck Plant, as documented in inspection reports issued after this petition was filed. These findings indicate that the corrective actions required to be completed before conducting significant decommissioning activities have not yet been fully implemented. The NRC Staff will continue to closely monitor the Licensee's activities until the Staff has determined that the necessary corrective actions have been effectively implemented for the unit.

III. NRC RESPONSE TO REQUESTED ACTIONS

The Petitioner requested that a mechanistic enforcement approach be used at the Millstone and Haddam Neck plants to preclude recurrence of the problems.

The NRC's enforcement policy, which has been revised many times since the March 9, 1982 policy was first issued, continues to recognize that the regulation of nuclear activities does not lend itself to a mechanistic treatment. The NRC Staff's extensive experience shows that judgment and discretion must be exercised in determining the severity levels of the violations and the appropriate enforcement sanctions.

The latest Staff assessment of the NRC's enforcement policy was completed in 1997 (NUREG-1622²). This assessment also contained a discussion of a suggestion from the public³ recommending that the enforcement policy be modified to eliminate what was viewed as subjective enforcement based on performance issues. In particular, the commenter recommended that the NRC Staff consistently impose a civil penalty every time a licensee fails to meet a requirement,

¹ In a November 17, 1997 letter, the NRC Staff confirmed certain modifications of the Licensee's commitments on the conduct of radiological work at the Haddam Neck Plant. The modification allows the Licensee to remove an 8-foot section of piping associated with the reactor coolant system to allow vendors to determine the best method for eventual decontamination of the entire reactor coolant system.

² As of the date of this Director's Decision, this NUREG has not been issued. It is expected to be issued shortly.

³ September 9, 1997 letter from David A. Lochbaum of the Union of Concerned Scientists.

regardless of a licensee's performance or ability to meet requirements in other areas. The NRC Staff's assessment concluded, in part, that "the staff does not believe that the enforcement policy should be reduced to a formula for rigid application. Few cases are entirely straightforward, and the NRC must always apply judgment in determining whether to give credit for the licensee's actions." The Petitioner requested that mechanistic enforcement-related license conditions be added to the Millstone and Haddam Neck licenses. As noted above, the NRC Staff has long experience in the enforcement of its requirements. That experience shows that judgment and discretion based on the facts at hand are key elements in any enforcement decision. A fair and reasonable enforcement decision cannot be made without an understanding of the nature of the violations involved and the context in which the violations occurred. The Petitioner's approach calls for specific and severe sanctions based on unknown future events of unknown significance occurring in an unknown context. Such an approach is unreasonable and could very well be found as arbitrary and capricious and thus legally unsound. It is not an approach that the NRC Staff would apply in any case and so it would not be applied in the case of the Millstone and Haddam Neck units as requested by the Petitioner.

As noted in the Discussion section above, the NRC Staff is aware of the significant performance problems at the Licensee's facilities. These performance problems have led the NRC Staff to increase its oversight activities at these facilities. The Millstone plants will not be allowed to restart until the NRC Staff is satisfied that sufficient corrective action has taken place and until Commission approval is granted. After restart, the plants will continue to be subject to a high level of NRC oversight until the NRC determines that the Licensee's performance warrants a normal level of NRC oversight. The decommissioning of the Haddam Neck Plant will not be allowed to proceed until the NRC Staff determines that the applicable performance problems noted there have been corrected. The Licensee has also made significant management changes at each of these facilities. In the NRC Staff's judgment, the scope of actions taken by the Licensee and the NRC regarding these facilities is extensive.

Furthermore, the NRC Staff has had significant experience in overseeing licensees that have either been ordered to or have volunteered to shut down their facilities because of performance problems. For example, in NRC's Region I alone, the Pilgrim, Peach Bottom, Nine Mile Point, Calvert Cliffs, FitzPatrick, and Indian Point Unit 3 plants have been shut down while significant problems were corrected. Despite their significant problems, these plants have been able to perform corrective actions that have significantly improved the performance of these facilities. On the basis of the special circumstances involved with overseeing the restart of plants shut down for performance problems, the NRC Staff developed MC 0350 (for more detail about this document, see Discussion section). Thus, the NRC Staff has a considerable amount of experience

overseeing facilities shut down because of significant enforcement problems; the NRC Staff has seen numerous examples of licensees that have successfully improved their performance to a level acceptable for restart and continued operation; and the NRC Staff has a tested procedure in place to safely oversee the restart of such facilities.

Regarding the Haddam Neck Plant, the risks to the public from a permanently shutdown facility are significantly less than those from an operating power plant. Additionally, as noted in the preceding discussion, the NRC Staff is closely observing the Licensee's actions until confidence in the Licensee is restored.

IV. CONCLUSION

In summary, a mechanistic enforcement approach will not be applied by the NRC Staff in this matter. Such an approach is neither necessary nor appropriate to ensure regulatory compliance and safe conduct of activities at the Millstone and Haddam Neck facilities. Extensive efforts have been and are being taken by the Licensee to ensure that future operation of the Millstone units and decommissioning of the Haddam Neck Plant are accomplished safely. The NRC Staff has in place an extensive oversight program to ensure that the Licensee meets its objectives. The NRC Staff also has extensive experience with other facilities in assessing major corrective action programs providing assurance that its oversight of the Licensee's corrective action efforts will be sound and will ensure that the Commission receives a sound NRC Staff recommendation before the Commission itself determines whether restart of the Millstone units is warranted. After restart, the plants will continue to be subject to a high level of NRC oversight until the NRC determines that the Licensee's performance warrants a normal level of NRC oversight. Accordingly, the Petitioner's request for specific enforcement-related license conditions at the Millstone and Haddam Neck facilities is denied.

As provided for in 10 C.F.R. § 2.206(c), a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. This Director's Decision will constitute the final action of the Commission 25 days

after issuance unless the Commission, on its own motion, institutes review of the Decision in that time.

FOR THE NUCLEAR
REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 11th day of February 1998.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

In the Matter of

**Docket Nos. 50-282
50-306
72-10**

NORTHERN STATES POWER

COMPANY

**(Prairie Island Nuclear Generating Plant;
Prairie Island Independent Spent Fuel
Storage Installation)**

February 11, 1998

The Director of the Office of Nuclear Reactor Regulation denies a petition filed by the Prairie Island Indian Community pursuant to 10 C.F.R. § 2.206. The petition asked that the NRC: (1) find that the Licensee violated NRC regulations by using an independent spent fuel storage installation before establishing conditions for safely unloading TN-40 dry storage containers, (2) suspend the license until all significant issues concerning the unloading process have been resolved, (3) provide the Petitioners with an opportunity to participate fully in reviewing the unloading procedures for the casks, and (4) update the relevant technical specifications to incorporate mandatory unloading procedure requirements for the TN-40 dry storage containers.

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

I. INTRODUCTION

On August 26, 1997, the Prairie Island Coalition filed a petition pursuant to section 2.206 of Title 10 of the *Code of Federal Regulations* (10 C.F.R. § 2.206)

requesting that the U.S. Nuclear Regulatory Commission (NRC) take action to accomplish the following:

1. Suspend Northern States Power Company's (the Licensee's) Materials License No. SNM-2506 for cause under section 50.100 of Title 10 of the *Code of Federal Regulations* (10 C.F.R. § 50.100) until all material issues regarding the maintenance, unloading, and decommissioning processes and procedures, as described in the petition and in an earlier petition filed on May 28, 1997, by the Prairie Island Indian Community, have been adequately addressed and resolved, and until the maintenance and unloading processes and procedures in question are safely demonstrated under the scrutiny of independent third-party review of the TN-40 cask seal maintenance and unloading procedure;
2. Determine that the Licensee violated 10 C.F.R. § 72.122(f) by using a cask design that requires periodic seal maintenance and emergency seal replacement that must be performed in the plant storage pool. The Petitioner asserts that these casks cannot be placed back into the pool to perform these functions due to unresolved problems with fuel degradation during storage, flash steam, thermal shock, and the resulting potential for radiation dispersion;
3. Determine that the Licensee violated 10 C.F.R. § 72.122(h) by using a cask that must be placed into the pool for necessary maintenance and/or unloading procedures. The Petitioner asserts that such placement of the cask into the pool will prematurely degrade the fuel and pose operational safety problems with respect to its ultimate and necessary removal from dry-cask storage;
4. Determine that the Licensee violated 10 C.F.R. § 72.122(l) by loading casks and storing them before developing and preparing procedures adequate to safely unload and decommission the TN-40 casks;
5. Determine that the Licensee violated 10 C.F.R. § 72.130 by using the TN-40 cask and failing to make provisions capable of accomplishing the removal of radioactive waste and contaminated materials at the time the independent spent fuel storage installation (ISFSI) is permanently decommissioned;
6. Determine that the Licensee violated 10 C.F.R. § 72.11 by failing to provide and include complete and accurate material information regarding maintenance and unloading of TN-40 casks in the application for the Prairie Island ISFSI and in subsequent submittals regarding cask maintenance and unloading issues;
7. Determine that the Licensee violated 10 C.F.R. § 72.12 by deliberately and knowingly submitting incomplete and inaccurate material information regarding maintenance and unloading of TN-40 casks in the application for the Prairie Island ISFSI and in subsequent submittals regarding cask maintenance and unloading issues;
8. Require that the Licensee pay a substantial penalty for each cask loaded in violation of NRC regulations;
9. Administer such other sanctions for the alleged violations of NRC regulations as the NRC deems necessary and appropriate;

10. Provide Petitioner the opportunity to participate in a public review of maintenance, unloading, and decommissioning processes and procedures in question and an opportunity to comment on draft findings after investigation by the NRC;
11. Order modification of the Licensee's Technical Specifications for the Prairie Island ISFSI to ensure a demonstrated ability to in fact safely maintain, unload, and decommission TN-40 casks; and
12. Review the Licensee's processes and procedures for maintenance, unloading, and decommissioning, and if the Licensee does not possess capability to unload casks, order the Licensee to build a "hot shop" for air unloading of casks and transfer of the fuel.

The petition has been referred to me pursuant to 10 C.F.R. § 2.206. The NRC letter dated October 2, 1997, to George Crocker, on behalf of the Petitioner, acknowledged receipt of the petition and reported the NRC Staff's determination that the petition did not require immediate action to be taken by the NRC. The letter of October 2, 1997, also explained that the NRC Staff would address the requests for formal rulemaking proceedings as detailed in Items 13, 14, and 15 of the petition, in accordance with 10 C.F.R. § 2.802, "Petition for Rulemaking." A notice of receipt was published in the *Federal Register* on October 10, 1997 (62 Fed. Reg. 53,031).

On the basis of the NRC Staff's evaluation of the issues and for the reasons given below, the Petitioner's requests as detailed in Items 1 through 12 of the petition are denied.

II. BACKGROUND

On October 19, 1993, the NRC issued Materials License No. SNM-2506 to allow the Licensee to store spent nuclear fuel in TN-40 dry-storage casks, designed by Transnuclear Incorporated, at the ISFSI located at the Prairie Island Nuclear Generating Plant. The NRC issued Technical Specifications (TSs) defining operating limits, surveillance requirements, design features, and administrative controls as Appendix A to Materials License No. SNM-2506. No spent nuclear fuel was allowed to be loaded into a storage cask at Prairie Island until several preoperational license conditions were satisfied. Among the preoperational license conditions were a required training exercise (dry run) of the loading, handling, and unloading activities for the TN-40 casks and the implementation of written procedures describing the actions to be taken during operational, off-normal, and emergency conditions associated with the Prairie Island ISFSI.

A report dated April 20, 1995, submitted by the Licensee to the NRC pursuant to 10 C.F.R. § 72.82(e), gave the results of the preoperational tests that the Licensee was required to perform before loading spent fuel into a

TN-40 cask.¹ On May 12, 1995, following the completion of the Staff's reviews and inspections that found that the Licensee had satisfied the conditions of the license, the Licensee began loading spent fuel assemblies into a TN-40 cask. The Licensee subsequently placed the cask, and casks loaded since that time, onto the storage pad within the Prairie Island ISFSI.

The NRC Staff's determination that the Licensee was in compliance with applicable regulations and license conditions was the basis for the NRC Staff's decision to approve the ISFSI at Prairie Island and to allow the actual loading of TN-40 casks at that facility. The Petitioner has requested that, in light of the information in the petition, the NRC Staff reconsider its findings and suspend Materials License No. SNM-2506. The regulations cited by the Petitioner as those that establish technical requirements not being satisfied by the Licensee for the ISFSI at Prairie Island are:

- 72.122(f) Testing and maintenance of systems and components.** Systems and components that are important to safety must be designed to permit inspection, maintenance, and testing.
- 72.122(h) Confinement barriers and systems.** (1) The spent fuel cladding must be protected during storage against degradation that leads to gross ruptures or the fuel must be otherwise confined such that degradation of the fuel during storage will not pose operational safety problems with respect to its removal from storage. This may be accomplished by canning of consolidated fuel rods or unconsolidated assemblies or other means as appropriate.
- 72.122(l) Retrievability.** Storage systems must be designed to allow ready retrieval of spent fuel or high-level radioactive waste for further processing or disposal.
- 72.130 Criteria for decommissioning.** The ISFSI or MRS [monitored retrievable storage installation] must be designed for decommissioning. Provisions must be made to facilitate decontamination of structures and equipment, minimize the quantity of radioactive wastes and contaminated equipment, and facilitate the removal of radioactive wastes and contaminated materials at the time the ISFSI or MRS is permanently decommissioned.

The regulations in 10 C.F.R. Part 72 require that the design of the storage system and the procedures implemented by specific licensees support the unloading activity, whether it is being performed to allow further processing or disposal of the spent fuel, such as may be necessary to support decommissioning of the ISFSI; as part of planned maintenance activities; or as part of the response to an unplanned event or condition. The unloading of a cask, for any reason, should be performed in a manner that prevents gross rupture of the fuel

¹ On May 11, 1995, the NRC granted a schedular exemption to the provision of section 72.82(e) that requires licensees to submit the preoperational test results at least 30 days before receipt of spent fuel into the ISFSI. The basis for the exemption was the fact that the NRC Staff had reviewed cask fabrication records, observed portions of the preoperational test activities, and completed its review of the report submitted on April 20, 1995.

cladding, which could result in operational safety problems. Although unloading procedures need not contain detailed guidance on removing damaged fuel, they should contain precautions in case fuel cladding has unexpectedly degraded during storage so that additional measures can be taken to address increased radiological hazards during the unloading process.

NRC regulations, facility licenses, and NRC-approved quality assurance programs require licensees to establish and maintain a formal process for preparing and issuing procedures and changes thereto. NRC assessments of licensee procedures are generally conducted within the NRC's inspection program. The major procedures pertaining to dry-cask-storage activities at Prairie Island, including the procedure for unloading a cask, were reviewed by the NRC Staff during a special inspection conducted from January 24 through May 11, 1995, to oversee the preoperational activities discussed above. In addition to reviewing the Licensee's facility and procedures, as previously noted, the NRC inspectors observed preoperational testing that the Licensee was required to perform before loading casks with spent fuel assemblies. The inspection findings are documented in NRC Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP), dated June 30, 1995.

The NRC inspectors noted several instances in which the procedures for dry-cask-storage activities that the Licensee had in place at the beginning of the inspection, including the procedures for loading and unloading of TN-40 casks, did not ensure compliance with the requirements of the license. Although the Licensee corrected these procedural deficiencies during the course of the inspection, the Staff issued a Notice of Violation to the Licensee for failing to satisfy Criterion V of Appendix B to 10 C.F.R. Part 50, which, for activities affecting quality, requires the preparation of and adherence to procedures appropriate to the circumstances. In addition, the inspectors found weaknesses in the Licensee's initial performance in overseeing the activities of the cask vendor and in overall planning for dry-cask-storage activities. On the basis of the licensing reviews and inspection findings, documented in Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP), the NRC Staff concluded that as of May 1995, the Licensee had corrected these deficiencies and was ready to safely load, and if necessary unload, spent nuclear fuel in TN-40 casks.

In July 1995, the NRC Staff issued an action plan for dry-cask storage to manage the resolution of a variety of technical and process issues that were noted during the licensing reviews and inspections completed for the first several ISFSI facilities, including the ISFSI at Prairie Island. An item related to the loading and unloading of dry-storage casks was added to the action plan, in part to ensure that the importance of the unloading procedures was emphasized to licensees and that technical issues related to unloading problems were resolved. Addition of an item pertaining to unloading was deemed prudent because the Staff observed that some of the licensees' unloading procedures failed to consider contingencies

and assumptions related to possible fuel degradation, gas-sampling techniques, cask design issues, radiation protection requirements, and the thermal-hydraulic behavior of a cask during the process of cooling and filling it with water from the spent fuel pool.

To fulfill the goals of its dry-cask-storage action plan, the NRC Staff has emphasized the importance of unloading procedures and shared observations with licensees using or considering dry-cask storage. The Staff revised inspection procedures and licensing review guidance to specifically instruct NRC inspectors to review unloading procedures developed by licensees and to identify those issues that warrant particular attention. Application of the revised guidance ensures that recent and future reviews will address the adequacy of unloading procedures developed by licensees. To address those ISFSIs that began operation before NRC improved its guidance on review and inspection, the Staff audited or inspected those licensee programs for which the inspection record did not document whether the unloading procedures adequately addressed the major issues in the action plan. Regarding Prairie Island, the Staff reviewed the available information and determined that the assessment of the unloading procedure performed as part of the inspection documented in NRC Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP) adequately addressed the concerns in the NRC action plan, and that additional reviews or inspections therefore were not necessary.

In a petition dated June 5, 1995, Prairie Island Coalition requested that, among other things, the NRC review — and take whatever administrative actions were necessary concerning — the Licensee's plans to unload a TN-40 cask if the spent fuel pool lacked sufficient space to accommodate the spent fuel assemblies from a cask. The NRC Staff issued DD-96-21, 44 NRC 297, on November 27, 1996, denying the Petitioner's request. The denial was based, in part, on the Staff's finding that if a cask must be unloaded, it is unlikely that the need to unload it would represent a time-urgent activity and the Licensee would be able to develop and execute a plan to maintain the safe storage of the spent fuel assemblies. The NRC Staff determined that even if such an unlikely event occurred and the Licensee needed to implement corrective actions to maintain safe storage conditions, options would be available to the Licensee. These options include returning a cask to the auxiliary building, returning a cask to the spent fuel pool without actually removing the spent fuel, and removing non-fuel-bearing components from the spent fuel pool to allow the removal of fuel assemblies from a cask. *Id.*, 44 NRC at 309.

The Petitioner has incorporated by reference a petition dated May 28, 1997, filed by the Prairie Island Indian Community, which, among other things, asked the NRC to suspend Materials License No. SNM-2506 on the premise that the Licensee has failed to establish adequate procedures for safely unloading the TN-40 dry-storage containers. The Prairie Island Indian Community also requested

that an independent third-party review of the TN-40 unloading procedure be conducted, that they be given an opportunity to participate fully in the reviewing of the unloading procedure for the TN-40 cask, that the NRC hold hearings and allow them to participate fully in these and in any other procedures initiated in response to their petition, and that the TSs for the Prairie Island ISFSI be revised to incorporate mandatory unloading procedure requirements. The NRC issued DD-97-18, 46 NRC 35, on August 29, 1997, denying the requests made by the Prairie Island Indian Community. Although the Staff acknowledged the potential difficulties in retrieving fuel from dry-storage casks if significant fuel degradation has occurred, the NRC Staff concluded that licensees need not be required to incorporate specific guidance into the normal unloading procedure to address this unlikely situation. This conclusion was based on the Staff's findings that (1) the Licensee's procedure could support the normal unloading of spent fuel assemblies from TN-40 casks at Prairie Island, (2) the Licensee's unloading procedure contained the necessary measurements and precautions to detect if fuel had degraded during storage, and (3) the Licensee could reasonably be expected to develop procedures to safely unload damaged fuel assemblies in the unlikely event that fuel did degrade during storage.

III. DISCUSSION

The Petitioner requests actions by the NRC based on the contention that the unloading procedure developed by the Licensee is inadequate and, therefore, the Licensee has violated various NRC regulations related to having the ability to test and maintain systems and components, protecting the spent fuel cladding from degradation, designing storage systems to allow ready retrieval of spent fuel for further processing or disposal, and designing ISFSIs to facilitate decommissioning activities. In addition, the Petitioner alleges that the Licensee violated NRC regulations pertaining to the submittal of complete and accurate information regarding maintenance and unloading issues associated with the TN-40 cask.

Item 1. Suspend SNM-2506

On the basis of the contention that the Licensee's unloading procedure is inadequate, and, therefore, that the Licensee is in violation of NRC regulations such as 10 C.F.R. §§ 72.122 and 72.130, the Petitioner requests that Materials License No. SNM-2506 be suspended for cause, in accordance with 10 C.F.R. § 50.100, until such time as the significant issues in the unloading process

have been resolved and the unloading process has been demonstrated under the scrutiny of an independent third-party review.²

As previously stated, the NRC Staff has reviewed the Licensee's procedure for unloading a TN-40 cask at Prairie Island. The review, including verification that the Licensee's unloading procedure was revised to address deficiencies found by the NRC inspectors, is documented in NRC Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP). Reasonable confidence that the Licensee could, if necessary, safely unload a TN-40 cask is supported by the findings from the NRC inspection. The findings of subsequent evaluations performed by the NRC Staff as part of the activities associated with the dry-cask-storage action plan and the review of the petition filed by the Prairie Island Indian Community confirmed the adequacy of the Licensee's procedure for unloading a cask. The Licensee is required to maintain the adequacy of the unloading procedure through programs required by NRC regulations, facility licenses, and NRC-approved quality assurance programs. Additional bases for the Staff's findings regarding the cited regulatory requirements are discussed in the sections that follow. The NRC Staff has determined that the findings discussed in the subsequent sections of this Decision adequately address the Petitioner's claims regarding the Licensee's compliance with the regulatory requirements pertaining to retrievability of spent fuel, maintenance of ISFSI systems, and decommissioning. The Petitioner's request to suspend Materials License No. SNM-2506 is, therefore, denied.

Regarding a third-party review, the NRC Staff's concern about the quality of licensees' unloading procedures led NRC to include the issue in the dry-cask-storage action plan. The action plan served as a framework for identifying and resolving various technical and administrative issues related to the use of dry-storage casks. The previously mentioned actions taken by the NRC Staff and licensees adequately resolved the issues pertaining to cask unloading procedures. In the specific case of the unloading procedure at Prairie Island, the Licensee revised the procedure to address the problems raised by the Staff during its inspection. On the basis of the actions it has already taken, the NRC Staff does not believe that requiring additional demonstration of the procedures or review of the Licensee's procedures by an independent third party is warranted.

² The Petitioners request that Materials License No. SNM-2506 be suspended for cause in accordance with section 50.100. Provisions for the modification, revocation, or suspension of the licenses for ISFSI facilities are contained in 10 C.F.R. § 72.60. The possible reasons for suspending licenses for ISFSIs in accordance with section 72.60 are similar to the corresponding reasons for suspending licenses for production and utilization facilities in accordance with section 50.100.

Item 2. Determine That the Licensee Violated 10 C.F.R. § 72.122(f)

The Petitioner requests that the NRC determine that the Licensee violated section 72.122(f) by using a cask design that may require periodic seal maintenance or seal replacement that would necessitate returning the cask to the spent fuel pool. The Petitioner asserts that these casks cannot be placed back into the pool for the Licensee to perform these functions, due to unresolved problems with fuel degradation during storage, flash steam, thermal shock, and the resulting potential for radiation dispersion. The Petitioner states that such a condition is in violation of the requirements that systems and components that are important to safety must be designed to permit inspection, maintenance, and testing.

The fact that the TN-40 cask design uses metallic seals to maintain the helium atmosphere within the cask was thoroughly reviewed during the licensing of the Prairie Island ISFSI as well as during Staff reviews of similar casks designed by Transnuclear Inc., such as the TN-24 cask, which has been certified as an acceptable cask for use under the general licensing provisions of Subpart K of 10 C.F.R. Part 72, and the TN-32 cask, which has had an associated topical report approved by the NRC Staff for referencing in site-specific licensing applications. The seal design and related pressure-monitoring system were found to provide the necessary confidence that the inert atmosphere would be maintained and thereby prevent degradation of the fuel cladding during storage.

If it were necessary to repair or replace the metallic seals, the Licensee would use the unloading procedure or a similar procedure to control the return of a TN-40 cask to the spent fuel pool. As will be discussed in more detail in the following section, the Staff has determined that the Licensee's unloading procedure is adequate. As documented in NRC Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP), the NRC Staff did not require demonstration of seal replacement activities but did find that those activities performed during the dry-run exercises were adequate to demonstrate that such an activity could, if necessary, be accomplished. Given the Staff's finding that the Licensee's procedure for returning a cask to the spent fuel pool and subsequently unloading the fuel would not cause operational safety problems and the fact that the same procedure or a similar procedure would be used to support the repair or replacement of a TN-40 cask's metallic seals, the NRC concludes that the Licensee has not violated section 72.122(f) as alleged by the Petitioner.

Item 3. Determine That the Licensee Violated 10 C.F.R. § 72.122(h)

The Petitioner requests that the NRC determine that the Licensee violated section 72.122(h) by using a cask that must be placed into the spent fuel pool to perform necessary maintenance and unloading procedures. The Petitioner

asserts that such placement of the cask into the pool will prematurely degrade the fuel and pose operational safety problems with respect to its ultimate and necessary removal from dry-cask storage. The Petitioner states that such a condition is in violation of the requirements that spent fuel cladding either be protected against degradation that leads to gross ruptures or otherwise confined so that fuel degradation during storage will not pose operational safety problems with respect to its removal from storage.

The Staff has found that the TN-40 cask can adequately maintain the inert atmosphere within the cask to prevent fuel degradation and provides for sufficient indication of the loss of the inert atmosphere using the pressure-monitoring system. Maintaining the inert atmosphere and other design requirements established for the TN-40 casks is sufficient to protect the fuel cladding during storage. In the event that the pressure-monitoring system indicates that the helium atmosphere is not being maintained within a TN-40 cask, the TSs for the Prairie Island ISFSI require that the cask be returned to the spent fuel pool for replacing or repairing the seals.

The Petitioner asserts that the return of the cask to the spent fuel pool will prematurely degrade fuel and poses operational safety problems. In support of this assertion, the Petitioner enclosed, as Exhibit A to the petition, a letter from Dr. Gail Marcus of the NRC Staff, dated February 25, 1997, which responded to an inquiry made to the NRC Staff by Mr. George Crocker of the Prairie Island Coalition. In the letter, Dr. Marcus makes the following statements:

- (1) As part of its assessments of licensees' procedures for unloading dry storage casks, the NRC staff considers the dry-run exercises performed to verify key aspects of unloading procedures, as well as licensees' actual experience in the loading and unloading of transportation casks, loading of storage casks, handling of spent fuel assemblies under various conditions, and performing various activities associated with reactor facilities. In the absence of actual experience in unloading spent fuel from a cask following a long period of storage, a general understanding of technical capabilities and related experiences enables the NRC staff to assess the adequacy of a licensee's procedures for unloading dry storage casks.
- (2) Although the limited unloading experiences with storage casks have not involved the temperature differences between fuel and coolant that may occur if a cask was unloaded after a period of storage, engineering evaluations and experiences with transportation casks have shown that "thermal shocking" is unlikely to cause operational safety problems.
- (3) Although licensees would be able to develop means to retrieve degraded fuel assemblies from a dry storage cask, the accumulated occupational dose to perform this activity may be increased from the previously mentioned estimates. Fuel reactivity for criticality considerations could increase only under very idealistic and highly unlikely disintegration patterns in the fuel. Upon detection that fuel disintegration had occurred, special measures would be developed and implemented to assure an adequate safety margin is maintained during unloading.

The statement regarding "thermal shock" is based on the fact that the Licensee's unloading procedure contains precautions to slowly introduce water to the TN-40 cask and thereby minimize the thermal shock to the fuel assemblies. As explained in DD-97-18, 46 NRC at 44, the NRC Staff does not believe that the process of refilling a cask with water and returning it to the spent fuel pool will cause fuel degradation or operational safety problems. In DD-97-18, the Staff stated:

The Petitioners expressed concerns regarding the reaction of the cask and stored fuel assemblies to the introduction of spent fuel pool water during the execution of the unloading procedure. The unloading procedure includes the partial immersion of the TN-40 cask into the spent fuel pool, connection of hoses to the vent and drain connections, and the slow introduction of spent fuel pool water to the cask cavity and stored fuel assemblies. The procedure instructs personnel to continuously monitor the temperature and pressure instrumentation installed on the vent connection and to stop pumping water if the pressure exceeds 10 psig or the temperature exceeds 240°F. In the Staff's judgment, the cooling process imposed by these limitations on temperatures and pressures at the vent port of the cask will adequately ensure that the cooling of the cask and spent fuel is gradual and, thereby, prevent safety problems that could hypothetically result from damage to the cask or the fuel assemblies because of stresses induced by a poorly controlled addition of cooling water from the spent fuel pool.

The Petitioner also cites a letter dated April 15, 1997, from Susan Frant Shankman of the NRC Staff to Sierra Nuclear Corporation, which emphasizes that NRC regulations require that inert atmospheres be maintained within dry-storage casks in order to prevent fuel degradation during storage. The Petitioner states that the pressure-monitoring system is included in the design because the loss of helium from TN-40 casks is an anticipated event and that neither fuel degradation that may result from a loss of the helium nor the method by which the Licensee would replace a damaged seal has been addressed. As previously mentioned, the NRC Staff has found that the design of the TN-40 casks, including its combination of metallic seals and a pressure-monitoring system, is adequate to maintain a helium atmosphere within the cask. The helium atmosphere, in turn, has been found, when combined with other restrictions in the license for the Prairie Island ISFSI, to adequately protect against degradation of the spent fuel cladding.

Given its finding that (1) fuel integrity will be maintained during normal storage by the inert atmosphere and (2) the return of a cask to the spent fuel pool for unloading or seal maintenance would not result in fuel degradation that would result in operational safety problems, the NRC Staff has not identified a violation of section 72.122(h) at the Prairie Island ISFSI, as is claimed by the Petitioner.

Item 4. Determine That the Licensee Violated 10 C.F.R. § 72.122(l)

The Petitioner requests that the NRC determine that the Licensee violated section 72.122(l) by loading casks and storing them before the Licensee had developed and implemented procedures adequate to safely unload and decommission the TN-40 casks.

The Staff's basis for determining that the Licensee has not violated the requirements of 72.122(l) for the reasons cited by the Prairie Island Indian Community was discussed in DD-97-18. As discussed in DD-97-18, normal unloading procedures do not need to incorporate contingency actions for failed fuel, provided that precautions exist to check for fuel degradation before breaching the confinement boundaries of a cask. In the unlikely event that fuel degradation has occurred during storage, the Licensee would need to address the retrieval of failed fuel and implement necessary precautions related to the radioactive and fissile materials within the cask.

In support of its claim regarding potential problems in unloading a TN-40 cask, the Petitioner enclosed, as Exhibit B to the Petition, a letter from the NRC Staff that asked the Licensee questions about a proposed amendment to the operating license for the Prairie Island Nuclear Generating Plant.³ The proposed and subsequently issued amendment pertained to the TSs associated with the operability of the reactor facility's spent fuel pool special ventilation system during movement of fuel assemblies within the spent fuel pool enclosure. During its review of the proposed amendment, the NRC Staff requested that the Licensee submit additional information about the use of the ventilation system during the possible unloading of dry-storage casks. This request for additional information, dated July 10, 1997, is the letter cited by the Petitioner. In its response of July 29, 1997, to the Staff's request for additional information, the Licensee explained the relationship of the ventilation system to dry-cask activities and clarified details of the procedure for unloading a TN-40 cask. The NRC was satisfied with the Licensee's response to the questions which explained that the spent fuel pool special ventilation system is not operable during the filling and venting of a cask during the unloading procedure and

³The Petitioner also claims that an NRC memorandum dated April 16, 1997, that addressed a request from an NRC regional office for clarification of terms associated with dry-cask storage, is deficient in that it does not address possible problems that may be encountered during unloading of a dry-storage cask or all of the possible reasons for returning a dry-storage cask to the spent fuel pool. In that memorandum, the Staff stated:

The two basic reasons to return a cask to the spent fuel pool and unload the spent fuel assemblies are either to (1) retrieve the fuel assemblies for further processing or disposal or (2) respond to an event or condition that has potentially degraded the design requirements established for the cask.

The Petitioner claims that the memorandum failed to address two reasons to return a cask to the spent fuel pool: maintenance of the metallic seals and decommissioning of the ISFSI. These are, however, only specific examples of the general reasons given above to unload a cask. Seal maintenance is performed to respond to or prevent a condition that potentially degrades the design requirements associated with maintaining the inert atmosphere; decommissioning of the ISFSI would obviously require retrieving or transporting the fuel assemblies for further processing or disposal.

that cracking of spent fuel rods is not expected as a result of introducing water to the cask during the unloading procedure. Those aspects of the proposed revision to the Prairie Island TSs that potentially related to dry-cask activities were subsequently approved by the NRC Staff in Amendment No. 130 to Facility Operating License No. DPR-42 and Amendment No. 122 to Facility Operating License No. DPR-60.

In support of its claim regarding potential problems with removing fuel assemblies from TN-40 casks, the Petitioner enclosed, as Exhibits C and D to the Petition, letters from personnel at the Idaho National Engineering Laboratory (INEL) regarding problems with removing fuel canisters from a TN-24P cask during testing at INEL. The TN-24P cask is similar in design to the TN-40 cask used at Prairie Island. The problems were addressed in the rulemaking that added Transnuclear Inc.'s TN-24 cask to the list of NRC-certified casks. The subject comment on the proposed rulemaking pertaining to the TN-24 cask and the NRC Staff's response as published in the *Federal Register* (58 Fed. Reg. 51,762) are provided below:

2. *Comment.* One commenter stated that the TN-24 cask is seriously flawed. Test and operation at Idaho showed the TN-24 storage sleeves to be subject to warpage after only a few years of storage. A fuel assembly became stuck in the TN-24 cask while trying to remove it. It could not be removed and it was forced back into the cask.

Response. The NRC discussed this issue with personnel at INEL who worked on the tests of the TN-24 cask and other casks. These individuals said that a canister of consolidated fuel, not a fuel assembly, got stuck in the TN-24 cask. The canister was larger than a fuel assembly and, unlike a fuel assembly, it had many screws and nuts protruding from it. The storage sleeves in the TN-24 Basket did not warp. The individuals suspect that one of the screws or nuts got caught on an interlocking plate in the basket of the TN-24 cask. The Certificate of Compliance does not allow the storage of consolidated fuel in canisters. Additionally, the basket of the TN-24 tested at INEL is slightly different from the one which Transnuclear plans to use in its certified cask.

The license issued for the Prairie Island ISFSI also prohibits the storage of consolidated fuel assemblies and, therefore, the problems with unloading experienced during the testing at INEL are not expected to occur when the Licensee unloads its TN-40 casks.

The Petitioner asserts that additional evidence that dry-storage casks cannot be unloaded is provided by the experiences of the licensee for the ISFSI at the Palisades Nuclear Plant. As discussed in detail in NRC Inspection Report 50-255/96201(NRR) dated September 4, 1997, the NRC Staff has found that the Palisades dry-cask unloading procedure, along with supporting

operating, maintenance, radiation protection, and administrative procedures, contains adequate directions for the safe unloading of VSC-24 storage casks.⁴

Much of the argument pertaining to the inadequacy of the Licensee's unloading procedure that is presented by the Petitioner centers on the lack of an actual example of the unloading of a dry-storage cask at a commercial reactor facility. As discussed in DD-97-18, the NRC Staff's judgment that there is reasonable assurance that the TN-40 casks can be safely unloaded comes from a variety of experiences related to the use and storage of radioactive materials. Among these experiences are the dry-run exercises that were performed to verify key aspects of unloading procedures for the TN-40 cask; related research sponsored by the commercial nuclear industry, the U.S. Department of Energy, and the NRC; actual loading and unloading of transportation casks; loading of storage casks; handling of spent fuel assemblies under various conditions; and performing relevant maintenance and engineering activities associated with reactor facilities.

The NRC Staff has reviewed the information submitted by the Petitioner and has determined that the Licensee could, if necessary, unload a TN-40 cask and has not, therefore, identified a violation of section 72.122(l).

Item 5. Determine That the Licensee Violated 10 C.F.R. § 72.130

The Petitioner requests that the NRC determine that the Licensee violated section 72.130 by using the TN-40 cask and failing to make provisions to successfully accomplish the removal of radioactive waste and contaminated materials at the time the ISFSI is permanently decommissioned. The basis for this assertion is that TN-40 casks cannot be safely unloaded. As discussed in previous sections and as discussed in DD-96-21, the NRC Staff has found that spent nuclear fuel can be safely unloaded from the TN-40 casks, whether such unloading is necessary in response to an event or in support of decommissioning the ISFSI.

In order to support the decommissioning of the Prairie Island ISFSI, the Licensee may need to transfer the spent fuel stored in TN-40 casks to another cask for transfer of the fuel assemblies to another location for storage or disposal. In order to transfer the spent fuel assemblies, the Licensee will need to either return the casks to the spent fuel pool or use a yet-to-be-approved system that transfers fuel assemblies under dry conditions. In the event that the spent fuel pool is used to transfer fuel assemblies, the unloading procedure or a similar procedure would control the return of the fuel from the ISFSI to the spent

⁴The NRC Staff has also found that the subject cask can safely be used for storing spent fuel despite the Licensee's announced plans for unloading the cask after it discovered (from radiographs for a weld in a VSC-24 multiassembly sealed basket) indications of possible defects. The Licensee subsequently announced that it was deferring the unloading of the cask pending the availability of a cask that supports both storage and transport functions.

fuel pool. Given that the Staff has determined that the unloading procedure is adequate to control the unloading of fuel assemblies from a TN-40 cask to the spent fuel pool, the Staff has no reason to (1) find that its use as part of the decommissioning of the ISFSI facility raises unique questions regarding compliance with section 72.130 or (2) otherwise change the conclusion it reached during the licensing of the ISFSI at Prairie Island regarding the viability of decommissioning the facility.

Item 6. Determine That the Licensee Violated 10 C.F.R. § 72.11

The Petitioner requests that the NRC determine that the Licensee violated section 72.11 by failing to provide and include complete and accurate material information regarding maintenance and unloading of TN-40 casks in the application for the Prairie Island ISFSI and in subsequent submittals on the subject of cask maintenance and unloading. In support of this contention, the Petitioner references the letter from G. Marcus dated February 25, 1997 (Exhibit A to the Petition), which explained the NRC action plan for dry-cask storage and its item related to oversimplified descriptions of the process for unloading fuel from casks as the reverse of loading casks. In that letter to Mr. Crocker of the Prairie Island Coalition, Dr. Marcus states:

Some SARs do state that unloading is basically the reverse of loading and this statement, in a general sense, is true. However, such statements may tend to oversimplify matters because they do not reflect that the unloading process introduces different conditions and complications compared to the loading process. In the NRC action plan for dry cask storage and related statements made by the NRC staff, including those by Mr. Kugler, the staff was emphasizing that licensees need to identify the conditions and complications that are associated with the unloading process and ensure that unloading procedures address those concerns. The unloading procedure for the dry storage casks at Prairie Island was inspected by the NRC staff and, following minor revisions, was found to provide adequate guidance to control the unloading process. A copy of NRC Inspection Report 50-282/95002; 50-306/95002; 72-10/95002 is provided as Enclosure 2.

The Petitioner asserts that upon receipt of information related to unloading issues, the Licensee has not taken steps to correct its unloading problem and has refused to address these continuing problems.

As stated in DD-97-18, in response to a similar request made by the Prairie Island Indian Community, the safety analysis report (SAR) for the Prairie Island ISFSI and other docketed correspondence do state that a TN-40 cask would be unloaded using a procedure that is basically the reverse of the procedure used to load the cask. Although this statement, in a general sense, is true, the NRC Staff has expressed its concerns that such statements may oversimplify the description of the unloading activity. For this reason, the NRC Staff added an item

related to unloading procedures to its dry-cask-storage action plan to ensure that actual unloading procedures did not reflect such an oversimplified representation. Additional inspections, revised Staff guidance, and communications with the nuclear industry were conducted under the Staff's action plan related to this issue. The Staff inspected the unloading procedures at Prairie Island and found that they provided adequate guidance to control the unloading process.

The Staff's review of the information originally submitted by the Licensee shows that the information pertaining to cask unloading was complete and accurate given the Staff's expectations and the information provided by other licensees in applications submitted in the same time period. It should be noted that material submitted by the Licensee for the ISFSI at Prairie Island includes copies of the loading and unloading procedures and those procedures have been available for public review. Regarding the information given to the NRC pertaining to maintenance of the TN-40 casks, which the Petitioner also claims was incomplete and inaccurate, the NRC Staff acknowledged in its safety evaluation report that maintenance activities were discussed only briefly in the submittals supporting the ISFSI at Prairie Island. The level of information submitted, however, was generally consistent with the level of information in other applications of that same time period and was sufficient to meet the Staff's expectations for the review process. The NRC Staff has not identified a violation of section 72.11 pertaining to the information provided by the Licensee as is claimed by the Petitioner.

Item 7. Determine That the Licensee Violated 10 C.F.R. § 72.12

The Petitioner requests that the NRC determine that the Licensee violated section 72.12 by deliberately and knowingly submitting incomplete and inaccurate material information regarding maintenance and unloading of TN-40 casks in the application for the Prairie Island ISFSI and in subsequent submittals on cask maintenance and unloading issues. The Petitioner states that the Licensee has continually insisted that it can unload TN-40 casks and that the Licensee has referenced inapplicable studies to support its position.

As mentioned in the response to the preceding item, the Staff believes that the information submitted by the Licensee is consistent with the information in other applications of that same time period and was sufficient to meet the Staff's expectations for the review process. Given that the NRC Staff has found that the Licensee could, if necessary, unload a cask, the Staff does not agree that this statement when made by the Licensee was deliberately incomplete or contained inaccurate information in any material respect. The NRC Staff has not identified a violation of section 72.12 pertaining to the information provided by the Licensee as is claimed by the Petitioner.

Item 8. Require That the Licensee Pay a Substantial Penalty

The Petitioner requests that the NRC require the Licensee to pay a substantial penalty for each cask loaded in violation of NRC regulations. Given that the Staff has not identified violations of NRC regulations as alleged by the Petitioner, the Staff has no basis to issue a notice of violation and proposed civil penalty.

Item 9. Administer Other Sanctions Deemed Necessary and Appropriate

The Petitioner requests that the NRC administer such other sanctions for the alleged violations of NRC regulations as the NRC deems necessary and appropriate. Given that the Staff has not identified violations of NRC regulations as alleged by the Petitioner, there is no basis for sanctions against the Licensee.

Item 10. Provide Petitioner the Opportunity To Review Procedures

The Petitioner requests that it be given the opportunity to participate in a public review of maintenance, unloading, and decommissioning processes and procedures in question and an opportunity to comment on draft findings after investigation by the NRC.

Regarding the unloading procedure, the Licensee has provided the NRC with the unloading procedure, including Revision 2, dated November 8, 1996, for placement into the public record, and the Petitioner has been supplied with a copy of the procedure. Accordingly, the Petitioner has had the opportunity to review a recent revision of the unloading procedure and may continue to review other documents in the public domain. As previously discussed in this Decision, the NRC Staff has performed various technical reviews and inspections related to the issues raised by the Petitioner. These reviews and inspections have provided the bases of the NRC Staff's findings that the Licensee has complied with the applicable regulatory requirements. Given that no violations or previously unidentified regulatory issues have been raised by the Petitioner, the NRC Staff sees no reason to undertake additional reviews of the maintenance, unloading, and decommissioning processes and procedures or to initiate public hearings.

Regarding the Petitioner's request for an opportunity to comment on draft findings after the requested NRC "investigation," the request is rendered moot by the NRC Staff's determination that additional reviews or "investigations" are unnecessary. In addition, the NRC Staff does not, as a matter of general policy, release draft or predecisional information to its licensees or to the public for review and comment.

Item 11. Order Modification of the Licensee's ISFSI Technical Specifications

The Petitioner requests that the NRC issue an order to modify the TSs for the Prairie Island ISFSI to ensure a demonstrated ability to, in fact, safely maintain, unload, and decommission TN-40 casks.

Although the TSs for the Prairie Island ISFSI require that TN-40 casks be unloaded if certain events or conditions defined in the TSs are satisfied, the TSs do not include specific requirements for the unloading process. Likewise the TSs do not detail maintenance or decommissioning procedures or processes. The content of the TSs for the Prairie Island ISFSI is typical in this respect since neither section 72.44 nor the associated regulatory guidance documents specify that technical specifications should include special requirements for these procedures.⁵ Instead, the functional and operating limits, limiting conditions, administrative controls, and other requirements included in the TSs for the Prairie Island ISFSI are intended to maintain the cask and stored spent fuel assemblies within the limits established for safe operation during storage within the ISFSI and activities such as loading and unloading of the casks. For example, TS 2.3 limits the allowable lifting heights during movement of the cask from the ISFSI and TS 3/4.2 requires a measurement of the boron concentration of the water in the spent fuel pool before water is introduced to the cask during the unloading process.

As the Staff explained in DD-97-18, the absence of specific requirements in the TSs to control the unloading process does not diminish the importance that the NRC Staff places on this activity. Likewise, specific requirements for performing routine maintenance activities and possible activities during decommissioning, although important, are not prescribed in the TSs. The TSs do, however, contain requirements for monitoring the integrity of the metallic seals and actions to be taken in the event that the pressure-monitoring system indicates a potential loss of the inert atmosphere within the cask. The NRC Staff believes that other regulatory requirements offer an equivalent level of protection to the Petitioner's request to include specific requirements in the TSs to control the maintenance and unloading of TN-40 casks and the eventual decommissioning of the ISFSI. The administrative controls in the TSs for the Prairie Island ISFSI require that the associated procedures be prepared, reviewed, and maintained in accordance with the requirements of the Prairie Island Nuclear Generating Plant facility operating licenses and associated TSs. In addition,

⁵ Recent NRC Staff guidance pertaining to the appropriate content of technical specifications is provided in NUREG-1536, "Standard Review Plan for Dry Cask Storage Systems," published in January 1997. Similar guidance is provided by NRC Regulatory Guide 3.61, "Standard Format and Content for a Topical Safety Analysis Report for a Spent Fuel Dry Storage Cask," issued in February 1989, and NRC Regulatory Guide 3.48, "Standard Format and Content for the Safety Analysis Report for an Independent Spent Fuel Storage Installation (Dry Storage)," issued in October 1981.

under existing NRC requirements, the Licensee must adequately implement procedures to control loading, maintaining, and unloading of dry-storage casks (see 10 C.F.R. §§ 72.122, 72.150, and 72.152). For example, as indicated in the NRC inspection documented in Inspection Report 50-282/95002; 50-306/95002; 72-10/95002(DRP), and the resulting notice of violation to the Licensee, NRC's requirements in Criterion V of Appendix B to Part 50 already require the incorporation of appropriate steps and precautions into the original procedure developed to control unloading of a TN-40 cask. Thus, as demonstrated by the example, no changes to the TSs or the SAR are needed to ensure that enforceable requirements for operating controls and limits are in place to address the unloading of a cask.

Given that the unloading procedure or a similar procedure can be used during maintenance activities for the repair or replacement of seals or during the decommissioning of the Prairie Island ISFSI, no changes to the TSs or the SAR are needed to ensure that enforceable requirements for operating controls and limits are in place to address the unloading of the cask for these specific purposes.

Item 12. If Necessary, Order the Licensee To Build a Facility for Dry Transfer of Spent Fuel Assemblies

The Petitioner requests that the NRC review the Licensee's processes and procedures for maintenance, unloading, and decommissioning, and if the Licensee does not possess a capability to unload casks, order the Licensee to build a "hot shop" for air unloading of casks and transfer of the fuel. Given that the Staff has performed the level of reviews and inspections it feels are warranted and has found that the Licensee could safely unload a TN-40 cask using the spent fuel pool, it is not necessary to order the Licensee to build a facility to support the transfer of fuel assemblies under dry conditions.⁶

IV. CONCLUSION

For the reasons described above, the NRC has determined that no adequate basis exists for granting the Petitioner's request for suspension of Northern States Power Company's license for dry-cask storage of spent nuclear fuel at Prairie Island or for taking the other actions requested by the Petitioner.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 C.F.R. § 2.206(c).

⁶ However, as noted in response to Item 5, the Licensee may elect to transfer fuel assemblies under dry conditions if a dry-transfer system is developed and receives appropriate NRC approval.

As provided by this regulation, this Decision will constitute the final action of the Commission 25 days after 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 11th day of February 1998.



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