

Before the
NUCLEAR REGULATORY COMMISSION

In the Matter of

*Nuclear Regulatory Update and
Proposed Revision of Waste Confidence
Decision*

NRC-2008-0482

**COMMENTS OF THE
NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS**

The National Association of Regulatory Utility Commissioners (NARUC) respectfully submits these comments in response to the Nuclear Regulatory Commission's (NRC or Commission) October 9, 2008 "Update and Proposed Revision of *Waste Confidence Decision*" (*Notice*).¹ NARUC generally supports the revisions to Finding's 2 and 4, as discussed in more detail *infra*. NARUC also offers comments on other issues raised in the Notice.

In support of these positions, NARUC states as follows:

I. NARUC'S INTEREST

NARUC, founded in 1889, is a national organization whose members include the agencies in the fifty States, the District of Columbia, Puerto Rico, and the Virgin Islands charged with regulating the rates and conditions of service associated with the intrastate operations of electric, natural gas, water, and telephone utilities. NARUC's members ensure that electric utility services are provided at rates and conditions that are just, reasonable and nondiscriminatory.

¹ 73 Federal Register 59,551 (October 9, 2008), at: <<http://edocket.access.gpo.gov/2008/E8-23381.htm>>

Both Congress² and federal courts³ have consistently recognized NARUC as a proper entity to represent the collective interests of the State utility commissions.

The Nuclear Waste Policy Act (NWPA), 42 U.S.C. §§ 10101-10270, enacted in 1982, made the federal government responsible for safe disposal of high-level radioactive waste, including spent nuclear fuel. 42 U.S.C. § 10131(a)(4). Under the Act, utilities pay for the eventual disposal of commercial nuclear waste through the Nuclear Waste Fund (NWF), which is, in turn, passed through to ratepayers. Although utilities and their ratepayers continue to pay these charges, the Department of Energy (DOE), which manages the disposal program, has failed to meet its statutory and contractual obligation to begin waste acceptance “beginning not later than January 31, 1998.” 42 U.S.C. § 10222(a)(5)(B). Meanwhile, spent fuel accumulates at 72 locations in 35 States at sites that were never intended for long-term storage. Ratepayers ultimately bear the cost of fees paid to the federal government by utilities that provide electricity from nuclear sources. Over \$29 billion in fees and interest has been collected since 1983 to eventually pay for permanent disposal of spent nuclear fuel from commercial nuclear power plants. Ratepayers also bear the cost of on-site storage pending removal by the federal government for storage in a permanent repository.

² See 47 U.S.C. § 410(c) (1971) (Congress designated NARUC to nominate members to Federal-State Joint Boards to consider issues of concern to both State regulators and the Federal Communications Commission on universal service, separations, and other issues); See also 47 U.S.C. § 254 (1996) (describing functions of the Joint Board on Universal Service). See also *NARUC, et al. v. ICC*, 41 F.3d 721 (D.C. Cir 1994) (where the Court explains “Carriers, to get the cards, applied to [NARUC], an interstate umbrella organization that, as envisioned by Congress, played a role in drafting the regulations the ICC issued to create the “bingo card” system).

³ See *United States v. Southern Motor Carrier Rate Conference, Inc.*, 467 F. Supp. 471 (N.D. Ga. 1979), *aff’d* 672 F.2d 469 (5th Cir. 1982), *aff’d en banc on reh’g*, 702 F.2d 532 (5th Cir. 1983), *rev’d on other grounds*, 471 U.S. 48 (1985).

Because NARUC's members are charged with protecting ratepayers from excessive electricity prices, the association has an acknowledged interest in the changes proposed in this *Notice*.

II. BACKGROUND

Circumstances have changed significantly since the 1970s when the Commission was first asked to predict the future of nuclear power waste disposal. In 1977, the NRC stated that, as a matter of policy, it would not license reactors if it did not have reasonable confidence that the wastes from those reactors can and will be disposed of safely.

In 1984 and 1990, the NRC completed reviews designed to (i) assess if nuclear plant wastes can be disposed of safely, (ii) determine when offsite disposal will be available, and (iii) determine if radioactive wastes can be safely stored onsite past the expiration of facility licenses until offsite disposal is available.

The first "*Waste Confidence Decision*" published on August 31, 1984 (49 Fed. Reg. 34658), found "*reasonable assurance*" that (1) safe disposal of High Level Waste (HLW) and Spent Nuclear Fuel (SNF) in a mined geologic repository is technically feasible; (2) one or more mined geologic repositories for commercial HLW and SNF will be available by the years 2007-2009, and that sufficient repository capacity will be available within 30 years beyond the expiration of any reactor operating license to dispose of existing HLW and SNF; (3) HLW and SNF will be managed in a safe manner until sufficient repository capacity is available; (4) if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the expiration of that reactor's operating license at that reactor's spent fuel storage basin, or at either onsite or offsite independent spent fuel storage installations

(ISFSIs); and (5) safe independent onsite or offsite spent fuel storage will be made available if such storage capacity is needed.

Based on these findings, the NRC codified in 10 C.F.R. §51.23(a), that for at least 30 years beyond the expiration of reactor operating licenses, no significant environmental impacts will result from the storage of spent fuel in reactor facility storage pools or ISFSIs located at reactor or away-from-reactor sites.

This 1984 decision came two years after Congress specified, in the NWPA, that DOE develop a geologic repository and begin accepting waste in 1998 – a deadline, which the Secretary of Energy noted, in a 1983 Federal Register notice, was “realistic.” But by 1990, conditions had changed. In 1987, Congress amended the NWPA to winnow the possible sites for a repository down to one: Yucca Mountain. But the State of Nevada strenuously objected - declaring it would do all within its power to reverse that selection. The site characterization process ran into unanticipated delays. Also, even though the nuclear utilities were providing ample revenue to the NWF, Congress only appropriated a small fraction of the revenue to the repository program. There were obvious signs the 1998 deadline was in jeopardy.

The September 18, 1990 update of the *Waste Management Decision* reaffirmed and revised, in part, the five findings reached in its 1984 order. Revisions to the second and fourth findings reflected the “*revised expectations*” for the date of availability of the first repository; and clarified that the expiration of a reactor's operating license referred to the full 40 year initial license for operation, as well as any additional term of a revised license.

Four years later, in 1994, DOE published a *Notice of Inquiry* on Waste Acceptance issues confirming what many expected: the repository at Yucca Mountain would not be open until 2010 at the earliest. DOE claimed since there was no repository, it had no obligation to accept spent fuel by the 1998 deadline. The utilities immediately began planning needed infrastructure improvements - increasing capacity of cooling pools and establishing facilities to use dry cask storage. They also took DOE to court seeking compliance with their contracts (and the NWPA) – and won the right to seek damages.⁴

In 1999, the NRC reviewed waste confidence again, concluding that experience since 1990 confirmed the prior findings and a comprehensive reevaluation was not necessary. However, it said a reevaluation might be needed “*if significant and pertinent unexpected events occur, raising substantial doubt about the continuing validity of the Waste Confidence findings.*” 64 Federal Register 68005 (December 6, 1999).

This notice specifically finds that a comprehensive re-evaluation of the Waste Management Findings is NOT needed. Rather the NRC is preparing to conduct a number of proceedings on combined construction permit and operating license applications for new reactors where the issue of waste confidence may be raised. To account for developments since 1990, the Commission seeks comment on proposed revisions to the second and fourth findings in the *Waste Confidence Decision* and reaffirms the remaining findings.

⁴ Many nuclear plant owners filed claims in the Court of Claims for the Federal Circuit (COFC) seeking damages against DOE for failure to honor its statutory obligations. In 2000, the Federal Circuit held that the Government is liable for its failure to begin removing the waste by January 31, 1998. *Me. Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1343 (Fed. Cir. 2000). There are more than 60 cases now pending before the COFC to determine the nature and extent of the damages caused by DOE's statutory failure.

III. DISCUSSION

The Finding 2 revision specifying that sufficient repository capacity can reasonably be expected to be available within 50-60 years beyond the licensed operational life of any reactor is reasonable, but only if it assumes Congress appropriates sufficient funds from the NWF to complete the repository.

The *Notice* revises the 1990 Finding 2 determination that sufficient repository capacity can reasonably be expected to be available by 2025. The revision specifies such capacity can instead be expected within 50-60 years beyond the licensed operational life of any reactor – and estimates, in footnote 7, that on-site storage is safe for 100 years.

This revision is reasonable given the continued uncertainty of the pace of the repository program and the likelihood that the spent fuel can be safely stored at most present reactor storage sites for 50-60 years beyond the operating life of the reactor.

However, the discussion on Finding 2 includes an important prerequisite to the determination that a repository could be available by 2050 to 2060: the “institutional issue” of whether “funding for the new repository is likely to be available.” 73 Federal Register at 59,561. Section 302(e)(2) of NWPA provides that the Secretary of Energy may make expenditures from the Nuclear Waste Fund, subject to appropriations by the Congress. The *Notice* declares the Nuclear Waste Fund has the capacity to ensure timely development of a repository “consistent with Congressional funding constraints.”

The NRC should restate the analysis of this section to specify that having a repository by *any* date is conditional on Congress appropriating the \$21 billion in fees contributed to the Nuclear Waste Fund – along with the \$11 billion in interest – so that is fully available to expedite program requirements. This money, intended solely for development of the repository, *is only available for that purpose if and when Congress appropriates it*. To date, Congresses’ habitual cutting of the repository program budget remains a critical factor that delays the opening of the repository at Yucca Mountain.

The Waste Management Decisions revisions to Finding 2 should retain the reference to the 50-60 year time frame.

According to the Notice, an alternative approach is to revise Finding 2 without reference to any timeframe for the availability of a repository. The proposed revision to simplify 10 CFR § 51.23(a) removes the reference to a repository date although it is based on an expectation of repository availability by 2050-2060. DOE is already liable for damages based on its inability to accept waste for the last 11 years. The agency is being sued in federal court, but bears no financial responsibility for the damages that DOE officials forecast may reach \$11 billion if the repository begins waste acceptance in 2021. Taxpayers will pay for this added cost which should have been avoidable. NARUC favors the reference to availability within 50-60 years as proposed – and the inclusion of specific dates.

The Finding 4 revision specifying spent fuel can be stored for at least 60 years is reasonable.

The *Notice* provides a summary of various studies and actions taken by the Commission and the licensees that demonstrate that spent fuel can continue to be

safely stored in licensed storage facilities. The notice provides a detailed review of pertinent experience with both pool and dry cask storage. There is also a glimpse into the world of security and terrorism risk that is appropriately beyond public view. We are not in a position to know possible security threats to these locations. However, it is clear the NRC has regulations in place and maintains oversight; it is also clear licensees realize the importance of good planning and sustained vigilance to prevent hostile intrusions. We agree with the Commission that, “Today, spent fuel is better protected than ever.” But, as noted *supra*, the spent fuel will be better protected when safely stored in a central underground facility designed for permanent disposal. That is especially true at the nine sites where reactors have been shutdown and facilities and personnel only remain to manage (and protect) the spent fuel. That said, experience with cooling pool storage and dry cask storage has shown that spent fuel can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed operating life of the reactors. Therefore, we support the proposed Finding 4 revision.

DOE should move spent fuel currently stored at nine decommissioned plants to a well-designed and more secure facility so that these sites can be returned to other productive uses.

Congress has recognized the problems with continued onsite storage at decommissioned reactor storage sites. It asked DOE to develop a plan to take title to the used fuel once it is in or ready for dry storage and re-locate the material to a central interim storage facility at either another reactor site, a suitable DOE installation or at one or more of the locations where there was community interest in hosting used fuel facilities for possible future recycling operations under the Global Nuclear Energy Partnership (GNEP) program. Unfortunately, DOE’s reply

to Congress argued it lacked authority to take even this limited action and that, in any case, developing such facilities would divert resources from the repository program. The NRC should encourage DOE (and Congress) to at least take this incremental step to move the fuel to a well-designed and more secure facility so that the decommissioned sites can finally be returned to other productive uses.

The NRC should make the overall plan for spent fuel management for new reactors available to the public.

It has been reported that DOE and a number of applicants for licenses for new reactors have recently agreed upon an amendment to the standard contract for spent fuel disposal services. The details of the proposed amendments, are unavailable. However, at some point, the overall plan for spent fuel management for the new reactors should be available to the public.

A comprehensive re-evaluation of the Waste Management Decisions may be warranted to properly reflect homeland security concerns.

As noted *supra*, the 1999 NRC review of waste confidence confirmed the prior findings but also found a comprehensive re-evaluation might be needed “*if significant and pertinent unexpected events occur, raising substantial doubt about the continuing validity of the Waste Confidence findings.*” 64 Federal Register 68005 (December 6, 1999). The *Notice* indicates that since 1999, no significant event occurred that raise substantial doubt about the continuing validity of the *Waste Confidence* findings. However, the September 11, 2001 attacks on America, which highlighted the potential for terrorist attacks on critical infrastructures - including nuclear facilities, suggest a re-evaluation may be warranted. The *Notice* recites the steps this Commission has already taken to require licensees to

strengthen physical (and cyber) security of nuclear facilities - including specifically spent fuel storage facilities. But, while there was no suggestion that the 72 scattered spent fuel storage facilities are at significant risk in the January 10, 2002 *Site Recommendation for the Yucca Mountain Repository* presented by the Secretary of Energy, the document specifies that spent fuel would be “far better secured” from terrorist attack in the Yucca Mountain repository.⁵

Respectfully Submitted,

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February 3, 2009

⁵ “A repository is important to our homeland security. Spent nuclear fuel, high-level radioactive waste, and excess plutonium for which there is no complete disposal pathway without a repository are currently stored at over 131 sites in 39 States. More than 161 million Americans live within 75 miles of one or more of these sites. The facilities housing these materials were intended to do so on a temporary basis. They should be able to withstand current terrorist threats, but that may not remain the case in the future. *These materials would be far better secured in a deep underground repository at Yucca Mountain, on federal land, far from population centers, that can withstand an attack well beyond any that is reasonably conceivable.*” Department of Energy, Office of Civilian and Radioactive Waste Management; Nuclear Waste Repository Program: Yucca Mountain Site Recommendation to the President and Availability of Supporting Documents; Notice, 67 Federal Register 9049 at 9050, emphasis added, available at: <http://www.ocrwm.doe.gov/info_library/newsroom/documents/sr_fm.pdf>

Before the
NUCLEAR REGULATORY COMMISSION

In the Matter of

*Consideration of Environmental Impacts of
Temporary Storage of Spent Nuclear Fuel
After Cessation of Reactor Operation*

NRC-2008-0404

**COMMENTS OF THE
NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS**

The National Association of Regulatory Utility Commissioners (“NARUC”) respectfully submits these comments in response to the Nuclear Regulatory Commission’s (“NRC” or “Commission”) October 9, 2008 rulemaking.¹ That rulemaking proposes to revise NRC’s determination on the environmental impacts of storage of spent fuel at, or away from, reactor sites after the expiration of reactor operating licenses based upon findings reached in a related “*Waste Confidence*” decision in NRC-2008-0452. NARUC is contemporaneously filing comments that generally support the adjusted findings in that related docket.

NARUC generally supports this rulemaking’s proposed finding that “*if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts beyond the licensed life for operation . . . of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations (ISFSIs) until a disposal facility can reasonably be expected to be available.*” {emphasis added}

In support of this position, NARUC states as follows:

¹ 73 Federal Register 59,547 (October 9, 2008), at: <<http://edocket.access.gpo.gov/2008/E8-23384.htm>>

NARUC'S INTEREST

NARUC, founded in 1889, is a national organization whose members include the agencies in the fifty States, the District of Columbia, Puerto Rico, and the Virgin Islands charged with regulating the rates and conditions of service associated with the intrastate operations of electric, natural gas, water, and telephone utilities. NARUC's members ensure that electric utility services are provided at rates and conditions that are just, reasonable and nondiscriminatory. Both Congress² and federal courts³ have consistently recognized NARUC as a proper entity to represent the collective interests of the State utility commissions.

The Nuclear Waste Policy Act (NWPA), enacted in 1982, made the federal government responsible for safe disposal of high-level radioactive waste, including spent nuclear fuel. Under the Act, utilities pay for the eventual disposal of commercial nuclear waste through the Nuclear Waste Fund (NWF), which is, in turn, passed through to ratepayers. Although utilities and their ratepayers continue to pay these charges, the Department of Energy (DOE), which manages the disposal program, has failed to meet its statutory and contractual obligation to begin waste acceptance by 1998. Meanwhile, spent fuel accumulates at 72 locations in 35 States at sites that were never intended for long-term storage.

² See 47 U.S.C. § 410(c) (1971) (Congress designated NARUC to nominate members to Federal-State Joint Boards to consider issues of concern to both State regulators and the Federal Communications Commission on universal service, separations, and other issues); See also 47 U.S.C. § 254 (1996) (describing functions of the Joint Board on Universal Service). See also *NARUC, et al. v. ICC*, 41 F.3d 721 (D.C. Cir 1994) (where the Court explains "Carriers, to get the cards, applied to [NARUC], an interstate umbrella organization that, as envisioned by Congress, played a role in drafting the regulations the ICC issued to create the "bingo card" system).

³ See *United States v. Southern Motor Carrier Rate Conference, Inc.*, 467 F. Supp. 471 (N.D. Ga. 1979), *aff'd* 672 F.2d 469 (5th Cir. 1982), *aff'd en banc on reh'g*, 702 F.2d 532 (5th Cir. 1983), *rev'd on other grounds*, 471 U.S. 48 (1985).

Ratepayers ultimately bear the cost of fees paid to the federal government by utilities that provide electricity from nuclear sources. Over \$29 billion in fees and interest has been collected since 1983 to eventually pay for permanent disposal of spent nuclear fuel from commercial nuclear power plants.

Ratepayers also bear the cost of on-site storage pending removal by the federal government for storage in a permanent repository.

Because NARUC's members are charged with protecting ratepayers from excessive electricity prices, the association has an acknowledged interest in this proposed decision. This finding, while justified, indirectly facilitates DOE's continued failure to accept waste. That failure increases the overall cost to ratepayers generally for "short term" storage, as well as to U.S. taxpayers generally who will fund the costs of DOE's non-compliance.

DISCUSSION

Spent Fuel can be stored locally safely for a limited period at increased costs.

The NRC – based on accumulated experience - has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impact *for at least 30 years beyond the licensed life for operation* (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Based on the referenced accumulated experience, NARUC supports the proposed revision that *where necessary*, spent nuclear fuel can be stored safely and without significant environmental impacts beyond the licensed operation of the reactor, whether that storage is in a cooling pool or in an independent spent fuel storage installation.

DOE must remove waste as per the NWPA ASAP.

However, NARUC remains very concerned about the Department of Energy failure to fulfill its obligations under the NWPA and in the standard contracts with reactor owners (licensees) to accept the spent fuel for removal from present reactor storage sites, especially for locations where the reactors have shutdown and little remains besides the spent fuel and personnel and infrastructure to manage and protect the fuel. While we agree there is unlikely to be any significant environmental impact for the longer period of on-site storage, there *are* added security and facility costs that burden licensees because of DOE's non-compliance. Communities that adjoin plants with on-site storage continue to raise concerns over whether the spent fuel will ever be removed as they have been promised.

Respectfully Submitted,

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February 3, 2009

Rulemaking Comments

From: James Ramsay [jramsay@naruc.org]
Sent: Friday, February 06, 2009 5:20 PM
To: Rulemaking Comments
Cc: Brian O'Connell; Charles Gray
Attachments: 09 0206 Waste Confidence comments.fin.pdf; 09 0206 NARUC Local Stg of NW after Reactor shutdwn.final.pdf

The National Association of Regulatory Utility Commissioners (NARUC) respectfully submits these two separate sets of comments which respond to the Nuclear Regulatory Commission's notices:

[1] In the Matter of Consideration of Environmental Impacts of Temporary Storage of

Spent Nuclear Fuel After Cessation of Reactor Operation

NRC-2008-0404

73 Federal Register 59,547 (October 9, 2008), at:
<http://edocket.access.gpo.gov/2008/E8-23384.htm>

[2] In the Matter of Nuclear Regulatory Update and Proposed Revision of Waste Confidence Decision

NRC-2008-0482

73 Federal Register 59,551 (October 9, 2008), at:
<http://edocket.access.gpo.gov/2008/E8-23381.htm>

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Message-ID: <92E0FD5CCE879D4DB6266FD2C8BEB1A1019F155A@yellow.naruc.local>

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Thread-Index: AcmlqR1P1UUYI9+vSk2uMFI6+PICcw==

From: James Ramsay <jramsay@naruc.org>

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CC: "Brian O'Connell" <BOConnell@naruc.org>,
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