



June 13, 2017

Secretary
U.S. Nuclear Regulatory Commission,
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff

**Comments on Nuclear Regulatory Commission Draft Regulatory Basis for
Decommissioning Power Reactors**

**Jointly Submitted by Citizens Awareness Network, Nuclear Information and Resource
Service, et al**

The following are comments jointly submitted by Citizens Awareness Network (CAN) and Nuclear Information and Resource Service (NIRS), Beyond Nuclear, Public Citizen, Cape Downwinders, Hudson River Sloop Clearwater, Nuclear Energy Information Service, Vermont Citizens Action Network, and Vermont Yankee Decommissioning Alliance in response to the Draft Regulatory Guide Docket ID NRC-2015-0070 request for comments on the draft regulatory basis for proposed rulemaking regarding decommissioning of nuclear power reactors, published March, 2017. A hard copy will follow in the mail.

On March 18, 2016, our organizations and seventy-one other local, regional, and national public interest organizations jointly submitted comments responsive to NRC's request for feedback on the advanced notice of proposed rulemaking for this docket. In those comments, CAN, NIRS, et al, provided a constructive framework for addressing both demonstrated problems in the current regulations governing decommissioning, and the increased volume of decommissioning activity in the coming years.

The former set of concerns derives primarily from rule changes the NRC adopted in 1996, which eliminated a number of essential requirements and safeguards:

- NRC approval of detailed, site-specific decommissioning plans.
- Application of the National Environmental Policy Act ("NEPA") to environmental reviews of reactor decommissioning.
- The rights of the public to petition for adjudicatory hearings on decommissioning plans.

In addition, subsequent to the 1996 rule change, NRC also permitted a new class of licensees to own reactors: non-utility, "merchant" generation corporations. These entities are typically subsidiaries of large energy holding companies, incorporated as limited liability corporations ("LLCs"), with little or no other assets than a reactor itself and the associated decommissioning fund, and no guaranteed customer base or revenue sources. NRC allows dozens of these merchant reactor licensees to take credit for underfunded DTFs as a form of "prepayment," through speculative financial projections and overuse of the SAFSTOR decommissioning option.

The latter set of concerns is exacerbated by those above and driven by the closures and planned closures of at least thirteen reactors since 2013,¹ with more expected to be announced in the coming years. States, local communities, and the public have a strong interest in the timely, safe, cost-effective, and responsible decommissioning and remediation of reactor sites. In addition, the industry and the NRC face a fundamental transformation, for which NRC's existing capacity and regulatory posture are inadequate, through the inherent shift from safe reactor operations toward decommissioning, waste management, and environmental remediation.

To address these concerns, CAN, NIRS, et al, provided the following recommendations, all of which have a strong and demonstrable regulatory basis:

1. Require full and complete funding of decommissioning when reactors permanently cease operations.
2. Require licensees to submit detailed decommissioning plans, subject to NRC approval before major activities in the plan can be undertaken.
3. Restore NEPA compliance requirements, including classifying decommissioning of commercial power reactors and fuel cycle facilities as a major federal action.
4. Restore public hearing rights and democratic safeguards in decommissioning regulations.
5. Bar exemptions to the use of decommissioning funds for expenses other than radiological decommissioning; or, require licensees to provide additional funding assurance to provide for other expenses.
6. Require regular NRC inspections, oversight, and reporting on decommissioning activities.
7. Regulate the selection of decommissioning options, including DECON and SAFSTOR.
8. Codify a fourth option for decommissioning, to provide guidance on best practices.
9. Permit state oversight of decommissioning.
10. Support independent community advisory boards, ensuring access to timely and relevant information; NRC staff participation; and access to independent technical expertise.
11. Increase NRC license fees for decommissioning licensees.

Items 2-6 were previously required by NRC under previous decommissioning regulations. The 1996 rule change and subsequent rulings and amendments have stripped away well-founded and established regulations, largely under the doctrine of reducing “regulatory burden” on licensees. This rationale has proven specious, for the flexibility granted licensees has come through creating a near total lack of accountability, transparency, and democratic safeguards. NRC has thereby imposed undue regulatory burdens on communities, states, and the public, which can only be relieved through the measures we have proposed.

Items 1, 9, and 11 are clearly supported by existing statute, regulations, and practices:

- Assuring full and complete funding of decommissioning at time of reactor closure is the clear and express intent of the funding assurance regulation (10 CFR 50.75), through Prepayment, Insurance/Surety Bond, or Parent Company Guarantee. The limitation of the

¹ Six reactors have closed since 2013: Crystal River unit 3, Kewaunee, and San Onofre units 2 and 3 in 2013; Vermont Yankee, in 2014; and Fort Calhoun, in 2016. Seven other reactors are currently scheduled to close by 2025: Palisades (2018); Oyster Creek and Pilgrim (2019); Indian Point 2 and 3 (2020 and 2021, respectively); Diablo Canyon 1 and 2 (2024 and 2025).

External Sinking Fund assurance method to utility licensees is due to the high level of confidence in utilities' ability to pass through decommissioning costs to their customers, and the lack of confidence that merchant licensees would be able to make the necessary annual DTF investments.

- NRC's Agreement State Program delegates to states certain licensing and oversight functions regarding radiological materials. The vast majority of activities under decommissioning and license termination involve low-level radioactive waste (LLW) and other materials over which they are permitted oversight. License termination authority must finally rest with the NRC. State oversight of decommissioning and site remediation activities leading up to license termination would not conflict with NRC's authority, and could assist the NRC in the process.
- NRC establishes a fee schedule each year to fund 90% of the agency's budget, per the Atomic Energy Act. The decision to set widely disparate fees for decommissioning reactors is a statement of the agency's regulatory priorities and the capacity it is devoting to operating vs. decommissioning reactors. As decommissioning becomes a higher priority, it is necessary and appropriate for NRC to adjust the fee schedule accordingly. The NRC follows this rationale in other areas, as well, for instance, by charging licensees for the costs of increased inspection activities necessitated by their crossing performance thresholds in the Reactor Oversight Process: reactor owners requiring greater allocation of NRC inspection resources bear the cost, rather than reactors that are complying with regulations and performance standards.

Items 7, 8, and 10 all fall squarely within the NRC's authority to establish regulations, guidance, and procedures:

- NRC already specifies available decommissioning options in the regulations and requires licensees to indicate in the PSDAR which option or combination of options they intend to use. Specifying the terms and conditions under which licensees select decommissioning options and develop their plans will clarify expectations for how licensees balance safety, environmental, and financial considerations in decommissioning.
- In the draft regulatory basis, NRC has found that adding more detailed guidance to improve licensee planning, practices, and performance is justified.
- NRC regularly holds public meetings and provides non-safeguards information and staff to state and local oversight bodies. Providing for rules and procedures by which NRC supports the activities of state or local government decommissioning advisory boards is fully within the agency's regulatory and statutory authority.

Guidance and Public Meetings Cannot Substitute for Regulation and Hearing Rights

What is remarkable about NRC's draft regulatory basis document is what is lacking: NRC's synopsis of the changes instituted with the 1996 decommissioning rule change overlooks the substantial changes it made to hearing rights, as well as the elimination of National Environmental Policy Act ("NEPA") requirements. In fact, NRC chooses in this draft to ignore the issues central to the First Circuit Appellate Court decision in *Citizens Awareness Network v Nuclear Regulatory Commission* ("CAN v NRC"), which deemed hearing rights and NEPA as essential to decommissioning.

In pertinent part, the court determined that a 1993 NRC policy change permitting licensees to engage in reactor component removal before submission and approval of a decommissioning plan was made in violation of section 189(a) of the Atomic Energy Act:

... the policy change adopted by the Commission in 1993, relating to “minor” component dismantling, was in no sense provisional. Moreover, it undeniably supplemented the operating authority of extant licensees generally, and YAEC in particular, which might henceforth engage in major forms of component disassembly beyond the ambit of their original licenses. Prior to 1993, parties in interest reasonably could presume that YAEC was not authorized to undertake this type of CRP [component removal plan] unless it submitted to the lapidary process of preparing a final decommissioning plan and environmental assessment acceptable to the NRC, or it moved to amend its existing license.

Then, in 1993, the Commission, by ambiguous fiat, declared that some forms of “major component disassembly” henceforth were to be outside the license-amendment process, whereas more “serious” types of component removal were to remain subject to the amendment process. See 10 C.F.R. Sec. 50.59. In our view, however, the latter provision plainly confirms that the Commission had always considered component disassembly, similar to that involved in YAEC’s [Yankee Atomic Electric Company] CRP, as action beyond the ambit of the presumptive authority granted under the licenses it issued.

The Commission elevates labels over substance. It would have us determine that a “proceeding” specifically aimed at excusing a licensee from filing a petition to amend its license is not the functional equivalent of a proceeding to allow a de facto “amendment” to its license. As this construct would eviscerate the very procedural protections Congress envisioned in its enactment of section 189(a), we decline to permit the Commission to do by indirection what it is prohibited from doing directly. See 42 U.S.C. § 2239(a) (1) (A) (Commission must afford hearing “in any proceeding for the ... modification of rules and regulations dealing with the activities of licensees.”). We therefore hold that CAN was entitled to a hearing under section 189(a) in connection with the NRC decision to permit YAEC’s early CRP.²

Subsequent to the First Circuit Appellate Court’s decision, the 1996 rule change eviscerated democratic participation in decommissioning and undermined the effective, responsible and timely cleanup of nuclear reactor sites. Regardless of that decision, it is indisputable that NRC long considered regulatory approval of decommissioning plans, NEPA compliance, and public hearing rights fully within its statutory duties and regulatory authority, and that interpretation was recognized and affirmed by the Appellate Court.

Now, in the instant draft rule change docket, NRC is attempting to amend its view of decommissioning even further, declaring that, since decommissioning of nuclear reactors is

² Citizens Awareness Network, Inc., Petitioner, v. United States Nuclear Regulatory Commission, Respondent. Yankee Atomic Electric Company, Intervenor, 59 F.3d 284 (1st Cir. 1995). U.S. Court of Appeals for the First Circuit - 59 F.3d 284 (1st Cir. 1995). Heard Jan. 10, 1995. Decided July 20, 1995. (emphasis added) <http://law.justia.com/cases/federal/appellate-courts/F3/59/284/496451/>

“safer” than operation of a reactor, that the regulations governing decommissioning activities are less significant and require limited oversight. The draft regulatory basis relegates the substantial comments from states and impacted communities to future “guidance.” Guidance is not a meaningful substitute for regulation; it requires no action by either licensees or regulators. It is wholly inadequate to deal with present circumstances.

When the federal government was pressing states to accept nuclear reactor generation within their borders, a bifurcated legal process was established that set out rights and responsibilities for states and the federal government. Although NRC was responsible for “safety,” states and impacted communities had rights in terms of environmental and economic impacts, as well as decisions about whether nuclear power would benefit a state’s energy plans. This meant that states and impacted communities could seek a hearing, engage in cross examination, provide expert witnesses, and, if their concerns were rejected by an NRC Atomic Safety and Licensing Board, they could appeal this decision to the state and federal courts for redress.

This was established regulation with respect to decommissioning until its replacement in 1996. NRC eviscerated all hearing rights under its 1996 new rule. The rule change relegated the concerns of states to piecemeal appeal of license amendments and a “meeting” in which citizens could “express” their concerns. This is wholly inadequate. Permitting licensees to initiate decommissioning within 90 days of submitting a Post-Shutdown Decommissioning Activities Report (“PSDAR”) without requiring NRC approval merely codified the purported policy change the court rejected under the Atomic Energy Act. The District Court in *CAN v NRC* admonished NRC that it was essential that impacted communities have a say in “matters that vitally affect them.”

Our intent here is not to “relitigate” *CAN v NRC* or the 1996 rule change, but to demonstrate that the recommended regulatory changes *CAN*, *NIRS*, et al have proposed have a demonstrated regulatory basis, rooted in the enabling statute. As a practical matter, for states and the public to effectively participate in “matters that vitally affect them,” they must have enough relevant information to make an informed judgement that the licensee and the NRC are acting not only to protect health and safety, but that licensee and regulator meet their commitments to return the site to a cleanup standard that would permit its reuse. This requires substantial oversight and analysis of the methods employed for cleanup, as well as adequate financial resources to ensure that cleanup is not compromised by the licensee’s funding limitations.

The NRC’s 1996 rule change not only eliminated hearing rights and a democratic process for public engagement, it eviscerated the underpinnings that would allow meaningful public participation. By eliminating the NEPA requirements and reviews, NRC crippled public participation. Until then decommissioning was deemed a major federal action that would require significant oversight by both NRC and EPA. It required the submission of a substantial decommissioning plan that included commitments for cleanup and approval of this plan by NRC before decommissioning activities could commence. It required an onsite resident inspector to oversee the licensee’s implementation of the plan. The plan provided a blueprint for the Agency, as well as the public. That blueprint and its stated commitments could be questioned and appealed to an internal NRC judicial system and then to the courts if necessary.

EPA's participation was essential since there is a significant amount of chemical contamination involved in the cleanup of nuclear reactor sites. In fact some sites have not been released, or have been delayed in release, for "unrestricted use" because of chemical contamination. EPA oversight is now relegated to overworked, understaffed and underfunded state agencies without the resources or expertise required to address a highly contaminated site. Now licensees submit an insubstantial PSDAR without clear, specific commitments. The PSDAR does not require formal NRC approval. There is no resident onsite inspector. Oversight of the use of decommissioning funds, as well as analysis of what constitutes reasonable decommissioning expenditures, is minimized and opaque. There is no accountability to ratepayers through state oversight of decommissioning expenditures. NRC does not require licensees to provide detailed accounting of expenditures to the states that have authorized ratepayers to bear the costs of cleanup.

Exemptions Undermine Regulation

In its conclusions on the draft regulatory basis, NRC attempts to characterize the further deregulation of decommissioning as an enhancement of regulation:

The power reactor decommissioning rulemaking may codify certain exemptions from regulatory requirements associated with EP, physical security requirements, DTFs, and onsite and offsite insurance for decommissioning power reactors. Therefore, this rulemaking may provide a predictable and stable set of regulations for future power reactor decommissioning, so as to avoid the need for approval of exemptions, license amendments, and related licensing actions. (emphasis added)

Codifying "exemptions from regulatory requirements" to "avoid the need for approval of exemptions, license amendments, and related licensing actions" is not providing a predictable and stable set of regulations: it is, in fact, undermining the very principle of regulation.

One of the chief examples of this under the current rules is the treatment of exemption petitions by licensees for use of decommissioning funds. NRC notes that it has received a number of requests by licensees to reimburse themselves for expenses that do not qualify as decommissioning costs, such as: property taxes; legal and lobbying expenses; transferring irradiated fuel from the fuel pool to dry cask storage; and providing security for a high-level waste installation.

Decommissioning Funding Assurance

It should be noted that NRC ignores its own inadequacy in establishing realistic regulations for the adequate funding of decommissioning. NRC takes no responsibility for, nor acknowledges its own incompetence at, adequately predicting or requiring licensees to plan for the costs of decommissioning. Nuclear reactor cleanups have been plagued by underfunded decommissioning funds, because of both unrealistic cost estimates and inadequate planning.

This is due in large part to how the NRC establishes the minimum funding amount for decommissioning in 10 CFR 50.75. Since the institution of the decommissioning funding assurance rule in the 1980s, NRC has required licensees to meet a minimum funding standard based on: the type of reactor and its thermal power rating; and adjusted for labor, energy, and

waste burial costs. However, this formula has proved itself to be a significant underestimate of the actual costs of decommissioning. Licensees need not submit more accurate, site-specific decommissioning cost projections until five years before the planned closure date of the reactor, or when filing the PSDAR two years after closure. Licensees may also be required to submit site-specific cost estimates when DTFs are significantly underfunded and they opt to use the SAFSTOR period to grow the fund, but these are not true site-specific estimates: they primarily reflect the higher cost of stretching out the decommissioning process for several decades before major dismantlement and/or cleanup activities begin.

A review of biennial reports submitted by licensees reveals that these SAFSTOR decommissioning cost estimates are universally greater than the minimum funding amounts generated by NRC’s formula. According to Exelon’s March 31, 2015 decommissioning fund status report, site-specific SAFSTOR costs for reactors are 30% to 60% greater than the NRC minimum amounts, with most estimates around 50% greater. Licensees which have inadequate funds on hand to meet the NRC minimum cost are being permitted to fulfill funding assurance requirements by taking credit for the use of SAFSTOR, even though it requires hundreds of millions dollars in additional costs per reactor.

Consider the following table of costs and trust fund balances for the Braidwood and LaSalle reactors reported in 2015:

Reactor	Cost: NRC Minimum	Cost: SAFSTOR	DTF Balance
Braidwood unit 1	\$521.9 million	\$780.2 million	\$306.3 million
Braidwood unit 2	\$521.9 million	\$849.7 million	\$330.9 million
LaSalle unit 1	\$679.7 million	\$910.4 million	\$453.3 million
LaSalle unit 2	\$679.7 million	\$954.6 million	\$453.7 million
TOTAL	\$2.4 billion	\$3.5 billion	\$1.54 billion

Use of SAFSTOR entails costs on average 46% – for a total increase of \$1.1 billion – but it enables licensees to justify deferring decommissioning for 52-53 years on the basis of dodging liability for a shortfall of \$860 million dollars.

This practice has the obscene effect of normalizing the deferral of decommissioning for several decades, without providing realistic planning for site-specific decommissioning costs. For instance, if licensees take credit for SAFSTOR in order to meet the NRC minimum cost, when actual, site-specific decommissioning costs turn out to be greater, it virtually guarantees that decommissioning funds will be inadequate. The full impact of this situation may not be realized for several decades: licensees initiating decommissioning 50 years after closure, realizing higher costs than projected, and being left without sufficient funds to complete the process, potentially leaving behind contaminated sites.

NRC must hold to the clear intent of the decommissioning and funding assurance regulations, which are to ensure an adequate clean-up of reactor sites. At a minimum, NRC must:

- Modify its minimum decommissioning cost formula to be consistent with actual decommissioning costs, or simply require site-specific cost estimates.
- Require that decommissioning be fully funded at the time of closure.

- Prohibit the use of SAFSTOR to meet funding assurance requirements.
- Prohibit the use of decommissioning funds for non-decommissioning purposes.

Also significant is the fact that NRC ignored the substantial problems created by permitting “merchant reactor” operators as an alternative to utility-based licensees. With utility owned licensees, these escalating costs were born by ratepayers. As is well known, merchant reactor owners have no customer rate base to which to return when the actual costs of decommissioning exceed the resources of DTFs, since they sell their power on the open market. NRC has failed to acknowledge that the funding mechanisms established for utilities, are wholly inadequate to deal with merchant reactors. The agency has not taken any responsibility for creating this problem by permitting the creation of merchant reactor licensees.

Inadequate financial planning is a hardship to states, as well as impacted communities, which bear the brunt of this failure with sixty-year cleanup timetables and the possible abandonment of sites by LLCs reactor owners when decommissioning funds are exhausted. NRC must establish a mechanism to require merchant licensees to provide realistic financial planning for responsible and thorough cleanup, and to address the open question of ultimate parent corporation liability and the enforceability of parent company guarantees.

Sincerely,

[SIGNED ELECTRONICALLY]

[SIGNED ELECTRONICALLY]

Deb Katz
Executive Director
Citizens Awareness Network
P.O. Box 83
Shelburne Falls, MA 01370
deb@nukebusters.org

Timothy L. Judson
Executive Director
Nuclear Information and Resource Service
6930 Carroll Ave., Suite 340
Takoma Park, MD 20912
timj@nirs.org

Kevin Kamps
Radioactive Waste Watchdog
Beyond Nuclear
6930 Carroll Ave., Suite 400
Takoma Park, MD 20912
kevin@beyondnuclear.org

Diane Turco
Director
Cape Downwinders
PO Box 303
South Harwich, MA 02664
Capedownwindersinfo@gmail.com

Allison Fisher
Outreach Director, Energy Program
Public Citizen
215 Pennsylvania Avenue SE
Washington, DC 20003
afisher@citizen.org

Manna Jo Greene
Environmental Action Director
Hudson River Sloop Clearwater
724 Wolcott Ave.
Beacon, NY 12508
mannajo@clearwater.org

David A. Kraft
Director
Nuclear Energy Information Service
3411 W. Diversey #13
Chicago, IL 60647
neis@neis.org

Chris Williams
President
Vermont Citizens Action Network
P.O. Box 16
Hancock, VT 05748
cevan@sover.net

Debra Stoleroff
Vermont Yankee Decommissioning
Alliance
Plainfield, VT
debra@vtlink.net