

<b>As of:</b> 6/14/17 9:06 AM <b>Received:</b> June 13, 2017 <b>Status:</b> Pending_Post <b>Tracking No.</b> 1k1-8wxy-19v6 <b>Comments Due:</b> June 13, 2017 <b>Submission Type:</b> Web
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# PUBLIC SUBMISSION

**Docket:** NRC-2015-0070

Regulatory Improvements for Power Reactors Transitioning to Decommissioning

**Comment On:** NRC-2015-0070-0178

Regulatory Improvements for Power Reactors Transitioning to Decommissioning; Request for Comment on Draft Regulatory Basis

**Document:** NRC-2015-0070-DRAFT-0223

Comment on FR Doc # 2017-05141

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## General Comment

The State of New York offers comments in the attached file.

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## Attachments

NYS Decommissioning Regulatory Basis comments (6-13-17)



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June 13, 2017

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Washington, DC 20555-0001

ATTN: Rulemakings and Adjudications Staff  
Docket ID NRC-2015-0070

Subject: Draft Regulatory Basis for Decommissioning Rule

On March 15, 2017, the U.S. Nuclear Regulatory Commission published for comment a draft Regulatory Basis for Regulatory Improvements for Decommissioning Power Reactors (Federal Register 82 FR 13778).

New York State offers the enclosed comments, prepared by the New York State Department of Public Service, on the draft Regulatory Basis. The comments include significant reference to New York State's March 18, 2016 comments on the Advanced Notice of Public Rulemaking which were prepared by the New York State Energy Research and Development Authority and the New York State Departments of Health, Public Service, State, and Environmental Conservation. If you have any questions, you may contact me at (518) 862-1090 x3274 or [alyse.peterson@nyserda.ny.gov](mailto:alyse.peterson@nyserda.ny.gov).

Sincerely,

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of:

Proposed Regulatory Improvements for  
Decommissioning Power Reactors

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RIN 3150-AJ59  
NRC-2015-0070

**COMMENTS OF THE STATE OF NEW YORK**

Submitted: June 13, 2017

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All citations and references mentioned in this document are hereby incorporated by reference. Should NRC Staff be unable to obtain any such citations or references, they are requested to contact the New York State Department of Public Service for assistance.

The State of New York, by its Energy Research and Development Authority and Department of Public Service, submits the following comments in response to the Nuclear Regulatory Commission (NRC) draft regulatory basis regarding regulatory improvements for decommissioning power reactors<sup>1</sup> and the associated preliminary draft regulatory analysis and request for comments.<sup>2</sup>

The State of New York is host to a number of facilities that are scheduled to terminate operations in the next 5-20 years. Public safety is paramount to the State, as is the robust funding and protection of the Decommissioning Trust Fund for each of these facilities against non-decommissioning uses or bankruptcy. Equally important to the State is the prompt and comprehensive decommissioning of such sites so that they may be released for reuse. Furthermore, the State cannot support any lessening of safety or emergency preparedness requirements as long as any risk of accident or unanticipated release remains.

After reviewing the draft regulatory basis and preliminary draft regulatory analysis, the State finds that NRC Staff has omitted many options that need to be included in the rulemaking. Instead, these vital issues, discussed further below, are swept aside to be addressed through NRC regulatory guidance, which is not binding on nuclear licensees. In contrast, the decommissioning topics most important to the industry are provided the opposite treatment by NRC Staff, and are all identified as areas to be developed into the decommissioning rulemaking.

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<sup>1</sup> 82 Fed. Reg. 13778-01 (Mar. 15, 2017).

<sup>2</sup> 82 Fed. Reg. 21481-01 (May 9, 2017).

## **I. The State of New York reasserts its March 2016 Comments and requests that NRC Staff and Commissioners address and incorporate the States' suggestions into NRC's regulations.**

As an initial matter, New York specifically incorporates and reasserts all of its March 18, 2016 comments<sup>3</sup> made in response to the NRC's Advance Notice of Proposed Rulemaking. Those comments raise many points that NRC Staff should have incorporated into the draft regulatory basis and preliminary draft regulatory analysis.

New York also refers to and hereby incorporates the March 18, 2016 comments submitted by the State of Vermont and others.<sup>4</sup>

## **II. Questions Related to the Regulatory Approach for Decommissioning Power Reactor Licensees**

Decommissioning – the actual demolition and removal of radioactive waste and rubble – takes approximately 10 years. NRC should require prompt decommissioning for reactor sites in New York and elsewhere.

The NRC has sought feedback on the three existing options for decommissioning – DECON, SAFSTOR, and ENTOMB. When the federal government issued the initial permits and licenses for power reactors it did not inform New York and the host communities that the reactor sites would be unusable for other activities for 60 years after power generation activities stopped. The State submits that ENTOMB and SAFSTOR are inconsistent with the prompt return of sites to productive private or public uses and, thus, are not an option that New York can support. As between DECON and SAFSTOR, the State expresses a clear preference for the use of DECON and prompt decommissioning.

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<sup>3</sup> New York State Comments on NRC Advance Notice of Proposed Rulemaking “Regulatory Improvements for Decommissioning Power Reactors” (March 18, 2016) ML16081A495.

<sup>4</sup> The March 18, 2016 Multi-State Comments are also available at ADAMS Accession No. ML16085A310.

To the State’s knowledge, ENTOMB has never been employed at a power reactor site in the United States since NRC promulgated its decommissioning regulations. With regard to SAFSTOR, the Indian Point Unit 1 facility has been in a so-called SAFSTOR category since it ceased generating electricity in 1974. Since then, IP1’s owners have not taken any decommissioning activities, but the facility has released strontium and other radionuclides into the soil and ground water under the facility during this “extended period of inactivity” acquiesced to by NRC.

The State expresses concern that under the current regulatory scheme, NRC has abdicated regulatory authority and allowed licensees to decide on their own how they would like to approach decommissioning while maximizing their current revenues and delaying site decontamination for 60 years. As a result, NRC Staff and Commissioners has allowed various licensees to be without funding to achieve the DECON option in the short term – 10 years after cessation of electricity generation. The State requests that this rulemaking proceeding eliminate the ENTOMB and SAFSTOR pathways for decommissioning, and recognize DECON as the best option that protects the State’s sovereign interests as well as those of local communities.

Completing radiological decommissioning within 10 years of the cessation of electricity generation operations is not only feasible, it has occurred at several reactor sites. The following United States reactor sites have been promptly decommissioned:

PLANT	STATE
Big Rock Point	Michigan
Fort Saint Vrain	Colorado
Connecticut Yankee/Haddam Neck	Connecticut
Maine Yankee	Maine
Pathfinder	South Dakota
Rancho Seco	California
Saxton	Pennsylvania
Trojan	Oregon
Yankee Rowe	Massachusetts

Indeed, active decommissioning of a nuclear power plant takes about 10 years on average. NUREG 1350, *Information Digest 2016-2017*, Volume 28 at 73.

On behalf of its citizens and communities as well as trustee of its natural resources, the State of New York hereby requests that NRC Staff and Commissioners take action in this rulemaking proceeding to unconditionally ensure sufficient funds are accumulated during the power reactor's operating phase to allow for prompt and comprehensive radiological and non-radiological decommissioning and site restoration immediately following the end of electricity generation – as was originally planned.

**III. NRC Staff should keep in place current regulations limiting trust fund disbursements to actual decommissioning expenses, and mandate additional financial assurances—and early site investigation and characterization—to avoid potential funding shortfalls.**

The NRC's current regulations appropriately limit the use of decommissioning trust funds to legitimate decommissioning expenses. Previous comments filed in this rulemaking proceeding filed by New York and other States explain why this regulatory requirement should remain in place. Those Comments also explain the myriad of reasons that *additional* regulation is needed to provide meaningful financial assurance that merchant generators will have sufficient funds to promptly decommission nuclear power plants. Among other things, NRC's current decommissioning regulations do not permit decommissioning trust funds to be used for spent fuel management. Appendix F of the draft regulatory basis, however, states that NRC Staff supports regulatory changes that move in the wrong direction. Those changes, if incorporated into regulation, would significantly

increase the chances that host States and communities will be left with radiologically contaminated, partially decommissioned sites within their borders.

New York submits that it is inappropriate for one federal agency (the NRC) to promulgate new regulations to essentially accommodate the ongoing contractual breach of another federal agency (the Department of Energy, which has yet to remove spent nuclear waste fuel from reactor sites). The Nuclear Decommissioning Trust Funds and the Master Trust were not created as, and may not be used for, an alternative “bank” for federal agencies and licensees to address spent fuel management issues. Instead of using dedicated decommissioning trust funds, which were established to benefit host States, the NRC, DOE, and licensees should use the federal government’s Judgement Fund for payment of valid Federal Court of Claims judgments against the United States for purposes of spent fuel management. NRC’s proposal to open up the Nuclear Decommissioning Trust Funds and the Master Trust eviscerates State sovereign interests and allows private corporations to withdraw hundreds of millions of dollars from funds that were collected from ratepayers for an entirely different purpose.

For many of the same reasons that NRC Staff should require site-specific cost estimates at licensing and during operations (which would increase financial assurance), NRC Staff should *not* go forward with any of its other proposals (all of which decrease financial assurance). NRC Staff recognizes, as it must, that because many nuclear power plants are now owned by merchant generators, they are at risk of “insolvency.”<sup>5</sup> NRC Staff thus also recognizes that shortfalls in decommissioning funding “could create challenges to public health or safety or result in the potential for significant underfunding of decommissioning obligations.”<sup>6</sup>

This is precisely what the Atomic Energy Act empowers the NRC to protect against. Yet, NRC Staff instead seeks to decrease financial assurance (and thus increase the risk to public health, safety, and the

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<sup>5</sup> NRC Preliminary Draft Regulatory Analysis at 116

<sup>6</sup> *Id.*

environment) by explicitly allowing licensees to use hundreds of millions of dollars in *decommissioning* trust funds for the non-decommissioning expense of spent fuel management. NRC Staff should not make this regulatory change.

Given that NRC is undertaking a review of its decommissioning regulations, it should also objectively examine whether or not the Nuclear Decommissioning Trust Funds are subject to the jurisdiction of a federal court in a bankruptcy context. In the aftermath of the recent recession, certain automobile manufacturers declared bankruptcy and – through the bankruptcy court process – sought to eliminate various financial responsibilities for remediation of various contaminated and industrial sites in New York. As part of this rulemaking proceeding, NRC should squarely identify and objectively address this important issue. NRC Staff and Commissioners must explain all consequences of a limited liability corporation “merchant” licensee going bankrupt, and how the NRC, as the responsible federal agency, will address such a bankruptcy, protect Nuclear Decommissioning Trust Funds in a bankruptcy proceeding, replenish and fund any shortfall in an associated Nuclear Decommissioning Trust Funds and Master Trust Agreement, and ensure the prompt and thorough decommissioning of a power reactor/spent fuel pool/dry cask storage site belonging to a bankrupt entity.

#### **IV. NRC Regulations should require licensees to maintain critical emergency evacuation and planning protocols and design basis threat and training obligations until all spent fuel is removed from all spent fuel pools at multi-unit sites.**

New York requests that NRC Staff change the rulemaking options it is considering regarding Emergency Preparedness in Appendix A of the draft regulatory basis. NRC should not allow licensees to abandon critical emergency protocols when spent nuclear fuel is still stored onsite in a spent fuel pool. In particular, until all fuel has been removed from spent fuel pools, NRC should require licensees to maintain emergency planning and evacuation protocols.

Past federal studies such as NUREG-1738 have demonstrated that, so long as spent fuel remains in a spent fuel pool, a zirconium fire is possible and its consequences “could be serious.”<sup>7</sup> According to NUREG/CR-6451, the high estimate for an accident involving a spent fuel pool at a closed boiling water reactor nuclear power plant is that it could lead to an economic cost of \$546 billion, over 100 immediate fatalities, 138,000 latent fatalities, and 2,170 square miles of condemned land.<sup>8</sup> The 2013 Consequence Study also found that spent fuel pool accidents could have enormous economic and health impacts, with an average area of 9,400 square miles rendered uninhabitable and 4.1 million people being displaced over the long-term.<sup>9</sup> A recent report by the National Academy of Science and recent scholarly articles further confirm the potential risks.<sup>10</sup>

Turning to security issues, NRC Staff recognizes that one of the studies it is relying upon, NUREG-1738, “did not evaluate the potential consequences of a sabotage event that could directly cause offsite fission production (e.g., vehicle bomb damaging the [spent fuel pool]).”<sup>11</sup> Given that the potential consequences of hostile actions against a spent fuel pool have not been fully evaluated, it is crucial that licensees maintain maximum protections against hostile actions for as long as spent fuel remains in a spent fuel pool.

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<sup>7</sup> Draft Regulatory Basis at A-6. *See also* NUREG-1738, *Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants* (Jan. 2001) ML010430066; SECY-01-0100, *Policy Issues Related to Safeguards, Insurance, and Emergency Preparedness Regulations at Decommissioning Nuclear Power Plants Storing Fuel in Spent Fuel Pools* (August 2001) ML011450420.

<sup>8</sup> Travis et al., *A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants*, NUREG/CR-6451, at 4-3 (1997) ML082260098.

<sup>9</sup> *Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor*, at 162, 232 (Oct. 2013) ML13256A342.

<sup>10</sup> *See, e.g., Reducing the Danger from Fires in Spent Fuel Pools*, Science & Global Security, Vol. 24, No. 3, 141-173 (2016).

<sup>11</sup> Draft Regulatory Basis at A-16.

**V. Post-Shutdown Decommissioning Activities Reports (PSDARs) should be subject to NRC and Host State approval.**

Right now, no regulatory action is required by the NRC or host States after receiving the PSDAR from the licensee. Through this non-action, NRC defers to the nuclear licensee's unilateral choice as to which decommissioning pathway and timeline will occur at a site. New York State strongly opposes this passive approach and practice. The State urges the NRC not only to require NRC Staff and host State approval of these critical decommissioning documents, but also to require nuclear licensees to perform and include a thorough site-specific characterization of each site in the PSDAR submittal.

In Appendix H of its Regulatory Basis, the NRC analyzes four options in evaluating the future role for itself and stakeholders in the PSDAR process:

- (1) No action. "The no-action option would retain the current decommissioning regulations regarding NRC review of the PSDAR before commencing major decommissioning activities, the level of detail contained in the PSDAR, the submission of an amendment to the PSDAR under certain circumstances, and NRC review without approval of the PSDAR." Appendix H, p. H-6.
- (2) Guidance Development/Enhancement. Through this option, "NRC staff could address the concerns identified by stakeholders regarding the level of detail and review process for the PSDAR without the need for formal rulemaking." *Id.* at H-7.
- (3) Rulemaking for Specific Issues. "In this option, the NRC staff would pursue rulemaking in one or more specific areas related to the review of the PSDAR. Supplemental requirements could include provisions for (1) specific State involvement in the PSDAR review process, (2) required periodic updates to the PSDAR (e.g., every five years), and/or (3) the licensee to conduct a comprehensive environmental review as part of the PSDAR process." *Id.* at H-9.

(4) Rulemaking to Require PSDAR Review and Approval. “In this option, the NRC would pursue rulemaking to require NRC review and approval of the PSDAR, as was required before the 1996 decommissioning rule. Specifically, these additional regulations would require that the PSDAR be submitted as a license amendment request, which would include an opportunity for impacted stakeholders to request a hearing on the PSDAR, as well as a formal review and approval of the PSDAR and full environmental review by the NRC.” *Id.* at H-11-12.

Although NRC has outlined these potential paths forward, the State submits that the NRC did not evaluate each through the proper lens: the NRC’s evaluation of each option weighed the administrative burden of each option on NRC staff and the licensee. For example, will it require the NRC staff to promulgate new rule language? Will decommissioning licensees have to expend additional time and effort to provide an additional level of feedback? Nowhere in Appendix H does the NRC evaluate the benefit to host States and other stakeholders from each approach.

Because the other options present administrative (i.e., paperwork) burdens on NRC staff and licensees, the NRC rejects options that would provide host States and other stakeholders with a more formal role in the decommissioning process, opting for Option 2, offering guidance as to the bounds of stakeholder engagement. The Draft Regulatory Basis states that “there appears to be no additional public health or safety improvements to be gained by further regulatory changes in this area.” This is simply not the case as to communities which will host these aging facilities for, in some cases, decades longer than they would under other decommissioning scenarios, impacting tax rolls, the local job base, property values, and other considerations of import to local jurisdictions and host States.

NRC Staff’s conclusion that “not all communities have the same level of desire to be involved in the decommissioning process, and imposing new requirements in this area could have a detrimental impact on resources for those groups potentially mandated to participate in the PSDAR review process,” Appendix H at H-10, does not provide a viable reason

to reject this path for all States. For this reason, the State of New York asserts that a modified version of either Option 3 or 4, one that requires NRC action, as well State action (be it approval, disapproval, or no action), on the PSDAR is the appropriate course. The State submits that any additional administrative burden will be far outweighed by meaningful stakeholder input into the future of a decommissioning site.

This position is supported by public input on the Advanced Notice of Proposed Rulemaking, which, as summarized in the Regulatory Basis document itself, found that

“In general, citizen advocacy groups and private citizens:

- ... were supportive of an increased role of the State and local governments and public groups in the decommissioning process, and many of these stakeholders advocated that the NRC require the formation of a community advisory panel to enhance the opportunity for public involvement in the decommissioning process.”
- ...were generally against SAFSTOR, and expressed a desire for licensees to enter DECON as soon as possible.”
- ...generally supported increased oversight on and additional funding of the DTFs.”
- ...requested that the NRC require approval of the PSDAR.<sup>12</sup>

With the requirement that the PSDAR be evaluated and approved by NRC and a host State, the licensee, NRC, States, and local communities will stand informed and aware of the process and activities that will occur during decommissioning. The pre-approval should pre-empt any future discrepancies between the NRC, host States, the licensees, and stakeholders which could result in excessive delays and additional costs.

## **VI. The “Backfit Rule” does not apply to decommissioning plants.**

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<sup>12</sup> NRC Preliminary Draft Regulatory Analysis at 42.

In Appendix I of the draft regulatory basis, NRC Staff discusses the Backfit Rule, which requires additional justification before requiring licensees to invest in new equipment related to the “design, construct[ion] or operat[ion of] a facility.”<sup>13</sup> NRC Staff concedes that the Statements of Considerations “for the 1970, 1985, and 1988 final Backfit Rules did not discuss any aspect of decommissioning, focusing instead on construction and operation.”<sup>14</sup> Moreover, by its terms, 10 C.F.R. § 50.109 does not apply to the decommissioning and decontamination of a reactor site — activities that take place after the reactor has ceased operation and that are directed at restoring a site for unrestricted use within the host community. Nevertheless, NRC Staff claims that it would “clarify the regulatory language” if the rule is revised to explicitly apply to decommissioning.<sup>15</sup> Contrary to Staff’s after-the-fact effort, the rule is clear: the Backfit Rule does not apply to the dismantling of a facility or decommissioning financial assurance. Thus, there is no reason to “clarify” the regulatory language.

## **VII. The National Environmental Policy Act requires NRC prepare an Environmental Impact Statement to accompany this rulemaking.**

The National Environmental Policy Act (NEPA) requires an Environmental Impact Statement to accompany a rulemaking of this magnitude. This rulemaking proceeding and the promulgation and amendment of decommissioning regulations constitute a major federal action that will affect the environment.

Moreover, given the many unique aspects of the Indian Point site, NRC’s Environmental Impact Statement for this rulemaking must examine the impacts to, and the potential alternatives for, the environment in and around the Indian Point site. Among other things, the Indian Point site has the highest surrounding population of any power reactor site in the nation, is close to drinking water reservoirs that are part of the New York City drinking water system, and is

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<sup>13</sup> 10 C.F.R. § 50.109.

<sup>14</sup> Draft Regulatory Basis at I-1.

<sup>15</sup> *Id.* at I-3.

located in the midst of valuable and unique infrastructure, real estate, and historical sites. To the State's knowledge, NRC has never performed a site specific analysis of a severe accident at one or both of the Indian Point spent fuel pools.

### **Conclusion**

The State of New York requests that NRC incorporate the State's requests and comments in this rulemaking proceeding and proposed regulations. In addition, NRC Staff and Commissioners should review the 2016 comments submitted by New York and other host States and incorporate those comments into NRC's decommissioning regulations.

Respectfully submitted,

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June 13, 2017