

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50 and 52

[Docket No. PRM-50-117; NRC-2019-0063]

Criteria to Return Retired Nuclear Power Reactors to Operations

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; denial.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking (PRM), dated December 26, 2018, submitted by George Berka (petitioner). The petition was docketed by the NRC on February 19, 2019, and was assigned Docket No. PRM-50-117. The petitioner requested that the NRC allow the owner or operator of a nuclear power reactor ~~an~~ fair, reasonable, and unobstructed opportunity to return a retired facility to full operational status, even if the operating license for the facility had previously been surrendered. The NRC is denying the petition because the issue does not involve a significant safety or security concern and the existing regulatory framework may be used ~~on a case-by-case basis~~ to address the issue raised by the petitioner. In addition, the nuclear industry has not expressed a strong interest in returning retired plants to operational status and proceeding with rulemaking to develop a new regulatory framework that may not be used is not a prudent use of resources. ~~nuclear industry representatives have expressed minimal interest in the development of a new regulatory process for reauthorizing operation, such that the benefits of the requested rulemaking would be highly unlikely to outweigh the costs.~~

DATES: The docket for the petition for rulemaking PRM-50-117 is closed on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID NRC-2019-0063 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2019-0063. Address questions about NRC dockets to Dawn Forder; telephone: 301-415-3407; email: Dawn.Forder@nrc.gov. For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **Attention:** The [Public Document Room \(PDR\)](#), where you may examine and order copies of public documents is currently closed. You may submit your request to the PDR via e-mail at pdr.resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Nicole Fields, Office of Nuclear Material Safety and Safeguards, telephone: 630-829-9570; email: Nicole.Fields@nrc.gov; U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

TABLE OF CONTENTS:

- I. The Petition
- II. Public Comments on the Petition
- III. Public Meeting on the Petition and Other Topics
- IV. Reasons for Denial
- V. Availability of Documents
- VI. Conclusion

I. The Petition

Section 2.802 of title 10 of the *Code of Federal Regulations* (10 CFR), “Petition for rulemaking—requirements for filing,” provides an opportunity for any interested person to petition the Commission to issue, amend, or rescind any regulation. On December 26, 2018, the NRC received a petition for rulemaking (PRM) from George Berka (petitioner). The petitioner requested that the NRC revise 10 CFR part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” to establish criteria that would allow retired nuclear power reactors return to operation after their licenses no longer authorize operation. This circumstance could occur either after the NRC has docketed a licensee’s certifications that it has permanently ceased operations and permanently removed fuel from the reactor vessel or when a final legally effective order to permanently cease operations has come into effect.

The petitioner requested “a fair, reasonable, and unobstructed opportunity to return a retired facility to full operational status, even if the operating license for the

facility had previously been surrendered.” The petitioner requested that facilities “only have to meet the safety standards that had been in place at the time the facility had last operated, and not the latest standards.” Specifically, the petitioner requested that a nuclear power reactor be allowed to return to operational status, if “the facility had been in an operational condition at the time of retirement, had last operated no more than twenty-one (21) calendar years prior to the retirement date,” the facility “remains intact,” and the facility passes a “general safety inspection.” Alternatively, the petitioner proposes, if the nuclear power reactor “had not been in an operational condition at the time of retirement, had last operated more than twenty-one (21) calendar years prior to the retirement date, is not intact, and/or has had significant decommissioning and/or dismantling activities commence,” then the nuclear power reactor must be repaired or rebuilt “to the safety standards that had been in place at the time the facility had last operated,” and pass a safety inspection “appropriate to the degree of repairs or reconstruction that had been performed,” which would be, “[a]t the very least...a general safety inspection.”

The petitioner stated that this proposal would be “pennies on the dollar,’ compared to building new nuclear, or trying to replace the same capacity with wind or solar sources.” The petitioner also stated that through this proposal, “several gigawatts of ultra-clean, and very low-carbon, electrical generating capacity could be restored to the electrical grid, which would help to reduce carbon dioxide levels in the atmosphere.” The petitioner provided a calculation comparing the cost and time of the proposal to the cost and time required for replacing similar electrical generating capacity with renewables or new nuclear builds. The petitioner referenced the Clean Air Act,

42 U.S.C. 7401 et seq., and the National Environmental Policy Act, 42 U.S.C. 4321 et seq., to support the petitioner's statements regarding reducing carbon dioxide emissions.

~~The petition raises one issue for NRC's consideration in rulemaking. In sum, no explicit regulatory path exists to re-authorize operation of a retired nuclear power reactor.~~

II. Public Comments on the Petition

On July 26, 2019, the NRC published a notice of docketing of PRM-50-117 in the *Federal Register* in conjunction with a request for public comment on the PRM. The comment period closed on October 9, 2019; the NRC received 33 comment submissions on the PRM. A *comment submission* is a communication or document submitted to the NRC by an individual or entity, with one or more individual comments addressing a subject or issue. All of the comment submissions received on this petition are available ~~on~~ at <https://www.regulations.gov> under Docket ID NRC-2019-0063.

Given the number of comment submissions and the similarities among a number of the comments, the NRC addressed those comments in a separate document, "NRC Response to Public Comments for PRM-50-117," as listed in the "Availability of Documents" section of this document. This comment response document includes a table of comment submissions and ADAMS Accession Nos. for the comment submissions, a summary of each "bin" of similar comments, and the NRC's response to the comments. A brief summary of the most common comments received and the general NRC response is included here.

Of the 33 comment submissions received, 30 ~~comment submissions~~ supported the PRM and 3 ~~comment submissions~~ opposed it. The comment submissions supporting the petition ~~provided~~stated reasons ~~for support~~ related to clean energy, environmental considerations, and climate change; the economic considerations and cost-effectiveness of restarting a decommissioning nuclear power plant; and plant closures that occurred solely due to economic factors. The NRC considers these comments to concern issues outside of NRC regulatory authority.

Several comment submissions supporting the petition also stated that there is no practical process for returning decommissioning power plants to operations. The NRC agrees that there is no explicit process for returning a decommissioned power plant to operations but notes that power reactor licensees have expressed minimal interest in pursuing such an option. ~~disagrees with these comments.~~ Futhermore, ~~the~~ NRC may consider requests from licensees to resume operations under the existing regulatory framework ~~including granting exemptions, where needed on a case-by-case basis.~~

Comment submissions opposing the petition stated that plants should be required to meet the latest safety standards before resuming operations, rather than the safety standards in place at the time the facility last operated, as proposed by the petitioner. If the NRC receives a request from the licensee for a decommissioning reactor to resume operations, the NRC would review the request ~~on a case-by-case basis~~ consistent with applicable regulatory requirements. This review would include consideration of relevant safety standards to assure adequate protection of public health and safety.

The comments received do not present additional information supporting the petitioner's proposal that the NRC amend its regulations. After considering the public

comments, however, the NRC identified the need to further engage the public to understand the degree to which the nuclear industry would use a new regulatory process for reauthorizing operation of decommissioning power reactors.

III. Public Meeting on the Petition and Other Topics

On February 25, 2020, the NRC held a public meeting to collect public input on potential regulatory frameworks for power reactors, including the resumption of operation for decommissioning power reactors, deferred status for operating reactors, and reinstatement of terminated combined licenses. ~~The NRC held a public meeting on these related topics, which collectively~~ are broader than but fully encompass the issue raised by the petitioner, ~~and allow the NRC to evaluate it the issue raised by the petitioner could be evaluated by the NRC~~ in a more holistic context.

The public meeting had a total of 41 individuals in attendance. Seven participants asked questions or provided feedback; one of these participants represented a nuclear power plant licensee, one of these participants was the petitioner for this PRM, and five of these participants represented four public interest organizations. The meeting was transcribed, and the full detailed transcript as well as other documents related to the public meeting are listed in the “Availability of Documents” section of this document.

The key insight from the public meeting, as it relates to this PRM, is that there was little support from the participants for the NRC undertaking a rulemaking creating a new regulatory process for the resumption of operations for decommissioning power

reactors. Additionally, the nuclear industry representatives expressed minimal interest in using such a process.

IV. Reasons for Denial

The NRC is denying the petition because the issue raised by the petitioner does not involve a significant safety or security concern and the existing regulatory framework may be used ~~on a case-by-case basis~~ to address the issue raised by the petitioner. In addition, the nuclear industry has not expressed a strong interest in returning retired plants to operational status and proceeding with rulemaking to develop a new regulatory framework that may not be used is not a prudent use of resources. In addition, nuclear industry representatives have expressed minimal interest in the development of a new regulatory process for reauthorizing operation, such that the benefits of the requested rulemaking would be highly unlikely to outweigh the costs. The following factors were considered by the NRC in making this determination.

Current Regulatory Processes

Under the current requirements in §§ 50.82, “Termination of license,” and 52.110, “Termination of license,” once a power reactor licensee has submitted written certifications to the NRC for both the permanent cessation of operations and the permanent removal of fuel from the reactor vessel, and the NRC has docketed those certifications, the 10 CFR part 50 or part 52 license no longer authorizes operation of the reactor. No nuclear power plant licensee to date has requested reauthorization of operation after filing both of these certifications. There have been instances in which a

licensee submitted to the NRC—and then subsequently withdrew—a certification of an intent to cease operations under § 50.82(a)(1)(i). In those cases, the licensee had not submitted the certification of permanent removal of fuel from the reactor vessel.

While current regulations do not specify a particular mechanism for reauthorizing operation of a nuclear power plant after both certifications are submitted, there is no statute or regulation prohibiting such action. Thus, the NRC may address such requests under the existing regulatory framework ~~—including granting exemptions, where needed—on a case-by-case basis~~. The NRC previously stated this position in an August 2016 letter responding to similar questions raised by Mr. David Kraft, Director, Nuclear Energy Information Service (see NRC response to Question 4). In addition, the NRC previously discussed this topic in a 2014 letter responding to Mr. Robert Abboud of RGA Labs, Inc., a member of the public, concerning relicensing Kewaunee Power Station. These letters are listed in the “Availability of Documents” section of this document.

Safety and Security

This petition does not raise a safety or security concern, nor does it offer any improvements to safety or security. The current regulations and processes provide reasonable assurance of adequate protection of public health and safety for both operating and decommissioning power reactors. The lack of a safety or security concern would contribute to the low priority of this petition, were it to be considered in rulemaking.

Resources

Based on the complexity of the issue raised by the petitioner, a rulemaking on this issue would entail a significant expenditure of NRC resources. Any such rulemaking effort would likely address a wide variety of technical and regulatory topics including, but not limited to, decommissioning status, aging management, quality assurance, equipment maintenance, personnel, license expiration, hearing process, and appropriate licensing basis. ~~The NRC estimated at the regulatory basis stage for a recent complex rulemaking, “Regulatory Improvements for Power Reactors Transitioning to Decommissioning” (Docket ID NRC-2015-0070; RIN 3150-AJ59), that it would cost 6.2 million dollars in NRC resources to develop and issue the proposed and final rule and supporting guidance documents. Appendix B of the “Regulatory Analysis for Regulatory Basis,” presents a detailed cost analysis for that rulemaking.~~

As discussed in the “Public Meeting on the Petition and Other Topics” section of this document, ~~nuclear industry representatives~~ power reactor licensees expressed minimal interest in a rulemaking establishing a new process for reauthorization of operation for decommissioning power reactors. Given this minimal interest from the nuclear industry, the NRC expects few, if any, requests for reauthorization. Thus, the benefits of any such rulemaking would not be expected to outweigh the costs.

V. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO. / FEDERAL REGISTER CITATION
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PRM-50-117 - Petition of George Berka to Revise the Criteria to Return Retired Nuclear Power Reactors to Operations, December 26, 2018	ML19050A507
<i>Federal Register</i> Notice, "Criteria to Return Retired Nuclear Power Reactors to Operations," July 26, 2019	84 FR 36036
NRC Response to Public Comments for PRM-50-117	ML20205L311
Public Meeting Notice: Potential Regulatory Frameworks for Power Reactors, February 25, 2020	ML20043F003
Public Meeting Materials: Potential Regulatory Frameworks for Power Reactors, February 25, 2020	ML20049A021
Public Meeting Transcript: Category 3 Public Meeting Transcript RE: Potential Regulatory Frameworks for Power Reactors, February 25, 2020	ML20072H393
Public Meeting Summary: Category 3 Public Meeting Summary RE: Potential Regulatory Frameworks for Power Reactors, March 25, 2020	ML20072H288
NRC Letter to Mr. David A. Kraft of Nuclear Energy Information Service, August 4, 2016	ML16218A266
Letter from Mr. David A. Kraft of Nuclear Energy Information Service, June 16, 2016	ML16175A449
NRC Letter to RGA Labs, Inc., October 21, 2014	ML14288A407
Regulatory Analysis for Regulatory Basis for Regulatory Improvements for Power Reactors Transitioning to Decommissioning, January 2018	ML17332A075

VI. Conclusion

For the reasons cited in this document, the NRC is denying PRM-50-117. The NRC's existing regulatory framework may be used ~~on a case-by-case basis~~ to address the issue raised by the petitioner, who does not raise a significant safety or security concern, and current requirements continue to provide for the adequate protection of public health and safety and to promote the common defense and security. In addition,

the nuclear industry has not expressed a strong interest in returning retired plants to operational status and proceeding with rulemaking to develop a new regulatory framework that may not be used is not a prudent use of resources.

Dated Month XX, 2021⁰.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,

Secretary of the Commission.