

A public hearing was held on the petition on February 25th, 2020 to solicit input from the public. The comments received from the public were generally positive, and many people were supportive of the idea of returning shuttered nuclear power reactors to service. Of the 33 total comments that were received, 30 were in support of the petition, and 3 opposed it.

Then, on May 3rd, 2021, the N.R.C. issued its denial of the petition. It stated that its main reasons for the denial were, supposedly, a lack of sufficient interest from the industry, the absence of a genuine safety or security concern, and an excessive expense for developing the regulatory framework proposed in this petition, which it identified as “not a prudent use of resources.” The N.R.C. had also mentioned that the Petitioner’s proposal can “already be accomplished within the existing regulatory framework.”

Argument

The Petitioner will hereby attempt to refute the rationale for the N.R.C.’s denial, beginning with the supposed “absence of a genuine safety or security concern.” It is true that the Petition did not cite anything such as serious technical issue at a reactor, an imminent accident, or a danger of a meltdown. However, this petition was written due a broader safety or security concern – climate change. With each passing year, the evidence in support of this specter mounts, and its effects are becoming more obvious. The latest string of wild fires that occurred in California last summer, and the prolonged drought there, are perhaps the most prominent examples. The N.R.C. considers these issues of “clean energy, climate change and reactor economics” to the “outside the scope of its regulatory authority.” It is true that historically, the scope of the N.R.C. has always pertained to the more technical aspect of reactor operation and the handling of nuclear fuel. However, in light of the grave danger that climate change poses to our society, and in light of the fact that nuclear power reactors are perhaps one of the best solutions for it, perhaps it would be appropriate for the N.R.C. to revise its scope and jurisdiction? Climate change is no longer an “abstract, high level concern,” but a real and tangible condition with physical consequences. The N.R.C. has a real opportunity here to help deal with this situation, not unlike the ability that our armed forces have to deal with, say, an imminent military threat from a hostile foe. It should rise to the challenge!

Other safety or security concerns, more appropriate to the N.R.C.'s scope, experience, and authority, could arise if an operator were to seek to return a long – shuttered plant to service. Here, the possible degradation of certain critical plant components, such as the internal corrosion of steam generators, for example, could come into play. These items would have to be thoroughly evaluated on a case by case basis, through detailed inspections and testing, conducted as part of the re-licensing and start up procedure. These could be conducted should the need ever arise, since every plant, and its overall condition, would likely be different. This is one area in which a framework, developed as suggested in this petition, would be of value to the plant operator and the general public.

Next, the Petitioner will touch on the economic aspects of implementing the petition, including the comment that it would supposedly not be a “prudent use of resources.” The Petitioner is not asking the N.R.C. to immediately embark on a massive campaign to overhaul its entire regulatory structure. He is simply asking that the “door be left open” for operators to try. While it is technically feasible to re-license a shuttered plant within the existing regulatory framework, this is considered so complex, daunting, and cumbersome, that it is generally seen as “cost prohibitive,” “not viable,” or “not a realistic option.” A revised, more streamlined framework to re-license shuttered reactors could initially be developed only on a case by case basis, and only if there were any applicants. If no applicants came forward, then no expenditures would have to be devoted to the effort. If at least one applicant came forward, then he would serve as the “test case”, and resources could be carefully allocated toward working with him to return his plant to service. These costs would likely be borne by the applicant, as licensing costs currently are, so the N.R.C. would likely not incur any additional costs from this. It would be important, however, for these costs to be modest and reasonable, so that the applicant is not forced to incur any unnecessary expenses. That is why this petition seeks to allow the shuttered plants to re-start largely “as they were”, and to only meet the standards that were in place at the time the plants had last operated. This first case would serve as a good example of the level of effort, time, and expense required to return a shuttered plant to service.

Wisconsin's Kewaunee plant would be a good example of such as "test case". Since its shut down in about 2013, it had been placed in a "safe store" condition, and may therefore still be largely intact. If it is found to be in sufficiently good condition, it could potentially make a prime candidate for a "fast tracked re-start program" with minimal expenditures, involving perhaps only a safety inspection. Instead, [and unfortunately], it has recently been slated for accelerated decommissioning.

California's San Onofre plant could also be an example of one of the more involved cases. While some decommissioning work has already commenced, it was mostly related to ancillary structures. The critical plant components, such as the reactor pressure vessels and the containment domes, are believed to still be undamaged. Therefore, San Onofre could still also potentially be a candidate for a re-start, although some structures may have to be re-built, and some repair work may have to be done. Given the importance of this vital plant, however, California would be wise to do so. If it was still on line, the blackouts that California experienced last August, due to a combination of over-reliance on natural gas and intermittent renewables, would likely not have occurred.

Perhaps the difficulty involved is why no one has ever tried to return a shuttered nuclear power reactor to service, which brings us to the N.R.C.'s next objection, about the supposed "lack of interest" from the industry. This is a classic example of the "chicken versus egg" situation. If a streamlined, simplified, less cumbersome, and more affordable process was already available, perhaps there would be more interest from the industry. To paraphrase the film, "Field of Dreams", perhaps, "if you build it, they will come."

Summary

The events that occurred in Texas this past February – a prolonged winter storm, combined with an over-reliance on natural gas and weather-dependent renewables – were responsible for over 100 people freezing to death, in addition to other widespread suffering and millions of dollars in economic damages. It is safe to say that if more nuclear reactors had been in the "electrical mix", these events would not have occurred, or would have been much less severe. In short,

returning shuttered nuclear power reactors to service remains the “lowest hanging fruit” to accomplish these dual objectives of improved grid reliability and significant reductions in carbon dioxide emissions.

The latest trend in premature nuclear plant closures is disturbing and very counter-productive to our climate goals. Plants that may still be returned to service with reasonable ease, such as California’s San Onofre, or Wisconsin’s Kewaunee, have recently been slated for accelerated decommissioning. Here are very valuable assets, that have been paid for and proven out, that have generally functioned remarkably well, that have at least 40 years of useful operational life left in them, and that can significantly help us with our climate goals, just being slated for demolition. Given the dire climate situation that the country finds itself in, it does not make any sense. If this petition were acted upon by the N.R.C., or this Court, it may actually help to alleviate this unfortunate situation.

Respectfully Submitted,

George Berka

George Berka

Plaintiff – Appellant

CERTIFICATION

This is to certify that on or about May 28th, 2021, I caused to be served a copy of the foregoing, via first class mail, postage prepaid, and / or via electronic mail, to the following:

1. United States Nuclear Regulatory Commission, Washington, DC 20555-0001, Nicole.Fields@nrc.gov, Renee.Taylor@nrc.gov, & Cindy.Blady@nrc.gov.
2. Jennifer A. Najjar, U.S. Department of Justice, Environmental and Natural Resources Division, NRS P.O. Box 7611, Washington DC 20044-7611, jennifer.najjar@usdoj.gov

George Berka

George Berka

George Berka

21-1134

**UNITED STATES COURT OF APPEALS
DISTRICT OF COLUMBIA CIRCUIT**

333 Constitution Avenue, NW
Washington, DC 20001-2866
Phone: 202-216-7000 | Facsimile: 202-219-8530

AGENCY DOCKETING STATEMENT

Administrative Agency Review Proceedings (To be completed by appellant/petitioner)

1. CASE NO. NRC-2019-0063 2. DATE DOCKETED: 21-Feb-2019
3. CASE NAME (lead parties only) Berka v. Nuclear Regulatory Commission
4. TYPE OF CASE: ☐ Review ☒ Appeal ☐ Enforcement ☐ Complaint ☐ Tax Court
5. IS THIS CASE REQUIRED BY STATUTE TO BE EXPEDITED? ☐ Yes ☒ No
If YES, cite statute _____
6. CASE INFORMATION:
 - a. Identify agency whose order is to be reviewed: Nuclear Regulatory Commission
 - b. Give agency docket or order number(s): NRC-2019-0063 & PRM-50-117
 - c. Give date(s) of order(s): May 3rd, 2021
 - d. Has a request for rehearing or reconsideration been filed at the agency? ☐ Yes ☒ No
If so, when was it filled? _____ By whom? _____
Has the agency acted? ☐ Yes ☒ No If so, when? _____
 - e. Identify the basis of appellant's/petitioner's claim of standing. See D.C. Cir. Rule 15(c)(2):
Petitioner seeks review of N.R.C.'s reasons for denial.
 - f. Are any other cases involving the same underlying agency order pending in this Court or any other?
☐ Yes ☒ No If YES, identify case name(s), docket number(s), and court(s) _____
 - g. Are any other cases, to counsel's knowledge, pending before the agency, this Court, another Circuit Court, or the Supreme Court which involve *substantially the same issues* as the instant case presents?
☒ Yes ☐ No If YES, give case name(s) and number(s) of these cases and identify court/agency:
21-908, 2nd Circuit, "Berka v. Cuomo", appeal regarding shut-down of Indian Point Nuclear Plant.
 - h. Have the parties attempted to resolve the issues in this case through arbitration, mediation, or any other alternative for dispute resolution? ☐ Yes ☒ No If YES, provide program name and participation dates. _____

Signature George Berka Date 28-May-2021

Name of Counsel for Appellant/Petitioner George Berka

Address 57 Concord St., Waterbury, CT 06710

E-Mail gberka57@comcast.net

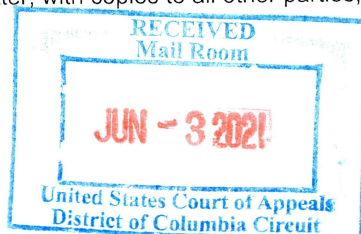
Phone (203) 206-2529

Fax ()

ATTACH A CERTIFICATE OF SERVICE

Note: If counsel for any other party believes that the information submitted is inaccurate or incomplete, counsel may so advise the Clerk within 7 calendar days by letter, with copies to all other parties, specifically referring to the challenged statement.

USCA Form 41
August 2009 (REVISED)



Receipt #2503

Exhibits:

1. Petitioner's Petition for Rule Making

57 Concord St.
Waterbury, CT 06710
December 26th, 2018

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Good Morning,

The purpose of this communication is to submit a petition for rule making. The Petitioner, Mr. George Berka, hereby requests that,

(1), 10 C.F.R. Part 52.110(b) be amended to read as follows:

Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, or when a final legally effective order to permanently cease operations has come into effect, the 10 C.F.R. Part 52 no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, except as follows:

(b)(1), 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, and remains intact, the licensee shall have the option to return the facility to a fully operational status, after having successfully passed a general safety inspection. The safety standards that had been in place at the time the facility had last operated will govern, and the plant will not have to be updated to the latest standards.

(b)(2), If the facility 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, the licensee shall still have the option to return the facility to a fully operational status, provided the following actions are accomplished: (a), The facility is repaired or re-built to the safety standards that had been in place at the time the facility had last operated. The facility will not have to be updated to the latest standards. (b), Furthermore, the facility will have to successfully pass a safety inspection appropriate to the degree of repairs or reconstruction that had been performed. At the very least, this inspection would be a general safety inspection, as above, if the plant had been largely intact and well maintained, but it may range all the way up to the typical testing required for a new build, if significant reconstruction or repairs had to be performed.

The Petitioner also requests the Nuclear Regulatory Commission to, (2), Generally allow the owner and / or operator of a nuclear power plant 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 facility will 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.

The Petitioner makes the above request of the Nuclear Regulatory Commission in accordance with the National Environmental Policy Act, U.S. Code Title 42, Chapter 55, Paragraph 4321. In general, when a nuclear power plant closes, it is typically replaced with natural gas fired electrical generation, which produces much higher air pollution and carbon dioxide emissions than the nuclear source that it replaced. This situation runs counter to the spirit and intent of Paragraph 4321, which aims to: *"declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere, and stimulate the health and welfare of man."* Given the fact that the carbon dioxide emissions of this new natural gas plant are about 60% of those of an equivalent coal plant, (up from the mere 5% or so that the nuclear plant used to generate), replacing shuttered nuclear plants with natural gas fired plants is definitely a step backwards from a climate standpoint. Also, in light of the now well – understood link between carbon emissions and global warming, the importance of Paragraph 4321 takes on a whole new meaning; lowering carbon dioxide levels in the atmosphere, (not raising them), is a necessary step to *"prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man"*. Keeping the ultra – clean, and virtually carbon – free, nuclear generating stations on-line is one way to help accomplish this step.

In addition to Paragraph 4321 above, the Petitioner also cites the Clean Air Act, U.S. Code Title 42, Chapter 85, Subchapter I, Part A, Paragraph 7401. Sections (a)(2) and (c) of this paragraph also apply; *"the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation."* This does apply to the rising levels carbon dioxide in the atmosphere, which are likely to endanger public health and welfare, injure agricultural crops and livestock, and damage property, through rising air temperatures, which will likely cause melting ice sheets, rising ocean levels and coastal flooding, along with more severe wild fires, hurricanes, and droughts. We have witnessed many of these events first hand in recent years and months.

Next, Section (c) also applies; i.e. *"A primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention."* Promoting the continued operation of nuclear generating stations would certainly constitute an action that would help prevent pollution.

In summary, if 10 C.F.R. Part 52.110(b) were amended as requested above, it may potentially enable previously – shuttered nuclear generating stations to be returned to service, without imposing unreasonable cost burdens on their operators. If this were to occur, potentially 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. This may eventually reduce global temperatures, which may help mitigate some of the most adverse effects of global warming discussed above, thereby promoting human well – being, in accordance with Chapters 55 and 85 of Title 42.

The above - proposed change would allow recently shuttered plants, such as Kewaunee, Vermont Yankee, San Onofre, Crystal River, and others, to be permitted to simply re-start, should their owners decide to pursue this approach. It would also reduce the risk of losing additional nuclear

plants in the future. The Petitioner believes that this approach would be safe, with no additional risk to the public, since the plants had operated satisfactorily prior to shut-down, were well maintained, and had good overall safety records. This approach would also spare the plant owners the enormous cost of upgrading the plants to the latest standards. Otherwise, re-starting the plants would probably be cost prohibitive.

Existing nuclear power plants are perhaps one of the best tools that our country currently has to help deal with the threat of climate change. They are here and ready to run now. Relatively little time and money (compared to a new build) needs to be invested to get them back on line. When compared to renewables, they have great capacity in a relatively compact footprint, and essentially constant output. They provide clean, carbon-free energy at over a 90% capacity factor. These are their important attributes that we should recognize, and strive to do everything we can, as a nation, to save them and keep them on-line. The carbon-free generating capacity that we lost as a result of the closures of Kewaunee, Vermont Yankee, San Onofre, and Crystal River negated a considerable amount of the climate progress that we made in recent years by adding renewables to the grid.

It would not be unreasonable to say that this is somewhat of a priority situation, given the rate at which climate change is beginning to accelerate. It is also the "low hanging fruit", when compared to other options. Allowing these plants to re-start would restore a significant amount of clean, carbon-free capacity to the grid, today, and for literally "pennies on the dollar", compared to building new nuclear, or trying to replace the same capacity with wind or solar sources. Replacing lost nuclear capacity with natural gas or coal fired generation should be considered poor practice from a climate standpoint. This simple change should be considered a "win-win" for everyone, with no real negatives or downsides. It could potentially open the door for over 4,000 megawatts of clean, carbon-free electricity to be restored to the grid, without compromising public safety.

Following are a few basic calculations to support the Petitioner's position. The Petitioner will compare the cost and time frame of his proposal to the cost and time frame of replacing a similar electrical generating capacity with renewables, or new nuclear builds. The analysis shows that permitting recently – shuttered nuclear plants to re-start is several orders of magnitude more cost effective than building renewable or new nuclear capacity, and can also be accomplished in a fraction of the time.

Assume that the total generating capacity of the San Onofre, Kewaunee, and Vermont Yankee nuclear plants was 3300 megawatts, and that their average capacity factor was 90 percent. When compared to the 392 megawatt Ivanpah solar plant, with its 12% capacity factor, it would take (63) Ivanpah plants to replace this capacity, at a cost of \$139 billion.

$$3300 \text{ mW}(0.90) = 2970 \text{ mW (nuclear plants)}$$

$$392 \text{ mW (0.12)} = 47 \text{ mW (Ivanpah)}$$

$$2970 / 47 = 63 \text{ Ivanpahs required. Cost of the Ivanpah plant was \$2.2 billion.}$$

$$63(\$2.2 \text{ billion}) = \$139 \text{ billion} \leftarrow \text{Cost of 63 Ivanpahs}$$

Replacing this capacity with new nuclear builds: Assume \$8 billion for a new 1 gW plant
 $3.3 \text{ gW} * (\$8 \text{ bil} / \text{gW}) = \26.4 billion

Time Frame:

It is reasonable to assume that it would take at least (10) years to build the (3) new nuclear plants to replace the lost capacity. Building (63) new Ivanpah solar plants would take at least that long, if not longer

Safety Inspection Alternative:

Now, let us assume that permitting Kewaunee, San Onofre and Vermont Yankee plants to re-start would only require safety inspections. If each plant received a 10,000 man-hour safety inspection, at a cost of \$250 per hour, that would only amount to \$2.5 million per plant, or \$7.5 million for the (3) plants, assuming that nothing else was needed for the re-start. When compared to a new nuclear build, cost of a re-start is:

$\$26.4\text{k million} / \$7.5 \text{ million} = 3520 \leftarrow$ It would be 3,520 times as expensive to rebuild the (3) plants than to simply restart the existing plants.

When compared to 63 Ivanpahs,

$\$139\text{k million} / \$7.5 \text{ million} = 18,533 \leftarrow$ It would be 18,533 times as expensive to replace the lost capacity with 63 Ivanpah solar plants than to simply restart the (3) existing nuclear plants.

Time Frame:

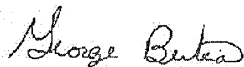
The inspections required for a re-start could probably be accomplished in under (6) months, versus the (10) years required for a new build.

$10/0.5 = 20 \leftarrow$ It would take twenty times as long to rebuild the lost capacity than to simply restart the existing nuclear plants.

Finally, there does not appear to be any good or legitimate reason for this policy, which prohibits previously shuttered nuclear power plants from ever restarting again, once they surrender their operating license. This policy runs counter to the original principles upon which the Atomic Energy Commission, the predecessor to the Nuclear Regulatory Commission, was founded. These principles were to not only regulate the safety of nuclear power, but also to encourage its use, and to not impose excessive requirements that would inhibit the growth of the industry. This is also why this policy should be changed – to be better aligned with the original intent and spirit of the Atomic Energy Commission.

If you are tempted to simply dismiss this petition, please consider soliciting input on it first from either the Environment and Public Works Committee, the Department of Energy, or other branches of government tasked with addressing climate change. You may find that there may be widespread support for the ideas in this petition, since many people are now starting to recognize the valuable contribution that nuclear power makes in the clean electricity arena.

Thank you,



George Berka

2. N.R.C.'s Acknowledgement & Receipt of Petition



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 21, 2019

George Berka
57 Concord Street
Waterbury, CT 06710

Dear Mr. Berka:

This letter is in response to the petition for rulemaking (PRM), dated December 26, 2018, that you filed electronically with the U.S Nuclear Regulatory Commission (NRC). Your PRM is available in the NRC's Agencywide Documents Access and Management System under Accession No. ML19050A507.

You request that the NRC revise its regulations regarding the criteria to return a retired nuclear power reactor to operations. The NRC docketed your petition pursuant to § 2.803 of Title 10 of the *Code of Federal Regulations*, "Petition for rulemaking-NRC action," on February 19, 2019, and assigned it Docket No. PRM-50-117. Please reference this docket number on any correspondence you may have concerning the petition.

You can monitor your petition on the Federal rulemaking Web site, <http://www.regulations.gov>, by searching on Docket ID NRC-2019-0063. In addition, the Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) navigate to the docket folder NRC-2019-0063; (2) click the "E-mail Alert" link; and (3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly). The NRC also tracks all petition actions on its Web site at <https://www.nrc.gov/about-nrc/regulatory/rulemaking/rules-petitions.html> and <http://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/petitions-by-year.html>.

You may direct any questions you may have concerning the petition process or the status of your petition to me at 301-415-3280 (e-mail: Cindy.Bladey@nrc.gov) or to Jill Shepherd-Vladimir at 301-415-1230 (e-mail: Jill.Shepherd-Vladimir@nrc.gov).

Sincerely,

/RA/

Cindy Bladey, Chief
Regulatory Analysis and Rulemaking Support
Branch
Division of Rulemaking
Office of Nuclear Material Safety and Safeguards

G. Berka

-2-

SUBJECT: PRM-50-117 – PETITION FOR RULEMAKING, G. BERKA

DATE: FEBRUARY 21, 2019

DISTRIBUTION:RASB R/F
IBerrios, NMSSCBladey, NMSS
MSegarnick, OGC

HChang, NMSS

JShepherd-Vladimir, NMSS

ADAMS Accession No. ML19035A702

*Concurrence by e-mail

OFFICE	NMSS/DRM/RASB/RT	NMSS/DRM/RASB/RT	NMSS/DRM/RASB/BC
NAME	HChang	JShepherd-Vladimir	CBladey
DATE	2/21/19	2/21/19*	2/21/19

OFFICIAL RECORD COPY

3. Notice of Docketing



SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 23, 2019

Mr. George Berka
57 Concord Street
Waterbury, CT 06710

Dear Mr. Berka:

This letter is in reference to the petition for rulemaking (PRM) that you submitted to the U.S. Nuclear Regulatory Commission (NRC) on December 26, 2018 (NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML19050A507). As stated in the NRC's February 21, 2019, letter (ADAMS Accession No. ML19035A702), the NRC docketed this petition under Section 2.803 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Petition for Rulemaking–NRC Action." In the petition, you request that the NRC revise its regulations in 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," to establish criteria to return retired nuclear power reactors to operations. Your petition has been assigned Docket Number PRM-50-117. Please reference this docket number on any correspondence you may have concerning the petition.

The enclosed notice of docketing of the petition will be published in the *Federal Register*. The NRC is requesting public comment on your PRM. As the staff reviews your petition, it may be necessary to request additional information.

You can monitor the docket for your petition on the Federal rulemaking Web site, <https://www.regulations.gov>, by searching for Docket ID NRC-2019-0063. In addition, the Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) navigate to the docket folder NRC-2019-0063; (2) click the "Email Alert" link; and (3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly). The NRC also tracks all petition actions on its Web site at <https://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/petitions-by-year.html> and <https://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/active/PetitionIndex.html>.

You may direct any questions you have concerning the petition process or the status of your petition to Cindy Bladey at 301-415-8230 (e-mail: Cindy.Bladey@nrc.gov) or to Helen Chang at 301-415-3228 (e-mail: Helen.Chang@nrc.gov).

Sincerely,



Richard J. Laufer
Acting Secretary of the Commission

4. Public Hearing Notice

February 12, 2020

Title: Potential Regulatory Frameworks for Power Reactors

Date(s) and Time(s): February 25, 2020, 02:00 PM to 05:00 PM

Location: NRC Three White Flint North, 1C03
11601 Landsdown Street
Rockville, MD

Category: This is a Category 3 meeting. Public participation is actively sought for this meeting to fully engage the public in a discussion of regulatory issues.

Purpose: The purpose of this meeting is to discuss the potential creation of a regulatory framework for the resumption of operation for decommissioning power reactors, deferred status for operating reactors, and reinstatement of terminated combined licenses. Input from this meeting may be used by the NRC to inform its determination regarding a petition for rulemaking (PRM-50-117; Docket ID: NRC-2019-0063).

The NRC staff is interested in public input on these topics, but emphasizes that this will be a high level, conceptual discussion and not a detailed technical discussion of potential regulatory frameworks. NRC welcomes this opportunity for informal and frank engagement with you on these topics but will not be providing a written response to any insights offered at the meeting. NRC is not requesting written comment at this time.

Contact: Nicole Fields Glenna Lappert
630-829-9570 301-415-2552
nicole.fields@nrc.gov glenna.lappert@nrc.gov

Participants: NRC External
Office of Nuclear Material Safety and Stakeholders
Safeguards
Office of Nuclear Reactor Regulation

Webinar: URL Meeting Number
https://usnrc.webex.com/usnrc/onstage/g.
php?
MTID=e08687680a44d4539d968f05adc66b
5a3

Comments: Please e-mail one of the meeting contacts if you intend to attend this meeting in person. This will pre-register you for a visitor security badge. Please provide the name and company or organization for each in-person attendee no later than February 24th. Arrive 30 minutes before the meeting starts to allow time for security registration.

PUBLIC MEETING AGENDA

Potential Regulatory Frameworks for Power Reactors

February 25, 2020, 02:00 PM to 05:00 PM

NRC Three White Flint North, 1C03
11601 Landsdown Street
Rockville, MD

<i>Time</i>	<i>Topic</i>	<i>Speaker</i>
2:00	Introductions and Opening Remarks	NRC
2:15	Resumption of operation for decommissioning power reactors	NRC/Stakeholders
3:20	Deferred status for operating reactors	NRC/Stakeholders
4:10	Reinstatement of terminated combined licenses	NRC/Stakeholders
4:50	Closing Remarks	NRC
5:00	Meeting Adjourns	

The time of the meeting is local to the jurisdiction where the meeting is being held.

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If reasonable accommodation is needed to participate in this meeting, or if a meeting notice, transcript, or other information from this meeting is needed in another format (e.g., Braille, large print), please notify the NRC meeting contact. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

ADAMS Accession Number: ML20043F003

Name	NFields	IBerrios
Office	NMSS/REFS/MRPB	NMSS/REFS/RRPB
Date	02/12/2020	02/12/2020

OFFICIAL RECORD COPY

Link to meeting details: <https://www.nrc.gov/pmns/mtg?do=details&Code=20200099>

5. Notice of Denial

[7590-01-P]

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 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 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.

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 pdresource@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 pdresource@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.

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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.

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 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 supported the PRM and 3 opposed it. The comment submissions supporting the petition provided reasons 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 decommissioning power plant to operations but notes that power reactor licensees have expressed minimal interest in pursuing such an option. Furthermore, the NRC may consider requests from licensees to resume operations under the existing regulatory framework.

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 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. These topics are broader than but fully

encompass the issue raised by the petitioner, and allow the NRC to evaluate it 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 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. 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. 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.

As discussed in the "Public Meeting on the Petition and Other Topics" section of this document, 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
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 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 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

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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 May 3, 2021.

/RA/

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,

Secretary of the Commission.

