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GLOSSARY

APA	Administrative Procedure Act
ASTM	American Society for Testing of Materials
Commission	U.S. Nuclear Regulatory Commission
EFPY	Effective Full Power Years
EOL	End of Life
NRC	U.S. Nuclear Regulatory Commission
PG&E	Pacific Gas & Electric Co.

JURISDICTIONAL STATEMENT

A. Hobbs Act Jurisdiction

This case involves an appeal of a final Order entered on October 2, 2023 (“Denial Order”), by the United States Nuclear Regulatory Commission (the “NRC” or “Commission”) regarding the operating license held by Pacific Gas and Electric Co. (“PG&E”) for Unit 1 of the Diablo Canyon nuclear power plant. 1-ER-003.¹ The Commission’s Order is reviewable by this Court under the Atomic Energy Act (“AEA”), 42 U.S.C. § 2239(b); the Hobbs Act, 28 U.S.C. § 2342(4); and the Administrative Procedure Act (“APA”), 5 U.S.C. § 702. The appeal was timely filed pursuant to 28 U.S.C. § 2344, because it was docketed on December 1, 2023, within 60 days of the date of the Commission’s Order.

B. Standing of Petitioners

Section 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a), requires the NRC to “grant a hearing upon the request of any person whose interest may be affected by the proceeding.” Petitioners, with the support and authorization of their members, seek a hearing before the NRC to address their concerns that PG&E’s ongoing lack of knowledge regarding the condition of the Unit 1 pressure vessel poses an unacceptable risk to their health and safety. *See* 2-ER-043 – 2-ER-045, 2-ER-119 –

¹ This appeal concerns only the Unit 1 pressure vessel and does not include Unit 2.

2-ER-121. And these concerns are germane to the purposes of the organizations.

Id.

The NRC has found that petitioners who live within approximately fifty miles of a nuclear reactor meet the judicial test for an “affected person,” *i.e.*, “injury in fact, causal connection, and redress by a favorable decision.” *Calvert Cliffs 3 Nuclear Project, L.L.C. and Unistar Nuclear Operating Services, L.L.C.*, 70 N.R.C. 911, 917 (2009) (*citing Lujan v. Defenders of Wildlife*, 504 U.S. 555, 572 n.7 (1992)). Each of the Petitioners meets this test through members who live, work, and own property within 50 miles of the Diablo Canyon reactors. 2-ER-119 – 2-ER-121.

Petitioners also meet the judicial test for organizational standing because:

[their] members would otherwise have standing to sue in their own right; (b) the interests [they] seek[] to protect are germane to the [organizations’] purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

Students for Fair Admissions, Inc. v. President and Fellows of Harvard University, 143 S.Ct. 2141, 2157 (2023) (quoting *Hunt v. Wash. State Apple Adver. Comm’n*, 432 U.S. 333, 343 (1977)).

STATEMENT OF ISSUES

1. Did the NRC violate the Atomic Energy Act and the APA by denying Petitioners' request for a hearing on the NRC's decision to extend the surveillance schedule for the Unit 1 pressure vessel and by failing to give any reason for its decision?
2. In extending the scheduled date for PG&E to remove Capsule B from the Unit 1 pressure vessel for embrittlement testing – from 2009 until 2024 and possibly beyond -- did the NRC amend a condition in PG&E's operating license, thereby requiring compliance with the procedural requirements of the Atomic Energy Act for license amendments?
3. In extending the schedule for removing Capsule B from the Diablo Canyon Unit 1 pressure vessel without acknowledging that it had altered the terms of PG&E's amended operating license or explaining the reasons for those changes, did the NRC violate the Atomic Energy Act and the APA?

STATUTORY ADDENDUM

In accordance with Ninth Circuit Rule 28-2.7, pertinent statutes and regulations are included in the Addendum to this Brief, beginning on Page A-1.

STATUTORY AND REGULATORY BACKGROUND

A. Atomic Energy Act

The NRC is responsible for ensuring that operation of nuclear reactors “provides adequate protection to the health and safety of the public.” 42 U.S.C. § 2232. Operation of a nuclear reactor must be carried out under a license that the NRC has determined will meet this statutory standard. If the licensee wishes to modify the facility or take actions not specifically authorized by the license, the licensee must first seek an amendment to its license from the Commission. *Citizens*

Awareness Network v. NRC, 59 F.3d 284, 287 (1st Cir. 1995) (citing 42 U.S.C. §§ 2131-2133, 2237 (1988)).

Section 189a of the Atomic Energy Act requires the NRC to provide interested members of the public with a prior opportunity for a hearing on any proposed decision to amend, grant, or revoke an operating license for a nuclear facility. 42 U.S.C. § 2239(a)(1)(A). The NRC must also provide public notice in the Federal Register of its proposed licensing decisions. *Id.*

B. Implementing Regulations and Guidance for Reactor Vessel Surveillance Programs

NRC regulation 10 C.F.R. § 50.61 establishes requirements that nuclear reactor licensees must satisfy in order to demonstrate that reactor vessels in U.S. pressurized light-water reactor facilities will have adequate protection against the consequences of pressurized thermal shock events throughout their service lives. Requirements for reactor vessel surveillance programs are found in § (b)(2) and 10 C.F.R. Part 50, Appendix H. As summarized by the Commission, Appendix H:

sets forth a surveillance program to monitor the fracture toughness of beltline materials in light-water reactor vessels. Appendix H directs licensees to attach a particular number of surveillance “capsules” to specified areas within the reactor vessel, typically near the inside vessel wall at the beltline. Each capsule contains a number of material specimens that remain exposed to radiation during plant operation. Under the Appendix H surveillance program, licensees must periodically withdraw capsules from the reactor vessel. Capsule removal permits the material specimens to be tested for changes in ductility and fracture toughness – effects of the neutron irradiation and elevated temperatures in a given reactor pressure vessel.

Cleveland Electric Illuminating Co., 44 N.R.C. 315, 317 (1996) (“*Cleveland Electric*”).

In Section III.B, Appendix H also requires that a reactor’s surveillance program must satisfy ASTM E 185, the established industry guidance of the American Society for Testing of Materials. ASTM E 185 “provides licensees with the criteria for determining both the minimum number of surveillance capsules that need to be installed within the reactor vessel at the start of the plant’s life, and when in the plant’s life -- measured in effective full-power years [“EFPY”] -- a capsule should be withdrawn for evaluation.” *Cleveland Electric*, 44 N.R.C. at 317.²

ASTM E 185 E has been revised multiple times since the first edition in 1970. With respect to the edition of ASTM E 185 that is applicable to a particular reactor, Section III.B of Appendix H provides:

The design of the surveillance program and the withdrawal schedule must meet the requirements of the edition of the ASTM E 185 that is current on

² EFPY is an irradiation or “fluence”-based measure of the life of a reactor. At the end of a reactor’s design life of forty calendar years (or “end or life” [“EOL”]), a reactor typically has accumulated a fluence of 32 EFPY. At the end of a renewed operating license totaling 60 years of operation, a reactor typically will have accumulated a fluence of 48 EFPY. 2-ER-260 – 2-ER-262.

Because capsules are located closer to the reactor core than the wall of the reactor vessel itself, their fluence will be higher than the fluence of the reactor vessel itself. And some capsules are deliberately located closer to the core than others such that their fluence may be significantly higher. *See, e.g.*, 2-ER-262 (proposing relocation of Capsule V in order to “accumulate fluence at a faster rate.”).

the issue date of the ASME code to which the reactor vessel was purchased; for reactor vessels purchased after 1982, the design of the surveillance program and the withdrawal schedule must meet the requirements of ASTM E 185-82. For reactor vessels purchased in or before 1982, later editions of ASTM E 185 may be used, but including only those editions through 1982.

The Commission has held that if an operating license provides for compliance with the ASTM standard, changes to the surveillance schedule may be made without amending the reactor's operating license. *Cleveland Electric*, 44 N.R.C. at 328. However, the licensee must seek NRC review before changing the schedule, to allow the NRC to verify whether the changed schedule continues to conform to the applicable edition of ASTM E 185. *Id.*, 44 N.R.C. at 328.

STATEMENT OF THE CASE

I. INTRODUCTION

Petitioners seek their rightful opportunity to hear from NRC, and be heard, on a series of decisions that carry inordinate safety risks for communities and the environment surrounding the Diablo Canyon Nuclear Power Plant regarding a schedule for monitoring the integrity of the Unit 1 reactor vessel. As the receptacle that holds the highly radioactive core of a nuclear reactor, the pressure vessel is “perhaps the most important single component in the reactor coolant system.” Final Rule, Fracture Toughness Requirements for Light Water Reactor Pressure Vessels, 60 Fed. Reg. 65,456, 65,457 (Dec. 19, 1995). *See also Yankee Atomic Electric Co.*, 34 N.R.C. 3, 12 (1991) (“*Yankee Rowe*”) (pressure vessel is “one of

the key components of a reactor.”) Because it has no backup, the pressure vessel must be protected continuously against the risk of fracture and failure, which could lead to core melt and catastrophic consequences to public health and safety and the environment. 2-ER-079. *See also* 60 Fed. Reg. at 65,456 (“[m]aintaining the structural integrity of the reactor pressure vessel . . . is a critical concern related to the safe operation of nuclear power plants.”).

Petitioners seek review of four consecutive unlawful decisions by the NRC, starting in 2008 and culminating in the 2023 decision upheld by the NRC in the Denial Order that is the subject of this Petition for Review. These decisions cumulatively extended, by a period of more than fourteen years and perhaps indefinitely, the schedule for withdrawing “Capsule B” from the Unit 1 pressure vessel and testing it for embrittlement.³ In each of these decisions, and without explanation or rationale, the NRC abandoned a 2006 license amendment that had imposed a specific reactor vessel surveillance schedule on PG&E’s Unit 1

³ *See* the 2008 Extension Decision, extending the withdrawal of Capsule B from 2007 to 2009, 1-ER-029 (discussed below in Section F.1); the 2010 Extension Decision, extending the withdrawal of Capsule B from 2010 to 2012, 1-ER-023 (discussed below in Section F.2); the 2012 Extension Decision, extending the withdrawal of Capsule B from 2012 to 2022, 1-ER-017 (discussed below in Section F.3); and the 2023 Extension Decision, extending the withdrawal of Capsule B from 2022 to 2024, 2025, or indefinitely, 1-ER-009 (discussed below in Section F.4).

Petitioners refer to these four decisions collectively as “Extension Decisions.”

operating license. 2-ER-170. (“2006 License Amendment”). The NRC had imposed that specific surveillance schedule in exchange for granting PG&E’s request to extend its operating license term by three years, changing the license expiration date from September 22, 2021 to November 2, 2024. 2-ER-176.

Despite the fact that these Extension Decisions qualified as license amendments, the NRC did not publish notice of any of the Decisions in the Federal Register. Nor did the NRC explain why -- or even acknowledge -- that it was abandoning the license condition that the agency had imposed in 2006 in exchange for extending Unit 1’s operating license by three years. As a result, since 2021, the NRC has allowed PG&E to operate Diablo Canyon Unit 1 in violation of the 2006 license condition on which the extended operating license term for Unit 1 is founded. And despite the importance of the Unit 1 pressure vessel to the safety of the reactor’s operation, the required 2009 inspection of the pressure vessel has been delayed by more than fourteen years. All of this has been done without a meaningful opportunity for public input.

In this appeal, Petitioner asks the Court to reverse and vacate the NRC’s Denial Order and cumulative Extension Decisions based on multiple violations of federal law. First, the NRC contravened the Atomic Energy Act by failing to proactively give public notice and offer the opportunity for a public hearing before amending or revoking PG&E’s license condition. Second, the NRC violated both the Atomic

Energy Act and the Administrative Procedure Act by summarily denying Petitioners' public hearing request. Finally, Petitioners seek review of NRC's related violation of the Atomic Energy Act by completely failing to justify or even acknowledge its abandonment of the terms of the 2006 License Amendment, including the lack of any safety rationale for abandoning the license condition imposed by the 2006 License Amendment.

II. STATEMENT OF THE FACTS

A. Construction Permit and Operating License for Diablo Canyon Unit 1

In 1968, the NRC issued PG&E a construction permit for Diablo Canyon Unit 1. 2-ER-241. In 1981, following completion of Unit 1 construction, the NRC issued a low-power license for the sole purpose of testing the reactor. After three years of low-power testing, the NRC issued PG&E a full-power operating license for Unit 1 on November 2, 1984. The license allowed PG&E to operate Unit 1 for forty years from the date of issuance of the construction permit, or until April 23, 2008. 2-ER-251.

B. Initial Program for Monitoring Unit 1 Reactor Pressure Vessel

In the 1970s, while construction was underway, PG&E established reactor vessel surveillance programs for the Diablo Canyon reactor pressure vessels. 2-ER-258. The purpose of these programs was to "monitor and ensure the structural

integrity of reactor pressure vessels.” *Cleveland Electric*, 44 N.R.C. at 317. This threat to reactor vessel integrity arises from [l]ong-term exposure to neutron radiation and elevated temperatures, causing the “ductility” of the reactor vessel materials to decrease and thereby “decreasing the vessel materials’ ‘fracture toughness,’ or resistance to fracture.” *Id.* A significant decrease in ductility renders the reactor vessel vulnerable to rupture if cold water were to be injected into the reactor vessel during a loss of coolant accident. 2-ER-085. Because the reactor vessel was purchased in the 1970s, the applicable ASTM E standard was ASTM E 185-70. 2-ER-259.

The Unit 1 surveillance program provided for placement inside the pressure vessel of “capsules” containing “specimens” or “coupons” of representative metal samples. Capsules S, Y, and V consisted of three “Type II” capsules containing “limiting” weld metal and base metal content.⁴ In compliance with ASTM E 185-70, the surveillance program scheduled capsules S, Y, and V for removal at specific intervals over the forty-year operating life of the reactor and tested for embrittlement characteristics. 2-ER-262. The schedule was based on projections of when the capsules would reach certain levels of fluence -- exposure to neutron

⁴ “Limiting” materials are envisioned to be the weakest components when embrittled and hence are those that will likely fail first. 2-ER-083.

irradiation -- based on their location in relation to the reactor core. Five other capsules that did not contain the “limiting” material were designated “standby,” without a schedule for removal and testing. *Id.*

C. NRC promulgation of license renewal rule

In 1991, for the first time, the NRC promulgated safety regulations for the renewal of nuclear reactor licenses to allow operation for an additional twenty years after expiration of their initial forty-year licenses. 56 Fed. Reg. 64,943 (Dec. 13, 1991). The new regulations established standards for the management of aging safety equipment, including reactor pressure vessels, during a twenty-year renewal term.

D. PG&E’s Supplemental Surveillance Program

1. PG&E application and NRC approval

In March 1992, PG&E applied to supplement the original Unit 1 surveillance program by adding Capsules A, B, C, and D. 2-ER-258. The supplemental surveillance program had two purposes: to provide “embrittlement data” for a possible additional twenty-year license renewal term and to “improve the overall surveillance program” by “incorporating, where possible,” more recent industry and government guidance. 2-ER-259.

The proposed supplemental surveillance program “incorporate[d] both the existing surveillance capsules and the supplemental capsules,” *i.e.*, Capsules S, Y,

V, B, and A. 2-ER-260. PG&E described these “first five capsules” as “a modern ASTM E 185 surveillance program, within the limitations of the original program and available materials.” 2-ER-262. But only four of these capsules -- Capsules S, Y, V, and B -- were given scheduled dates for withdrawal during the forty-year operating license term. Capsule A was designated “Standby,” *i.e.*, reserved for future use with no specified withdrawal date. 2-ER-262.⁵

PG&E’s schedule for removing and testing capsules showed that Capsules S and Y had already been removed and tested. 2-ER-262, 2-ER-267. Capsule V was scheduled for removal at 12.9 EFPY or approximately 2002. *Id.* PG&E estimated that at 12.9 EFPY, Capsule V would provide “the fluence equivalent to the vessel surface at 32 EFPY” or approximately forty years of operation. 2-ER-262. And Capsule B was scheduled for withdrawal at EFPY 19.2, or approximately 2007. *Id.* At that point, due to its location relatively close to the core, PG&E estimated that Capsule B would provide “embrittlement data through 48 effective full power years (EFPY) or approximately 60 years of operation.” 2-ER-260. *See also* note 2, *supra*.

⁵ Capsules C and D were not listed as part of the “modern ASTM E 185 surveillance program” because they had the separate purpose of demonstrating “the response of the vessel material to thermal annealing and the rate of reembrittlement during reirradiation after annealing.” 2-ER-262.

The NRC Staff approved PG&E’s supplemental surveillance program, concluding that PG&E’s proposed changes to the program were “acceptable because they augment the current program, and will provide additional data on the limiting reactor vessel materials.” 2-ER-249.

2. Withdrawal and testing of Capsules S, Y, and V

In 2002, PG&E withdrew and tested Capsule V from Diablo Canyon Unit 1. When the test showed that Unit 1 would be approaching a regulatory threshold for concern about embrittlement at the end of its operating life in 2021, PG&E discounted the data as “not . . . credible.” 2-ER-203.⁶ Instead, PG&E substituted generic data and data from other reactors. 2-ER-081. But PG&E stated that it did not intend to rely on generic data and data from other reactors indefinitely. Instead, PG&E asserted that “Capsule V is not the last planned capsule to be evaluated in the [Diablo Canyon Unit 1] surveillance program.” 2-ER-204.

⁶ Petitioners dispute whether PG&E complied with NRC guidance in rejecting this data and instead relying on generic data and data from other reactors. This dispute is one of the bases for Petitioners’ hearing request and their concern that the NRC lacks sufficient information about the condition of the Unit 1 pressure vessel to support a conclusion that it is operating safely. *See* 2-ER-081, 2-ER-100 – 2-ER-101 and discussion below in Section II.H.

E. License Amendments for Recovery of Time for Construction and Low-Power Testing

1. 1995 license amendment to recover thirteen-year construction period

In 1995, the NRC Staff approved PG&E's application for a license amendment to "recover" or "recapture" the thirteen-year construction period for Unit 1 by changing the Unit 1 operating license expiration date from April 23, 2008 to September 22, 2021. 2-ER-176. In support of its decision, the Staff generally cited, *inter alia*, PG&E's "comprehensive vessel material surveillance program [that] is maintained in accordance with 10 CFR Part 50, Appendix H that ensures the fracture toughness requirements of Appendix G are met." 2-ER-241.

2. 2006 license amendment to allow recovery of low-power testing interval

a. NRC policy for recovery of low-power testing time

In 1999, the NRC Commissioners established a new policy of allowing reactor licensees to "recover" the initial time of low-power testing of a newly-constructed reactor under a low-power license, by adding the same amount of time to the term of a full-power license. 2-ER-206.⁷ While the vast majority of reactors needed only a few months for low-power testing, for some reactors -- like Diablo Canyon Unit

⁷ In other words, the NRC would change the commencement date of a forty-year full-power operating license from the date the low-power license was issued to the later date when the full-power operating license was issued.

1 -- it took years to complete. *Id.*, 2-ER-210. For those cases, the NRC Staff devised an approach to consider the aging effects on the pressure vessel caused by allowing it to be irradiated for several more years beyond its forty-year design life. *Id.*, 2-ER-207.

In Commission-approved Policy Memorandum SECY-98-296, addressing a request from the Grand Gulf Nuclear Station to recover low-power testing time, the Staff set out its approach to the safety review as follows:

Although there is no regulatory guidance for review of this type of recapture, the staff performed its review on the basis of the effects of aging of safety-related and other structures and components, relative to the licensing basis. The review specifically focused on the adverse effects of aging to ensure that important systems, structures, and components will continue to perform their intended functions during the requested period of recapture. The staff reviewed the effect of the recapture period on the reactor pressure vessel, structures, mechanical equipment, electrical equipment, and quality assurance and maintenance programs, and addressed outstanding safety issues. The staff concluded that no safety issues existed that would preclude an additional 28.5 months of operation.

2-ER-209. Consistent with this approach, the Staff reviewed the Grand Gulf reactor vessel surveillance program and found that it “will aid in adjusting the operational conditions in order to maintain sufficient safety margin for the prevention of brittle failure of the reactor vessel.” 2-ER-219.

The Staff’s review also covered specific details of the reactor vessel surveillance program:

To date one material specimen capsule has been removed from the reactor vessel; however, by letters dated May 2 and 31, 1996, the licensee requested

that it be placed back in the vessel because testing of the first capsule at 8 effective full power years (EFPY) may not be useful. The low neutron fluence and good material chemistry for the vessel will result in a minimal shift in the material properties of the specimen in the capsule. A revision to the capsule withdrawal schedule and placing the first capsule back in the vessel was approved by the staff in its letter of August 27, 1996.

2-ER-220. “Based on the above,” the Staff concluded that “there is reasonable assurance that the [reactor pressure vessel] will, for the proposed license term extension requested by the licensee, be in conformity with the applicable provisions of the rules and regulations of the Commission, and the [Grand Gulf Nuclear Station] license.” 2-ER-220.

b. 2006 license amendment for Diablo Canyon Unit 1

In 2005, citing the new NRC policy for recovery of time spent on low-power testing of nuclear reactors, PG&E applied to extend the Unit 1 initial operating license term by three years – the time that had been consumed by low-power testing of Unit 1. 2-ER-185.⁸ In support of its application, PG&E cited both the “original” surveillance program and the “supplemental” surveillance program it had proposed and agreed to when it sought in 1995 to recapture the 13-year construction period. 2-ER-191 – 2-ER-92.

In 2006, the NRC Staff granted the three-year license amendment. 2-ER-169. Consistent with the NRC policy set forth in Policy Memorandum SECY-98-

⁸ PG&E clarified that the proposed extension “does not constitute license renewal.” 2-ER-189.

269, the Staff performed a “Safety Evaluation” for the proposed license amendment that assessed whether or how the addition of three years to the license term for Unit 1 would affect the safety of the pressure vessel, including the “[i]mpact on the RVMSP [reactor vessel material surveillance program].” 2-ER-180 – 2-ER-181.

In reviewing PG&E’s license amendment application, the Safety Evaluation cited the Staff’s previous determination that:

The supplemental RVMSP withdrawal schedule met the criteria of ASTM E185-70 and constituted an acceptable withdrawal schedule for implementation under 10 CFR Part 50, Appendix H.

2-ER-180. The Staff also clarified that “this supplemental program” consisted of “four capsules, Capsule S, Y, V, and B, [that] were designated for removal from the [Diablo Canyon Unit 1 reactor vessel].” *Id.*

Further, the Staff noted that “Capsules S, Y, and V have been removed and tested in accordance with the licensee’s program.” *Id.* This left only the fourth capsule, Capsule B.

As per Policy Memorandum SECY-98-296, the Safety Evaluation then assessed whether adding three years to the operating life of Unit 1 would affect the adequacy of the reactor vessel surveillance program. 2-ER-178. The Staff concluded that “the adjustments to the withdrawal time and projected neutron

fluence for Capsule B will still be in compliance with 10 CFR Part 50, Appendix

H” because:

The request to recover the testing time for DCP-1 *amends the projected withdrawal for Capsule B to approximately 20.7 EFPY* [i.e., around 2009], when the capsule is projected to achieve a neutron fluence of 2.9×10^{19} n/cm² (E > 1.0 MeV). Therefore, the capsule will achieve a neutron fluence approximately equal to twice the projected limiting inside RV fluence for DCP-1 at the EOL (i.e., approximately $2 * 1.43 \times 10^{19}$ n/cm² [E > 1.0 MeV]).

2-ER-180 (emphasis added). Further, the Staff found that this amended withdrawal schedule “complies with the criterion in ASTM E185-82 for withdrawal of the final capsule of a four capsule withdrawal program.” *Id.*

Based on these findings, the Safety Evaluation stated:

The NRC staff has reviewed PG&E’s license amendment request to recover the low-power testing time that was performed during the initial startup of the [Diablo Canyon Units 1 and 2] reactors. The NRC has determined that authorization of the requested license may be granted *based on the following conclusions*:

...

(3) The [reactor vessel] surveillance capsule withdrawal schedules for [Diablo Canyon Units 1 and 2] remain in compliance with the requirements of 10 CFR Part 50, Appendix H, and the ASTM E 185 versions of record for the units.

Id. (emphasis added). Accordingly, the Safety Evaluation “concluded” as a general matter that:

based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) issuance of the

amendments will not be inimical to the common defense and security or to the health and safety of the public.

2-ER-182. The license amendment therefore changed the Unit 1 operating license expiration date from to September 22, 2021 to November 2, 2024. 2-ER-176. This three-year extension was equivalent to a new “end of life” EFPY of 35.2. 2-ER.⁹

Thus, in approving the license amendment to add three more years to the operating license of Unit 1, the NRC Staff upgraded the Unit 1 surveillance program from a *three-capsule program* compliant with *ASTM E 185-70* to a *four-capsule program* compliant with *ASTM E 185-82*. Further, there was no question that the Staff intended withdrawal of Capsule B to be carried out during the initial operating license term for Unit 1, because -- by PG&E’s own assertion -- the license amendment proceeding had nothing to do with license renewal.¹⁰

⁹ In 2023, by operation of an NRC-issued exemption to the agency’s timely renewal rule, 10 C.F.R. § 2.109(b), this termination date was changed to the date when the NRC makes a decision on PG&E’s pending license renewal application. Petitioners’ appeal of the exemption is pending before this Court in *San Luis Obispo Mothers for Peace, et al. v. U.S. Nuclear Reg. Comm’n*, No. 23-852.

¹⁰ As PG&E stated in its license amendment application, “[t]he proposed amendments do not constitute license renewal.” 2-ER-189.

F. NRC Decisions Extending Schedule for Withdrawal of Capsule B From Unit 1 Pressure Vessel

1. 2008 Extension Decision: from 2007 to 2009

In 2008, PG&E asked the NRC to extend the schedule for removing Capsule B from the Unit 1 pressure vessel, from 20.7 EFPY (2009) to 21.9 EFPY (2010). 2-ER-146. PG&E did not ask for an amendment to its operating license to change the Capsule B withdrawal schedule that the NRC Staff had incorporated into its 2006 license amendment. Instead, it simply stated that the current withdrawal schedule did not meet the requirement of NRC license renewal guidance document NUREG-1801, which requires that a reactor vessel surveillance program must have a “vessel material coupon that has a fluence exposure equivalent to 60 years of operation.” 2-ER-148. According to PG&E, “[a] removal time of approximately 21.9 EFPY for Capsule B satisfies NUREG-1801.” 2-ER-149.

In 2008, the Staff granted PG&E’s request to extend the schedule for withdrawing Capsule B. 1-ER-029. But the Staff neither acknowledged that its decision constituted a license amendment, nor gave public notice of a hearing opportunity as required by § 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a)(1)(A). To the contrary, the Staff’s decision did not even mention that its 2006 license amendment had been based upon PG&E carrying out an ASTM E 185-82-compliant four-capsule reactor surveillance program that included Capsule B. Instead, the Staff erroneously stated that “the withdrawal and testing of Capsule

V [in 2003] fulfilled the third and final recommendation of ASTM E 185-70 for the current . . . Unit 1 operating license.” 1-ER-033.¹¹

2. 2010 Extension Decision: from 2010 to 2012

That same year, in 2010, PG&E applied to the NRC for a second extension of the schedule for removing Capsule B from the Unit 1 pressure vessel, now seeking to change the date from 2010 to 2012. 2-ER-139. This time, PG&E asserted the extension was necessary because it had not been able to remove Capsule B in 2010. *Id.*

Once again, PG&E did not seek a license amendment, nor did it mention the NRC’s 2006 license amendment decision. Instead, it asserted that it had “withdrawn and tested three capsules from Unit 1 that meet the three recommendations of ASTM E 185-70 and the approved supplemental surveillance capsule withdrawal changes listed in NRC staff Safety Evaluation dated September 4, 1992.” 2-ER-140. Further, PG&E repeated the Staff’s misrepresentation of its 1995-approved surveillance program as a three-capsule program asserting that the withdrawal of Capsule V in 2003 had “fulfilled the third and final recommendation of ASTM E 185-70 for the current DCPD operating license.” *Id.* Instead, PG&E proposed to withdraw Capsule B at a fluence of “approximately 60 EFPY for the

¹¹ In 2009, following the First Extension Decision, PG&E applied for renewal of its operating license. 75 Fed. Reg. 3,493 (Jan. 21, 2010). *See also* Section G below.

reactor pressure vessel,” to provide “fluence data for the period of extended operation for license renewal.” *Id.*

The NRC approved the requested schedule change, again without providing public notice or an opportunity to request a hearing, or providing a reason for why it was abandoning the alteration of the vessel surveillance schedule on which it had conditioned the 2006 license amendment. 1-ER-023 – 028. And instead of acknowledging that in 2006 it had approved a four-capsule ASTM E 185-82-compliant surveillance program culminating with the withdrawal of Capsule B in 2009, the Staff again mischaracterized the Unit 1 surveillance program as a three-capsule program for which the third and already-removed Capsule V – not the fourth and still-remaining Capsule B – was the “final capsule.” 1-ER-026. The Staff also incorrectly asserted that Capsule B did “not currently form a part of the licensee’s surveillance program.” *Id.* Instead, according to the Staff, Capsule B would become part of a future “surveillance schedule for the license renewal period.” *Id.*¹²

¹² The excision of Capsule B from the current surveillance program was further emphasized in the following paragraph:

The surveillance capsule withdrawal plan spanning the initial license period has already been completed and, as such, forms no part of this evaluation. The DCPP LRA and the associated withdrawal schedule have not yet been approved; however, the NRC staff believes that the proactive consideration of Surveillance Capsule B for the period of extended operation adds to the consideration of this request and addresses it below.

Finally, in an apparent effort to obfuscate the obvious violation of ASTM E 185-82, the Staff strung together a partially false statement with a vague and misleading characterization of applicable ASTM standards:

[T]he evaluation criteria of ASTM E-70 do not apply to Surveillance Capsule B, since it does not currently form a part of the licensee's surveillance program. The licensee's [reactor vessel] material surveillance program conforms to ASTM E 185.

1-ER-026. The Staff was correct in stating that the evaluation criteria of ASTM E-70 do not apply to Surveillance Capsule B – but incorrect about the reason. The reason for not applying ASTM E-70 to Capsule B was that the 2006 License Amendment upgraded the applicable ASTM E standard to ASTM E-82. And the statement that PG&E's surveillance program conforms to ASTM E 185 is vague and misleading, because it is not specific about what edition of ASTM E 185 is applicable to PG&E's surveillance program. The Staff failed to acknowledge that in granting the 2006 License Amendment, it explicitly decided that ASTM E-82 constituted the applicable industry standard for PG&E's surveillance program.

3. 2012 Extension Decision: from 2012 to 2022

In 2011, PG&E asked the NRC for a third extension of the schedule for removing Capsule B from the Unit 1 pressure vessel. 2-ER-133. This time, PG&E sought a *ten-year* extension, from 2012 to 2022. The new date would bring

2-ER-026. As discussed in Sections F.3 and F.4 below, this same paragraph would appear as boilerplate language in the two additional extension decisions to follow.

withdrawal of Capsule B to within two years of the expiration of the Unit 1 operating license in 2024.

The requested extension did not relate at all to the NRC-approved surveillance program for Diablo Canyon Unit 1. Rather, it was “proposed to support data acquisition” for an industry-wide research program related to reactor license renewal. *Id.* For these research purposes, PG&E sought to delay removing Capsule B until it had accumulated “approximately twice the 60-year fluence” that would have been achieved by removing the capsule in 2012 – and which would take another ten years. *Id.*

PG&E’s application did not request a license amendment or even mention the 2006 license amendment decision. Instead, PG&E again asserted that the withdrawal of Capsule V in 2003 had “fulfilled the third and final recommendation of ASTM E 185-70” for the “current” Unit 1 operating license. *Id.*

In 2012, the NRC Staff approved the schedule change. 1-ER-017. The Staff did not provide public notice or offer a hearing on this additional amendment to PG&E’s amended operating license, nor did it mention the four-capsule surveillance program upon which the Staff had conditioned the 2006 license amendment. Instead, using the now-boilerplate language it had employed in the previous extension decision, the Staff asserted that the surveillance program for the initial license term had “already been fulfilled” and therefore formed “no part of

this evaluation.” 1-ER-020. *See also* note 12 above.

4. 2023 Extension Decision: from 2022 to 2023 or 2025 or indefinitely delayed

In 2023, PG&E requested a fourth extension for withdrawal of Capsule B, from 2022 until either late 2023 or sometime in 2025 – either the very eve of the extended license expiration or after expiration. 2-ER-125. Again, PG&E did not seek a license amendment or even mention the 2006 license amendment decision. Instead, PG&E characterized Capsule B as a “standby” capsule – a capsule with no scheduled withdrawal date at all. 2-ER-132.

The NRC Staff approved the extension. 1-ER-009. Once again, the Staff offered neither a rationale for abandoning its 2006 license amendment decision, nor public notice of its decision or an opportunity to request a hearing. The Staff agreed with PG&E that Capsule B was a “standby” capsule for which no withdrawal schedule existed and approved a new scheduled withdrawal date of 2023 or 2025. 1-ER-012. The Staff’s approval letter also included the same boilerplate language that had appeared in the previous two extension decisions, stating that the surveillance program for the initial license period had been “completed” and thus formed “no part” of the Staff’s evaluation. 1-ER-020. *See also* note 12 above.

The NRC Staff also left open the possibility that the schedule for removing Capsule B will be extended yet again, stating that the Staff “does not make any

conclusion regarding the future use of the subject capsule in any potential future licensing applications or license periods.” 1-ER-009.

G. Subsequent Treatment of PG&E’s 2009 License Application: Submission, Withdrawal, and Re-Submission

PG&E applied for renewal of its operating license in 2009, 75 Fed. Reg. 3,493, but withdrew the application in 2018. 83 Fed. Reg. 17,688 (Apr. 23, 2018). After that, until 2022, PG&E made plans to close the reactors on their operating license expiration dates of 2024 and 2025. Perhaps for this reason, PG&E never sought an extension of the 2022 deadline for removing Capsule B; nor, to Petitioners’ knowledge, did it attempt to remove Capsule B.

In 2022, following passage of state legislation offering a substantial public subsidy to encourage PG&E to seek license renewal once again, PG&E reversed its decision to retire the reactors. The company then obtained an exemption from the NRC’s Timely Renewal Rule, allowing it to continue operating the Diablo Canyon reactors indefinitely pending NRC action on a forthcoming license renewal application.¹³

¹³ As discussed above in note 9, Petitioners’ appeal of the exemption is pending before this Court in *San Luis Obispo Mothers for Peace, et al. v. U.S. Nuclear Reg. Comm’n*, No. 23-852.

H. Petitioners' Hearing Request and Request for Emergency Action by the Commissioners

On September 14, 2023, after learning of the NRC's decision to extend the schedule for withdrawal of Capsule B to 2024, 2025, or later, Petitioners submitted a hearing request to the NRC Commissioners. 2-ER-036. NRC's response to Petitioners' hearing request gives rise to the issues currently before the Court.

Petitioners' hearing request included the following contention:

PG&E's request to postpone the withdrawal and testing of Capsule B until 2025 should be denied, and the Staff's decision to approve it should be reversed, because it is inconsistent with NRC safety regulations 10 C.F.R. Part 50, Appendices G and H and 10 C.F.R. §§ 50.55a and 50.61 and poses an unacceptable risk to public health and safety in violation of NRC regulations and the Atomic Energy Act. Moreover, neither PG&E nor the Staff has any legal grounds for claiming that withdrawal of Capsule B relates only to license renewal and is unnecessary to maintain safety in the current license term.

2-ER-061. In the same pleading, Petitioners asked the Commissioners to order the immediate shutdown of Unit 1 for failure to obtain needed embrittlement data for over twenty years due to the repeated extensions of time for withdrawing and testing Capsule B. Petitioners asked the Commissioners to keep the reactor in a shutdown condition pending the removal and testing of Capsule B and a thorough assessment of the state of embrittlement of the Unit 1 pressure vessel. 2-ER-065 – 2-ER-068.

Both the hearing request and request for emergency enforcement action were supported by the declaration of Dr. Digby Macdonald, Professor in Residence at

the University of California at Berkeley and a highly qualified expert on materials embrittlement in nuclear reactor pressure vessels. 2-ER-072. Dr. Macdonald's lengthy and detailed declaration explained the basis for his expert opinion that the current operation of Diablo Canyon Unit 1 "poses an unreasonable risk to public health and safety due to serious indications of an unacceptable degree of embrittlement, coupled with a lack of information to establish otherwise." 2-ER-076. In Dr. Macdonald's professional judgment, PG&E had inappropriately rejected data from Capsule V indicating that the Unit 1 pressure vessel could approach an unacceptable state of embrittlement by 2021; and furthermore, that PG&E had failed to withdraw and test Capsule B and therefore had no additional reactor-specific data on which it could rely. 2-ER-079 – ER-082. Therefore, Dr. Macdonald recommended that "the reactor should be closed until PG&E obtains and analyzes additional data regarding its condition." 2-ER-076.

Despite the gravity of the concern and detailed support provided by Petitioners and Dr. Macdonald for their charges, the Commissioners themselves did not respond to the hearing request or the request for emergency action. Instead, on their behalf, the Secretary of the Commission issued a brief three-page decision denying both requests.

The Secretary's grounds for denying the hearing request consisted of two paragraphs that merely restated the mischaracterizations of the record that had been repeated time and again in the Staff's four extension decisions:

The Petitioners argue that they are entitled to a hearing because the Extension Approval constitutes a license amendment. But the Extension Approval, by its own terms, does not amend or otherwise affect Diablo Canyon's current license. The Extension Approval does not "grant the licensee any 'greater operating authority,' or otherwise 'alter the original terms of the license,'" the relevant factors in determining whether a Staff action constitutes a license amendment. In its evaluation of the schedule revision, the Staff specifically notes that

additional capsules are not needed to satisfy the requirements of Appendix H to 10 CFR Part 50 and ASTM E 185-70 for the current operating license period ... the licensee's compliance with Appendix H to 10 CFR Part 50 and ASTM E 185-70 with respect to the current operating license period for Diablo Canyon, Unit 1 forms no part of the NRC staff's evaluation of the licensee's proposed revision to the withdrawal schedule for supplemental surveillance

The Staff further observes that it "does not make any conclusion regarding the future use of the subject capsule in any potential future licensing applications or license periods."

Therefore, the Secretary concluded that "[b]ecause the current license for Diablo Canyon, Unit 1, has not been amended, the Extension Approval does not trigger an opportunity to request a hearing." 1-ER-005.

With respect to Petitioners' request for emergency action, the Secretary's only response was to state: "I refer Petitioners' underlying concerns to the Executive Director for Operations for consideration under 10 C.F.R. § 2.206." 1-ER-005. Thus, the Secretary referred Petitioners' request for emergency action to the very same

agency officials who had unlawfully extended the schedule for withdrawing Capsule B, under the regulatory framework of a petition for discretionary enforcement action whose outcome would be unreviewable by this court or any other. *See, e.g., Safe Energy Coalition v. U.S. Nuclear Reg. Comm’n*, 866 F.2d 1473, 1479 (D.C. Cir. 1989) (citing *Heckler v. Chaney*, 470 U.S. 821 (1985) (holding that NRC’s denial of an enforcement petition for revocation or modification of an existing license constitutes an unreviewable exercise of agency discretion)).¹⁴

I. Petition for Review

On December 1, 2023, Petitioners submitted a petition for review of the NRC’s decision denying their hearing request without a meaningful explanation.

STANDARD OF REVIEW

Under the APA, agency decisions will be set aside if “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Public Citizen v. NRC*, 573 F.3d 916, 923 (9th Cir. 2009) (citing 5 U.S.C. § 706(2)(A)). In reviewing “predominantly legal questions” rather than “factual ones,” this Court applies a standard of “reasonableness.” *Alaska Wilderness Recreation & Tourism v. Morrison*, 67 F.3d 723, 727 (9th Cir. 1995) (“[I]t makes sense to distinguish the

¹⁴ The Staff denied the petition for emergency enforcement action on March 8, 2024. The decision post-dates the decisions on review and therefore is not part of the record.

strong level of deference we accord an agency in deciding factual or technical matters from that to be accorded in disputes involving predominantly legal questions.”). *See also Northcoast Env'tl. Ctr. v. Glickman*, 136 F.3d 660, 667 (9th Cir. 1998); *Price Rd. Neighbor. Ass'n v. U.S. Dept. of Transp.*, 113 F.3d 1505 (9th Cir. 1997)); *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1028 (9th Cir. 2006).

When reviewing an agency's application of its own regulation, the agency's interpretation of its regulation must be given controlling weight unless it is plainly erroneous or inconsistent with the regulation. *Alaska Ctr. for the Env't v. United States Forest Serv.*, 189 F.3d 851, 857 (9th Cir. 1999). But an agency's interpretation of its own regulation will not be upheld if it “lacks the quality necessary to attract judicial deference.” *Guard v. United States Nuclear Reg. Comm'n*, 753 F.2d 1144, 1148-49 (D.C. Cir. (1985)). To determine whether agency action is arbitrary or capricious, a court must consider “whether the decision was based on a consideration of the relevant factors and whether there has been clear error of judgment.” *Id.* at 859 (citing *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 (1989)). Precedent behests this Court to reverse the NRC under the arbitrary and capricious standard if:

[T]he agency has relied on factors that Congress has not intended it to consider, has entirely failed to consider an important aspect of the problem, or has offered an explanation for that decision that runs counter to the evidence before the agency or is so implausible that it

could not be ascribed to a difference in view or the product of agency expertise.

Public Citizen, 573 F.3d at 923.

SUMMARY OF THE ARGUMENT

Petitioners challenge the NRC's wholesale abandonment of a condition in PG&E's amended operating license, without providing public notice, explanation, or any opportunity to challenge the NRC's abdication in a hearing. The license condition that the NRC abandoned was designed by the NRC to ensure that extending the operation of Diablo Canyon Unit 1 by three years past its 2021 expiration date would not pose an undue accident risk to the pressure vessel, which is "perhaps the most important single component in the reactor coolant system." 60 Fed. Reg. at 65,457. In that license condition, imposed via a 2006 License Amendment for Unit 1, the NRC upgraded the industry standard applicable to the Unit 1 reactor vessel surveillance program from ASTM E 185-70 to ASTM E 185-82, requiring a four-capsule surveillance program instead of a three-capsule program. And it required that Capsule B -- the fourth capsule -- must be withdrawn at 20.7 EPFY or approximately in 2009.

Over the following fifteen-year period, from 2008 to 2023, the NRC issued a series of Extension Decisions that not only postponed the schedule for removing Capsule B from the Unit 1 reactor vessel by fifteen years or perhaps indefinitely, but that attempted -- without explanation or rationale -- to erase the condition

imposed by the NRC in the 2006 License Amendment as a predicate for adding three more years to Unit 1's operating license term, changing the expiration date from 2021 to 2023.

Instead of acknowledging the 2006 License Amendment or the condition it had imposed on the Unit 1 operating license, the NRC asserted that Unit 1 was governed by the outdated ASTM E 185-70 standard and PG&E's previous three-capsule surveillance program. And the Staff maintained that this three-capsule program had been fulfilled by the removal of Capsule V in 2003, thus making it unnecessary to remove Capsule B in the current license term.

The agency's abandonment of this important license condition in its four Extension Decisions and its refusal to grant Petitioners a hearing on those Decisions violated the Atomic Energy Act and the APA in three significant ways.

First, the NRC violated the Atomic Energy Act and the APA by refusing to grant Petitioners a hearing on the 2023 Extension Decision and its predecessor decisions. These decisions collectively amended conditions in the Unit 1 operating license to authorize PG&E to operate Unit 1 in a manner that exceeded the limits imposed by the 2006 License Amendment, thereby triggering the procedural obligations of the Atomic Energy Act to provide a hearing opportunity. *Citizens Awareness Network*, 59 F.3d at 295.

Second, the NRC violated the Atomic Energy Act's requirement that changes to operating licenses must be supported by findings that those changes will not pose an unreasonable risk to public health and safety. As required by 10 C.F.R. § 50.92(a), the NRC's review of license amendment applications must be "guided by the considerations which govern the issuance of initial licenses." These considerations include whether the license amendment will "protect the health and safety of the public." 42 U.S.C. § 2133(b).

Finally, the NRC's failure to support or even acknowledge its abandonment of the 2006 License Amendment violates the APA's requirement for reasonable decision-making on the primarily legal question under the Atomic Energy Act of whether it was required to justify a change to a previous safety determination. The NRC's unannounced and unexplained abandonment of the condition it imposed in 2006 was also arbitrary and capricious because the agency failed to provide any basis, let alone a reasoned basis, for its change of position. To the extent the Denial Order did attempt to explain the basis for the NRC's decision, its explanation "[ran] counter to the evidence before the agency" and was "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Public Citizen*, 573 F.3d at 923.

The NRC's violations of the Atomic Energy and the APA have practical, significant ramifications for public health and safety as well as the credibility of

the agency. With respect to public health and safety, PG&E has now operated Unit 1 for more than twenty years without withdrawing any capsule from the Unit 1 pressure vessel. And as discussed in Section D.2 above, PG&E has no data from the most recently withdrawn capsule – Capsule V in 2003 – that it considers credible. Further, given that the NRC has now dubbed Capsule B a “standby” capsule, it appears unlikely that Capsule B will be withdrawn any time soon.¹⁵ In the meantime, the NRC has prevented Petitioners, if not the general public, from holding the agency accountable for this regulatory manipulation, by denying Petitioners’ hearing request without a word of explanation.

¹⁵ As stated in the NRC decision rejecting Petitioners’ hearing request: The Staff further clarifies that it “does not make any conclusion regarding the future use of the subject capsule in any potential future licensing applications or license periods.” 1-ER-005.

ARGUMENT

I. THE NRC VIOLATED THE ATOMIC ENERGY ACT WHEN IT AMENDED THE OPERATING LICENSE FOR DIABLO CANYON UNIT 1 WITHOUT PROVIDING PUBLIC NOTICE OR THE OPPORTUNITY TO REQUEST A HEARING AND WITHOUT FINDING THAT THE LICENSE AMENDMENTS WERE ADEQUATE TO PROTECT PUBLIC HEALTH AND SAFETY.

A. The NRC's 2006 License Amendment Decision Conditioned the Three-Year Extension of the Unit 1 Operating License on Specific Requirements for PG&E's Reactor Vessel Surveillance Program.

In 2006, following the analytical method set forth in SECY-98-296, the NRC Staff assessed the “impact” of the requested license extension on PG&E’s surveillance program for the Unit 1 pressure vessel. 2-ER-178, 2-ER-180. As a result of that evaluation, in order to “provide[] adequate protection to the health and safety of the public” for the enlarged term, the Staff required that: (1) PG&E’s program be upgraded from ASTM E185-70 to ASTM E185-82; (2) consistent with that upgrade, PG&E’s program would be increased from three to four capsules, of which Capsule B was the last; and (3) also consistent with that upgrade, the projected withdrawal for Capsule B was amended to 20.7 EFPY (approximately 2009). *See* Section E.2 above.

By citing these explicit elements of the reactor surveillance program to justify the three-year extension of the Unit 1 operating license term, the NRC met the two-pronged test that established them as conditions of the Unit 1 operating license. First, the NRC relied on the elements of PG&E’s reactor vessel

surveillance program to support a license amendment that would grant “greater operating authority” to PG&E, *i.e.*, the authority to operate Unit 1 beyond 2021 to 2024. *In re Three Mile Island Alert*, 771 F.2d 720, 729 (3d Cir. 1985). *See also Citizens Awareness Network*, 59 F.32d at 295 (emphasis in original) (license amendment “undeniably *supplemented* [PG&E’s] operating authority.”).

Second, by establishing specific new surveillance requirements that must be carried out as a condition precedent to the extended operation permitted by the 2006 license amendment, the NRC “altered the original terms” of the operating license.” *Deukmejian v. NRC*, 751 F.2d 1287, 1314 (D.C. Cir. 1984). *See also Union of Concerned Scientists v. NRC*, 711 F.2d 370, 382 (D.C. Cir. 1983) (holding that NRC amended reactor licenses by changing the “binding substantive norms.”).

B. The NRC Has Repeatedly Amended the License Condition Imposed on PG&E by the 2006 License Amendment.

In four separate Exemption Decisions issued since 2006 -- in 2008, 2010, 2012, and 2023 -- the NRC Staff has amended the license condition imposed on PG&E by the 2006 License Amendment as a safety-based predicate for extending Unit 1’s operating license term by three years past its 2021 expiration date. Without even acknowledging the license condition imposed in 2006, these Decisions have effectively discarded it by (1) extending the scheduled date for removal of Capsule B; (2) declaring that the applicable ASTM E standard was ASTM E 185-70 rather

than the updated ASTM E 185-82; (3) declaring that PG&E's surveillance program was a three-capsule program instead of a four-capsule program, and (4) asserting that PG&E's surveillance program was completed with the removal of Capsule V in 2002.¹⁶

Fifteen years after the 2006 License Amendment decision, nothing remains of the license condition. The only part of the License Amendment that has any recognized effect is that PG&E has continued to operate the Unit 1 reactor for years past the pre-2006 expiration date of 2021, now unencumbered by the safety requirements on which that extension was based. Thus, the Exemption Decisions has "supplemented" PG&E's "operating authority." *Citizens Awareness Network*, 59 F.3d at 295.

C. The NRC Violated the Atomic Energy Act by Failing to Provide Public Notice or a Hearing Opportunity Each Time It Extended the Schedule for Withdrawal of Capsule B from the Unit 1 Pressure Vessel.

Before amending an operating license, the NRC must comply with the requirements of Section 189a of the Atomic Energy Act to provide public notice and the opportunity to request a hearing. 42 U.S.C. § 2239(a). *Citizens Awareness Network*, 59 F.32d at 295. The NRC violated this statutory mandate

¹⁶ See also discussion above in Sections F.1 through F.4.

by failing to provide any public notice of the four Extension Decisions or to offer the public an opportunity to be heard.

D. The NRC Violated the Atomic Energy Act by Failing to Evaluate Whether Changes to PG&E's License Condition Would Provide Adequate Protection to Public Health and Safety.

By approving changes to PG&E's license as amended by the 2006 License Amendment without evaluating how those changes would affect public health and safety, the NRC violated the Atomic Energy Act. As required by 10 C.F.R. § 50.92(a), the NRC's review of license amendment applications must be "guided by the considerations which govern the issuance of initial licenses." These considerations include whether the license amendment will "protect the health and safety of the public." 42 U.S.C. § 2133(b). The NRC failed even to acknowledge the existence of the license condition, let alone address how changing it would affect public health and safety. Therefore, the Decisions are unlawful under the Act.

II. THE NRC VIOLATED THE ATOMIC ENERGY ACT AND THE ADMINISTRATIVE PROCEDURE ACT WHEN IT DENIED PETITIONERS A HEARING ON THE 2023 EXTENSION OF THE SCHEDULE FOR WITHDRAWING CAPSULE B.

Section 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a), requires the NRC to “grant a hearing upon the request of any person whose interest may be affected by the proceeding.” As discussed above in Section II.H, Petitioners demonstrated their interest in the proceeding by submitting standing declarations and by setting forth, in a specific and well-supported contention, the facts demonstrating that the NRC had amended PG&E’s operating license by granting the 2023 extension and the three extensions preceding it. Nevertheless, the Secretary summarily denied Petitioners’ hearing request. 1-ER-005.

The Secretary’s Denial Order violated Section 189a of the Act by utterly failing to engage on, or even entertain Petitioners’ claims that after granting the 2006 License Amendment, the NRC’s decisions granting multiple extensions of the time for removing Capsule B “pivot[ed] sharply away” from the rationale for the 2006 License Amendment, to the point where the Staff “now considers withdrawal of Capsule B a discretionary task that PG&E may undertake on its own schedule.” 2-ER-056 – 2-ER-059. The Secretary’s decision is unreasonable because it addresses the legal question of whether the Staff impermissibly changed or discarded a license condition by simply parroting the demonstrably unacceptable language on which Petitioners seek a hearing. *Alaska Wilderness Recreation & Tourism*, 67

F.3d at 727. It is also arbitrary and capricious because it fails to consider “whether the decision was based on a consideration of the relevant factors and whether there has been clear error of judgment.” *Alaska Ctr. for the Env’t v. United States Forest Serv.*, 189 F.3d at 859.

III. THE NRC’S ABANDONMENT, WITHOUT A REASONED EXPLANATION, OF THE SURVEILLANCE PROGRAM IT IMPOSED ON PG&E AS A CONDITION OF EXTENDING THE TERM OF PG&E’S LICENSE WAS UNREASONABLE AND ARBITRARY AND CAPRICIOUS.

A. The Extension Decisions Were Unreasonable.

In all four Extension Decisions at issue, the NRC abandoned a duly-established license condition that it had imposed in 2006 in compliance with the substantive and procedural requirements of the Atomic Energy Act. By failing to even acknowledge the existence or applicability of the 2006 License Amendment, the NRC unlawfully abdicated its statutory duties under the Atomic Energy Act, which require support of decisions with a safety analysis and to provide public notice and a hearing opportunity.

Under Ninth Circuit jurisprudence, agency decisions that are “primarily legal in nature” are entitled less deference than those that are “factual” in nature. *Cal. Ex. rel. Lockyer v. USDA*, 575 F.3d 999, 1011 (9th Cir. 2009) (citing *Northcoast Environmental Center v. Glickman*, 136 F.3d at 667 and *Alaska Wilderness Recreation & Tourism*, 67 F.3d at). The NRC’s unexplained

abdication of the agency's statutory duty must be rejected because it is unreasonable.

B. The Extension Decisions Were Arbitrary and Capricious.

The Administrative Procedure Act invalidates agency actions that are “arbitrary and capricious.” 5 U.S.C. § 706(2)(A). A long line of Supreme Court and lower federal court cases have concluded that, while an agency can change its legal position, “an agency must provide a reasoned explanation for any failure to adhere to its own precedents.” *Hatch v. FERC*, 654 F.2d 825, 834 (D.C. Cir. 1981). *See also Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 22 (2017) (citing *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, (2009)). (agency must present “a reasoned explanation” for “disregarding facts and circumstances that were engendered by [a] prior policy.”); *Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 42 (1983) (“Accordingly, an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance.”)). *See also Honeywell Int’l v. U.S. Nuclear Reg. Comm’n*, 628 F.2d 568, 578 (D.C. Cir. 2010) and *Guard v. United States Nuclear Regulatory Com.*, 753 F.2d 1144 (D.C. Cir. 1985) (NRC decisions held arbitrary and capricious for ignoring previous NRC positions without reasoned explanation).

Here, the NRC's action falls plainly afoul of this long line of cases. Without so much as acknowledgement, let alone a reasoned explanation, the agency arbitrarily and abruptly reversed position – on multiple occasions. In its 2006 license amendment, the agency conditioned a three-year extension of Unit 1's license on PG&E implementing the ASTM E 185-82 four-capsule surveillance program, including removal of Capsule B in approximately 2009; then the agency granted four separate extensions of the deadline for removing Capsule B over a period of 15 years, each one based on the NRC's assertion that the three-capsule surveillance program that had been supplanted in 2006 was the applicable program, and that it had been completed. The NRC offered no reason for its change of position: indeed, it did not even acknowledge that it had made any change.

CONCLUSION AND REQUEST FOR RELIEF

For the foregoing reasons, Petitioners respectfully request the Court to declare that the 2023 Extension Decision and the three preceding Extension Decisions constituted unlawfully issued amendments or revocations of the license condition imposed by the NRC in 2006 and reverse and vacate them. In addition, Petitioners request the Court to order the Commission to grant a hearing on whether it should have issued the 2023 Extension Decision or any of the previous Extension Decisions leading up to it. Finally, because these license amendments

have cumulatively allowed PG&E to operate Unit 1 in violation of the license condition on which extended operation past 2021 is predicated, the Court should order the Commission to expedite the hearing and any other response to the Court's decision that may be required.

Respectfully submitted,

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