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NUCLEAR INFORMATION AND RESOURCE SERVICE
AND OHIO NUCLEAR FREE NETWORK

November 4, 2026

Denise Edwards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Via electronic filing at *https://www.regulations.gov.*
(https://www.regulations.gov/commenton/NRC-2025-1568-0002)
and email to Denise Edwards, *Denise.Edwards@nrc.gov.*

RE: Significant Adverse Comments on the proposed rule, *Exemptions from Materials Licensing*, Docket ID No. NRC-2025-1568

Dear Nuclear Regulatory Commission and Ms. Edwards:

The undersigned grassroots and nongovernmental organizations hereby submit formal comments objecting to the Nuclear Regulatory Commission's (NRC) proposed and direct final rulemaking to create exemptions that will effectively deregulate/decontrol nuclear waste and materials in the states. Contrary to the NRC's position, these rule changes are quite controversial and we request that the NRC immediately withdraw the rule.

Because the rule change is controversial, inappropriate, unnecessary, creates regulatory complications and overlooks public safety risks, we submit this letter as a significant adverse comment. Elimination of the present system of requiring licensing of hundreds of radionuclides is an invitation to disastrous problems of public health and health-care costs, worker safety, and protection of the environment. For the direct final rule to become effective December 21, 2026, it will have been made so in violation of the NRC's statutory obligations under the Atomic Energy Act (AEA), Administrative Procedures Act (APA), and National Environmental Policy Act (NEPA).

I. The Changes Caused by the Rulemaking

1. Byproduct Material Exempt Quantities (10 CFR § 30.71, Schedule B)

The rule amends 10 CFR §§ 30.12, 30.15, 30.18, 30.71, 40.11 and 70.11, covering byproduct, source and special nuclear material. Its main effect is to retire the NRC's own exempt-quantity table, Schedule B, and to replace § 30.71 with 10 CFR 20, App. C, which is a much longer list of radionuclides, dozens of which allow higher levels of radiation than are currently allowed by Schedule B. NRC regulations at 10 CFR § 30.18 presently allow persons to receive, possess, use, transfer, or own byproduct material in quantities not exceeding those listed in 10 CFR § 30.71 (Schedule B) without a license. Possession of greater quantities requires a specific license. Under the proposed and direct final rule, the NRC would replace the Schedule B

table with a direct reference to Appendix C of 10 CFR Part 20. Appendix C was developed for a different purpose. It identifies radionuclide-specific quantities of licensed material that trigger the container-labeling requirements of 10 CFR §§ 20.1904 and 20.1905, based on dose limits and exposure assumptions. The NRC maintains that using the Appendix C values is a more risk-informed approach to byproduct material licensing. The undersigned commenters disagree.

The direct final rule has the effect of deregulating vast quantities of nuclear waste by delisting every radionuclide in the Exempt Table in 10 CFR Part 30. The upshot is that more radionuclides used in or created in nuclear weapons, power, medical, academic and industrial work will cease to need a specific license. Three radionuclides would be carved out to keep their current, higher limits: cadmium-109, iridium-192 and zirconium-93 stay exempt up to 10 microcuries each, where Appendix C would have cut them to 1 microcurie. Other non-alpha-emitting byproduct material keeps a 0.1-microcurie floor — so that no radionuclide that is exempt today would lose its exemption, while hundreds more are exempted. The rule change fails to identify the need for this large increase in exemptions–over 4 times the number of radionuclides. Despite the claim, the rule change is NOT making Part 10 CFR 30 consistent with 10 CFR 20 because labeling licensed material is not the same as exempting it from licensing. Part 20 Appendix C is a labeling table for licensed radionuclides. But 10 CFR § 30.71 exempts them from licensing. The shift is not clearly explained, analyzed, justified or made clear for public comment. It cannot be risk-informed because no estimates or calculations of amounts of radioactivity are provided for all of the individual radionuclides or the total cumulative amount.

Rolling back specific materials licensing thresholds expands the absolute volume and radioactivity of radioactive materials circulating in the public sphere. Without oversight, the cumulative risk of lost, mismanaged, or improperly disposed of radioactive materials is increased.

Further, nothing in this rule prohibits diluting more concentrated wastes or materials to the exemption levels that would exist if the rule is finalized. They could then be released as solid waste into unregulated destinations including but not limited to landfills, incinerators, and commercial recycling streams. This would be a *de facto* Below Regulatory Concern (BRC) practice which Congress revoked when it overturned BRC policies some 35 years ago.

2. Blanket Exemptions for DOE Contractors (10 CFR §§ 30.12, 40.11, and 70.11)

DOE or DOE contractor activities on federally controlled sites are generally exempt from NRC regulation. When DOE contractors conduct activities with nuclear material at non-federal sites, however, they historically have had to obtain a license and exemptions for some parts of it, which requires review and approval by the NRC and the host Agreement State.

If the exemption is permanent, as envisioned by this rule-change, how will it be enforced? How will the public, local emergency responders, NRC, or states know when and where radioactive contracts are being carried out?

The rule change also creates a standing exemption for Department of Energy contractors who train law enforcement and first responders by using radioactive material. The new rule would amend 10 CFR §§ 30.12, 40.11, and 70.11 to grant a categorical, blanket exemption for a

range of DOE contractor activities involving off-site training, provided the activities fall within certain contract and activity criteria. It is not clear, however, how compliance with these criteria will be assessed, given that no regulatory request is required.

In the past when that training happened outside of a federal site, the contractor had to ask the NRC — and the state, if it runs its own program — for an exemption. The rule replaces those repeat requests with a blanket exemption for "temporary activities involving the training of law enforcement, emergency response, or other similar personnel," provided the contract specifies that safety procedures and quantities stay under the limits the rule sets, such as 150 curies for an iridium-192 sealed source.

3. Inadequate, Non-Existent Full Cost Benefit Analysis

The NRC estimates $6.1 million in net savings, undiscounted, over 2027 through 2031. No quantitative estimate or acknowledgement of physical release of exempted radioactive wastes and materials is provided. In the NRC rule change for 10 CFR 20, NRC does retain the Linear No Threshold model. That means that every amount of radioactive exposure can cause cancer. Yet no estimate of either the amounts of radioactivity that would be released nor of the potential health and environmental consequences is provided. There are enormous federal, state, insurance and personal costs for health testing, diagnosis and treatment of cancer and cancer deaths. If NRC is opening the door to releases of hundreds of radionuclides, it must go back and calculate the costs on all sides. Simply claiming that there is reasonably adequate protection is insufficient. This is a substantial and adverse comment requiring NRC to do the calculations and assessments needed to justify the claims. The public must have the opportunity to challenge that information, when provided, if NRC chooses to persist with rule change.

This is especially important in light of the federal preemption on many aspects of radiation protection. The reality is that over a dozen states have laws requiring continued regulatory control over radioactivity that the NRC stops regulating. If NRC proceeds with this rule-change, it is possible that states could assert authority to continue requiring regulatory control in their jurisdictions and regarding bringing radioactive wastes and materials into their states and/or compacts.

II. Factual Objections to the Rule Change

1. *The NRC Has Not Justified the Change*

This rule change would expand the list of exemptions from licensure by over four times the number of radionuclides, potentially allowing some or all of every waste stream to be released from regulatory controls. Radioactive materials would go to regular and hazardous waste dumps and incinerators and into recycling streams to make consumer goods from zippers to baby toys to foundations for homes and buildings. By shifting a list of over 760 licensed radionuclides (including plutonium) requiring labeling (10 CFR 20 Appendix C) to the "Exempt" table for byproduct material (in 10 CFR § 30.71), the number of exempt radionuclides more than quadruples, and the allowable release levels go up for many of them. No clearance levels go down; none become more protective as a result of the proposed rule change. There appear to be no estimates of doses to the public, let alone projected costs of health impacts. The

only discussion and examples given in the rule-change are for a very few radionuclides. But the whole action is to clear or exempt over 760 radionuclides. NUREG-1717, which is implied to have analysed the impacts of the rule change, reviews some of the radionuclides already exempted for specific uses in consumer products but does not address the over-575 radionuclides, including plutonium, which the rule effectively allows to be released from regulatory control and licensing.

NRC is not calling this rule change Below Regulatory Concern (BRC) but it effectively is doing just what the NRC 1986 and 1990 BRC policies, which were overturned by the US Congress in 1992, did—relinquishing radioactive regulatory and licensing controls. In fact the NRC chose to exempt radionuclides that are calculated to give up to 10 millrems/year doses, the same dose level that was in the overturned policies. NRC should withdraw the rule and stop unnecessary exemptions. If specific exemptions are needed, they should be specifically identified and cost benefit analysis including costs for exposures, health impacts, and medical and social costs, carried out open to public comment and input.

BRC or below regulatory concern policies by whatever name is used, are highly controversial. Every time the NRC, EPA, DOE and DOT proposed variations of the concept, it has drawn clear and massive opposition. For NRC to claim this rulemaking is not controversial is either ignorant or deliberately deceptive.

The NRC claims this rule change will save a little more than $6 million over 5 years – roughly $1 million savings per year. But it is not offset against any estimate quantifying the number nor expense of health impacts. There is no mention of how much the states spend in Medicaid dollars alone on treatment of cancers or other radiation-induced health effects. The savings the NRC claims are highly suspect. The NRC's position seems to be that the new exemptions will have no health effects at all, even as longtime official NRC policy and science holds that there is no safe level of radiation.[1]

Increasing the threshold for unlicensed byproduct, source, and special nuclear materials is quite likely to dramatically increase the cumulative volume and radioactivity of unmonitored radioactive material in commercial and academic settings. The blanket exemption for emergency responder and law enforcement training conducted by DOE contractors in public or off-site areas is problematic. It is highly likely to leave local communities and state environmental agencies unclear as to when and where radioactive materials are being transported and used for drills. This in turn likely will give rise to concerns regarding the security, security protocols, and potential loss of control of materials during off-site mobility exercises.

The direct final rule procedure circumvents conventional rulemaking checks and balances. Expanding licensing exemptions for nuclear materials is inherently controversial and complicated, and fast-tracking should be eschewed in favor of complete withdrawal of the rule change or, if continued, public hearings and standard notice-and-comment procedures.

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[1] Linear No-Threshold Model and Standards for Protection Against Radiation, 2021-17475 (86 FR 45923) (August 17, 2021), https://www.federalregister.gov/documents/2021/08/17/2021-17475/linear-no-threshold-model-and-standards-for-protection-against-radiation?form=MG0AV3

By characterizing this as a Category B rule change, the NRC is requiring the 41 Agreement States to promulgate "essentially identical" state regulations to implement the new rule. States desiring to maintain current standards could be forced to weaken them, some after already expressing intent to continue regulatory control. States seeking higher safety barriers must instead lower and deregulate them. States with commercial nuclear power sites or other NRC- and agreement-state-licensed facilities could be forced to abandon enforcement of stricter local environmental, policy and economic protections meant to protect workers and the public. The changes in this rulemaking appear to directly conflict with existing laws in over a dozen states that require continued regulatory control. States passed such laws when the NRC adopted its 1986 and 1990 Below Regulatory Concern (BRC) policies. More states were in the process of passing such laws when Congress overturned the policies in the Energy Policy Act of 1992. The intent expressed by state and local governments against deregulation of nuclear waste and materials is being ignored and violated by this proposed and direct final rule. Dozens of local cities, towns, states and counties in states across the country also passed resolutions against BRC and deregulation, some with intent to make ordinances. Clearly the concept and the practice is ***controversial.*** "Controversial" is actually an understatement. The public would be more opposed to deregulating nuclear waste and materials now than it has been during past efforts, if asked. Comments against BRC and similar efforts with different names (such as VLLW, very low level radioactive waste) received some of the highest numbers of comments in opposition of all rulemakings, licenses and license amendments at NRC, EPA and DOE. Is this why it is being pushed through as a direct final rule?

The NRC has inadequately evaluated the exemptions individually and cumulatively. NRC has not evaluated them in isolation, nor has it assessed the cumulative environmental and public health effects of multiple unmonitored, exempted quantities of radionuclides moving simultaneously in the same geographic region. Once materials are exempted by the rule, there will be no federal registry to track their spread or lifecycle, which poses a grave vulnerability in national source tracking.

This rule change is sneakier than some other of the ongoing contemporaneous NRC rule changes. It is disguised as a simple alignment or update for uniformity, but it is much more than that. The NRC claims that exposure levels that are low enough to not need labeling can be exempted from licensing by NRC, agreement states and control by DOE. Even if it could be confidently predicted that there would be little increase in radionuclides moving in commerce – which it cannot – the public would be deprived of any means of knowing anything at all about the presence or absence of formerly-licensed radiation in their vicinity. People would receive no notice nor opportunity to consent.

The Exemption from Licensing Rule violates the international principles in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)--and other international instruments to Free, Prior and Informed Consent (FPIC). That is the "collective right of Indigenous Peoples to give or withhold consent—free of coercion, before decisions are made, and with full information—regarding laws, policies, or projects affecting their lands, territories,

and resources."[2] The Declaration requires States to consult and cooperate in good faith with Indigenous Peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them." *Id*.

Much of the nuclear fuel chain is on or near native land and affects all people, but especially indigenous people even more, in mining, milling, and other front end (of the fuel chain) communities. Neither the proposed nor the direct final rule indicates such consultation has been or is being carried out.

2. *The NRC Lacks Credibility to Deregulate the Management of Radioactive Materials*

There is reason to question the motives of this latest attempt at deregulation of radioactive materials that are likely to become commodities, although they should be identified and treated as waste.

The proposed exemption of hundreds of radionuclides is yet another historical attempt by the former Atomic Energy Commission and later, the Nuclear Regulatory Commission and the U.S. Department of Energy, to decontrol less-concentrated radioactive waste from nuclear power and weapons fuel chains. These efforts began in about 1962 and have never really stopped. Each time, the attempted regulatory changes have been opposed by large numbers of concerned people – businesses, religious institutions, health professionals, workers, unions, the steel industry, environmentalists, landfill operators, local and state governments, and many others. Over the years, the proponents of these ghastly and highly controversial deregulation attempts have authored euphemisms to describe and justify releasing untold amounts of man-made radioactivity into sectors where people would be placed at risk, without their knowledge or consent. The non-exhaustive list of euphemisms used to peddle the deregulation of irradiated materials across six decades has included such misleading terms as:

Alternative methods of disposal (10 C.F.R. § 20.2002)
BRC, Below Regulatory Concern
Beneath Regulatory Control
Beneficial Reuse
Clean
Clearance, Clear
De minimus or *de minimis*
Deregulation
Dose-Based Standards
Exempt, Exemptions
Exempt from regulatory control
Excluded from regulation (IAEA term for naturally occurring radioactivity)
Health-based Standard
Indistinguishable from Background
Free Release

[2] *Consultation and free, prior and informed consent (FPIC),* https://www.ohchr.org/en/indigenous-peoples/consultation-and-free-prior-and-informed-consent-fpic

Law of Concentrated Benefit over Diffuse Injury
Linguistic Detoxification
Low Activity Radioactive Waste
Low Activity Waste
Non-detect
Non-regulatory approach to management of radioactive waste (U.S. EPA)
Not Amenable to Control
Not Radioactive
Not Relevant to Radiation Protection Dispositions
Optimization (cost benefit analysis carried out by waste generator)
PCW (Potentially Contaminated Waste)
Reclassification
Recycling
Release
Restricted Release
Restricted Reuse (usually over 1st reuse only)
Risk-Based Standard
Risk-informing or Risk-informed (analysis carried out by generator)
Slightly Radioactive Scrap Metal or Material (SRSM)
Slightly Radioactive Waste
Special Waste
Specific Exempt
Trivial (risk, dose, contamination)
Very Low Level Radioactive Waste (VLLW)

III. Legal Objections to the NRC Rule Change

1. *The Atomic Energy Act Excludes Economic Cost When Considering the Adequacy of Protection of Public Health and Safety*

In the Federal Register announcement of the direct final rule, the NRC stated as "Need for the Rule" that "Licensees may amend their current license for additional radionuclides; however, such amendments impose a cost on licensees and regulators without a proportionate benefit to public health and safety."

The Atomic Energy Act does not require amendments to be measured in terms of what they cost licensees and regulators. To the contrary, under the Atomic Energy Act, economic considerations are secondary to assuring public health and safety. The NRC is mandated to determine whether the nuclear facility's technical specifications "will provide adequate protection to the health and safety of the public."[3] When the NRC sets adequate protection standards, it may not consider the role of cost, although it can consider other factors like the nature of the risks involved. *Pub. Citizen v. NRC*, 573 F.3d 916, 918 (9th Cir. 2009); see *Union of Concerned Scientists v. NRC (Concerned Scientists I)*, 824 F.2d 108, 114–18 (D.C. Cir. 1987). Also, see *Seacoast Anti-Pollution League v. NRC*, 690 F.2d 1025, 1033 (D.C. Cir. 1982) (the Commission "does not and cannot consider the utility's [prior] investment in a particular facility"

[3] 42 U.S.C. § 2232(a).

in determining whether adequate protection exists). Also, *Power Reactor Development Co. v. International Union of Electrical, Radio, and Machine Workers,* 367 U.S. 396, 81 S.Ct. 1529, 6 L.Ed.2d 924 (1961) (Commission could not properly consider the applicant's previous capital investment in deciding whether the operation of a plant would satisfy the adequate-protection requirement).

Congress declared in the Atomic Energy Act that source, byproduct, and special nuclear material "must be regulated in the national interest and in order to provide for the common defense and security and to protect the health and safety of the public." 42 U.S.C.§ 2012(e). Pursuant to § 2133(b)(2), the Commission shall issue commercial licenses to persons "who are equipped to observe and who agree to observe such safety standards to protect health and to minimize danger to life or property as the Commission may by rule establish."

The *Concerned Scientists I* court defined a two-tier framework: the NRC must establish and enforce adequate protection without regard to cost but may consider economic costs when exercising its discretionary authority to impose safety requirements beyond what is necessary to provide adequate protection. *Id.* at 119–21. The court subsequently reaffirmed that distinction in *Union of Concerned Scientists v. NRC*, 880 F.2d 552, 558–60 (D.C. Cir. 1989).

The NRC's rule change seems to invert that statutory framework. Instead of using cost considerations only to determine whether additional, discretionary protections beyond adequate protection are warranted, the NRC makes cost-benefit analysis central to its determination of what radiation-protection measures are reasonably required in the first place. That approach can't be reconciled with *Concerned Scientists I*, where the NRC may not entertain economic considerations in the first-order statutory mandate to protect public health and safety. The NRC simply pretends that cost-based decision making fulfills the AEA's adequate-protection statutory mandate with no explanation as to how it can abandon its statutory priorities.

Apart from the NRC's indefensible cost-benefit approach, the agency has produced a one-sided economic analysis. The NRC overlooks the considerable expenses of cancer treatment, chronic illness, lost income, caregiving, long-term contamination, stress, lawsuits, cleanup costs, harms to families and communities and the economic fallout from imposing costs on workers (nuclear and non-nuclear workers who will encounter exempted radionuclides), taxpayers, healthcare systems, and future generations. For these reasons alone, the rule must be rejected.

Some of the costs that would need to be included in a legitimate cost benefit analysis include the costs to the public and individuals for loss of potable water in a world in increasing scarcity of resources; costs of purchase, maintaining and training in use of detection equipment to identify and protect against contamination; the costs of lives lost, costs of detecting, treating and dealing with cancers and other health effects potentially caused by or made worse by the failure to prevent unnecessary radiation exposure. The analysis would need to take into account that there is no limit on the number of exemptions, thus the possibility of multiple, additive, cumulative and synergistic exposures and consequences.

2. *The NRC Has Not Provided a Reasoned Explanation for the Change*

This direct final rule ostensibly will reduce regulatory costs, thereby bequeathing corporate welfare upon nuclear materials licensees*, i.e.*, avoidance of the higher expenses of licensing (vs. granting exemptions from licensing) by state and federal regulators. To explain the

change, the NRC alleges some $6 million in savings over 5 years and a need to implement the direct final rule in order to comply with Executive Order 14300's mandate to complete the rule change within 18 months of the date the EO was signed.

Notably, 10 CFR §§ 30.12, 30.71, 40.11 and 70.11 all predate the effective date of NEPA. Reliance on an historical rule that has not faced NEPA scrutiny to justify the deregulation the NRC proposes here points to a serious baseline problem. That could leave the 2026 Environmental Assessment vulnerable to a legal challenge.

NRC must necessarily measure the environmental impact of its rule change against a "no-action alternative," which is the current baseline. If the NRC's EA treats the pre-1970 exemptions as a "zero" baseline merely because they have long been in place, legal problems abound. Because those exemptions were never evaluated under NEPA, respecting the potential for unmonitored concentrations of radionuclides in the environment, there are no projections of cumulative radiation problems. Ceasing to require licensing for hundreds of additional radionuclides adds more uncertainty and arbitrariness to the NRC's Finding of No Significant Impact (FONSI) under the Administrative Procedure Act (APA). The true environmental and radiological effects of expanding the exemptions are highly uncertain. A programmatic rule change that permanently eliminates permitting across hundreds of radionuclides cannot be looked at in a vacuum. Without a prior NEPA document to look back on, the NRC cannot seriously assert that this amendment is just a minor, incremental tweak. The 60+ years during which the regulations have been effective but unreviewed may well be relevant evidence of the effectiveness of the status quo. To shift the regulations without an understanding of those six decades could be a mistake that jeopardizes workers and members of the public in unforeseen ways.

An agency must generally prepare an EIS if the environmental effects of a proposed agency action are highly uncertain. *National Parks Conservation Ass'n v. Babbitt*, 241 F.3d 722 (9th Cir. 2001). See also *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213 (9th Cir. 1998) ("significant environmental impact" mandating preparation of an EIS where "effects are 'highly uncertain or involve unique or unknown risks'"). Preparation of an EIS is mandated where uncertainty may be resolved by further collection of data, see *id.* at 1213-14 (lack of supporting data and cursory treatment of environmental effects in EA does not support refusal to produce EIS, or where the collection of such data may prevent "speculation on potential. . . effects."). "The purpose of an EIS is to obviate the need for speculation by ensuring that available data are gathered and analyzed prior to the implementation of the proposed action." *Sierra Club v. United States Forest Serv*., 843 F.2d 1190, 1195 (9th Cir.1988).

NEPA's "hard look" doctrine obligates the NRC to fully explain the environmental consequences of its decisions. The use here of an EA/FONSI to support the rule change grandfathers the unreviewed risks of the 1950s or 1960s Atomic Energy Commission framework and uses them to bypass a rigorous latter-day public screening. The NRC's decision to materially alter its longstanding radionuclide licensing program creates a new "major Federal action" requiring preparation of an EIS, since no NEPA treatment has been accorded the regulations subjected to the 2026 change. *Upper Snake River Chapter of Trout Unlimited v. Hodel*, 921 F.2d 234-235 (9th Cir. 1990). See also, *Andrus v. Sierra Club*, 442 U.S. 347, 363 n. 21, 99 S. Ct.

2335, 2343 n. 21 (1979) ("'[M]ajor Federal actions' include the 'expansion or revision of ongoing programs.'").

The NRC cannot rely on the combined regulatory benefits of the permitting process under 10 CFR Parts 20 and 30 for decades, and then casually repudiate them without conducting substantive environmental reviews of the possible or probable effects of the change. The contradiction embodied in the NRC's minimization of the effects that will supposedly follow upon this rule change cries out for a "reasoned explanation." *Cf. Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983). The NRC's abandonment of a system that generates knowledge to protect public health and safety for unknown decontrol has not been justified by a "reasoned explanation for the change.'" *Jimenez-Cedillo v. Sessions*, 885 F.3d 292, 298 (4th Cir. 2018) (quoting *Encino Motorcars, LLC v. Navarro*, 136 S.Ct. 2117, 2125, 195 L.Ed.2d 382 (2016). "At a minimum, an agency must 'display awareness that it is changing position and show that there are good reasons for the new policy.'" *Id*. (quoting *Encino Motorcars*, 136 S.Ct. at 2126).

The NRC must address the "facts and circumstances that underlay or were engendered by the prior policy," including any "serious reliance interests." *Encino Motorcars*, 136 S.Ct. at 2126 (quoting *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515-16, 129 S.Ct. 1800, 173 L.Ed.2d 738 (2009)). By not explicating the depth and breadth of the pre-existing interpretation, the public has little means of seeing the sharp contrasts and inconsistencies between the new proposal and the old one. "An 'unexplained inconsistency' in agency policy indicates that the agency's action is arbitrary and capricious, and therefore unlawful." *Jimenez-Cedillo*, 885 F.3d at 298 (quoting *Encino Motorcars*, 136 S.Ct. at 2125); *Casa De Maryland v. U.S. Department of Homeland Security*, 924 F.3d 684, 704-705 (4th Cir. 2019).

The NRC has neither addressed serious reliance interests nor justified the replacement of a decades-long permitting policy (that operated with few complaints) by a system of planned ignorance. Lacking a reasoned explanation, the rule must be rejected.

3. Serial Violations of NEPA

The NRC published a very short Environmental Assessment and Finding of No Significant Impact (FONSI) in the Federal Register notice.[4] The FONSI rests on two conclusory analyses of data which the NRC claims to have performed but has not made a matter of record.[5]

[4] Pp. 63142-63143 of the October 5, 2026 Federal Register notice, https://www.federalregister.gov/documents/2026/10/05/2026-20336/exemptions-from-materials-licensing

[5] From FR Notice, p.63142, Table B-1 (referencing 10 CFR § 30.71): "The NRC has reviewed updated scientific and safety information, as discussed in the rule preamble, and determined that higher exempt quantity and activity limits for certain radionuclides continue to provide reasonable assurance of adequate protection of public health and safety and would not result in any physical changes in the environment. Therefore, the NRC has determined that the rulemaking action results in no significant environmental effects."

And from Table B-1 (referencing 10 CFR §§ 30.12; 40.11; and 70.11): "The NRC reviewed years of past approvals, as discussed in the rule preamble, and determined that a standing exemption for temporary training activities involving law enforcement emergency response and similar personnel, provided the radioactive materials used fall below the specified quantity limits, has a low safety risk and continues to provide reasonable assurance of adequate protection of public health and safety and would

The expanded list of specific radionuclides made exempt from licensing by the new rule will allow larger quantities and concentrations of radiation to be exempted. The end of documented, permitted tracking obligates the NRC to disclose its raw data and not attempt to rely on an insidious and unsubstantiated "trust us" overture.

In the Environmental Assessment, the NRC treats the cumulative impact of the rule change as an extension of individual item safety. The agency asserts that because the radiation baseline for a single exempt item or concentration is functionally negligible to human health, the widespread, unknown commercial dispersion of hundreds of formerly regulated radionuclides will not cumulatively cause a "significant effect" on the human environment. But the proposed exemptions are dynamic deregulation. Deleting the obligation to obtain a permit will foreseeably cause increased exposure of human beings and the natural environment to unknown levels of radiation. There will be cumulative radionuclide migration and concentration. The geographical range of the radionuclide migration is not limited. If this rule goes into effect, there will be no means of tracking exempt radionuclides nor estimating exposures. The passage of time may or may not mean that the volume of trafficking in such materials will increase and concentrate. The dispersion of more radioactivity than historically verified will cause new accumulations and with that, cumulative damaging effects to land, water and air. Bypassing specific licenses across multiple categories of byproduct, source, and special nuclear materials will create a physical environment cluttered with unmonitored radioactive material that compounds without any accounting for the inevitable geographic or commercial accumulations of those materials.

The proposed rule is not "reasonable and reasonably explained." *FCC* v. *Prometheus Radio Project*, 592 U.S. 414, 423 (2021) (agency action qualifies as "arbitrary" or "capricious" if it is not "reasonable and reasonably explained."). In reviewing an agency's action under that standard, a court may not " 'substitute its judgment for that of the agency.' " *FCC* v. *Fox Television Stations, Inc.*, 556 U.S. 502, 513 (2009). But it must ensure, among other things, that the agency has offered "a satisfactory explanation for its action[,] including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Assn. of United States, Inc.* v. *State Farm Mut. Automobile Ins. Co*., 463 U.S. 29, 43 (1983) (internal quotation marks omitted). Accordingly, an agency cannot simply ignore "an important aspect of the problem." *Id*. There's no satisfactory explanation here, and accordingly the rule must be rejected.

4. *NEPA Violated by Failure to Evaluate Cumulative Socioeconomic, Health and Regulatory Effects*

Section 102 of NEPA, NRC regulations in 10 CFR Part 51, and federal common law all require the agency to analyze and identify indirect, cumulative, socioeconomic, and health effects. There is a direct causal relationship between the regulatory change and physical changes in the human environment.

The NRC must evaluate cumulative effects here. Deregulation of hundreds of radionuclides implicates the Atomic Energy Act (AEA), the Administrative Procedure Act (APA), and the biological realities of radiation exposure under NEPA. The obligation of radiation protection provides distinct statutory and administrative grounds to compel cumulative assessment before a rule change may be contemplated. As previously mentioned, the move from

not result in any physical changes in the environment. Therefore, the NRC has determined that the rulemaking action will result in no significant environmental effects."

a system of permitting which generates information about the kinds of radionuclides and their radioactive characteristics to a state of decontrolled, undocumented permissiveness makes possible random, unknown radiation exposures of workers and members of the public, with an accompanying likelihood of increasing the resulting lifetime radiation burden across populations.

Under NEPA, the NRC cannot maintain that the effects of this deregulatory move are non-significant, because the direct mechanism of biological harm would be cumulative dose accretion. *Sierra Club v. Watkins*, 808 F. Supp. 852, 875[6] (D.D.C. 1991). The environment would thus be significantly affected, and NEPA requires federal agency consideration in an EIS of environmental consequences of "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). The regulatory definition of "significantly" mandates that agencies consider "cumulative impacts," that is, "the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Fritiofson v. Alexander*, 772 F.2d 1225, 1232 (5th Cir. 1985).

The Administrative Procedure Act, 5 U.S.C. § 706, rejects agency actions as arbitrary and capricious if they fail to consider an essential aspect of the issue. The radiation protection standards in 10 CFR Part 20 have historically functioned as part of an integrated permit-driven system. Creating hundreds of new exemptions fundamentally alters the baseline exposure assumptions without any justification for the change. The disappearance of any governmental means of identifying, much less documenting, repeat exposures, and failing to analyze how these incremental intersections of people and irradiated material will accumulate across multiple facilities and over decades ignores the aggregate impact on public and occupational health, as well as the physical environment. The AEA mandates that the NRC ensure "adequate protection to the health and safety of the public." 42 U.S.C. § 2232. Implementing a blanket scheme of exemptions implicates the NRC's AEA duty to analyze whether the collective, cumulative population dose remains within the bounds of "adequate protection."

5. *An Environmental Impact Statement Is Warranted for this Rule Change*

Under NEPA, each federal agency must prepare an EIS before taking a "major Federal action[ ] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). Under 42 U.S.C. § 4332(2)(C), federal agencies must evaluate the "reasonably foreseeable environmental effects" of major federal actions. This rule change is a "major federal action" for two reasons: (1) NEPA did not exist when the regulations were first promulgated, so there has never been NEPA scrutiny of the current system. Gathering baseline data under the old system must take place in order to have adequate information to decide; and (2) the 2026 shift is voluminous in its own right. NEPA's declared purpose (42 U.S.C. § 4321 & § 4331) expressly aims to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings." Thus, human health and safety are core components of the "human environment" that NEPA intends to safeguard. NRC guidance such as NUREG-1748 explicitly states that environmental reviews must cover socioeconomics, public health, and environmental

[6] "While the handlers and port workers probably were not always the same for each shipment, some people along the transportation route assumedly have been exposed to this minimal amount of radiation repeatedly. In its new EA, the Department should calculate this cumulative dose, explaining the amount of radiation, the number of people it might involve, and its potential health effects."

justice when tied to radiological exposure pathways. The subject rule change is a "major Federal action."

The rulemaking itself supplies the proximate cause of the harm. The spontaneous, poorly-justified creation of hundreds of untracked new exemptions is an act of affirmative regulatory deregulation. The foreseeable consequence of this national rulemaking is an incremental increase in routine emissions and worker exposures. Because the agency's own action is the proximate cause of these industry-wide increases, the cumulative total of these increases across industries known to handle irradiated materials is a direct outcome that implicates an EIS, not a Categorical Exclusion or FONSI.

The NRC is refusing to compare data on the historic movement of known, licensed and trackable irradiated materials—exposures which have been anticipated and avoided—to prospective, decontrolled exposures which will not require recordation. The rule against segmentation "prevent[s] agencies from dividing one project into multiple individual actions each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." *NRDC v. Hodel,* 865 F.2d 288, 297 (D.C. Cir. 1988). The current version of NEPA, hobbled as it is by the *Seven County* decision and infamous 2024 congressional gutting, still represents "in large measure, an attempt by Congress to instill in the environmental decisionmaking process a more comprehensive approach so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted as the price to be paid for the major federal action under consideration." *NRDC v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975).

Had the regulations that will be affected by this change been subjected to an earlier NEPA investigation, the circumstances would nonetheless prompt a supplemental environmental impact statement. Under *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989), and the NRC's requirements at 10 CFR § 51.92(a), the Commission must prepare a supplement to an environmental impact statement if (1) there are substantial changes in the proposed action relevant to environmental concerns; or (2) there are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Here, the NRC is pushing an EA/FONSI because it considers the ostensibly low allowable levels of radioactivity – which will cease to be recorded – as adequate mitigation to protect human beings and the physical environment from damage. The present system, which requires some scientific knowledge about mitigated exposure to radioactive materials, cannot be abandoned without reopening the NEPA analysis. *Audubon Society of Central Arkansas v. Dailey*, 977 F.2d 428, 436-437 (8th Cir. 1992); *Tyler v. Cisneros*, 136 F.3d 603(9th Cir. 1998).

The NRC has not taken the requisite "hard look" at the likely aggregations of exempt radionuclides that a structured NEPA investigation would likely produce.

IV. Conclusion

The foregoing discussion provides multiple reasons sufficient to completely withdraw the Exemptions from Licensing rule change NRC2025-1568.

If the NRC still wishes to effectuate a regulation change, it must provide substantive responses in a notice-and-comment process. The NRC's own procedures require a substantive response when:

- The comment causes the NRC staff to reevaluate (or reconsider) its position or conduct additional analysis;
- The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or
- The comment raises a relevant issue that was not previously addressed or considered by the NRC staff.[7]

The undersigned commenters have articulated significant adverse comments which the NRC must respect, and consequently the Commission may not direct-final this rule change based on the record. To the contrary, the agency must withdraw the proposed rule published in Docket ID No. NRC-2025-1568. It must then conduct a conventional rulemaking proceeding which includes an Environmental Impact Statement (EIS) that evaluates the cumulative health impacts and physical effects on the environment as a consequence of eliminating nearly all permitting. The NRC should open the NEPA draft up for a minimum of 180 days of public comments.

Finally, we adopt and incorporate by reference as though rewritten here the comments offered in this proceeding by the Nuclear Information Resource Service and Committee to Bridge the Gap.

Thank you.

Sincerely,

/s/ Terry J. Lodge
Terry J. Lodge
Attorney at Law

LIST OF COMMENTERS HERE

[7] https://www.nrc.gov/regulations-legislation/the-nrc-rulemaking-process/direct-final-rule#comment

DO NOT DELETE

Proposed rule at https://www.regulations.gov/document/NRC-2025-1568-0002

The real Fed Reg announcement

https://www.federalregister.gov/documents/2026/10/05/2026-20336/exemptions-from-materials-licensing