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Submitted via the Federal eRulemaking Portal www.regulations.gov

Re: Categorical Exclusion for Advanced Nuclear Reactors, Docket No. DOE-HQ- 2025-0405, 91 Fed. Reg. 4550 (February 2, 2026).

Clean Air Task Force, Inc. ("CATF") respectfully submits this comment regarding the Department of Energy's Categorical Exclusion for Advanced Nuclear Reactors ("AR CX").[1] CATF is a nonprofit organization dedicated to advancing the policy and technology changes necessary to achieve a low-emissions high-energy planet at an affordable cost. With more than 30 years of internationally recognized expertise in energy policy and a commitment to exploring all potential solutions, CATF is a pragmatic, non-ideological advocacy group with the bold ideas needed to improve the global energy system. CATF has offices in Boston and Washington, D.C., with staff working remotely around the world.

While CATF supports the ultimate goal of the efficient and effective licensing of advanced nuclear reactors and believes that an AR CX could be used to support Department of Energy ("DOE") licensing reviews, we recommend that DOE narrow the scope of the AR CX to remain consistent with the intent, purposes, and requirements of the National Environmental Policy Act ("NEPA") in a manner that ensures regulatory durability and predictability. We believe that these changes would maximize the usability of the AR CX by providing regulatory certainty and more efficient environmental permitting processes for eligible advanced reactors.

I. The AR CX is inconsistent with NEPA and will not provide the intended outcome

CATF reviewed the AR CX and the Written Record of Support[2] ("Record of Support") and believes that the CX is inconsistent with the intent of NEPA and that weaknesses in the Record of Support limit the effectiveness and impact of the CX. The AR CX's inconsistencies with NEPA and the specific challenges within the Record of Support are discussed below. We believe that an appropriate and effective AR CX could help increase regulatory efficiency and reduce the time and resources required to license certain ARs. We are supportive of efforts to create an AR CX

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[1] Categorical Exclusion for Advanced Nuclear Reactors, 91 Fed. Reg. 4550 (Feb. 2, 2026).

[2] Written Record of Support for Categorical Exclusion for Advanced Nuclear Reactors, U.S. Dep't of Energy (Feb. 2, 2026), *available at* https://www.energy.gov/nepa/articles/written-record-support-february-2026 (hereinafter "Record of Support").

for advanced reactors, but believe that the AR CX must be developed through an appropriate public comment process and is properly scoped with an adequate Written Record of Support that provides durable and defensible justification for the AR CX. This comment concludes with revision recommendations that we believe DOE should incorporate to create an effective and efficient AR CX that meets the intended outcome of accelerating AR licensing and deployment.

II. The categorical exclusion is inconsistent with NEPA

The purposes of NEPA are "to promote efforts which will prevent or eliminate damage to the environment and biosphere" and to integrate "environmental concerns … into the very process of agency decision-making."[3] The use of categorical exclusions must be consistent with NEPA's purposes and procedures. To ensure that categorical exclusions satisfy this standard, it is important that agencies use transparent processes and provide adequate support for the identified categories.

The Fiscal Responsibility Act of 2023 codified the three-tier structure of NEPA.[4] Under the Act, an Environmental Impact Statement ("EIS") evaluates significant or potentially significant actions in detail, while an environmental assessment ("EA") should be prepared when the significance is either not reasonably foreseeable or unknown.[5] A categorical exclusion ("CX"), on the other hand, is a "category of actions that a Federal agency has determined normally does not significantly affect the quality of the human environment."[6]

This structure defines distinct roles for both CXs and EAs, consistent with longstanding NEPA practice.[7] Categorical exclusions are clearly defined *categories* of actions that an agency reasonably "has determined" do not "normally" have significant environmental effects.[8] EAs, in contrast, evaluate *specific* actions to determine whether their effects are significant.[9]

The AR CX turns this distinction on its head. Rather than determining *in advance* that a category of actions do not normally have significant environmental impacts, it relies on *later* determinations that a particular advanced reactor's impacts are "sufficient[ly]" small to justify

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[3] National Environmental Policy Act of 1969, 42 U.S.C. § 4321; *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979).

[4] Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 321 (2023).

[5] 42 U.S.C. § 4336e; *id.* § 4336(b)(1), (2).

[6] 42 U.S.C. § 4336e(1).

[7] *See* 43 Fed. Reg. 56003–04 (Nov. 29, 1978); 40 C.F.R. § 1508.9 (2020) (prior CEQ regulations defining environmental assessments); *see also Ctr. for Biological Diversity v. Salazar*, 706 F.3d 1085, 1096 (9th Cir. 2013) (explaining that a categorical exclusion "is not an exemption from NEPA; rather, it is a form of NEPA compliance, albeit one that requires less than where an environmental impact statement or an environmental assessment is necessary").

[8] 42 U.S.C. § 4336e(1); 10 C.F.R. § 1021.102(a) (DOE NEPA regulations). To exclude a project from additional NEPA review pursuant to a CX, an agency must both determine that the project fits within the category of actions covered by the CX and that there are no "extraordinary circumstances" that could result in the project having significant environmental effects. *Id* § 1021.102(b).

[9] 42 U.S.C. § 4336(b)(2).

the issuance of a CX applying to every stage of development of every advanced reactor design.[10] But making those kinds of project-specific risk determinations is precisely the function of an EA.[11]

The result contravenes the statute: If DOE determines a project's risks are sufficiently low, the CX applies and no environmental review occurs. If DOE determines the risks are *not* sufficiently low, the CX doesn't apply, but the very act of reaching that conclusion has already performed the core function of an EA. The CX thus either substitutes for the EA or renders it redundant.

DOE's approach is also inconsistent with the statutory definition of a categorical exclusion. A CX is a category of actions that an agency "has determined normally does not significantly affect the quality of the human environment."[12] The use of the past tense "has determined" shows that the agency must have made the determination that a category of actions does not normally have significant impacts *before* issuing the CX. In addition, the use of the word "normally" implies the existence of a category of actions whose environmental profile can be assessed in advance, with little or no case-by-case discretion. DOE's preexisting Appendix B categorical exclusions reflect this principle: they define categories by objective parameters such as acreage limits, specific activities, or facility types.[13] By contrast, the AR CX does nothing to define the metes and bounds of the exclusion. This is particularly important because, as described below, there are important differences among advanced reactor designs in their environmental impacts.

III. Advanced reactors vary in their environmental impacts

While many advanced reactors designs may have, as DOE notes, "safety features, fuel type, and fission product inventory that limit adverse consequences from releases of radioactive or hazardous material from construction, operation, and decommissioning,"[14] any definitive

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[10] Specifically, the CX applies to the "[a]uthorization, siting, construction, operation, reauthorization, and decommissioning of advanced nuclear reactors" if DOE determines that "(1) the project's attributes, including potential fission product inventory, fuel type, reactor design, and operational plans, reduce sufficiently the risk of adverse offsite consequences from the release of radioactive or hazardous materials, and (2) the project demonstrates that any hazardous waste, radioactive waste, or spent nuclear fuel generated by the project can be managed in accordance with applicable requirements." 91 Fed. Reg. at 4551.

[11] An EA exists precisely to "set forth the basis [for the agency's] finding of no significant impact" or determination that an EIS is necessary. 42 U.S.C. § 4336(b)(2).

[12] 42 U.S.C. § 4336e(1).

[13] *See, e.g.*, DOE NEPA Implementing Procedures, App. B, B5.18 (wind turbines "total height generally less than 200 feet" located "within a previously disturbed or developed area"); B5.16 (solar PV systems on existing structures or "within a previously disturbed or developed area"); B6.10 (waste storage "less than approximately 50,000 square feet" and "within or contiguous to a previously disturbed or developed area"), https://www.energy.gov/sites/default/files/2026-01/DOE-NEPA-Implementing-Procedures-2026-02-02.pdf; *id,* App. C, USFS(e)(12) (adopted Forest Service exclusion, harvest of live trees "not to exceed 70 acres, requiring no more than 2 mile of temporary road construction").

[14] 91 Fed. Reg. at 4552.

conclusions regarding a particular reactor's environmental impacts are contingent on the proposed advanced reactor's technology and design, reactor power, operation, and siting.

The Written Record of Support for the AR CX identifies eight completed NEPA reviews as the basis for the AR CX, with a focus on EAs completed for five projects most relevant to future advanced reactor projects. The five advanced reactor projects included are:

- Microreactor Applications Research, Validation, and Evaluation ("MARVEL") Project at Idaho National Laboratory ("INL"),
- Molten Chloride Reactor Experiment ("MCRE") Project at INL,
- Demonstration of Microreactor Experiment ("DOME") Test Bed Operations at INL,
- Kairos Power Hermes 2 test reactors in Oak Ridge, Tennessee, and
- Molten Salt Research Reactor ("MSRR") at Abilene Christian University ("ACU").

Table 1 summarizes key characteristics (technology and design, power level, siting, and other operational and lifecycle characteristics) for these projects.

Table 1. Summary of ARs described in the AR CX Record of Decision

AR Project	Reactor Technology	Maximum Reactor Power	Reactor Operation	Reactor Site
MARVEL[15]	Metal uranium alloy fuel fast reactor with sodium cooling	0.1 MW_{th}	4 years of testing with 2 years of full power operations	Installed in an existing INL research reactor building complex and shares common infrastructure
MCRE[16]	Liquid fuel molten salt reactor	0.2 MW_{th}	6000 hours of operation with 1000 hours of full power operations	Installed in existing INL facility designed for confinement of critical systems

[15] Idaho National Laboratory, Final Environmental Assessment for the MARVEL Project at Idaho National Laboratory, U.S. DOE Idaho Operations Office, DOE/EA-2146 (June 2021), https://www.energy.gov/documents/final-ea-2146-marvel-idaho-2021-06pdf.

[16] Idaho National Laboratory, Final Environmental Assessment for the Molten Chloride Reactor Experiment (MCRE) Project, U.S. DOE Idaho Operations Office, DOE-EA-2209 (Aug. 2023), https://www.energy.gov/documents/final-ea-2209-molten-chloride-reactor-2023-08pdf.

MSRR[17]	Liquid fuel molten salt reactor	1 MW_{th}	20 years of power operations	Installed in an existing building located on site of previous athletic facilities and buildings
DOME[18]	Varies but must use tri-structural isotropic (TRISO) particle fuel with less than 20% U-235 enrichment	20 MW_{th}	3 years of total on-site operation with approximately 2 years of power operations	Installed in upgraded INL containment building previously housing a 62.5 MW_{th} test reactor
Hermes 2[19]	Solid TRISO fuel, molten salt cooled reactor	35 MW_{th}	11 years of testing with 10 years of full power operations	Installed in a new reactor containment building located on land previously used by Oak Ridge National Lab for a uranium enrichment plant

The environmental reviews for all of these reactor projects found that the projects would not have significant consequences for the environment.[20] However, the magnitude of the potential

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[17] U.S. NRC, Environmental Assessment for the Construction Permit Application for the Abilene Christian University Molten Salt Research Reactor, ML23300A53 (Mar. 2024), https://www.nrc.gov/docs/ML2330/ML23300A053.pdf (hereinafter "MSRR EA").

[18] Idaho National Laboratory, Final Environmental Assessment for the Demonstration of Microreactor Experiment (DOME) Test Bed Operations, U.S. DOE Idaho Operations Office, DOE/EA-2268 (May 2025), https://www.energy.gov/sites/default/files/2025-05/final-ea-2268-dome-test-bed-operations-2025-05_0.pdf (hereinafter "DOME EA").

[19] U.S. NRC, Environmental Assessment and Finding of No Significant Impact for the Construction Permits and Environmental Review Exemptions for the Kairos Hermes 2 Test Reactors, Final Report, ML24240A034 (Aug. 2024), https://www.nrc.gov/docs/ML2424/ML24240A034.pdf.

[20] *See* Record of Support. The eight reviews are: DOE/EIS-0542 (VTR); DOE/EIS-0546 (Pele); DOE/EA-2146 (MARVEL); DOE/EA-2209 (MCRE); DOE/EA-2268 (DOME); ML2424A034 (Kairos Hermes 2) (EA & FONSI for two test reactors on the same site); ML23300A053 (ACU MSRR).

impacts from these reactors, and the safety basis on which these analyses concluded they would not pose significant impacts, varied dramatically.

A. Risks vary by technology

The environmental impacts and radiological risks of an AR will vary based on reactor technology. The key variations (Table 1) across the analyzed reactor projects include the fuel type (metals, TRISO, and molten salts) and reactor coolant (molten salts, gas, and other TRISO compatible coolants).[21] Specifically, reactor technology (including fuel performance, coolant characteristics, and fuel-coolant interactions) will strongly affect reactor operation during both normal and off-normal conditions. Nearly any reactor technology can be designed and operated to ensure safety, but the operating conditions and behavior of the reactor will vary significantly. For example, solid TRISO fueled, gas cooled reactors will have different off-normal operating characteristics than liquid fueled, molten salt cooled reactors. The requirements for the design and operation of these two reactors will vary significantly and will require different systems, structures, components, and operations to effectively bound the environmental impacts and radiological risks to non-significant levels.

Bounding analyses can be used to support environmental and risk evaluations that generically assess one or more advanced reactor technologies but often require assumptions or conditions that limit the broad applicability of the analysis. For example, the Environmental Assessment for the DOME project considered a range of different advanced reactor technologies but required that all reactors use the TRISO particle fuel to bound environmental impact and radiological risk analyses.[22] This allowed the Environmental Assessment analyses to credit the safety characteristics of the TRISO fuel to bound environmental impact and radiological risk. A bounding analysis that applies to all advanced reactor technologies would not be able to credit the safety characteristics of any specific technology or would require supplemental analyses to generically assess and credit the characteristics of different classes of advanced reactor technologies.

These technology-specific differences in risk profile necessitate environmental analysis that is specific to a defined size and class of reactor, if not specific to a particular design and specific project. It cannot necessarily be assumed that all hypothetical future advanced reactors will necessarily have low environmental and radiological risk based on reactor technology.

B. Risks vary with reactor power

Reactor risk typically scales with reactor power, but the CX provides no limits on the level of thermal power or electrical output for which the CX could apply. The reactor fission product

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[21] Record of Support at 5, DOE/EIS-0542 (U-Pu-Zr metal fuel); *id.* at 8, DOE/EIS-0546 (HALEU TRISO with compatible coolants); *id.* at 6, DOE/EA-2146 (U-Zr-H metal fuel, NaK-cooled); *id.* at 6-7, DOE/EA-2209 (molten chloride salt, circulating fuel); *id.* at 9, ML2424A034 (TRISO pebble fuel with fluoride salt coolant); *id.* at 10, ML23300A053 (molten salt research reactor).

[22] DOME EA at 8.

inventory—the major radiological hazards in a nuclear power plant—scales based on the total energy produced by a reactor and is the product of the reactor power and the time of operation since a refueling outage. The radioactive decay heat produced by the reactor is also a function of the reactor fission product inventory. The radioactive decay heat must be removed from the spent nuclear fuel after shutdown to prevent the fuel from overheating and damaging the fuel, releasing radioactive fission products.

In general, lower power reactors can have a lower risk than higher power reactors because they have a smaller inventory of fission products and have a smaller amount of radioactive decay heat that must be removed by passive or active engineering systems. Additionally, reactors that produce less total power (e.g., are operated for a shorter period of time) will produce fewer fission products and less radioactive decay heat than reactors that operate continuously at full power.

As DOE states in the Record of Support, "[f]ission product inventory is the primary factor in the source term that determines the potential radiological risk to the public and environment in the event of an accident."[23] DOE, however, makes no effort to cabin the scope of the AR CX on this basis, but rather dismisses the differences without analysis:

> Although past advanced reactor projects have been for solely experimental, testing and demonstration purposes, the advanced fuel forms, inherently safe designs, and inventories of potential fission products associated with these reactors indicate that reactors in this category developed for additional purposes, such as power production and industrial applications, are also appropriate for this categorical exclusion.[24]

The advanced reactor projects previously evaluated with EAs and discussed in the Statement of Decision are limited in thermal power from 0.1 MW (100 kW) up to 35 MW (Table 1). While this range of evaluated power outputs may seem large, it does not include many advanced reactor projects currently under development by some advanced reactor developers some of which are expected to go through DOE authorization as part of the DOE Reactor Pilot Program.[25] Additionally, commercial reactor research and development activities supported by DOE currently include reactors far outside of this evaluated range of power levels including the Oklo

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[23] Record of Support at 2.

[24] 91 Fed. Reg. at 4552.

[25] U.S. DOE, *U.S. Department of Energy Reactor Pilot Program*, https://www.energy.gov/ne/us-department-energy-reactor-pilot-program. The reactor power levels of several companies participating in the DOE Reactor Pilot Program include Aalo Atomics (30 MWth) [Aalo's 2026 Plan: Criticality and Beyond | Aalo Updates], Antares Nuclear (1.5 MWth) [SECY-25-0072: Weekly Information Report Week Ending August 8, 2025], Atomic Alchemy (15 MWth) [NRC No. 25-062], Deep Fission (45 MWth) [Deep Fission | Nuclear Regulatory Commission], Last Energy (80 MWth) [Last Energy FAQ], Natura Resources (200–300 MWth for a 100 MWe design) [Natura Resources Advancing Nation's First Gen IV Nuclear Reactor | Natura Resources], Radiant Industries (1.9 MWth) [Summary of the Sept 3, 2025 Partially Closed Meeting with Radiant], Terrestrial Energy (822 MWth) [Terrestrial Energy 2026 Letter to Shareholders], Valar Atomics (10 – 15 MWth for a 5 MWe design) [US Military Airlifts Next-Generation Nuclear Microreactor In Historic First Operation].

Aurora Powerhouse (approximately 150 – 250 MW thermal power),[26] X-energy *Xe-100* reactor (200 MW thermal power),[27] and the TerraPower *Natrium* reactor (840 MW thermal power).[28]

As written, the AR CX could include reactors with power levels substantially higher than those previously evaluated in EAs and discussed in the Record of Support. For example, passively safe advanced reactors technologies and designs with limited environmental or radiological risk at low power levels may not have limited risk at high power levels due to the increased production of fission products and radioactive decay heat. Similarly, reactors operated for short periods of time will generally have lower risk than reactors operated continuously. DOE provides no analysis of how fission product inventories, decay heat management, and other operational challenges such as spent fuel waste streams or land disturbances may change as reactors scale from power levels of less than a megawatt to power levels of hundreds or thousands of megawatts. These limitations make it problematic to extend the CX to reactors with power levels much different than those in Table 1.

C. Risks vary by operational missions

The CX does not provide any limits or conditions on the operational mission, lifetime, or utilization of different reactors that are eligible for the CX. As discussed above for reactor power, the total operation time of a reactor between refueling outages (i.e., full-power hours or full-power years) scales the total radionuclide inventory and radioactive decay heat for an advanced reactor project. The advanced reactor projects previously evaluated with EAs and discussed in the Record of Support (Table 1) have limited operational missions and expected operational times that do not correspond to those of commercial reactors.

Research and test reactors typically do not operate in a steady state condition and may operate on a more limited schedule to accommodate different reactor testing, material and fuel testing, or operator training programs. As a result, their total equivalent full-power operational time between refueling outages may be much less than the total time between outages. Commercial power reactors, conversely, will be operated with the highest possible capacity factors necessary to meet the needs of customers, so the equivalent full-power operational time should be close to the total time between outages.

The reactors summarized in the Record of Support will likely have operational missions much closer to those of research and test reactors with a lower ratio of equivalent full-power operational time to total time because they are largely operated for specific testing missions. The CX does not provide any specification around the specific mission or usage of the reactor, or provide bounds on operational metrics that align with the previous advanced reactor projects

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[26] U.S. NRC, Oklo Aurora Powerhouse, https://www.nrc.gov/reactors/new-reactors/advanced/who-were-working-with/pre-application-activities/okla-aurora-powerhouse (last updated Feb. 6, 2026).

[27] Enclosure 2: 00689, Revision 1 (X-energy, Xe-100 Licensing Topical Report Reactor Core Design Methods and Analysis (Apr. 4, 2024), https://www.nrc.gov/docs/ML2410/ML24103A155.pdf) (Public).

[28] TerraPower, Submittal of TerraPower Topical Report, "Principal Design Criteria for the Natrium Advanced Reactor", TP-LIC-LET-0052 (Jan. 24, 2023), https://www.nrc.gov/docs/ML2302/ML23024A281.pdf.

evaluated for EAs and found to have no significant impacts. DOE provides no analysis of the possible impacts of continuous commercial operation versus research and test operation, making it challenging to extend the CX to reactors with missions much different than those in Table 1.

D. Risks vary by siting

The CX covers the environmental impacts of "siting" of ARs with no geographic limitations, despite DOE's acknowledgement that environmental significance "is primarily related to local environmental conditions."[29] Of the five advanced reactor projects previously evaluated with EAs and discussed in the Record of Support, four are proposed at sites that currently or previously have housed nuclear reactors or other nuclear-related projects. The fifth advanced reactor project (the MSRR) is housed in a newly constructed building on the ACU campus, but because the building was completed before the start of formal construction activities on the MSRR it was considered an "existing building."[30] The MSRR EA, therefore, found that the construction of the MSRR would not require any additional land disturbance on the site and did not constitute substantial new construction.

The scope of the evaluated advanced reactor project sites within the Record of Support is effectively limited to construction of reactors at existing nuclear facilities, dedicated nuclear buildings, or construction of reactors on sites previously used for nuclear energy activities. DOE provides no analysis of the possible environmental impacts on areas surrounding non-nuclear activities and environments, making it a challenge to extend the CX to reactors with sites much different than those in Table 1.

Additionally, the CX does not consider the impacts that might be associated with AR projects that require substantially different land areas. For example, the TerraPower Natrium project will have a site size of 290 acres[31] while the ACU MSRR project will have a site size nearly 20 times smaller at only 15 acres.[32] While site size does not directly correlate with the environmental impact of a project on a site or surrounding areas, DOE provides no analysis of or limits on site size making it challenge to extend the CX to reactors with sites sizes much different than those in Table 1.

E. Risks Vary by Phase of Project Development

The AR CX would apply to the entire lifecycle of nuclear development, including "authorization, siting, construction, operation, reauthorization, and decommissioning."[33] However, as explained

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[29] Record of Support at 1; *id* at 2 ("The potential significance of environmental impacts from advanced nuclear reactors is primarily related to local environmental conditions rather than the status of the proposed site for the reactor (greenfield/undisturbed versus previously disturbed and developed area).").

[30] MSRR EA at 3-61, 5-4.

[31] U.S. NRC, Environmental Impact Statement for the Construction Permit Application for Kemmerer Power Station Unit 1, Final Report, NUREG-2268 at 1-2 (Oct. 2025), https://www.nrc.gov/docs/ML2528/ML25287A017.pdf.

[32] MSRR EA at 2-1.

[33] Record of Support at 1.

below, the environmental reviews cited in DOE's Record of Support do not substantively evaluate each of these lifecycle phases. The CX should extend only to phases of development that DOE has established do not "normally" have significant environmental impacts, which is best demonstrated with a documented history of FONSIs for the specific category of actions in question. For example, the EA for the DOME project as referenced in DOE's Record of Support purports to encompass decommissioning within the FONSI, [34] but in fact defers an actual environmental evaluation to a later date due to the variety of reactors within the project.[35]

IV. DOE should revise the CX

A. DOE should narrow the CX to what the record supports

The eight completed NEPA reviews identified in the Record of Support may provide a foundation for a more narrowly scoped categorical exclusion, but they do not support the unbounded scope DOE has adopted. DOE should revise the AR CX to reflect the parameters demonstrated in the record to produce no significant environmental effects. The CX could be limited by prescriptive parameters, performance-based parameters, or ideally a combination of the two as DOE and other federal agencies continue to gain experience with advanced reactor NEPA reviews.

For example, reactor power output could be used as a prescriptive metric for applicability of the CX based on the parameters of advanced reactors demonstrated in the record. Thus, a CX could be limited to advanced reactors with a thermal power output limit of no greater than 35 MW, the largest reactor in the record. If larger projects are evaluated in the future with EAs and receive a FONSI, the CX could be updated to enlarge the eligibility envelope. The goal of CX metrics is not to arbitrarily restrict applicability of the CX but instead to narrow the scope to definitions that are defensible in the record and can provide regulatory certainty and predictability for applicants who use them. This would eliminate contentions that the CX could be applied to extremely large projects (e.g., multi-thousand-megawatt thermal power reactors) with power outputs and possible environmental impacts far outside the record. This change could provide greater NEPA certainty to most of the advanced reactor projects currently pursuing demonstrations with the DOE Reactor Pilot Program.[36]

As another example, the CX states that the advanced reactor project must "reduce sufficiently the risk of adverse offsite consequences from the release of radioactive or hazardous materials," but does not provide any quantitative or performance-based criteria for this parameter.[37] Instead, the DOE could use requirements for off-site emergency planning or actions during a maximum credible accident as a parameter for CX eligibility. If a facility can demonstrate that it does not exceed off-site doses during accidents that require either shelter in-place or emergency

[34] *Id.* at 7–8.

[35] DOME EA at 17 ("a detailed decommissioning plan would be developed…").

[36] U.S. DOE, *U.S. Department of Energy Reactor Pilot Program*, https://www.energy.gov/ne/us-department-energy-reactor-pilot-program; *supra* note 25.

[37] Record of Support at 1.

evacuations (typically between 1 rem – 5 rem total effective dose equivalent), then it would be eligible for a CX because its accidents will not result in significant off-site environmental or radiological risk. If a facility requires shelter in-place or emergency evacuation, it would not be eligible for a CX. This creates a performance-based criterion that relates plant characteristics that impact environmental and radiological risk (e.g., technology, power output, operations, siting) to a quantitative criterion that enables use of more proportional regulatory requirements.

Relatedly, the CX provides no definition or reference for what constitutes an "advanced" reactor for purposes of application of the CX. Leveraging the statutory definition under the Advanced Reactor Demonstration Program ("ARDP) makes little sense, as that definition has no necessary tie to anything relating to the reactor's likely environmental impacts.[38] Even with such a definition, the AR CX retains the circularity issue described above.

As DOE completes additional EAs or EISs for new reactor designs, power levels, or types of sites not yet evaluated, it could expand the categorical exclusion to encompass reactors with those parameters, consistent with NEPA's requirement for a documented record demonstrating that the broader category of actions normally does not significantly affect the quality of the human environment.[39]

B. DOE should engage in a public comment process for this revision and in the adoption of future categorical exclusions

CATF appreciates DOE's solicitation of public comment on the AR CX and encourages DOE to strengthen public transparency in the adoption and application of categorical exclusions. NEPA's core purposes include public transparency and early public involvement in the consideration of the environmental impacts of federal actions, and public documentation for the adoption and use of categorical exclusions is essential to carrying out those purposes.

Before the removal of CEQ's NEPA regulations in 2025,[40] as DOE here acknowledges,[41] public comment prior to promulgation of categorical exclusions had been the required historical practice for nearly five decades.[42] It likely remains necessary to solicit and respond to public comment[43] and the rationale for doing so has not changed. Public participation yields a more robust administrative record that may withstand judicial review of categorical exclusion

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[38] 42 U.S.C. § 16271(b)(1) (definition of advanced reactors for purposes of the ARDP, which merely lists 11 classes of improvements from older reactors that may qualify a new reactor as "advanced").

[39] 42 U.S.C. § 4336e(1).

[40] 90 Fed. Reg. 10610 (Feb. 25, 2025) (effective April 11, 2025).

[41] 91 Fed. Reg. at 4552 n.4.

[42] *See* 43 Fed. Reg. 56003–04 (Nov. 29, 1978); National Environmental Policy Act Implementation Regulations Revisions Phase 2, 89 Fed. Reg. 35442, 35573–74 (May 1, 2024) (amending former 40 C.F.R. § 1570.3).

[43] A categorical exclusion likely constitutes a substantive rule under the Administrative Procedure Act requiring public notice and comment. *See, e.g.*, *Am. Min. Cong. v. Mine Safety & Health Admin*., 995 F.2d 1106, 1112 (D.C. Cir. 1993).

determinations at the time they are established, is consistent with NEPA's purpose of integrating environmental concerns into the process of agency decision making, and helps ensure that categorical exclusions are scoped to actions that genuinely "normally do not significantly affect the quality of the human environment."[44] For advanced reactors in particular, even the appearance of curtailed environmental review may generate public skepticism that undermines their deployment.

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Respectfully submitted,

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[44] 42 U.S.C. § 4336e(1).