



August 26, 2026

U.S. Nuclear Regulatory Commission
Office of the Secretary
ATTN: Rulemakings and Adjudications Staff
Washington, DC 20555

Subject: “Modernizing Package Certification Requirements” [NRC-2025-1667]

To all concerned:

The State of New York respectfully submits these comments in response to the U.S. Nuclear Regulatory Commission’s (NRC) proposed rule, “Modernizing Package Certification Requirements” (NRC 2025-1667) published in the Federal Register on July 27, 2026. The proposed rule would amend the NRC’s regulations in 10 CFR Part 71 governing the packaging and transportation of radioactive material. The rulemaking is undertaken in response to Executive Order 14300, “Ordering the Reform of the Nuclear Regulatory Commission,” and related directives.

New York’s Interest in the Proposed Rule

New York has been an NRC Agreement State since 1962, and its agreement is implemented by the New York State Department of Health, the New York City Department of Health and Mental Hygiene, and the New York State Department of Environmental Conservation (NYSDEC). New York hosts three operating nuclear power plants on the shore of Lake Ontario, together providing roughly 3.4 GW of capacity; the decommissioning Indian Point Energy Center in the lower Hudson Valley; and the West Valley Demonstration Project, which stores 278 canisters of vitrified high-level radioactive waste. Each of these sites stores irradiated fuel or high-activity material that must eventually be transported.

New York also sits at the hub of interstate highway and rail corridors that connect the Northeast to the rest of the country and that pass through some of the most densely populated areas in the nation. Radioactive material moving to, from, or through New York implicates the State’s radiation control, transportation, emergency management, and law enforcement resources.

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New York's comments herein summarize the proposed rule, identify provisions that New York supports, set out New York's concerns, assess the rule's impact on State programs, and offer constructive recommendations. They build on New York's prior comments on related rulemakings, including the microreactor licensing rule and the Part 37 physical security rule, but are not limited by them.

Summary of the Proposed Rule

The proposed rule would amend 10 CFR Part 71 to add flexibility to the framework for certifying transportation packages and to support the future deployment of microreactors and other new nuclear technologies. The amendments are described as voluntary and are intended to reduce regulatory burden while maintaining reasonable assurance of adequate protection. The rule makes three principal changes.

First, a new 10 CFR § 71.41(e) would allow an applicant, in lieu of the deterministic physical testing and analysis specified in 10 CFR § 71.71 (normal conditions of transport), § 71.73 (hypothetical accident conditions), and § 71.61 (special requirements for certain Type B packages), to use another method of demonstration, such as a risk-informed or performance-based methodology, provided the method is submitted for review in advance, provides adequate safety during transport, and is acceptable to the NRC. The NRC points to the methodology it previously endorsed in SECY-24-0062 for a tri-structural isotropic particle fuel (TRISO)-based microreactor package as an example.

Second, a revised 10 CFR § 71.47(b)(3) would establish an optional external radiation standard of 0.5 mSv/h (50 mrem/h) at 2 meters from the vehicle, a fivefold increase over the existing 0.1 mSv/h (10 mrem/h) limit, for exclusive-use shipments of certain Type B packages, such as transportable microreactors. The higher limit would apply only where the package contents meet the highway route-controlled quantity (HRCQ) definition in 49 CFR § 173.403 and the licensee coordinates in advance with the appropriate federal, state, or local inspection authorities.¹ The technical basis is drawn primarily from the technical report titled "*Microreactor Incident-Free Transportation Radiation Dose Assessment*" prepared by the [Pacific Northwest National Laboratory](#) ("PNNL-38760"), which evaluated microreactor transportation dose scenarios.²

Third, the rule includes several streamlining and harmonization changes including adopting the International Atomic Energy Agency's report titled "Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material," known as IAEA SSG-26, Rev. 1, lifting and tie-down design load values in 10 CFR § 71.45, allowing electronic

¹Highway route-controlled quantity as defined in 49 CFR 173.403. Irradiated microreactors will likely contain a quantity of radioactive material greater than 3,000 A2 and therefore meet the HRCQ definition. See 91 FR 46873.

²PNNL-38760, "Microreactor Incident Free Transportation Radiation Dose Assessment," December 2025. ADAMS Accession No. ML26061A014.

submission and streamlining reporting in 10 CFR §§ 71.1, 71.17, and 71.95, adding references to the Federal Motor Carrier Safety Administration (FMCSA) regulations in 10 CFR § 71.5, and removing the definition of “Spent nuclear fuel or Spent fuel” from 10 CFR § 71.4.

Comments on the Proposed Rule

New York supports the modernization of NRC regulations, the removal of unnecessary burden, and the safe and timely deployment of advanced nuclear technologies, objectives that align with the State’s own clean-energy goals. New York has a direct interest in a workable transportation framework for microreactors and other new designs. At same time, several provisions of the proposed rule warrant refinement to preserve the safety margin that has produced Part 71’s strong record, to respect the co-regulator relationship between the NRC and the U.S. Department of Transportation (DOT), and to account for the responsibilities the rule shifts onto States. In those cases, we offer constructive, concrete suggestions for improving the rule.

Provisions New York Supports

The voluntary, optional structure of the flexibilities

The proposed alternatives to specific physical testing requirements are optional. The existing deterministic testing requirements and the existing 10 mrem/h radiation standard remain in place, and applicants may continue to use them. This preserves the current safety floor for those who do not opt in and avoids imposing new obligations on existing certificate holders. New York supports retaining this optional structure in any final rule.

Tying the higher radiation limit to HRCQ contents and FMCSA controls

Conditioning the higher radiation limit on contents that meet the HRCQ definition means that qualifying shipments travel under the FMCSA’s enhanced routing and pre-shipment inspection requirements,³ which reduces public access to the shipment and lowers the likelihood of a transportation incident. New York supports this nexus and views the retention of these access-control and routing measures as an important safeguard that should remain as a firm condition, not a default that can be waived.

Inclusion of an advance-coordination requirement with State authorities

New York supports the principle, reflected in proposed 10 CFR § 71.47(b)(3)(ii), that states be informed before higher-dose shipments occur and that inspection personnel be made aware of radiological conditions and dosimetry needs. As discussed below, New York recommends that this requirement be defined more precisely, but the underlying recognition of the state role is welcome.

³49 CFR 173.441 (external radiation standards for U.S. Department of Transportation shipments). 49 CFR part 397 (routing of hazardous materials). 49 CFR 385.415 (pre-shipment inspection).

Preservation of statutory air-transport-of-plutonium safeguards

New York supports the NRC's decision not to remove the provisions in 10 CFR §§ 71.64, 71.74, and 71.88 relating to the air transport of plutonium, in recognition of the specific statutory requirements that govern that activity.

Electronic submission and reporting modernization

Allowing electronic submission of registration letters and reports under 10 CFR §§ 71.1, 71.17, and 71.95 is a sensible modernization that should improve the timeliness of safety-related reporting and reduce administrative burden without affecting protection of public health and safety.

Interagency coordination and technology-neutral framing

New York supports the NRC's stated commitment to continued coordination with DOT and with state, local, and tribal authorities, consistent with the longstanding NRC-DOT Memorandum of Understanding, its transparency about the limitations of the PNNL-38760 analysis, and its solicitation of comment on whether the applicability of the higher limit should be constrained. This openness gives New York confidence that its concerns will receive a fair hearing.

New York Concerns

Risk-informed methods should supplement, not replace, deterministic testing

Proposed 10 CFR § 71.41(e) permits an alternative method of demonstration in lieu of the deterministic tests in 10 CFR §§ 71.71, 71.73, and 71.61. The deterministic testing framework has underpinned the strong safety record of radioactive material transportation for decades and provides a common, transparent, reproducible benchmark that states, carriers, responders, and the public can rely on. New York is concerned that allowing risk-informed analysis to substitute entirely for physical testing could reduce the conservatism and comparability of package certifications, place substantial demands on NRC review resources and expertise, and shift the safety demonstration onto applicant-selected methodologies whose assumptions are less visible to outside parties. The standard that the method be "acceptable to the NRC" provides limited advance, publicly available criteria against which the adequacy of an alternative can be judged.

Fivefold increase in the external radiation dose limit

Raising the external radiation dose limit at 2 meters from 10 mrem/h to 50 mrem/h is a significant change. While the NRC concludes that single-event public doses would remain well within the annual 100 mrem public dose limit,⁴ New York is concerned about several scenarios that dense, heavily traveled corridors present. A member of the public caught in congestion near a shipment for an extended period, a recurring condition in the

⁴10 CFR part 20, "Standards for Protection Against Radiation." The annual public dose limit is 1 mSv (100 mrem). the occupational dose limit for radiation workers is 50 mSv/y (5,000 mrem/y).

downstate region and at urban chokepoints, bridges, and tunnels, could receive a materially higher dose than under the current limit. Repeated shipments over the same corridors raise questions of cumulative exposure that a single-event analysis does not capture. And the protection against excess public dose is analytical rather than codified. The rule text sets a dose-rate limit but does not establish a per-event public dose cap. To reduce the possibility of cumulative exposure from single events, New York suggests NRC require risk assessments to be performed prior to shipments including such factors as route consideration for reduced speeds, road, bridge, and tunnel closures, avoidance of bridges and tunnels, time of day, and law enforcement and escort protocols.

Occupational exposure to state and local inspection personnel and transport workers

The NRC's own analysis indicates that a single inspection of a package at the 50 mrem/h limit could deliver roughly 58.6 mrem, such that an inspector who performs 85 inspections in a year would approach the 5,000 mrem/y occupational limit for radiation workers.⁵ This effectively treats state and local vehicle inspectors as radiation workers. Many state and local inspection personnel are not currently designated, trained, or monitored as radiation workers.

Similar concerns apply to transporters and truck escorts. PNNL-38760 mentions that the number of shipments that an individual might be exposed to is unknown and that there may be as many as 50 shipments per year, but the analysis presented in the report assumes 10 shipments per year. It is unclear whether these are initial use assumptions, whether they take into account growth and future use of microreactor technologies, as well as factors such as use of transport trucks with sleeper cabs that might extend worker proximity to the package beyond driving time.

The limits of the PNNL-38760 basis and the risk of scope creep

The NRC acknowledges that PNNL-38760 is bounding only for a TRISO "heat pipe" microreactor and may not bound the radiation fields associated with spent nuclear fuel or other Type B contents or future microreactor concepts. Yet the operative rule text is technology-neutral and keyed to the HRCQ definition, which spent fuel shipments, typically exceeding 3,000 A2, will ordinarily meet. New York is concerned that, absent a firm limiting principle in the rule, the higher limit could later be invoked for spent fuel or other high source-term contents that the supporting analysis did not evaluate. The NRC states that non-analyzed designs would require case-by-case confirmation during package approval, but that safeguard currently rests in the preamble rather than the regulatory text, and no draft implementing guidance has been issued.

⁵Per PNNL-38760, a single vehicle inspection at a 2 m dose rate of 0.5 mSv/h (50 mrem/h) is estimated at 0.586 mSv (58.6 mrem). The NRC estimates an inspector could perform roughly 85 inspections in a year before approaching the occupational dose limit. See 91 FR 46872.

The advance-coordination requirement is not well defined

Proposed 10 CFR § 71.47(b)(3)(ii) requires the licensee to “coordinate in advance” with the appropriate federal, state, or local inspection authorities, but it does not specify a minimum lead time, a designated state point of contact, the required content of the notification, or what constitutes adequate coordination. By contrast, existing advance-notification frameworks for irradiated reactor fuel are considerably more specific.⁶ Without a defined lead time, a single identified state recipient, and a minimum information set, the coordination activities may be implemented inconsistently and be difficult to enforce, and states may be unable to ensure that trained, dosimetered inspectors are available. New York also notes that the duty runs to “inspection authorities,” which may not be the state radiation control program; notification must reliably reach the right State entities, including NYSERDA as State liaison and the State’s emergency management, environmental, transportation, and law enforcement authorities.

Removal of the “spent fuel” definition

The NRC proposes to remove the definition of “Spent nuclear fuel or Spent fuel” from 10 CFR § 71.4 on the ground that the terms are not used elsewhere in Part 71 and that Part 71 applies to irradiated fuel regardless of cooling time. New York understands this rationale but urges closing, not opening, definitional gaps around irradiated fuel in transport, particularly as transportable microreactors blur the line between an operating reactor and spent fuel. New York is concerned that removing the definition could be interpreted to narrow security, notification, or packaging obligations for irradiated fuel and recommends retaining the definition to avoid creating downstream ambiguity for interfacing regulations and Agreement State programs that rely on the term.

Divergence between NRC certification and DOT transport authorization

The NRC acknowledges that packages certified at 50 mrem/h could exceed the United States Department of Transportation (USDOT) limits in 49 CFR § 173.441 such that a shipper wishing to use the flexibility would need a USDOT exception or special permit, and that IAEA SSR-6 lacks a comparable provision, limiting use to domestic shipments.⁷ A period in which NRC certification and USDOT authorization are misaligned could create confusion for shippers, carriers, and State inspectors. New York urges the NRC to complete its coordination with USDOT before or concurrent with finalizing the higher limit.

Agreement State compatibility reclassifications

The proposed rule reclassifies several Part 71 provisions in the compatibility

⁶Existing advance-notification frameworks for irradiated reactor fuel appear in 10 CFR 73.37 and 10 CFR 71.97.

⁷International Atomic Energy Agency, “Regulations for the Safe Transport of Radioactive Material” (SSR-6). The NRC notes that SSR-6 does not contain a comparable higher-radiation provision, effectively limiting use of the proposed limit to domestic U.S. shipments. See 91 FR 46873.

framework that governs what Agreement States must adopt.⁸ Most significantly, 10 CFR §§ 71.47(a), (b), and (d) would move from Compatibility Category B to Category NRC (areas of exclusive NRC regulatory authority); 10 CFR § 71.95 would move from Category D to Category C; and 10 CFR § 71.1(a) would shift partly to Category NRC for demonstrations of alternative package evaluations.

Placing the external radiation standard in Category NRC means that Agreement States must not adopt it as their own program element and may not exercise independent regulatory authority over it. New York therefore could not, for example, retain or adopt a more protective in-state external radiation standard for these shipments. New York requests that the NRC explain the basis for elevating 10 CFR § 71.47 to Category NRC and confirm that states retain their separate authority to address transportation safety through their own transportation, routing, permitting, and emergency-management powers.

State inspection and radiation-protection resources

The advance-coordination requirement makes state and local inspectors *de facto* participants in higher-dose shipments. To perform inspections near these packages safely, New York would need to ensure that the personnel involved are trained radiation workers with appropriate dosimetry or are otherwise protected within public dose limits. This implies new training, monitoring, recordkeeping, and potentially staffing obligations that the proposed rule does not fund or fully describe.

The Paperwork Reduction Act estimate understates eventual state burden

The rule estimates zero annual responses, zero annual respondents, and zero annual burden hours during the clearance period. While no microreactor shipments may occur immediately, this estimate does not reflect the coordination, dosimetry, and inspection burden that states will bear once such shipments begin. New York recommends that the analysis acknowledge and, to the extent practicable, quantify the future state-side burden.

Emergency preparedness, route readiness, and cost allocation

Higher source-term, higher-dose-rate shipments through New York corridors require coordinated route planning, responder awareness, and readiness along the transport route. New York's emergency management, environmental, transportation, and law enforcement authorities would need reliable advance information. Existing State frameworks provide a foundation, but the proposed rule neither funds nor formally connects to them, and it does not address reimbursement of State and local costs for coordination, inspection, dosimetry, or any incident response associated with these shipments.

⁸Agreement State Program Policy Statement, 82 FR 48535 (October 18, 2017). Under the compatibility framework, an Agreement State must not adopt program elements designated Category NRC and may not exercise regulatory authority over them.

Recommendations to the NRC

1. Retain the deterministic testing requirements of 10 CFR §§ 71.71, 71.73, and 71.61 as the primary certification standard, and permit risk-informed or performance-based methods under 10 CFR § 71.41(e) only as a supplement that demonstrates a level of safety equivalent to or greater than the deterministic tests. Any NRC-endorsed methodology should be documented publicly so that states and the public can evaluate it.
2. Codify in 10 CFR § 71.47 a per-event public dose constraint and a requirement for design-specific dose confirmation before the higher limit may be used. Do not extend the 50 mrem/h allowance to spent nuclear fuel or other contents not analyzed in PNNL-38760 without a bounding, design-specific dose assessment placed on the record.
3. Define the advance-coordination requirement in 10 CFR § 71.47(b)(3)(ii): establish a minimum lead time, a single designated State point of contact (for New York, routed through NYSEDA as State liaison and to the State's emergency management, environmental, transportation, and law enforcement authorities), and a minimum information set covering route, schedule, radiological inventory, expected dose rates, and emergency contacts. Align these elements with the existing advance-notification frameworks for irradiated fuel.
4. Require dosimetry, training, and radiation-worker protections for inspection personnel who may approach these and address the funding and reimbursement of state and local coordination and inspection costs associated with higher-dose shipments.
5. Preserve definitional clarity for irradiated fuel in transport. Retain the 10 CFR § 71.4 definition to avoid interpretation that narrows any security, notification, or packaging obligation, and cross-reference a clear definition where interfacing regulations or Agreement State programs rely on the term.
6. Complete NRC-USDOT alignment regarding 49 CFR § 173.441 before or concurrent with finalizing 10 CFR § 71.47(b)(3), so that certification and transport authorization are consistent, and clarify the special-permit pathway for shippers and the corresponding information flow to state inspectors.
7. Issue draft implementing guidance for public comment before the rule is finalized. The accelerated schedule should not bypass stakeholder review of the methodology-endorsement process under 10 CFR § 71.41(e) and the coordination process under 10 CFR § 71.47(b)(3)(ii).
8. Explain the reclassification of 10 CFR § 71.47 to Compatibility Category NRC and confirm that Agreement States retain their independent transportation, routing, permitting, and emergency-management authorities.

Responses to the NRC's Specific Requests for Comment

On criteria for packages that do not meet the HRCQ definition: New York recommends that any extension of the higher limit beyond HRCQ contents require a design-specific dose assessment demonstrating that single-event public doses remain well within the 10 CFR Part 20 limits, access-control and routing measures equivalent to those the FMCSA provides for HRCQ shipments, advance state coordination as described above, and dosimetry for inspection personnel.

On scenarios involving non-HRCQ contents: New York is not in a position to endorse specific non-HRCQ scenarios absent design-specific data. Any such case should carry the burden of a bounding technical basis and the controls identified above before a higher radiation level is permitted.

On broad versus constrained application: New York recommends that the increased dose-rate provision be constrained by criteria and contents and not applied broadly to all shipments of radioactive material, including spent nuclear fuel, given the acknowledged limits of the PNNL-38760 analysis.

Conclusion

New York supports the modernization of the NRC's package certification framework and the safe deployment of microreactors and other advanced nuclear technologies and appreciates the voluntary structure of the proposed flexibilities and the retention of HRCQ and FMCSA controls. New York urges the refinements described above to preserve the deterministic safety benchmark, bound the higher radiation limit, define state coordination clearly, protect inspection personnel, maintain definitional clarity for irradiated fuel, complete alignment with USDOT, and account for the rule's impact on State programs. New York looks forward to continued engagement with the NRC, including at the planned public meeting, and thanks the NRC for the opportunity to comment.

Thank you for the opportunity to comment. If you have any questions or concerns, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Alyse Peterson".

Alyse Peterson, P.E.
NRC State Liaison Officer – Designee
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Office