
Environmental Assessment for the Final Rule— Emergency Preparedness for Small Modular Reactors and Other New Technologies

U.S. Nuclear Regulatory Commission

Office of Nuclear Material Safety and Safeguards



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ABBREVIATIONS AND ACRONYMS

ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
EA	environmental assessment
EP	emergency preparedness
EPA	U.S. Environmental Protection Agency
EPZ	emergency planning zone
FEMA	Federal Emergency Management Agency
FR	<i>Federal Register</i>
FRPCC	Federal Radiological Preparedness Coordinating Committee
IPZ	ingestion pathway emergency planning zone
LWR	light-water reactor
mSv	millisievert(s)
NEI	Nuclear Energy Institute
NHPA	National Historic Preservation Act of 1966, as amended
NPUF	non-power production or utilization facility
NRC	U.S. Nuclear Regulatory Commission
NUREG	NRC reports or brochures on regulatory decisions, results of research, results of incident investigations, and other technical, and administrative information
ONT	other new technology
PAG	protective action guide
SMR	small modular reactor
SRM	staff requirements memorandum
TVA	Tennessee Valley Authority

1 INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) is issuing a final rule to amend its regulations to introduce a new alternative emergency preparedness (EP) regulatory framework for small modular reactors (SMRs) and other new technologies (ONTs). The performance-based EP requirements appear in a new section of the regulations, Title 10 of the *Code of Federal Regulations* (10 CFR) 50.160, “Emergency preparedness for small modular reactors, non-light-water reactors, and non-power production or utilization facilities.” Major provisions of the final rule and guidance include the following additions: (1) a new alternative performance-based EP framework, including requirements for demonstrating effective response in drills and exercises for emergency and accident conditions, (2) a hazard analysis of any NRC-licensed facility or facility not licensed by the NRC contiguous to or near an SMR or ONT that considers any hazard that would adversely impact the implementation of emergency plans, (3) a scalable approach for determining the size of the plume exposure pathway emergency planning zone (EPZ), and (4) a requirement to describe ingestion response planning in the emergency plan, including the capabilities and resources available to prevent contaminated food and water from entering the ingestion pathway.

The NRC issued the proposed rule for public comment in Volume 85 of the *Federal Register* (FR), page 28436 (85 FR 28436) on May 12, 2020. On May 25, 2020 (85 FR 32308), the NRC published a correction to the definition of “non-power production or utilization facility” (NPUF) and, on July 21, 2020 (85 FR 44025), extended the comment period to September 25, 2020. The NRC revised the rule language based on public comments. The changes did not affect the staff’s finding of no significant impact in this environmental assessment (EA).

The final rule and guidance apply to existing and future SMR and ONT facilities. For the purposes of the final rule, the term “small modular reactor” refers to a nuclear power reactor that has a licensed thermal power rating of less than or equal to 1,000 megawatts-thermal per module. Based on public comment, the NRC agreed that the definition of an SMR could be subject to more than one interpretation and revised it to read “a power reactor, which may be of modular design as defined in 10 CFR 52.1 of this chapter, licensed under 10 CFR 50.21 or 10 CFR 50.22 to produce heat energy up to 1,000 megawatts-thermal per module.” This enhanced definition for SMRs remains consistent with that of 10 CFR 171.5, “Definitions,” where it is defined for the purpose of fees. The final rule also defines “non-power production or utilization facility” to clarify the applicability of the performance-based EP framework. As used in the final rule, the term “non-power production or utilization facility” has the same meaning as it is defined in SECY-19-0062, “Final Rule: Non-Power Production or Utilization Facility License Renewal,” dated June 17, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18031A000). The definition of “non-power production or utilization facility” includes production or utilization facilities licensed under 10 CFR 50.21(a), 10 CFR 50.21(c), or 10 CFR 50.22, “Class 103 licenses; for commercial and industrial facilities,” as applicable, that are not nuclear power reactors or production facilities as defined under paragraphs (1) and (2) of the definition of “Production facility” in 10 CFR 50.2, “Definitions.” It also includes medical radioisotope facilities licensed under 10 CFR Part 50, “Domestic Licensing of Production and Utilization Facilities.”

As described in the final rule’s FR notice, the alternative EP regulations adopt a consequence-oriented, risk-informed, performance-based, and technology-inclusive approach, to the extent possible, to ensure reasonable assurance of adequate protection of public health and safety.

The NRC prepared this EA in compliance with the agency's environmental protection requirements in 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," which implement the National Environmental Policy Act of 1969, as amended. This EA evaluates and documents the potential environmental impacts resulting from the final rulemaking related to the amendment of the NRC's regulations to specify new alternative EP requirements for SMRs and ONTs.

1.1 Background

Under the NRC's current EP regulatory framework, applicants for a construction permit, early site permit, operating license, or combined license are required to provide emergency planning information as described under 10 CFR 50.33, "Contents of applications; general information"; 10 CFR 50.34, "Contents of applications; technical information"; 10 CFR 52.17, "Contents of applications; technical information"; or 10 CFR 52.79, "Contents of applications; technical information in final safety analysis report." Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50 establishes the specific items required for inclusion in emergency plans. Additionally, 10 CFR 50.47, "Emergency plans," provides EP requirements for nuclear power reactors, including planning standards for onsite and offsite emergency response plans. Other relevant regulations include 10 CFR 50.54(q), (s), and (t).

The EP requirements that apply to a particular licensee can vary depending on the type of license and facility. For example, in "10 CFR Parts 50 and 70, Emergency Planning; Final Rule," dated August 19, 1980 (45 FR 55402), the NRC established emergency planning requirements in 10 CFR Part 50, Appendix E, for research and test reactors that reflect the lower potential radiological hazards associated with these facilities. Although research and test reactors and other NPUFs must meet the emergency planning requirements in 10 CFR 50.34(a)(10) and (b)(6)(v); 10 CFR 50.54(q); and 10 CFR Part 50, Appendix E, the requirements in 10 CFR 50.47 do not apply to these facilities. Additionally, in 10 CFR Part 50, Appendix E, Section I.3, the NRC differentiates between emergency planning requirements for nuclear power reactors, research and test reactors licensed under 10 CFR Part 50, and fuel facilities licensed under 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," stating that the size of EPZs and the degree to which compliance with 10 CFR Part 50, Appendix E, Section I through Section IV, is necessary, are to be determined on a case-by-case basis for facilities other than power reactors.

The discussion of modernizing EP and developing voluntary performance-based requirements for light-water reactors (LWRs) merged with the NRC's discussions of advanced reactor designs. In the 2000s, several advanced reactor designs in the United States were under discussion, including within the U.S. Department of Energy's Next Generation Nuclear Plant and SMR programs, and by private-sector companies seeking to introduce an alternative to large LWRs. The NRC began to consider developing a performance-based approach to EP for SMRs and ONTs. In SECY-10-0034, "Potential Policy, Licensing, and Key Technical Issues for Small Modular Nuclear Reactor Designs," dated March 28, 2010 (ADAMS Accession No. ML093290268), the staff identified EP as a key technical issue for the licensing of SMRs and ONTs.

The NRC anticipates that SMR and ONT designs could differ substantially from the existing fleet of large LWRs and non-power reactors, and certain existing regulations and guidance are focused on large LWRs and non-power reactors. Through the final rule, the NRC is amending its regulations to create an alternative EP framework for SMRs and ONTs that is a

performance-based, technology-inclusive, risk-informed, and consequence-oriented approach. SMR and ONT applicants and licensees have the option to develop a performance-based EP program as an alternative to using the existing, deterministic EP requirements in 10 CFR Part 50.

1.2 Final Action

The proposed action, if approved, is the NRC's issuance of a final rule to amend its EP regulations for SMRs and ONTs. The final rule adds new alternative EP regulations and guidance specifically for existing and future SMR and ONT applicants and licensees to develop, submit, and maintain an emergency plan while ensuring the effective implementation of such plans for these new nuclear technologies.

1.3 Purpose of and Need for Final Action

Currently, applicants for SMRs and ONTs must follow a regulatory framework and corresponding guidance for EP that are primarily focused on and were initially developed for large LWRs. The new alternative EP requirements: (1) continue to provide reasonable assurance that adequate protective measures can and will be implemented by an SMR or ONT licensee; (2) promote regulatory stability, predictability, and clarity, (3) reduce requests for exemptions from EP requirements; (4) recognize design and technological advancements embedded in design features; (5) credit safety enhancements in evolutionary and passive systems; and (6) credit the potential benefits of smaller sized reactors and non-LWRs associated with postulated accidents, including slower transient response times and a relatively small and slow release of fission products.

In SECY-15-0077, "Options for Emergency Preparedness for Small Modular Reactors and Other New Technologies," dated May 29, 2015 (ADAMS Accession No. ML15037A176), the NRC staff proposed a consequence-oriented approach to establishing EP requirements commensurate with the potential effects on public health and safety and the common defense and security at SMR and ONT facilities. The NRC staff stated that the need for EP is based on the projected offsite dose in the unlikely occurrence of a severe accident. In Staff Requirements Memorandum (SRM)-SECY-15-0077, dated August 4, 2015 (ADAMS Accession No. ML15216A492), the Commission approved the staff's recommendation to conduct rulemaking to address EP requirements for SMRs and ONTs.

2 ENVIRONMENTAL IMPACTS OF THE FINAL ACTION

This EA evaluates the potential environmental impacts of developing a new alternative EP regulatory framework. The majority of the provisions in the final rule requirements are administrative or procedural in nature, such as definitions and general and technical information to be submitted as part of performance-based emergency plans (e.g., requirements under 10 CFR 50.160(b)(1)), with no significant environmental impacts. Further, the NRC has evaluated requirements of interest to stakeholders, based on interactions described in Section 6 of this EA, that have the potential to affect the human environment, including the scalable approach for determining the size of the plume exposure pathway EPZ under 10 CFR 50.33(g)(2) and the ingestion response planning requirements under 10 CFR 50.160(b)(4), and determined that the final action does not have a significant environmental impact as discussed below.

The final rule includes alternative requirements for plume exposure pathway EPZ and ingestion response planning. Under 10 CFR 50.33(g)(2), the NRC requires SMR and ONT applicants and licensees choosing to comply with 10 CFR 50.160 to submit the analysis used to establish the proposed plume exposure pathway EPZ size. The final rule establishes in 10 CFR 50.33(g)(2)(i) two criteria for determining the size of a plume exposure pathway EPZ. The first criterion is that the plume exposure pathway EPZ is the area within which public dose, as defined in 10 CFR 20.1003, "Definitions," is projected to exceed 10 millisieverts (mSv) (1 rem) total effective dose equivalent over 96 hours from the release of radioactive materials from the facility, considering accident likelihood and source term, timing of the accident sequence, and meteorology. The second criterion is that the plume exposure pathway EPZ is the area where predetermined, prompt protective measures are necessary. Under 10 CFR 50.160(b)(4), applicants and licensees choosing to comply with 10 CFR 50.160 need to describe or reference in the emergency plan capabilities that provide actions to prevent contaminated food and water from entering into the ingestion pathway. For applicants with a plant emergency procedure that includes an EPZ extending off site, requirements include submitting emergency plans for offsite response organizations and configuring the EPZ in relation to local emergency response capabilities as affected by characteristics such as demography, topography, waterbodies, landforms, access routes, and jurisdictional boundaries.

In NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," issued December 1978 (ADAMS Accession No. ML051390356), the NRC established the planning basis for the existing EPZ size in 10 CFR Part 50, based on the objective that emergency response plans should provide dose savings for a spectrum of accidents that could produce offsite doses in excess of the U.S. Environmental Protection Agency (EPA) early-phase protective action guides (PAGs). In EPA-400/R-17/001, "PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents," issued January 2017 (ADAMS Accession No. ML17044A073), the EPA provides recommended numerical PAGs for the principal protective actions available to public officials during a radiological accident, including guidance for early-phase protective actions for projected doses ranging from 10 to 50 mSv (1 to 5 rem) during the first 96 hours of an accident.

The primary purpose of the plume exposure pathway EPZ is to define the area where predetermined, prompt protective measures are necessary and result in dose savings and a reduction in early health effects. The final rule for SMRs and ONTs continues a consequence-oriented approach for determining the size of the plume exposure pathway EPZ. By maintaining this consistency, the new rule affords the same level of protection of public

health and safety as the current regulatory framework. Because both rules have the same dose criteria under which predetermined protective actions (e.g., evacuation, sheltering) are to be taken, the dose consequence to the public is the same; therefore, human health impacts will be similar.

Under the existing EP regulations, SMRs and ONTs, depending on their capacity and technology, are either required to establish a 50-mile Ingestion Pathway EPZ (IPZ), in addition to a 10-mile plume exposure pathway EPZ, or follow the case-by-case EPZ size determination process under 10 CFR 50.33(g), 10 CFR 50.47(c)(2), and Section I.3 of Appendix E to 10 CFR Part 50. For SMR and ONT applicants and licensees choosing to comply with 10 CFR 50.160, the final rule does not provide for a specific ingestion pathway planning zone. The NRC is requiring ingestion response planning instead of a set distance as part of the performance-based framework. Ingestion response planning focuses on the identification of major exposure pathways for the ingestion of contaminated food and water. The final rule requires those applicants and licensees that opt to comply with 10 CFR 50.160 to describe in their emergency plan the licensee, Federal, State, and local resources for emergency response capabilities available to sample, assess, and implement a quarantine or embargo of food and water to prevent the entry of contaminated food and water into the ingestion pathway.

The concept of an IPZ was created in the 1970s when the infrastructure may not have been sufficient to support the identification and removal from food chains of radiologically contaminated goods. Of primary concern in the 1970s were the livestock and food products that could be contaminated from a radiological release at a large LWR. Since the 1970s, significant improvements have been made in the Nation's Federal and State capabilities to identify and remove from the food chain biologically and radiologically contaminated goods or produce. Federal resources developed since then that are available for radiological emergency response include the Federal Radiological Monitoring and Assessment Center and the Advisory Team for Environment, Food and Health, as well as sampling and testing laboratories.

Ingestion response is not required in the early phase of an emergency because the ingestion of contaminated foods and water is a longer-term concern. Federal and State resources developed since the 1970s are available for the intermediate and late phases of the response, whether or not actions are preplanned in a specific area. Therefore, SMR, non-LWR, and NPUF licensees that choose to comply with 10 CFR 50.160 do not need an IPZ because additional resources are now available and response organizations have a better understanding of the process and timing for identifying and removing radiologically contaminated goods from food chains. Nonetheless, Federal, State, and local response organizations can issue precautionary actions to the public in the early phase, such as to wash all produce from gardens or to use stored feed and water for livestock downwind of a release. Furthermore, State and local response organizations do not need completed analyses to make a precautionary recommendation to interdict food or put livestock on stored feed and water. States and Federal agencies frequently issue such precautionary actions for nonradiological contamination of foods. None of these precautionary actions requires an IPZ.

While the alternative EP framework does not require SMRs to establish an IPZ, the capabilities available to identify and interdict contaminated food and water in the event of a radiological emergency do not differ from those called for under existing EP regulations. Therefore, the ingestion response planning requirements under 10 CFR 50.160(b)(4) do not have any significant environmental impacts.

Further, the EPZ size determination requirements in 10 CFR 50.33(g)(2) and ingestion response planning requirements in 10 CFR 50.160(b)(4) do not (1) affect nonradiological plant effluents differently than under existing EP regulations, (2) involve construction or major renovation of any buildings or structures, ground-disturbing activities, or alterations to land or air quality, (3) affect any historic and cultural resources, or (4) have any other environmental impact. This is because the final action provides an alternative EP framework that could address preparedness and response for emergencies at facilities but does not impact the construction or operation of facilities.

Based on the above evaluation, the NRC concludes that the alternative EP requirements for SMRs and ONTs do not have a significant impact on the environment.

3 ENVIRONMENTAL IMPACTS OF THE ALTERNATIVE TO THE FINAL ACTION

Under the no-action alternative (i.e., the status quo), the regulations are not changed. As stated in Section 2 of this EA, the final rule does not result in a significant impact on the environment. Therefore, there is no difference in environmental impacts between the no-action alternative and the final rule. The only differences are in the costs attributable to reviewing the environmental impacts of exemption and license amendment requests under the no-action alternative. Under that alternative, an applicant or licensee for an SMR or ONT facility is required to comply with the existing regulations or request an exemption from the regulations, and the NRC will analyze the environmental impacts of exemptions and license amendment requests on a case-by-case basis. Therefore, the averted costs (benefits) of the rulemaking do not occur. The NRC's "Regulatory Analysis for the Final Rule: Emergency Preparedness for Small Modular Reactors and Other New Technologies" (ADAMS Accession No. ML21200A079) contains further information concerning the costs and benefits of the no-action alternative and the final action.

4 AGENCIES AND PERSONS CONSULTED

The NRC developed the final rule and this final EA. The NRC requested public comment on the draft EA with the publication of the proposed rule and held a public meeting during the proposed rule comment period to allow stakeholders to ask questions about the proposed rule and the EA. The NRC considered comments received on the docket as it developed the final rule and the final EA.

During development of the final rule, the NRC provided many opportunities for public interactions, including public meetings, and conducted additional interactions with other stakeholders on issues related to the SMR and ONT EP rulemaking process. Table 1 in Section 6 of this document lists these meetings and interactions with the public and other stakeholders.

The NRC staff met with the Federal Radiological Preparedness Coordinating Committee (FRPCC) to discuss the issues raised in SECY-11-0152, "Development of an Emergency Planning and Preparedness Framework for Small Modular Reactors," dated October 28, 2011 (ADAMS Accession No. ML112570439), on SMR EP and the sizes of the EPZs. The FRPCC includes representatives from 20 Federal departments, agencies, and offices that work together to ensure that the United States is safe from radiological incidents involving nuclear or radioactive materials, including acts of terrorism. The NRC staff also met separately in 2014 with the Federal Emergency Management Agency (FEMA) technical hazards and radiological EP staff and with the EPA staff to discuss preliminary SMR design concepts and potential impacts on both onsite and offsite EP. The staff provided FEMA with a copy of SECY-11-0152 and the opportunity to interact with the staff, obtain clarification, and comment on the paper. FEMA indicated that it would like the NRC to keep it informed on issues raised in SECY-11-0152 and that it supports the staff's recommendation to explore the issues involving SMR EP through rulemaking.

The NRC published the draft regulatory basis in March 2017 (82 FR 52862) and sought public comment on specific questions and issues with respect to possible revisions to the agency's requirements. In addition, the NRC held a public meeting in May 2017 (ADAMS Accession No. ML17139C860) and received comments from 57 individuals and organizations. The staff's analysis identified 223 unique comments that it considered in its preparation of the final regulatory basis. The NRC did not receive comments related to the preliminary environmental analysis in the draft regulatory basis. The NRC considered all public comments during the development of the regulatory basis. Based on the comments received, the NRC finalized and published the regulatory basis in November 2017 (82 FR 52862). As discussed in Section 7, the result of this rulemaking process is a final rule for SMRs and ONTs that continues a consequence-oriented approach for determining the size of the plume exposure pathway EPZ.

Consistent with the Tribal Policy Statement of principles to guide the agency's government-to-government interactions with Federally recognized American Indian and Alaska Native Tribes (82 FR 2402), the NRC conducted outreach to 384 Federally recognized Tribes. On August 2, 2018, the NRC discussed the NRC's rulemaking process and the EP for SMRs and ONTs rulemaking effort with the Tribal nations at the emergency management meeting of the Bureau of Indian Affairs.

As discussed in Section 2, the majority of the final rule provisions are administrative in nature, and the EPZ requirements under 10 CFR 50.33(g)(2) and 10 CFR 50.160(b)(4) do not have a significant impact on the human environment. For this reason, the rulemaking does not result in

impacts to listed species or critical habitat, and the NRC has determined that Section 7 consultation under the Endangered Species Act of 1973, as amended, is not necessary.

Congress enacted the National Historic Preservation Act of 1966, as amended (NHPA), to support and encourage the preservation of prehistoric and historic resources. Section 106 of the NHPA requires Federal agencies to consider the effects of their undertakings on historic properties and allow the Advisory Council on Historic Preservation an opportunity to review and comment on the undertaking. The NHPA implementing regulations appear in 36 CFR Part 800, "Protection of Historic Properties."

The EPZ requirements under 10 CFR 50.33(g)(2) and the ingestion response planning requirement under 10 CFR 50.160(b)(4) do not involve any ground-disturbing activities or visual impacts that could affect historic properties. Therefore, the NRC has determined that no consultation is required under NHPA Section 106.

5 FINDING OF NO SIGNIFICANT IMPACT

The NRC has prepared this EA to determine environmental impacts of the final action (i.e., a rulemaking to amend the NRC's regulations related to EP requirements for SMRs and ONTs). The majority of the provisions in the final rule requirements are administrative or procedural in nature, such as definitions and general and technical information to be submitted as part of performance-based emergency plans (e.g., requirements under 10 CFR 50.160(b)(1)), with no significant environmental impacts. Further, the NRC has evaluated requirements that may be of interest to stakeholders and that have the potential to affect the human environment, including the scalable approach for determining the size of the plume exposure pathway EPZ under 10 CFR 50.33(g)(2) and the ingestion response planning requirements under 10 CFR 50.160(b)(4), and determined that the final action has no significant environmental impact for the reasons described here. The dose criteria under which predetermined protective actions (e.g., evacuation, sheltering) are taken are the same under both the existing EP requirements and the final alternative EP requirements; therefore, the dose consequence to the public is similar.

The ingestion response planning requirements under 10 CFR 50.160(b)(4), while not requiring SMR and ONT applicants and licensees to establish an IPZ, call for the availability of the same capabilities to identify and interdict contaminated food and water in the event of a radiological emergency as required under existing EP regulations. The environmental effects of the ingestion response planning requirements are similar to those of the existing EP requirements. Based on the evaluation conducted for this EA, the NRC concludes that the EPZ requirement under 10 CFR 50.33(g)(2) and the ingestion response planning requirement under 10 CFR 50.160(b)(4) do not have a significant impact on the human environment. Therefore, this rulemaking does not warrant preparation of an environmental impact statement. Accordingly, the NRC has determined that a finding of no significant impact is appropriate.

6 STAKEHOLDER INTERACTIONS

Table 1 lists the NRC information provided and interactions with stakeholders during public meetings and government-to-government meetings on issues related to the SMR and ONT EP rulemaking.

Table 1 NRC and Stakeholder Interactions

Date	Action
July 28, 2010	The NRC held a Category 3 public meeting to discuss regulatory issues related to key licensing issues concerning SMRs, such as EP. Location: Legacy Hotel, Rockville, MD. (ADAMS Accession No. ML102080277)
November 29– December 1, 2011	The NRC, with FEMA participation, held a Category 2 meeting to discuss the generic licensing and policy issues related to SMRs, including EP, with industry working groups and other stakeholders. Location: Sheraton Portsmouth, Portsmouth NH. (ADAMS Accession No. ML113190452)
December 13, 2012	The NRC held a public meeting with the Nuclear Energy Institute (NEI) to discuss the industry's proposed approach for integral pressurized-water reactors on source-term analysis and emergency planning evaluation in advance of the NEI's planned submittal of position papers on those topics. The purpose of the meeting was to continue dialogue between the NRC and the NEI on the two planned papers. Location: NRC, Rockville, MD. (ADAMS Accession No. ML12346A068)
April 8, 2014	The NRC held a Category 2 public meeting to discuss an NEI-proposed methodology on the sizes of SMR EPZs. Location: NRC, Rockville, MD. (ADAMS Accession No. ML14098A011)
December 17, 2014	The NRC held a meeting with the NEI and the Tennessee Valley Authority (TVA) to discuss a proposed generic framework for SMR EP being developed by the NEI. The TVA described the framework developed for the Clinch River Nuclear Site early site permit application, proposing two specific plume exposure EPZ options that included a 2-mile radius and the site boundary. The TVA intends to incorporate one of these options in a subsequent combined license submittal. Location: NRC, Rockville, MD. (ADAMS Accession No. ML14344A482)
August 22, 2016	The NRC held a Category 3 public meeting to request feedback from the public and interested stakeholders on the potential approach (performance based) that the NRC may follow in developing the rulemaking for SMR and ONT EP. Location: NRC, Rockville, MD. (ADAMS Accession No. ML16223A811)
April 11, 2017	The NRC discussed the preliminary draft regulatory basis document at the National Radiological Emergency Preparedness meeting. Location: Amway Grand Plaza Hotel, Grand Rapids, MI. (ADAMS Accession No. ML17097A226)
April 13, 2017	The NRC published an FR notice (82 FR 17768) of the issuance of the draft regulatory basis document (ADAMS Accession No. ML16309A332) in support of the potential amendment of

Date	Action
	current regulations on SMR and ONT EP.
April 18, 2017	The NRC published a press release to notify the public about the availability of the draft regulatory basis document for public comment. (ADAMS Accession No. ML17109A106)
April 20, 2017	The NRC issued STC-17-040, "Notice of Draft Regulatory Basis for Comment: Rulemaking for Emergency Preparedness for Small Modular Reactors and Other New Technologies," dated April 20, 2017, as notification to States about the availability of the draft regulatory basis document for public comment. (ADAMS Accession No. ML17104A249)
May 10, 2017	The NRC held a Category 3 public meeting to discuss the draft regulatory basis for the SMR and ONT EP rulemaking. Location: NRC, Rockville, MD. (ADAMS Accession Nos. ML17101A609, ML17125A036, and ML17139C860)
October 16, 2017	The NRC made the final regulatory basis, which incorporated comments from the public meeting on May 10, 2017, publicly available. (ADAMS Accession No. ML17206A265)
November 15, 2017	The NRC published an FR notice (82 FR 52862) of the issuance of the regulatory basis in support of the SMR and ONT EP rulemaking.
August 2, 2018	The NRC discussed the NRC's rulemaking process and the SMR and ONT EP rulemaking effort during a teleconference with Tribal nations at an emergency management meeting of the Bureau of Indian Affairs. (ADAMS Accession No. ML18292A488)
August 22, 2018	The NRC staff briefed the Advisory Committee on Reactor Safeguards Joint Subcommittee on the preliminary proposed rule and draft guidance for SMR and ONT EP. (ADAMS Accession No. ML18254A205)
October 4, 2018	The NRC staff briefed the Advisory Committee on Reactor Safeguards on the preliminary proposed rule and draft guidance for SMR and ONT EP. (ADAMS Accession No. ML18263A191)
May 12, 2020	The NRC published an FR notice (85 FR 28436) for a proposed SMR and ONT EP rulemaking for public comment.
June 24, 2020	External stakeholders and the NRC met during a Category 3 public meeting to exchange information on the proposed SMR and ONT EP rulemaking to facilitate the development of public comments. (ADAMS Accession No. ML20196L773)
May 25, 2020	The NRC published an FR notice to correct the definition of "non-power production or utilization facility" (85 FR 32308).
July 21, 2020	The NRC published an FR notice (85 FR 28436) to extend the comment period for a proposed SMR and ONT EP rulemaking for public comment.