Responses to Public Comments for the Final Rule—Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning

NRC-2015-0070; RIN 3150-AJ59

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Office of Nuclear Material Safety and Safeguards

Month Year

ABBREVIATIONS

ADAMS	Agencywide Documents Access and Management System
AEA	Atomic Energy Act of 1954, as amended
AMPs	aging management programs
ANPR	advance notice of proposed rulemaking
ASME	American Society of Mechanical Engineers
B&PV	boiler and pressure vessel
BWR	boiling-water reactor
CABs	community advisory boards
CAPs	community advisory panels
CDE	committed dose equivalent
CFH	certified fuel handler
CFR	*Code of Federal Regulations*
CPG	comprehensive preparedness guide
DBT	design basis threat
DG	Draft Regulatory Guide
DOE	U.S. Department of Energy
DOF	determination of fitness
EA	environmental assessment
EAL	emergency action level
EJ	environmental justice
EIS	environmental impact statement
ENTOMB	entombment
E.O.	Executive Order
EP	emergency preparedness
EPA	U.S. Environmental Protection Agency
EPZ	emergency planning zone
ERDS	emergency response data system
ERO	emergency response organization
FEMA	Federal Emergency Management Agency
FFD	fitness-for-duty
FR	*Federal Register*
FRN	*Federal Register* notice
FSAR	final safety analysis report
GAO	U.S. Government Accountability Office
GEIS	generic environmental impact statement

HOO	Headquarters Operation Officer
IAEA	International Atomic Energy Agency
IC	initiating condition
IFMP	irradiated fuel management plan
IMC	inspection manual chapter
IMP	insider mitigation program
IOEP	ISFSI-only emergency plan
ISFSI	independent spent fuel storage installation
LAR	license amendment request
LLEA	local law enforcement agencies
LTP	license termination plan
LWR	light-water reactor
MOU	memorandum of understanding
MRO	medical review officer
NAGPRA	Native American Graves Protection and Repatriation Act
NDT	nuclear decommissioning trust
NEI	Nuclear Energy Institute
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NRF	National Response Framework
NSIR	Nuclear Security and Incident Response
NWPA	Nuclear Waste Policy Act of 1982
OCA	owner-controlled area
ORO	offsite response organization
PA	protected area
PAA	Price-Anderson Act
PAG	Protective Action Guide
PDEP	permanently defueled emergency plan
PNNL	Pacific Northwest National Laboratory
PSDAR	post-shutdown decommissioning activities report
PSEP	post-shutdown emergency plan
PWR	pressurized-water reactor
RA	regulatory analysis
RAI	request for additional information
RG	regulatory guide

RIS	regulatory issue summary
ROP	Reactor Oversight Process
SAE	substance abuse expert
SFP	spent fuel pool
SLTT	State, local, Tribal, and territorial
SNF	spent nuclear fuel
SRM	staff requirements memorandum
SSC	structures, systems, and components
SSCE	site-specific cost estimate
STA	shift technical advisor
TEDE	total effective dose equivalent
U.S.	United States
U.S.C.	United States Code

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RESPONSES TO PUBLIC COMMENTS RECEIVED ON THE PROPOSED RULE ON REGULATORY IMPROVEMENTS FOR PRODUCTION AND UTILIZATION FACILITIES TRANSITIONING TO DECOMMISSIONING

Introduction

This document presents the U.S. Nuclear Regulatory Commission (NRC) responses to written public comments received on the proposed rule, "Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning"; Draft Regulatory Guide (DG)-1346, "Emergency Planning for Decommissioning Nuclear Power Reactors," Revision (Rev.) 1 (February 2022) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21347A046); DG-1347, "Decommissioning of Nuclear Power Reactors," Rev. 1 (February 2022) (ML21347A080); DG-1348, "Assuring the Availability of Funds for Decommissioning Production or Utilization Facilities," Rev. 1 (February 2022) (ML21347A081); and DG-1349, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," Rev. 1 (June 2018) (ML17353A727). The NRC published the proposed rule and notice of the DGs in the *Federal Register* (FR) on March 3, 2022 (87 FR 12254) (2022 Proposed Rule), for public comment with a 75-day public comment period. On May 17, 2022 (87 FR 29840), the NRC extended the public comment period by an additional 105 days to allow more time for stakeholders to develop and submit their comments.

The NRC's proposed rule would amend the regulations related to the decommissioning of production and utilization facilities. The NRC's goals in amending these regulations are to maintain a safe, effective, and efficient decommissioning process; reduce the need for license amendment requests (LARs) and exemptions from existing regulations; address other decommissioning issues deemed relevant by the NRC; and support the NRC's Principles of Good Regulation, including openness, clarity, and reliability.

The proposed rule and DGs are available from the Federal e-Rulemaking website at https://www.regulations.gov/ under Docket ID NRC-2015-0070.

In developing the final rule and supporting guidance, the NRC considered all the comments provided in response to the proposed rule. If, as a result of its review of a public comment, the NRC changed the rule language, the supporting discussion in the *Federal Register* notice (FRN), or the supporting guidance, the NRC's response to the comment indicates where the change occurred.

Overview of Public Comments

The NRC received a total of 2,360 comment submissions on the proposed rule. Of the 2,360 total submissions received, 119 were unique and responsive submissions, five were duplicates, and two were form letters representing 2,236 form letter copies collectively. Table 1 identifies all unique submissions, Table 2 identifies the form letter comments, and Table 3 identifies form letters that included additional unique text. The NRC reviewed the comment submissions to identify separate comments within each submission. Accordingly, a single submission may have several individual comments associated with it. The NRC gave each individual comment within a submission a unique identifier. The NRC's responses use this unique identifier to identify which individual comments are addressed by each response.

Table 1: Unique Comment Submissions

Submission Number	Commenter	ADAMS Number
NRC-2015-0070-0243	Chickasaw Nation, Lisa John	ML22088A214
NRC-2015-0070-0244	Nancy Norton	ML22095A066
NRC-2015-0070-0245	Richard Lawlor	ML22108A207
NRC-2015-0070-0246	B. Francis	ML22108A208
NRC-2015-0070-0247	Seven Lydon	ML22109A068
NRC-2015-0070-0248	Karen Gill	ML22109A069
NRC-2015-0070-0249	Christine Silva	ML22111A287
NRC-2015-0070-0250	Marc McLure	ML22111A288
NRC-2015-0070-0252	Kathy Barnes	ML22122A112
NRC-2015-0070-0253	Natural Resources Defense Council, et al.	ML22116A235
NRC-2015-0070-0254	Californians for Green Nuclear Power, Inc.	ML22125A150
NRC-2015-0070-0256	Andrea Altieri	ML22138A424
NRC-2015-0070-0257	American Nuclear Society	ML22138A423
NRC-2015-0070-0258	James Carmody	ML22138A422
NRC-2015-0070-0259	Conference of Radiation Control Program Directors, Inc.	ML22138A421
NRC-2015-0070-0260	Utility Workers Union of America	ML22126A189
NRC-2015-0070-0261	Nuclear Energy Information Service, et al.	ML22125A147
NRC-2015-0070-0262	Steven Rothkin	ML22207B854
NRC-2015-0070-0263	Anonymous	ML22207B855
NRC-2015-0070-0264	James Spaeth	ML22209A194
NRC-2015-0070-0265	Laura Berman	ML22209A195
NRC-2015-0070-0266	L. Tafapolsky	ML22209A196
NRC-2015-0070-0267	Johnathan Wilber	ML22209A197
NRC-2015-0070-0268	Kimberly Sabatini	ML22209A198
NRC-2015-0070-0269	Louis Castranova	ML22214A143
NRC-2015-0070-0270	Anonymous	ML22214A144
NRC-2015-0070-0271	Wanda and Douglas Morgan	ML22214A145
NRC-2015-0070-0272	Elizabeth and Alan Legatt	ML22214A146
NRC-2015-0070-0273	Melissa Sarno	ML22214A147
NRC-2015-0070-0274	Theresa Kastner	ML22215A062
NRC-2015-0070-0275	Emilia Silva	ML22215A063
NRC-2015-0070-0276	Russell Borner	ML22215A064
NRC-2015-0070-0277	Evie Horton	ML22215A065
NRC-2015-0070-0278	Caroline Curvan	ML22215A066
NRC-2015-0070-0279	Jean Rivlin	ML22215A067
NRC-2015-0070-0280	Amy Pasciucco	ML22215A232

Submission Number	Commenter	ADAMS Number
NRC-2015-0070-0281	Anonymous	ML22215A233
NRC-2015-0070-0282	Hudson River Boat and Yacht Club Association, Jerry Silverman	ML22215A234
NRC-2015-0070-0283	David Honsberger	ML22215A235
NRC-2015-0070-0284	Peter Gebhardt	ML22215A236
NRC-2015-0070-0285	Lois Simmonds	ML22215A237
NRC-2015-0070-0286	Barbara Halecki	ML22223A063
NRC-2015-0070-0287	James Skoufis	ML22223A064
NRC-2015-0070-0288	Karen Kraemer	ML22224A158
NRC-2015-0070-0289	Sandy Galef	ML22227A128
NRC-2015-0070-0290	Jerry Silverman	ML22242A080
NRC-2015-0070-0292	Appalachian States Low-Level Radioactive Waste Compact Commission	ML22230D037
NRC-2015-0070-0293	Pilgrim Watch, Town of Duxbury Nuclear Advisory Committee, Mary Lampert	ML22237A036
NRC-2015-0070-0294	Tribal Radioactive Materials Transportation Committee	ML22237A037
NRC-2015-0070-0296	Alice Weiner	ML22238A318
NRC-2015-0070-0298	Nora Gaines (Form Letter A Master)	ML22238A320
NRC-2015-0070-0302	Regis Obijiski	ML22242A085
NRC-2015-0070-0315	Nancy Vann	ML22242A066
NRC-2015-0070-0317	Jean Naples	ML22242A068
NRC-2015-0070-0321	Deborah DeFiebre	ML22242A072
NRC-2015-0070-0324	Joel Gingold	ML22242A075
NRC-2015-0070-0327	Connie Kline	ML22242A078
NRC-2015-0070-0329	Decommissioning Plant Coalition, Michael Callahan	ML22243A106
NRC-2015-0070-0330	Town of Plymouth, Massachusetts	ML22243A105
NRC-2015-0070-0331	Laborers' International Union of North America	ML22243A104
NRC-2015-0070-0333	Don't Waste Arizona, et al.	ML22243A101
NRC-2015-0070-0334	Cape Downwinders, Diane Turco	ML22243A100
NRC-2015-0070-0335	California State Energy Resources Conservation and Development Commission (California Energy Commission)	ML22243A099
NRC-2015-0070-0336	Beyond Nuclear, Paul Gunter	ML22243A098
NRC-2015-0070-0337	Jan Boudart	ML22243A144
NRC-2015-0070-0338	Nuclear Energy Institute, Bruce Montgomery	ML22243A197
NRC-2015-0070-0339	New York State Department of Public Service	ML22243A206
NRC-2015-0070-0340	Senator Markey, et al.	ML22244A137
NRC-2015-0070-0341	Senator Charles Schumer, et al.	ML22244A138

Submission Number	Commenter	ADAMS Number
NRC-2015-0070-0343	International Brotherhood of Electrical Workers, Lonnie Stephenson	ML22249A223
NRC-2015-0070-0344	Prairie Island Indian Community	ML22251A074
NRC-2015-0070-0345	Phil Brochman	ML22256A281
NRC-2015-0070-0346	Deborah Breen	ML22256A280
NRC-2015-0070-0347	Dorothy Anderson	ML22256A279
NRC-2015-0070-0348	Anonymous	ML22256A278
NRC-2015-0070-0349	Sarah Doenmez	ML22257A204
NRC-2015-0070-0350	Anonymous	ML22256A276
NRC-2015-0070-0351	Anonymous	ML22256A274
NRC-2015-0070-0352	Anonymous	ML22256A273
NRC-2015-0070-0353	Victoria Carr	ML22256A272
NRC-2015-0070-0354	Anonymous	ML22256A271
NRC-2015-0070-0355	Wendy Fisher	ML22257A202
NRC-2015-0070-0356	Tracy Feldman	ML22257A203
NRC-2015-0070-0358	Rob Kulakofsky	ML22257A205
NRC-2015-0070-0359	New York State Office of the Attorney General	ML22257A195
NRC-2015-0070-0361	The Nuclear Decommissioning Collaborative	ML22257A197
NRC-2015-0070-0362	Frederick Klein	ML22257A198
NRC-2015-0070-0363	Dan Edson	ML22257A199
NRC-2015-0070-0364	Citizens Awareness Network and Nuclear Information and Resource Service	ML22257A200
NRC-2015-0070-0365	Natural Resources Defense Council	ML22257A201
NRC-2015-0070-0366	BlueGreen Alliance, Natural Resources Defense Council, and Utility Workers Union of America	ML22257A220
NRC-2015-0070-0368	Entergy Operations, Inc.	ML22257A221
NRC-2015-0070-0369	Nuclear Energy Tribal Working Group	ML22257A222
NRC-2015-0070-0370	C-10 Research & Education Foundation	ML22257A223
NRC-2015-0070-0372	Joyce Weir	ML22257A225
NRC-2015-0070-0374	J.A. Savage	ML22257A227
NRC-2015-0070-0375	Sandy Sanders	ML22257A228
NRC-2015-0070-0376	New York State Energy Research and Development Authority	ML22257A229
NRC-2015-0070-0377	Grundy Economic Development Council	ML22257A230
NRC-2015-0070-0378	PSEG Nuclear LLC	ML22257A231
NRC-2015-0070-0379	Riverkeeper, Inc.	ML22257A232
NRC-2015-0070-0380	Federal Emergency Management Agency	ML22243A103
NRC-2015-0070-0393	Assemblywoman Sandy Galef, Senator Pete Harckham	ML21341B443
NRC-2015-0070-0394	Manna Jo Greene (Form Letter B Master)	ML22259A105

Submission Number	Commenter	ADAMS Number
NRC-2015-0070-0397	Daniel Cayer	ML22259A152
NRC-2015-0070-0399	Representative Salud Carbajal	ML22138A156
NRC-2015-0070-0400	BlueGreen Alliance	ML22126A187
NRC-2015-0070-0401	Anonymous	ML22256A277
NRC-2015-0070-0414	New York State Department of Public Service	ML23244A184

Table 2 – Form Letter Comment Submissions

Submission Number	Commenter	Form Letter	ADAMS Number
NRC-2015-0070-0295	Various (19 submissions)	Form Letter A	ML22238A317
NRC-2015-0070-0297	Barbara Lalicki	Form Letter A	ML22238A319
NRC-2015-0070-0291	Jacqueline Birnbaum	Form Letter A	ML22242A081
NRC-2015-0070-0299	Melanie Thride	Form Letter A	ML22242A082
NRC-2015-0070-0301	Monica Perrotti	Form Letter A	ML22242A083
NRC-2015-0070-0300	Stephen Hopkins	Form Letter A	ML22242A084
NRC-2015-0070-0307	Christine LaMonica-Lunn	Form Letter A	ML22242A054
NRC-2015-0070-0303	Beverly Harris	Form Letter A	ML22242A055
NRC-2015-0070-0304	Shyama Orum	Form Letter A	ML22242A056
NRC-2015-0070-0305	Eugene Hamond	Form Letter A	ML22242A057
NRC-2015-0070-0306	Ellen Leaf Dumas	Form Letter A	ML22242A058
NRC-2015-0070-0308	Janet Bellusci	Form Letter A	ML22242A059
NRC-2015-0070-0309	Maria Ragucci	Form Letter A	ML22242A060
NRC-2015-0070-0310	K D	Form Letter A	ML22242A061
NRC-2015-0070-0311	Larry Wong	Form Letter A	ML22242A062
NRC-2015-0070-0312	Charlotte Hobler	Form Letter A	ML22242A063
NRC-2015-0070-0313	Polly Pitts-Garvin	Form Letter A	ML22242A064
NRC-2015-0070-0314	Alice Shields	Form Letter A	ML22242A065
NRC-2015-0070-0316	Kathleen McCarthy	Form Letter A	ML22242A067
NRC-2015-0070-0318	Allan Goldhammer	Form Letter A	ML22242A069
NRC-2015-0070-0319	Joanne Sanchez	Form Letter A	ML22242A070
NRC-2015-0070-0320	Laurie Gershgorn	Form Letter A	ML22242A071
NRC-2015-0070-0322	Gwendolyn Chambers	Form Letter A	ML22242A073
NRC-2015-0070-0323	Linda Novenski	Form Letter A	ML22242A074
NRC-2015-0070-0325	Kathleen Mock	Form Letter A	ML22242A076
NRC-2015-0070-0326	Carol Hinkelman	Form Letter A	ML22242A077
NRC-2015-0070-0328	Susan Carlson	Form Letter A	ML22242A079

Submission Number	Commenter	Form Letter	ADAMS Number
NRC-2015-0070-0342	Various (201 submissions)	Form Letter A	ML22244A211
NRC-2015-0070-0360	J. Kovitz	Form Letter B	ML22257A196
NRC-2015-0070-0373	F. Taylor	Form Letter B	ML22257A226
NRC-2015-0070-0383	Hal Anthony	Form Letter B	ML22259A095
NRC-2015-0070-0392	Anonymous	Form Letter B	ML22259A104
NRC-2015-0070-0395	Various (499 submissions)	Form Letter B	ML22259A106
NRC-2015-0070-0396	Various (500 submissions)	Form Letter B	ML22259A107
NRC-2015-0070-0398	Various (487 submissions)	Form Letter B	ML22259A108

Table 3 – Form Letter Comment Submissions with Additional Text

Submission Number	Commenter	Form Letter	ADAMS Number
NRC-2015-0070-0381	Don Leichtling	Form Letter B	ML22259A093
NRC-2015-0070-0382	Glen Anderson	Form Letter B	ML22259A094
NRC-2015-0070-0384	Jacquelyn Drechsler	Form Letter B	ML22259A096
NRC-2015-0070-0385	Joan Holt	Form Letter B	ML22259A097
NRC-2015-0070-0386	Kae Bender	Form Letter B	ML22259A098
NRC-2015-0070-0387	Paul Palla	Form Letter B	ML22259A099
NRC-2015-0070-0388	Ronit Corry	Form Letter B	ML22259A100
NRC-2015-0070-0389	Ruth Fink-Winter	Form Letter B	ML22259A101
NRC-2015-0070-0390	Theodora Carroll	Form Letter B	ML22259A102
NRC-2015-0070-0391	Teresa Holt	Form Letter B	ML22259A103

Comment Organization

This comment response document separates the comments into the categories identified in the table of contents. In this document, the NRC has either included comments as written by the commenter or summarized the comments for conciseness and clarity. Quoted comments are indicated with quotation marks. At the end of each comment, the NRC refers to the specific public comment or public comments associated with that feedback in a parenthetical referencing the regulations.gov submission number in the tables above, along with a unique comment identifier, which represents individual comments contained within the comment submission. Similar or identical comments were grouped together, and a single response is provided for each group.

This document places each public comment into one of the categories identified in the table of contents and cross-references similar responses where similar issues are addressed across issue categories.

Comments and Responses

1 GENERAL COMMENTS ON THE PROPOSED RULE

1.1 General Support for the Proposed Rule

Comment 1.1-01: Two commenters, while also providing detailed comments on the proposed rule, expressed general support for the proposed changes and the efforts to streamline the regulations while keeping safety as a top priority, stating that the changes to the rule are needed to provide a predictable, transparent, and efficient decommissioning framework (NRC-2015-0070-0257-0001, NRC-2015-0070-0338-0001, NRC-2015-0070-0338-0003).

NRC Response: The NRC agrees with the comments. The NRC's goal in this rulemaking is to maintain a safe, effective, and efficient decommissioning process. The comments support this rulemaking and suggest no specific changes to the rule language.

Accordingly, the NRC did not revise the rule language in response to these comments.

1.2 General Opposition to Proposed Rule

Comment 1.2-01: A few commenters expressed opposition to the proposed rule due to its reduction in oversight. For example, a commenter indicated that by rolling back regulations related to nuclear plant decommissioning, the NRC is abandoning its important oversight role and putting public safety at risk. The commenter stated that eliminating broad-based controls and regulations is not in the public interest and urged the NRC to reconsider the proposed changes (NRC-2015-0070-0286-0001). Another commenter, without providing additional comments, expressed concern that the new regulations would reduce oversight of the disposal of nuclear waste, urging that oversight is critically important (NRC-2015-0070-0270-0001). Similarly, another commenter expressed strong opposition to the proposed rule, stating that the rule will loosen needed regulatory oversight at a time when such oversight is essential to ensure public health and safety. The commenter stated that, as someone who lives close to Indian Point and the Hudson River, closer – not less restrictive – monitoring of the decommissioning process is important to make sure that nuclear materials are handled in the safest possible manner (NRC-2015-0070-0266-0001). Another commenter rejected what they characterized as potential rollback of oversight for the Indian Point facility due to the proposed rule and stated that exemptions that would reduce accountability and increase likelihood of environmental and human disaster should not be made (NRC-2015-0070-0397-0001).

NRC Response: The NRC disagrees with these comments. The NRC maintains effective oversight of decommissioning power reactor facilities through implementation of Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program" (January 2021) (ML20358A131), which includes provisions for inspecting activities associated with the disposal of nuclear waste during decommissioning.

Specifically, while the level of NRC oversight at decommissioning facilities is less than that at operating facilities, periodic inspections in many regulatory and technical areas take place under the decommissioning reactor inspection program, in accordance with IMC 2561, at least annually. These inspections ensure that the NRC staff remains well informed of ongoing activities at decommissioning facilities, is made aware of any issues, and has the opportunity to follow up on corrective actions. The results of these inspections are available to the public in inspection reports that can be obtained from many sources, including the NRC public website

and ADAMS, and are distributed directly to interested stakeholders who subscribe to either the NRC's electronic distribution of the reports or the licensees' service lists.

The NRC's goal in this rulemaking is to continue to maintain a safe, effective, and efficient decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 1.2-02: A commenter urged the NRC to reverse course and end what they called the rollback of regulations relating to the operation of decommissioning facilities, stating that "[t]hese endeavors are flawed both tactfully and substantively." The commenter urged that the NRC must assert greater oversight of decommissioning facilities and not "rubber-stamp" exemptions (NRC-2015-0070-0289-0001).

NRC Response: The NRC disagrees with the comment. This rulemaking establishes an updated decommissioning regulatory framework that recognizes the reduction in radiological risk after permanent cessation of power operations and removal of fuel from the reactor vessel. This rulemaking, therefore, provides a more stable and efficient regulatory process for reactors making the transition to decommissioning when compared to the current process of relying on license amendments and regulatory exemptions. The NRC's goal in this rulemaking is to continue to maintain a safe, effective, and efficient decommissioning process.

The comment expresses general opposition to the rulemaking without suggesting specific changes to the rule language. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.2-03: A commenter stated that it is apparent that substantial technical flaws exist in the proposed rule, specifically the one-size-fits-all approach proposed by the NRC in the decommissioning process for dozens of nuclear facilities located across the country. The commenter expressed concern about the NRC's willingness to apply such a blanketed approach and suggested that the NRC should instead "work to remedy the facilitation of licensing through increased staffing or system modernization while continuing to issue exemptions on a case-by-case basis." The commenter asserted that, though the four-step graded approach outlined in the proposal is commensurate with the four levels of decommissioning, the process for each facility varies tremendously based on factors such as size, age, and geographic location (NRC-2015-0070-0287-0001). The commenter urged the Commission to reject the proposed rule (NRC-2015-0070-0287-0004).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the four-step graded approach outlined in the rulemaking is commensurate with the four levels of decommissioning but disagrees that the proposal contains substantial technical flaws or promotes a one-size-fits-all approach. Specifically, the NRC will continue to provide oversight of all aspects of decommissioning as a facility transitions between the levels described in the graded approach.

For example, for changes related to emergency preparedness (EP) during decommissioning, a licensee electing to use the new EP framework in Title 10 of the *Code of Federal Regulations* (CFR) Section 50.200, "Power reactor decommissioning emergency plans," would submit to the NRC changes to the licensee's emergency plan when transitioning between EP decommissioning levels. These changes would need to be submitted at least 60 days prior to implementation, and the licensee's emergency plan would remain subject to future NRC inspection and enforcement. The submittal of plan changes would not be a licensing action; it would provide a current copy of the emergency plan to the NRC to support future inspection

activities. This submittal would also provide an opportunity for the NRC to assure that the licensee maintains the effectiveness of its emergency plan.

In addition, notwithstanding the implementation of the graded approach, the NRC will continue to evaluate and approve, as appropriate, several site-specific areas of the decommissioning program at each facility as the site transitions between the various phases of decommissioning. For instance, any changes in the technical specifications that govern the operation of the facility will continue to need to be approved by the NRC via a license amendment before they can be implemented. The NRC will also maintain the ability to evaluate and approve, if appropriate, site-specific exemptions on a case-by-case basis for permanently shutdown reactors. These measures will help ensure that any unique, site-specific aspects of decommissioning receive the appropriate amount of oversight and attention throughout the decommissioning process.

The NRC's goal in this rulemaking is to continue to maintain a safe, effective, and efficient decommissioning process without impacting public health and safety.

The comments express general opposition to the rulemaking without suggesting specific changes to the rule language. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 1.2-04: A commenter stated that the proposed rule, as written, should never have gone out for public comment and that its real purpose is to save the nuclear industry money. The commenter stated that the draft proposed rule continues to allow the licensee to make key decisions with minimal role for the NRC and almost no role for stakeholders (NRC-2015-0070-0293-0001).

Additionally, the commenter stated that Commissioner Baran noted in his dissenting vote (August 2021) (ML21230A313) on SECY-18-0055, "Proposed Rule: Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning (RIN 3150-AJ59)" (May 2018) (ML18012A021), that radiological risks remain at shutdown nuclear power plants that should be taken seriously. The commenter added that risks from spent fuel pool (SFP) fires could result in catastrophic consequences (NRC-2015-0070-0293-0003).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that radiological risks remain at a shutdown nuclear reactor and that the potential consequences of a fire in the SFP with fuel present could be serious. However, the risk of an SFP fire is very low and decreases further over time during decommissioning. Therefore, this rulemaking establishes an updated decommissioning regulatory framework that appropriately addresses the reduction in radiological risk after permanent cessation of power operations and removal of fuel from the reactor vessel while still providing reasonable assurance of adequate protection of the public health and safety.

The NRC disagrees that the real purpose of the proposed rule is to save the nuclear industry money or that the rule minimizes the role of the NRC and stakeholders in the decommissioning process. The purpose of the rule, in part, is to establish regulations that will maintain safety and security at sites transitioning to decommissioning without the need to grant specific exemptions or license amendments in certain regulatory areas, especially those that are found to be generically applicable to all decommissioning power reactors and have resulted in similarly worded exemptions or license amendments across many facilities.

This codification of some of the regulatory steps necessary for a permanently shutdown nuclear power reactor to transition from operating to decommissioning serves to allow licensee and NRC resources to remain focused on dismantlement and remediation activities at these sites, without decreasing the level of consideration for the remaining radiological risks at the decommissioning reactors. This continuing consideration includes implementation of the NRC

oversight process through inspections; review for approval of several key decommissioning transition license changes (e.g., the permanently defueled technical specifications), many of which involve the opportunity for stakeholder involvement; and NRC sponsorship and participation in numerous public meetings throughout the decommissioning process.

Based on the many components of the regulatory and oversight processes that are not changing as part of this rule, as well as the considerations discussed above for the components of the process that are changing, the NRC's and stakeholders' roles in the decommissioning process will be maintained in this rulemaking. The NRC's goal in this rulemaking is to continue to maintain a safe, effective, and efficient decommissioning process without impacting public health and safety.

The comments express general opposition to the rulemaking without suggesting specific changes to the rule language. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 1.2-05: Some commenters discussed the need for public input and community engagement. One commenter stated that the NRC prioritizes the financial wellbeing, convenience, and disburdenment of the nuclear industry over public health and safety. That commenter, along with another commenter, suggested that the proposed rule be withdrawn and revised to incorporate affected stakeholder input and ensure engagement (NRC-2015-0070-0327-0001, NRC-2015-0070-0334-0002). Other commenters echoed these sentiments and stated that the rule leans too heavily in favor of increased efficiency for licensees over the safety of the public (NRC-2015-0070-0330-0001, NRC-2015-0070-0359-0002, NRC-2015-0070-0335-0001). A few commenters, including a form letter campaign, stated that the proposed rule weakens the safety provisions, and the NRC must take responsibility for ensuring that public safety and environmental protection are prioritized throughout the decommissioning process (NRC-2015-0070-0370-0007, NRC-2015-0070-0370-0001, NRC-2015-0070-0334-0010, NRC-2015-0070-0394-0010, NRC-2015-0070-0394-0001). One commenter stated that the rule endangers the public and the NRC must protect broad public interest (NRC-2015-0070-0382-0001). Another commenter stated that the NRC's proposed changes are insufficient to meet the needs of their members and urged the NRC to heavily revise its proposed rule or propose new rules that incorporate the needs of workers and communities working and living near nuclear power facilities (NRC-2015-0070-0343-0001).

Several commenters stated that the proposed rule should be revised to prioritize protection of people and the environment, and that this should include opportunities for interested stakeholders, state authorities, and workers (NRC-2015-0070-0363-0001, NRC-2015-0070-0354-0001, NRC-2015-0070-0347-0001, NRC-2015-0070-0372-0001, NRC-2015-0070-0355-0001, NRC-2015-0070-0346-0001, NRC-2015-0070-0349-0001).

NRC Response: The NRC disagrees with these comments. Specifically, the NRC disagrees that the rule minimizes the role of stakeholders in the decommissioning process while prioritizing the disburdenment of the nuclear industry over public health and safety. The intent of the rule, in part, is to establish regulations that will maintain safety and security at sites transitioning to decommissioning while promoting efficient use of decommissioning resources by both the NRC and licensees.

This codification of some of the regulatory steps necessary for a permanently shutdown nuclear power reactor to transition from operating to decommissioning serves to allow licensee and NRC resources to remain focused on dismantlement and remediation activities at these sites, without decreasing the level of consideration for the remaining radiological risks at the decommissioning reactors. This continuing consideration includes implementation of the NRC

oversight process through inspections; review for approval of several key decommissioning transition license changes (e.g., the permanently defueled technical specifications), many of which involve the opportunity for stakeholder, including State authorities, involvement; and NRC sponsorship and participation in numerous public meetings throughout the decommissioning process.

The NRC considered available information about community engagement, environmental protection during decommissioning, and the needs of workers and communities near nuclear power reactors as discussed in the regulatory basis (November 2017) (ML17215A010), proposed rule, and final rule. The NRC's goal in this rulemaking is to continue to maintain a safe, effective, and efficient decommissioning process without impacting public health and safety.

The comments express general opposition to the rulemaking and provide no new information for consideration. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 1.2-06: Two commenters stated that the proposed rule is not adequate (NRC-2015-0070-0388-0001, NRC-2015-0070-0356-0001). One commenter stated that the rule needs to take into account evidence and up-to-date information about public health risks, and sufficiently mitigate those risks (NRC-2015-0070-0356-0001). Other commenters stated that the proposed rule should increase the requirements of the decommissioning process rather than relax them (NRC-2015-0070-0302-0001, NRC-2015-0070-0385-0001).

NRC Response: The NRC disagrees with these comments. The NRC's goals in this rulemaking are to maintain a safe, effective, and efficient decommissioning process; reduce the need for LARs and exemptions from existing regulations; address other decommissioning issues deemed relevant by the NRC; and support the NRC's Principles of Good Regulation, including openness, clarity, and reliability. The NRC considered available information about operations and decommissioning of licensed facilities as discussed in the regulatory basis, proposed rule, and final rule. The final rule establishes specific regulatory requirements for different phases of the decommissioning process, consistent with the reduced radiological risk.

The comments express general opposition to the rulemaking and provide no new information for consideration. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 1.2-07: A commenter encouraged NRC staff to focus its efforts on the original goals of the rulemaking—improve upon and make the process for transitioning to decommissioning more efficient, open, and predictable by reducing the reliance on licensing actions—and to finalize the rulemaking expeditiously (NRC-2015-0070-0368-0014).

NRC Response: The NRC disagrees, in part, with this comment. As discussed in the proposed rule, the NRC's goals in this rulemaking are to maintain a safe, effective, and efficient decommissioning process; reduce the need for LARs and exemptions from existing regulations; address other decommissioning issues deemed relevant by the NRC; and support the NRC's Principles of Good Regulation, including openness, clarity, and reliability. Therefore, the "original goal" of the rulemaking involved more considerations than simply improving the efficiency of the decommissioning transition process.

The comment did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.2-08: A commenter urged that the proposed rule be adjusted to increase transparency for an independent spent fuel storage installation (ISFSI) site, recognize host communities, and provide compensation for those communities (NRC-2015-0070-0330-0003).

NRC Response: The NRC disagrees with this comment. Specific changes related to the regulatory framework for ISFSIs are outside the scope of this rule, and financial compensation for communities where an ISFSI is located is outside the scope of the NRC's regulatory jurisdiction.

However, the NRC maintains a transparent set of requirements for all ISFSI sites, regardless of whether the associated nuclear plant is operating or decommissioning. The majority of these regulations will not be directly impacted by this rule, but the implementation of a graded approach to decommissioning will create a clear framework for the reduction of various programs, including those that are applicable to ISFSIs, such as EP and physical security.

With respect to community involvement in emergency management and planning for decommissioned sites, for changes related to EP during decommissioning, a licensee electing to use the new EP framework in 10 CFR 50.200 would submit to the NRC changes to the licensee's emergency plan when transitioning between EP decommissioning levels. These changes would be publicly available and would continue to rely on the U.S. Environmental Protection Agency (EPA) Protective Action Guides (PAGs) to ensure that communities are protected by appropriate radiation dose guidelines to trigger public safety measures.

Accordingly, the NRC did not revise the rule language in response to this comment.

1.3 Other General Comments on the Proposed Rule

Comment 1.3-01: A commenter acknowledged that the NRC's proposed rule provides a clear distinction between an operating reactor and a reactor that is shutdown permanently and stated that the rulemaking is anticipated to reduce the number of LARs. The commenter also stated that the proposed rulemaking, in some areas, does not adequately address the interest of States or local communities (NRC-2015-0070-0292-0001).

NRC Response: The NRC agrees, in part, with this comment. The purpose of the rule, in part, is to establish regulations that will maintain safety and security at sites transitioning to decommissioning without the need to grant specific exemptions or license amendments in certain regulatory areas, especially those that are found to be generically applicable to all decommissioning power reactors and have resulted in similarly worded exemptions or license amendments across many facilities.

This codification of some of the regulatory steps necessary for a permanently shutdown nuclear power reactor to transition from operating to decommissioning serves to allow licensee and NRC resources to remain focused on dismantlement and remediation activities at these sites, without decreasing the level of consideration for the remaining radiological risks at the decommissioning reactors. As part of this rulemaking effort, the NRC considered available information about the involvement of States and local communities during decommissioning, as discussed in the regulatory basis, proposed rule, and final rule.

This continuing consideration of stakeholder involvement in the decommissioning process includes implementation of the NRC oversight process through inspections, which involve publicly available inspection reports; review for approval of several key decommissioning transition license changes (e.g., the permanently defueled technical specifications), many of which involve the opportunity for stakeholder involvement, such as the State and local communities; NRC sponsorship and participation in numerous public meetings and other

interactions throughout the decommissioning process; and the inclusion of additional guidance related to the formation of community advisory boards (CABs) into the revisions to NRC Regulatory Guide (RG) 1.185, “Standard Format and Content for Post-Shutdown Decommissioning Activities Report,” Rev. 2 (ML23072A082).

In addition, a future action associated with this rulemaking is to update the NRC’s Decommissioning Generic Environmental Impact Statement (Decommissioning GEIS), NUREG-0586, Supplement 1, “Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities” (December 2002) (ML023470316). The process to update the Decommissioning GEIS will include a public scoping comment period. Comments collected by the NRC will be considered in determining any changes in the Decommissioning GEIS to the scope of both generic and site-specific environmental reviews during decommissioning.

The comment did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.3-02: A comment jointly submitted by a few commenters stated that the proposed rule is critical to ensuring that the decommissioning process and any updated rules support the workers and communities associated with these facilities and safeguard the environment (NRC-2015-0070-0366-0001).

NRC Response: The NRC agrees, in part, with this comment. The intent of the rule, in part, is to establish regulations that will maintain reasonable assurance of adequate protection of public health and safety and the common defense and security at sites transitioning to decommissioning. These changes will continue to safeguard the environment under existing NRC requirements and will introduce additional guidance related to interactions with communities associated with decommissioning facilities. The NRC considered available information about community engagement, environmental protection during decommissioning, and the needs of workers and communities near nuclear power reactors as discussed in the regulatory basis, proposed rule, and final rule.

The comment did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.3-03: A commenter stated that the decommissioning process for reactors must be carefully regulated and inspected. The commenter also stated that it is essential for proper disposal of waste materials to be verified and that industry cannot regulate and verify itself (NRC-2015-0070-0358-0001).

NRC Response: The NRC interprets this comment to mean that there should be appropriate NRC oversight of spent fuel storage and disposal of the low-level radioactive waste created during the decommissioning process. The NRC agrees with this comment. The NRC’s safety oversight program for spent fuel storage, as well as the transportation and disposal of low-level radioactive waste, is designed to prevent radiation-related deaths and illnesses, protect the environment, and safeguard the material from terrorist threats. The oversight program includes inspections and assessments of licensee and vendor performance with a focus on minimizing risk to public health and safety.

States also play an important role in the regulation of radioactive materials. Currently, all licensed low-level waste disposal facilities are in States that have entered into agreements with the NRC that give them the authority to regulate licensed material possessed in their borders. These Agreement State programs have regulations and inspection programs compatible with the NRC to ensure adequate protection of public health and safety.

The comment did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.3-04: A commenter noted that the rulemaking has been under development for many years and urged the NRC to proceed with all due haste to complete the rulemaking process (NRC-2015-0070-0257-0010).

NRC Response: The NRC agrees, in part, with this comment. The development schedule for the rulemaking included additional public outreach early in the process (through issuance of an advance notice of proposed rulemaking (ANPR) and regulatory basis document for comment) and managing resources with other agency priorities. In addition, the NRC extended the public comment period on the proposed rule from 75 days to 180 days to allow more time for members of the public to develop and submit their comments. These added steps had an impact on the overall schedule for completion of the final rule.

The comment did not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 1.3-05: A commenter generally agreed with the stated purpose for this rulemaking. However, the commenter urged caution against proposed rules that reduce the amount or level of training or qualifications for personnel on decommissioning projects and relax requirements for license transfers. The commenter recommends a rule that strikes a balance between local input and Federal oversight of the decommissioning process (NRC-2015-0070-0331-0002).

NRC Response: The NRC disagrees with this comment. This rulemaking does not reduce the amount or level of training or qualifications for personnel on decommissioning projects. Rather, the final rule adds a provision that removes the need for NRC approval of the training program for certified fuel handlers (CFHs) if the training program is derived from a systems approach to training and includes specific topics which are outlined in the final rule. These amendments codify broad-scope objectives for CFH training based on best practices and rely on the systems approach to training process that has been effective for decades in the regulation of training for licensed operators at operating reactor plants.

This rulemaking also does not relax requirements for license transfers. Requirements in 10 CFR 50.80, “Transfer of licenses,” govern the transfers of 10 CFR Part 50, “Domestic Licensing of Production and Utilization Facilities,” and 10 CFR Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” licenses for production and utilization facilities, and this final rule does not make changes to those requirements. The section requires the written consent of the NRC before the transfer of a production or utilization facility, and it also requires applicants for a license transfer to provide the same identifying, technical, and financial information that an initial license applicant is required to provide under 10 CFR 50.33, “Contents of applications; general information,” and 10 CFR 50.34, “Contents of applications; technical information.”

Regarding the recommendation that the rule strike a balance between local input and Federal oversight of the decommissioning process, the NRC seeks stakeholder feedback throughout the decommissioning process and considers that feedback when making decisions related to site-specific actions, such as license amendments and the review of the license termination plan (LTP). The NRC Responses to Comments 5.1.3-03 and 5.1.3-05 provide additional information about the NRC’s interactions with State and local governments during decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

2 LEGAL ISSUES RAISED BY COMMENTS (E.G., STATUTORY AUTHORITY, APA ARGUMENTS)

Comment 2-01: Two commenters asserted that the proposed rule violates the Atomic Energy Act (AEA) by allowing the extension of reactor operating licenses past the statutory limit of 40 years (NRC-2015-0070-0365-0002, NRC-2015-0070-0364-0002). Specifically, one commenter asserted that the current decommissioning regulations violate section 103 of the AEA by permitting what are explicitly time-limited licenses to continue in effect during decommissioning without undergoing a statutorily required license proceeding (NRC-2015-0070-0364-0002). Commenters recommended that the time period should provide an adequate opportunity to resolve all licensing issues related to decommissioning, including the completion of adjudicatory hearings, before the termination date of the 10 CFR Part 50 license (NRC-2015-0070-0365-0002, NRC-2015-0070-0364-0004). A commenter suggested that the NRC look to how it regulates renewal of operating licenses for one solution to how the existing decommissioning requirements violate the AEA (NRC-2015-0070-0365-0025).

NRC Response: The NRC disagrees with these comments. Allowing reactor licenses issued under 10 CFR Part 50 or Part 52 to continue in effect beyond their expiration dates does not violate the AEA. Many operating licenses issued under 10 CFR Part 50 were issued under the authority of AEA Section 104b (Title 42 of the United States Code (42 U.S.C.) Section 2134(b)), which does not have a limit on the duration of licenses. Therefore, maintaining the effectiveness of those licensees beyond a 40-year period (absent license renewal) does not violate a statutory limit.

Although AEA Section 103c, 42 U.S.C. Section 2133(c), contains a 40-year limit, 10 CFR Part 50 and Part 52 operating licenses issued under the authority of AEA Section 103c that are not renewed before they expire may continue in effect past their expiration dates, even when the expiration date is 40 years after the issuance of the operating license. In the 1988 decommissioning final rule (“General Requirements for Decommissioning Nuclear Facilities” (53 FR 24018; June 27, 1988)) (1988 Final Rule), the Commission explained the difference between a license that has expired and a license that has been terminated: “As with any license, the authority to operate or to carry on licensed activities ceases at the expiration date unless the license is being renewed. However, the license and the responsibility to protect health and safety and promote the common defense and security continues until the Commission terminates the license.”

Before the issuance of the 1996 decommissioning final rule (“Decommissioning of Nuclear Power Reactors” (61 FR 39278; July 29, 1996)) (1996 Final Rule), dating back to the early years of the Atomic Energy Commission, licensees planning to shut down their reactors earlier than the scheduled license termination date would request amendments to their 10 CFR Part 50 operating licenses to change them to possession-only licenses because the licensee still possessed NRC-regulated material. As the Commission explained in the 1988 Final Rule, “Normally, an amended Part 50 license authorizing possession only will be issued prior to the decommissioning order to confirm the nonoperating status of the plant and to reduce some requirements which are important only for operation prior to finalization of decommissioning plans. The authority to possess radioactive materials under Parts 30, 40, and/or 70, as appropriate, continues to be incorporated in the modified Part 50 license, as it is during operation.”

The 1996 Final Rule removed the need for possession-only license amendments by establishing regulations in 10 CFR 50.82, “Termination of license,” that eliminate a licensee’s authority to operate a licensed power reactor facility and in 10 CFR 50.51, “Continuation of

license," that continue the effectiveness of the Part 50 license to authorize the possession of regulated materials under a combination of 10 CFR Parts 30, 40, 50, and 70. Parts 30, 40, and 70 of 10 CFR are authorized by sections 81, 63, and 53 of the AEA and concern the licensing of byproduct, source, and special nuclear materials, respectively. A 10 CFR Part 50 reactor license's authority to receive, possess, or use byproduct, source, and special nuclear material under Parts 30, 40, or 70, respectively, does not have time limits. The amendments in the 1996 Final Rule codified a practice—removing the authority to operate and maintaining the authority to possess—that had existed for decades and was consistent with the AEA.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 2-02: Several commenters stated that the proposed rule violates the AEA, National Environmental Policy Act (NEPA), and *Citizens Awareness Network v. NRC*, 59 F.3d 284 (1st Cir. 1995), and, as a matter of law, the NRC must reassess the decommissioning regulations. Commenters asserted that, as guaranteed by the AEA and NEPA, the affected public counts on the NRC to regulate the nuclear industry with rigor, applying a standard of reasonable protection of public health and safety and providing a meaningful opportunity to participate in decisions that affect their welfare. They claim that the NRC fails to provide for licensing approval and public hearing opportunities for post-operational decisions on decommissioning, emergency planning, and security (NRC-2015-0070-0365-0002, NRC-2015-0070-0365-0026, NRC-2015-0070-0364-0014, NRC-2015-0070-0327-0005).

NRC Response: The NRC disagrees, in part, with these comments. The NRC agrees that it does not approve power reactor licensees' planned decommissioning activities through separate licensing actions before the decommissioning activities begin. However, the NRC's regulations, the 2022 Proposed Rule, and the final rule comply with applicable caselaw, NEPA, and the AEA. The NRC has been complying with the decision in *Citizens Awareness Network v. NRC* since its issuance. In the 1996 Final Rule, the Commission described its compliance with that decision in response to similar comments on the 1995 decommissioning proposed rule (60 FR 37374; July 20, 1995) (1995 Proposed Rule):

> A significant basis for the court's decision was that it perceived that the Commission had not adequately provided the reasoning for the NRC decision to allow decommissioning activities before NRC approval of a licensee-submitted decommissioning plan (59 F.3d at 291–292), a decision that the court considered to be a modification of the Commission's decommissioning regulations. The court noted that the Commission had failed to provide either a rulemaking proceeding or a hearing to address what the court perceived to be NRC approvals of licensee decommissioning activities (59 F.3d at 291–92, 294–95). By initiation of a notice of proposed rulemaking and solicitation of comment (July 20, 1995; 60 FR 37374), the Commission addressed the reasoning underlying the proposed decommissioning process and allowed public review and comment on that reasoning.
>
> The final rule includes a public notice and meeting process, prompted by the licensee's submission of a report describing planned decommissioning activities, to hear public views before the licensee undertakes major decommissioning activities. This process specifically provides that licensees may not begin major decommissioning activities until after they have submitted a [post-shutdown decommissioning activities report] PSDAR. The PSDAR will be made available to the public for written comment and a public meeting will be held to hear public views. Finally, the licensee is required to submit a license termination plan before release of the site. The final rule specifies that the license termination plan be

> approved by the NRC through the license amendment process. This process provides the public with hearing opportunities and ensures that any hearing on that plan must be completed prior to release of the site. This procedural framework assures that those citizens living near the site, potentially for years or decades after the facility is shut down, will be provided with information regarding the licensee's planned decommissioning activities, have an opportunity to ask questions regarding those activities at a public meeting early in the process, and have timely input into the decision to release the site.
>
> In its decision, the court also specifically addressed a concern about decommissioning activities taking place prior to any NEPA analysis (59 F.3d at 292–93). The final rule addresses this issue in several respects. First, the final rule explicitly prohibits the licensee from performing any major decommissioning activity that results in significant environmental impacts not previously reviewed or forecloses possible unrestricted release of the site.
>
> Also, when the licensee submits the PSDAR, the licensee must specifically include a section discussing how the planned activities fit within the envelope of environmental effects included in either the [Final Generic Environmental Impact Statement] (NUREG–0586, August 1988) or the facility's site-specific environmental impact statement. Moreover, the licensee must provide written notification if the intended decommissioning activities are inconsistent with the PSDAR. This requirement helps ensure that, after submittal and public comment on the PSDAR, any changes to the planned decommissioning activities continue to be enveloped by the assessment of environmental impacts in prior environmental reviews. Any activities not meeting the environmental criteria would require the licensee to file an application for amendment to the license and a supplement to its environmental report under 10 CFR part 51. Finally, the rule requires a formal license termination plan by the licensee. The activities in the licensee's plan which do not meet the environmental criteria must be approved by the NRC by a license amendment that follows NRC procedures for amendments, including applicable hearing rights (under either subpart L or subpart G of 10 CFR part 2, as specified in the rule) and the preparation of environmental assessments.
>
> The court perceived that the agency "approval" of the expenditure of funds from the decommissioning funds may be a basis for triggering both NEPA reviews and hearing rights (59 F3d at 292–95). The final rule addresses this issue by providing generic guidance as to what expenditures can be made out of the decommissioning fund for decommissioning activities before submittal of a site-specific cost estimate. The revised regulations use generic criteria for expenditures from the decommissioning funds and do not require prior NRC approval of site-specific expenditures meeting the generic criteria (see § 50.82(a)(7)). These new provisions specifically require licensees to maintain sufficient funds for release of the site and termination of the license. The licensee will have to also include an updated, site-specific analysis of remaining costs in the license termination plan submittal.

This response from 1996 remains applicable to comments on the 2022 Proposed Rule. As noted by the Commission in the 1995 Proposed Rule and 1996 Final Rule, the Commission provided its reasoning underlying its approach of allowing major decommissioning activities as long as the activities meet 10 CFR 50.59, "Changes, tests, and experiments," and would not result in: (1) the elimination of the potential for unrestricted release, (2) significant environmental

impacts not previously considered in environmental impact statements (EISs), and (3) there no longer being reasonable assurance that adequate funds will be available for decommissioning. This rationale applies to the current rulemaking.

The rulemaking effort that resulted in the 1996 Final Rule also met the requirement for a hearing under the AEA. Section 189a of the AEA provides for an opportunity for a hearing "in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees." Federal courts have held that the opportunity to submit written comments in the rulemaking process satisfies the hearing requirements of Section 189a. *Siegel v. Atomic Energy Comm'n*, 400 F.2d 778, 785 (D.C. Cir. 1968) (stating that the AEA does not prescribe that a hearing be a formal "on the record" hearing); *United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 757 (1972) (stating that sections of the Administrative Procedure Act relating to formal rulemaking hearings "need be applied only where the agency statute, in addition to providing a hearing, prescribes explicitly that it be on the record") (internal quotation marks omitted); *Citizens for a Safe Env't v. Atomic Energy Comm'n*, 489 F.2d 1018, 1021 (3rd Cir. 1973) ("Proceedings under [AEA Section 189a] include both licensing, which the Commission regards as adjudicatory, and rulemaking"). Thus, the 1995 Proposed Rule and the 2022 Proposed Rule, both of which provided the opportunity for the public to comment on the Commission's proposed generic changes to its decommissioning process that would impact individual licensee decommissioning activities, satisfied the hearing requirements of Section 189a.

Accordingly, the NRC did not revise the rule language in response to these comments.

3 BACKGROUND AND NEED FOR RULEMAKING/PURPOSE AND SCOPE OF THE PROPOSED RULE

3.1 Applicability

Comment 3.1-01: A commenter stated that the proposed rule must explicitly apply to all sites currently undergoing the decommissioning process with existing or pending exemption requests, such as the Indian Point Energy Center. The commenter stated that the exemption process leaves open the possibility for inconsistencies and lacks the depth of review of the rulemaking process (NRC-2015-0070-0379-0004).

NRC Response: The NRC disagrees with this comment. Most of the provisions of the final rule are applicable to decommissioning licensees on a voluntary basis and may be adopted as necessary for facilities in different stages of the decommissioning process. While some of the revised requirements will be applicable to all decommissioning licensees (see Section IX, "Backfitting and Issue Finality," of the final rule FRN), many of the changes will not apply to a power reactor licensee that is already in decommissioning and, through exemptions and license amendments, has already made these changes to the licensing basis of its plant. In many areas, the final rule is amending the regulatory framework so power reactor licensees entering the decommissioning process will no longer need to apply for specific exemptions because the revised rule language will codify these changes based on milestones related to the transition into decommissioning.

The NRC will also maintain the ability to evaluate and approve, if appropriate, site-specific exemptions on a case-by-case basis for permanently shutdown reactors. These measures help ensure that any unique, site-specific aspects of the decommissioning process receive the appropriate amount of oversight and attention throughout the process.

The comment did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

3.2 Decision to Use a Graded Approach

Comment 3.2-01: Two commenters supported the graded approach in general but suggested eliminating Level 2. One commenter stated that the risk of a radiological release from a decommissioning reactor is not significantly lower than that for an operating reactor. For this reason, the commenter suggested that the final rule should eliminate Level 2 and only include Levels 1, 3, and 4. The commenter claimed that spent fuel remains very dangerous while resting in "overpacked pools not designed for the length of time they will be used," stating that a large radiological risk remains until the spent nuclear fuel (SNF) is removed from the decommissioning plant site. The commenter stated that the risk of offsite release of fission products is a function of facility maintenance, accident mitigation measures, and security—not just a function of whether the reactor is operational or how long the spent fuel has been cooling (NRC-2015-0070-0365-0019, NRC-2015-0070-0365-0013, NRC-2015-0070-0365-0028). A second commenter similarly stated that Level 2 should be eliminated because the risk of accident exists until the SFP is empty (NRC-2015-0070-0293-0004).

NRC Response: The NRC agrees, in part, with these comments. The NRC disagrees with the assertion that the risk of a radiological release from a decommissioning reactor is not significantly lower than that for an operating reactor and that the final rule should dispense with Level 2 and instead include only Levels 1, 3, and 4 from the 2022 Proposed Rule. Compared to an operating nuclear power reactor, the risk of an offsite radiological release is significantly lower, and the types of possible accidents are significantly fewer, at a nuclear power reactor that has permanently ceased operations and removed fuel from the reactor vessel. These risks decrease even further as the fuel cools in an SFP, and in Level 2, the reactor is permanently defueled with all the fuel in the SFP for at least 10 months for boiling-water reactors (BWRs) or 16 months for pressurized-water reactors (PWRs). The NRC provided the technical basis for these conclusions in Section III.G, "Technical Basis for Graded Approach," in the 2022 Proposed Rule and includes that discussion in the final rule. The decrease in risk in Level 2 does not eliminate the need for radiological EP, and the final rule provides for continuing EP programs during Levels 1-3.

The NRC agrees that the risk of an offsite release of fission products is not only a function of whether the reactor is operational or how long the spent fuel has been cooling. As explained in the "Technical Basis for Graded Approach" section of the proposed rule and this final rule, the risk can also depend on other factors, such as the time scale for taking actions to identify and mitigate an accident. However, those other factors are influenced by the operational status of the reactor and the amount of time the fuel has been cooling. Unlike the other factors, the spent fuel decay period has a direct impact on the offsite dose rate from the radionuclides that could be released during a hypothetical spent fuel zirconium clad ignition accident. After a certain amount of cooling time, the overall risk of a zirconium fire becomes extremely low because of the large amount of time available for preventive and mitigating actions, and the increased probability that the decay heat will be low enough that the fuel will be air-coolable in the post-event configuration.

Factors such as facility maintenance, accident mitigation measures, and security are part of the risk determination for the facility, which is why the NRC continues to inspect a licensee's facility, even when the licensee is decommissioning the facility. IMC 2561 describes the decommissioning programs assessed by NRC inspectors: plant status; modifications, maintenance, and surveillances; problem identification and resolution; fire protection; EP; and

radiation protection. IMC 2202, “Security Inspection Program for Decommissioning Nuclear Power Reactors” (July 2020) (ML20034D470), describes the NRC’s security inspection program during decommissioning.

The NRC disagrees that a licensee’s SFP may be overpacked and not designed for the length of time it will be used, including when a reactor has been shut down and decommissioning has commenced. The maximum amount of spent fuel that an SFP can hold is controlled by chapter 9 of the licensee’s final safety analysis report (FSAR). The FSAR includes a description of the facility, including the SFP; the design bases and the limits on the facility’s operations; and a safety analysis of the facility’s structures, systems, and components (SSC), including the SFP. The NRC approves the licensee’s FSAR as part of issuing the licensee its operating or combined license, and each licensee must maintain compliance with its FSAR and inform the NRC, or seek NRC approval, of changes to the FSAR. Chapter 9 of the FSAR describes the maximum approved quantity of new and spent fuel, and safe and subcritical array for all anticipated operating and accident conditions.

Further, as explained in the “Technical Basis for Graded Approach” in the proposed rule and this final rule, the NRC’s NUREG-2161, “Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor” (September 2014) (ML14255A365), captures the results of an examination of the risks and consequences of postulated SFP accidents. The study provides publicly available consequence estimates of a hypothetical SFP accident initiated by a low-likelihood seismic event at a specific reference plant. This study confirms past risk studies that showed: (1) storage of spent fuel in high-density configurations is safe, and risk of a large release due to an accident is very low; and (2) SFPs are robust structures likely to withstand severe earthquakes without leaking. The NRC continues to believe, based on this study and previous studies, that high-density storage of spent fuel in pools protects public health and safety.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 3.2-02: Several commenters expressed support for the proposed decommissioning levels and a risk-informed, graded approach to EP. One commenter endorsed a graded approach that corresponds to reduction of risk (NRC-2015-0070-0329-0001). Another commenter supported the risk-informed, graded approach, with the caveat that it should involve engagement and input from the respective State and local jurisdictions (NRC-2015-0070-0380-0002). Another commenter noted that the process is well-suited to accommodate changes for a multi-reactor site transitioning to decommissioning (NRC-2015-0070-0378-0004).

NRC Response: The NRC agrees with this comment. The rule language and associated guidance documents provide for a graded approach to reactor decommissioning with reduction in risk at each stage of decommissioning, as endorsed by the comment. The NRC will continue to engage with State and local officials during decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 3.2-03: A few commenters stated that there are potential redundancies or contradictions between proposed 10 CFR 50.54(q)(5), which requires emergency plan changes to be submitted “within 30 days after the change is put in effect,” and proposed 10 CFR 50.54(q)(8)(i), which requires revisions to be submitted “at least 60 days prior to implementation” (NRC-2015-0070-0257-0002, NRC-2015-0070-0338-0101). One commenter suggested revising the language of 10 CFR 50.54(q)(5) to clarify that submitting changes *prior to* 30 days after the change would comply with the requirements (NRC-2015-0070-0338-0101).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that 10 CFR 50.54(q)(5) states that revisions to emergency plans will be submitted to the NRC "within 30 days after the change is put in effect." The NRC also agrees that 10 CFR 50.54(q)(9)(i) in the final rule requires revisions to be submitted "at least 60 days prior to implementation."

However, the NRC disagrees that there are possible redundancies or contradictions between the 10 CFR 50.54(q)(5) submission requirement and the 10 CFR 50.54(q)(9)(i) submission requirement. Paragraph 50.54(q)(5) is only applicable to changes made to an emergency plan when the facility is operating or in decommissioning and when the changes do not need prior NRC approval. Paragraph 50.54(q)(9)(i) is used to transition a complete emergency plan from one decommissioning level to the next and to make subsequent changes to those emergency plans. The submittal under 10 CFR 50.54(q)(9)(i) to transition from one decommissioning level to the next is not intended to be a licensing action. It would provide a current copy of the emergency plan to the NRC prior to implementation in support of future inspection activities. This submittal would provide an opportunity for the NRC to ensure that the licensee maintains the effectiveness of its emergency plan. Subsequent changes to emergency plans under 10 CFR 50.54(q)(9)(i) could involve license amendments. Thus, the requirements of 10 CFR 50.54(q)(5) and 10 CFR 50.54(q)(9) serve different purposes, and their reporting requirements are not redundant or contradictory.

Accordingly, the NRC did not revise the rule language or guidance documents based on these comments.

Comment 3.2-04: A commenter expressed support for reducing the scope of emergency planning where the risk of an emergency sharply recedes (NRC-2015-0070-0329-0002).

NRC Response: The NRC agrees with this comment.

The comment supports the proposed graded approach to EP and does not suggest a change to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 3.2-05: Two commenters suggested the addition of another decommissioning level. A commenter stated that a proposed Level 3 combines sites where the decommissioning of the reactor is ongoing or will be ongoing with those that have completed decommissioning. The commenter stated that the proposed Level 3 would include sites that may contain an inventory of liquid radioactive waste and contaminated systems, structures, and components. The commenter suggested that the graded approach include Level 4, "Stand-Alone ISFSI/Decommissioning Reactor," to help avoid circumstances where some licensees will request exemptions from requirements that apply to them but not to others (NRC-2015-0070-0329-0052). The commenter stated that this change would aid in clarifying the distinction between NRC's proposed Level 3 (spent fuel in dry cask while decommissioning is ongoing) and Level 4 (all fuel is gone from the site). Further, the commenter suggested that, with this new level, the NRC can make clear that requirements such as those pertaining to Certified Fuel Handling Training and CFH authority to make decisions concerning security in extreme weather are not needed, as a CFH is not needed at this level. In addition, the NRC can make clear that 10 CFR Part 26 fitness-for-duty (FFD) requirements do not apply at this stage (NRC-2015-0070-0329-0036). Another commenter, referencing this letter, expressed support for this idea (NRC-2015-0070-0338-0002). Similarly, another commenter stated that the framework might benefit from the consideration of one additional step, in which major decommissioning activities have been completed, but spent fuel remains onsite (NRC-2015-0070-0368-0001).

NRC Response: The NRC disagrees with these comments. The four levels of decommissioning in the final rule and the rule language for each stage are adequate for the graded approach to decommissioning. The term “ISFSI-only” refers to sites that are still involved in decommissioning activities and where no spent fuel is stored in the SFP. The term “Standalone ISFSI/Decommissioned Reactor” refers to sites where the license termination and decommissioning criteria in subpart E of 10 CFR Part 20, “Standards for Protection Against Radiation,” have been met with the exception of the ISFSI area. In addition, Section II.E of the final rule FRN specifically addresses the applicability of the rule to ISFSI-only and standalone ISFSI/decommissioned reactor sites.

In regard to these two categories of sites, the comment expresses concern that the NRC will “treat essentially identical ISFSI sites differently.” From an emergency planning perspective, both of these sites would be permitted to adopt the EP requirements of 10 CFR 72.32, “Emergency Plan.” Licensees requesting any exemptions from regulations are encouraged to involve the NRC early in the process. Additionally, the need to add an additional level for a completely decommissioned reactor with spent fuel stored onsite versus a reactor that has not been completely decommissioned with spent fuel stored onsite is unnecessary due to the EP requirements being the same for both conditions.

Additionally, the NRC disagrees that an additional level needs to be added to the graded approach to decommissioning to clarify requirements for CFH training and CFH authority, as discussed in the NRC Response to Comment 4.5-01.

Accordingly, the NRC did not revise the rule language in response to these comments.

4 MAJOR PROVISIONS OF THE PROPOSAL

4.1 Emergency Preparedness

Comment 4.1-01: Two commenters urged the NRC to adopt more stringent EP requirements throughout the decommissioning process (NRC-2015-0070-0298-0001, NRC-2015-0070-0315-0001). Similarly, another commenter expressed concern that the proposed rule goes too far in rolling back safety and security measures for decommissioning plants, reasoning that so long as spent fuel remains onsite, so too does risk. The commenter requested that NRC revise the proposed rule to include more stringent protective measures throughout the decommissioning process and added that oversight is necessary to ensure the safety and health of local communities and the environment (NRC-2015-0070-0379-0015).

NRC Response: The NRC disagrees with these comments. Additional EP requirements other than those contained in the proposed rule are not necessary. As explained in the preamble to the final rule and in the NRC responses to public comments throughout this document, the requirements in the final rule provide for an adequate level of protection during each phase of the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-02**:** Numerous commenters expressed concerns about the availability of State and local resources to support emergency planning at decommissioning sites, including some that expressed concerns about funding for emergency response (NRC-2015-0070-0330-0017, NRC-2015-0070-0293-0037, NRC-2015-0330-0002, NRC-2015-0070-0330-0004, NRC-2015-0070-0330-0006, NRC-2015-0070-0330-0009). Several commenters also expressed concerns about shifting the burden of emergency response from licensees onto Federal, State, or local governments (NRC-2015-0070-0340-0006, NRC-2015-0070-0330-0017).

One commenter encouraged the NRC to consider maintaining formal offsite radiological EP until all spent fuel is in dry cask storage and provided two examples of sites where the decommissioning entity provided funding for State and local emergency planning efforts until all spent fuel was in dry cask storage (NRC-2015-0070-0359-0015).

Several commenters opposed eliminating existing emergency planning measures, such as offsite emergency plans for permanently defueled sites, and asked the NRC to consider allocating existing resources to benefit the local communities to increase effectiveness. The commenters suggested, for example, that onsite firefighting resources could be integrated with that of local firefighting forces to improve emergency response capacity and local community security (NRC-2015-0070-0298-0002, NRC-2015-0070-0317-0001, NRC-2015-0070-0315-0002).

A commenter expressed concern that without outside funding for offsite radiological emergency planning, States and impacted towns will struggle to afford training, equipment, and other aspects of emergency planning (NRC-2015-0070-0293-0037). Another commenter expressed concern that 10 CFR 50.200 does not adequately address the role municipalities play in emergency response, or the resources needed to carry out that role; the commenter further expressed concern that the ISFSI-only emergency plan (IOEP) requirements would provide even less opportunities for public engagement, with notice provided to the NRC of emergency plan changes *after* they are made and no opportunity for public notice or comment (NRC-2015-0070-0330-0004).

Another commenter suggested that to address concerns related to the burden of emergency response on municipalities, the NRC require input from local communities on emergency planning processes, require municipal consent before resources are funneled to a licensee's facility, equip local first responders, and compensate municipalities for providing vital emergency response services (NRC-2015-0070-0330-0006).

A commenter expressed concern that, under 10 CFR 50.200(b)(8), it is unclear to whom and by whom emergency facilities and equipment are to be provided and maintained. The commenter asserted that this places a burden on local personnel who may be called on to assist in an emergency. The commenter also stated that the proposed rule fails to provide a funding source for this equipment, potentially leaving the cost to host communities who do not have direct access to the same financial assurance mechanisms and long-established trust funds that licensees do. The commenter added that, since host communities cannot currently enter into payment in lieu of taxes agreements with decommissioned plants, the proposed rule significantly reduces facilities' contributions to local services. The commenter ultimately urged the NRC to revise 10 CFR 50.200(b)(8) to specifically require licensees to equip local public safety officials at the licensee's expense (NRC-2015-0070-0330-0012).

NRC Response: The NRC disagrees with these comments. Funding of EP is outside the NRC's regulatory purview. In the preamble for the 1980 EP final rule (45 FR 55402; August 19, 1980), the Commission stated that "in view of the President's Statement of December 7, 1979, giving FEMA the lead role in offsite planning and preparedness, the question of whether the NRC should or could require a utility to contribute to the expenses incurred by State and local governments in upgrading and maintaining their emergency planning and preparedness…is beyond the scope of the present rule change. It should be noted, however, that any direct funding of State or local governments solely for emergency preparedness purposes by the Federal government would come through FEMA."

Communities that have one or more commercial interests that pose risk to the public (e.g., fires, gas leaks) have developed emergency plans to maintain the safety of the public. A

comprehensive emergency management plan or “all-hazards” approach in this context, also referred to as an emergency operations plan, is addressed in the Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide (CPG) 101, “Developing and Maintaining Emergency Operations Plans,” Version 2.0, dated November 2010. In this document, FEMA stated that the goal of CPG 101 is “to assist in making the planning process routine across all phases of emergency management and for all homeland security mission areas. This Guide helps planners at all levels of government in their efforts to develop and maintain viable, all-hazards, all-threats emergency plans.”

State and local comprehensive all-hazards emergency response plans are tested by real events almost daily across the United States. The hazards that prompt the implementation of these response actions are sometimes immediately dangerous to life and health (unlike radiological emergencies that would occur over several hours to several days). These responses are frequently ad hoc responses and save lives.

Regarding involvement of municipalities in emergency planning, see the NRC Response to Comment 4.1-14 for additional information.

The NRC also disagrees with the assertion that the NRC is shifting the burden of emergency planning costs from the licensee to FEMA and State and local responders. There is currently no regulatory requirement for licensees to fund the costs associated with State and local emergency planning. Any current funding provided by licensees is the result of negotiations between the State or local governments and the licensee. Other costs are already funded by the State and local governments.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-03: Numerous commenters urged the NRC to consider maintaining formal offsite radiological EP until all spent fuel is in dry cask storage, citing concerns such as maintaining reasonable assurance, ensuring the NRC fulfills its oversight responsibilities and maintains public trust, and mitigating risks associated with a SFP zirconium fire (NRC-2015-0070-0335-0006, NRC-2015-0070-0380-0004, NRC-2015-0070-0259-0011, NRC-2015-0070-0339-0005, NRC-2015-0070-0340-0002, NRC-2015-0070-0365-0027, NRC-2015-0070-0292-0005, NRC-2015-0070-0359-0010). A few more commenters similarly opposed the rule’s provision to eliminate certain EP requirements that apply while spent fuel is still in SFPs, including requirements concerning public alert and notification systems; emergency planning zones (EPZs); dedicated radiological offsite emergency planning; physical security; offsite and onsite financial protection requirements and indemnity agreements; decommissioning funding assurance; and low-level waste transportation (NRC-2015-0070-0340-0002, NRC-2015-0070-0341-0006, NRC-2015-0070-0339-0005, NRC-2015-0070-0259-0013, NRC-2015-0070-0359-0010). A commenter stated that it would be inconsistent with the defense-in-depth concept to dismiss offsite emergency plans while SNF is being stored in the SFP (NRC-2015-0070-0292-0005).

Several commenters urged the NRC to maintain offsite emergency planning while any spent fuel remains onsite, citing concerns such as public health and safety (NRC-2015-0070-0379-0010, NRC-2015-0070-0259-0013, NRC-2015-0070-0315-0002). One commenter expressed support for implementing phased levels of offsite emergency planning until SNF can be removed from a site, adding that this planning should be paid for by the site’s licensee (NRC-2015-0070-0293-0027).

A commenter urged the NRC to review and assess each planning standard for applicability in each phase of decommissioning to ensure that the public is provided accurate information from independent offsite response organizations (OROs) (NRC-2015-0070-0259-0013). Another

commenter suggested that a minimum subset of the planning standards codified in 10 CFR 50.47(b) should apply whenever SNF remains onsite (NRC-2015-0070-0259-0011).

A commenter stated that radiological EP plans are needed for communities much further away from the decommissioning reactors than the 10-mile EPZ, citing Fukushima as an example, when the U.S. State Department recommended citizens within 50-miles of Fukushima evacuate (NRC-2015-0070-0293-0036).

NRC Response: The NRC disagrees with these comments. The proposed and final rules provide a graded approach to emergency planning based on the facility's level of decommissioning. As explained in the preambles to the proposed and final rules, the four levels of decommissioning are commensurate with the reductions in radiological risk during the decommissioning process based on the conclusions of NUREG-2161 and NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants" (February 2001) (ML010430066). See the NRC Response to Comment 3.2-01 for additional information on the reduced risk from a radiological event at a decommissioning reactor. Until all fuel has been removed from a site, the NRC requires an onsite EP program that will respond to any emergency at the site and interface with Federal, State, and local responders that have plans in place for these events.

When a licensee transitions to a Permanently Defueled Emergency Plan (PDEP) in Level 2, they are still required to maintain the capability to notify offsite agencies if a release is expected to occur, which would provide sufficient time for these agencies to take appropriate actions without extensive preplanning and other requirements of the EP framework for operating plants.

While developing the rule, the NRC reviewed every planning standard in 10 CFR 50.47, "Emergency plans," and requirement in Appendix E to 10 CFR Part 50 for applicability to a licensee in each of the four decommissioning levels. The final rule contains many provisions that address licensee sharing of information with emergency response personnel in several ways. For a PDEP, there are numerous requirements that allow for the interaction of the licensee with the OROs, such as the sections listed below.

Paragraph 50.200(c)(1)(vi)(A)*(3)* of 10 CFR requires a radiological orientation training program be made available to local services personnel. Paragraph 50.200(c)(1)(vi)(B)*(3)* of 10 CFR requires licensees to enable any State or local government to participate in the licensee's drills and exercises. Paragraph 50.200(c)(1)(ii) of 10 CFR requires emergency action levels (EALs) to be reviewed with the State and local governmental authorities on an annual basis. Further, licensees are required to include descriptions of assistance expected to be provided by OROs in their emergency plans. For licensees with PDEPs, no action would be expected or required from State or local government organizations in response to an event at a decommissioning site other than firefighting, law enforcement, and ambulance/medical services.

In addition to requiring licensees to have emergency plans until all spent fuel is removed from the site, the NRC maintains effective oversight of decommissioning power reactor facilities through implementation of IMC 2561, which includes provisions for inspecting activities associated with the disposal of nuclear waste during decommissioning. Specifically, while the level of NRC oversight at decommissioning facilities is less than that at operating facilities, periodic inspections in many regulatory and technical areas take place under the decommissioning reactor inspection program at least annually (in accordance with IMC 2561). These inspections ensure that the NRC remains well-informed of ongoing activities at the facility, is made aware of any issues, and has the opportunity to follow up on corrective actions. The results of these inspections are available to the public in inspection reports that can be

obtained from many sources, including the NRC public website and ADAMS; inspection results are distributed directly to interested stakeholders that subscribe to this service.

Regarding the comment citing Fukushima as an example, the 10-mile EPZ is for an operating nuclear power reactor, and the Fukushima reactors were operating reactors. The NRC has determined that a 10-mile EPZ is not needed beginning in Level 2 of the graded decommissioning process.

Additional information on these topics is contained in the NRC Response to Comment 4.1-31.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-04: One commenter expressed concern that provisions set by 10 CFR 50.200 worsen the imbalance between municipal obligations for EP and a lack of support to host communities from either the NRC or licensees. The commenter asserted that 10 CFR 50.200(c)(1)(i)(A)*(5)* mandates that host communities provide assistance to licensees in the event of malicious attacks on a decommissioning plant. The commenter added that while this section requires EALs to be, "reviewed with the state and local authorities on an annual basis," the section should also require that any interim changes to EALs, or any other portion of the emergency plan, are to be immediately communicated to local public safety officials (10 CFR 50.200(c)(1)(ii)(A)) (NRC-2015-0070-0330-0014).

A commenter requested that, in addition to the provisions at 10 CFR 50.200(b), the mandated security provisions in 10 CFR 50.200(c)(1)(vi)(A)*(2)-(3)* should include a corresponding requirement that the licensee adequately equip and compensate municipalities for their roles in emergency response (NRC-2015-0070-0330-0016).

NRC Response: The NRC disagrees with these comments. Paragraphs 50.200(c)(1)(vi)(A)*(2)-(3)* of 10 CFR provide a listing of emergency personnel and local emergency services that may respond to an event and must be provided training. Additionally, 10 CFR 50.200(c)(1)(i)(A)*(5)* does not mandate that host communities provide assistance to licensees in the event of malicious attacks on a decommissioning plant. The NRC does not have the authority to impose mandates of any kind on OROs.

The NRC is not requiring licensees in decommissioning to immediately communicate to local public safety officials interim changes to EALs or any other portion of the emergency plan. The NRC does not require this notification of operating reactor licensees under the current regulations and, at the reduced risk for a decommissioning reactor, the NRC has no basis to require it at facilities in decommissioning. Further, revisions to licensee EALs other than an entire scheme change would have no or minimal impact on a licensee's declaration and notification to State and local agencies, thus making an annual review of the licensee EALs adequate.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-05: A commenter expressed concern that training required under 10 CFR 50.200(b)(14) could hamper public safety officials' ability to respond to emergencies if their safety obligations to licensees compete with their local safety obligations. The commenter therefore concluded that municipalities should receive compensation for the time that their employees spend training and preparing for both facility and local emergencies (NRC-2015-0070-0330-0013).

NRC Response: The NRC disagrees with this comment. Paragraph 50.200(c)(1)(vi) of 10 CFR of the final rule and RG 1.235, "Emergency Planning for Decommissioning Nuclear Power

Reactors" (ML23072A045), outline available training opportunities for interaction between the site and the appropriate offsite agencies based on the levels of decommissioning.

There is currently no regulatory requirement for licensees of operating or decommissioning reactors to fund the costs associated with State and local emergency planning. Any current funding provided by licensees is the result of negotiations between the State or local governments and the licensee.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-06: A commenter recommended that licensees continue to provide financial support, provide opportunities for training, and conduct radiological emergency response drills and exercises with OROs during Level 1 and Level 2 of decommissioning (NRC-2015-0070-0292-0008).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that licensees in Levels 1 and 2 should provide opportunities for training and conduct radiological emergency response drills and exercises with OROs. Paragraph 50.200(a) of 10 CFR of the final rule requires that Level 1 licensees (i.e., licensees with a Post-Shutdown Emergency Plan (PSEP)) have onsite emergency response plans that meet the planning standards of 10 CFR 50.47(b) and the requirements in Appendix E to Part 50, which contain requirements for training and that drill and exercise opportunities be provided to OROs. Licensees in Level 2 (i.e., licensees with a PDEP) are subject to the requirements of 10 CFR 50.200(b)(14) and (15). Paragraph 50.200(b)(14) of 10 CFR requires periodic exercises and drills to be conducted to evaluate major portions of emergency response capabilities, develop and maintain key skills, and identify and correct deficiencies. Paragraph 50.200(b)(15) of 10 CFR requires radiological emergency response training be provided to those who may be called on to assist in an emergency, which would include OROs with an emergency response role identified in the emergency plan.

However, the NRC disagrees that licensees should be required to provide financial support for an offsite radiological emergency response program when a licensee is in Level 1 or Level 2 of decommissioning. There is no current regulation requiring licensees to provide financial support for ORO programs at any time. Any current funding provided by licensees is the result of negotiations between the State and local governments and the licensee. Moreover, once a licensee enters into Level 2 of decommissioning, there is no regulatory requirement for a formalized offsite radiological response plan.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-07: A commenter stated that reducing emergency planning at ISFSIs is "negligent, irresponsible, and immoral." The commenter cited the current situation in Ukraine to illustrate how a nuclear site can be used as a weapon of war, and they claimed that the proposed rule would ignore the dangers attached to nuclear waste storage near population centers with minimal security (NRC-2015-0070-0334-0005).

NRC Response: The NRC disagrees with this comment. For licensees with a PDEP, the reduction in emergency planning requirements is consistent with the reduction in risk posed by a reactor that is permanently shutdown and defueled. At these facilities, all fuel will have been removed from the reactor and placed into the SFP, where the spent fuel will be decayed and cooled sufficiently (at least 10 months for a BWR and 16 months for a PWR) so that it cannot heat up to the zirconium cladding ignition temperature within 10 hours under adiabatic conditions. This 10-hour period provides a substantial amount of time for the licensee to take onsite mitigation measures and, if necessary, for offsite authorities to take appropriate response

actions to protect the public. For licensees with an IOEP, there will continue to be onsite EP requirements combined with Federal resources that are in place to supplement the State, Tribal, or local offsite incident response until all spent fuel has been removed from the site.

For additional information regarding all-hazards emergency plans, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-08: A commenter recommended that licensees establish and maintain a memorandum of understanding (MOU) with local law enforcement agencies (LLEA) that addresses training, conducting periodic drills and exercises, and sharing of the licensee's security plan and security contingency plan with the LLEA (NRC-2015-0070-0292-0009).

NRC Response: The NRC agrees with this comment. Although the new 10 CFR 50.200 does not require licensees to enter into MOUs with OROs, the new rule does contain requirements for licensees with a PDEP that address some of the activities listed in the comment:

Paragraph 50.200(b)(3) of 10 CFR requires licensees to have made arrangements for requesting and effectively using assistance resources, and to identify other organizations capable of augmenting the planned response.

Paragraph 50.200(b)(12) of 10 CFR requires licensees to make arrangements for medical services for contaminated injured individuals.

Paragraph 50.200(b)(14) of 10 CFR requires licensees to conduct periodic exercises and drills to evaluate major portions of emergency response capabilities, develop and maintain key skills, and identify and correct deficiencies.

Paragraph 50.200(b)(15) of 10 CFR requires licensees to provide radiological emergency response training to those who may be called on to assist in an emergency, which would include OROs with an emergency response role identified in the emergency plan.

Paragraph 50.200(c)(1)(ii) of 10 CFR requires licensees to review their EALs with the State and local governmental authorities on an annual basis.

Paragraph 50.200(c)(1)(vi)(A)*(3)* of 10 CFR requires licensees to make a radiological orientation training program available to local services personnel.

Paragraph 50.200(c)(1)(vi)(B)*(3)* of 10 CFR requires licensees to enable any State or local government to participate in the licensee's drills and exercises.

The final rule does not require licensees to share their security plans with LLEAs because these responders do not need information about a decommissioning licensee's security plans to provide law enforcement services.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-09: Two commenters expressed support for the removal of a 10-mile EPZ requirement for facilities with a PDEP (NRC-2015-0070-0338-0109, NRC-2015-0070-0329-0055). A commenter asserted that there is neither a supporting technical basis for, nor advantages to, maintaining dedicated radiological emergency planning to include a 10-mile EPZ. The commenter added that it would also be inconsistent with NRC's Principles of Good Regulation to establish EP requirements without a supporting technical basis (NRC-2015-0070-0338-0109). Another commenter likewise stated that, given the findings of the rigorous analysis and in-depth study of the risks posed by the fuel once cooled, it would be disadvantageous for

NRC to require continuation of the 10-mile EPZ beyond a time, and without a reason, that can be tied to its statutory mission (NRC-2015-0070-0329-0055).

NRC Response: The NRC agrees with these comments. The comments align with the regulatory framework being implemented by the final rule and with NRC comment responses on similar topics. The comments did not suggest any changes to the rule language or associated guidance documents.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-10: A commenter asserted that disadvantages to maintaining dedicated radiological emergency planning, including a 10-mile EPZ, include requiring a licensee and surrounding communities to divert resources away from more important activities. The commenter further suggested that offsite protective actions could still be implemented using a comprehensive emergency management plan process, also referred to as the emergency operations plan, stating that an emergency operations plan is flexible enough for use in all emergencies. The commenter also asserted that if State and local jurisdictions comply with the requirements of FEMA's CPG 101, then an all-hazards plan or comprehensive emergency management plan is sufficient for communities near nuclear power plants that meet the requirements of the proposed regulations set forth in 10 CFR 50.200(b) or existing 10 CFR 72.32 (NRC-2015-0070-0338-0110).

NRC Response: The NRC agrees with this comment. Each individual State and local jurisdiction decides whether to implement an all-hazards emergency response plan. For additional information regarding all-hazards plans, see the NRC Response to Comment 4.1-02. A comprehensive emergency management plan or "all-hazards" approach in this context, also referred to as an emergency operations plan, is addressed in FEMA's CPG 101.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-11: One commenter recognized that it may not be necessary to maintain planning and preparedness for the full 10-mile EPZ until spent fuel is moved to dry cask storage but urged the NRC to maintain some planning standards and capabilities of the radiological EP plan (e.g., independent dose assessment, medical transportation and treatment of contaminated individuals, fire services, and public alert and notification). The commenter suggested that the level of capabilities maintained should be negotiated between the State, local, Tribal, and territorial (SLTT) jurisdictions and the licensee (NRC-2015-0070-0380-0014).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that licensees must maintain certain capabilities of their emergency response plan and meet certain planning standards. For example, the final rule requires licensees with PDEPs to have arrangements for transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary under 10 CFR 50.200(c)(1)(v)(F) and the capability to notify responsible State and local governmental agencies within 60 minutes after declaring an emergency under 10 CFR 50.200(c)(1)(iv)(B). Additional response capabilities may be negotiated between licensees and OROs as deemed appropriate.

The NRC disagrees that licensees with PDEPs need to maintain a public alert and notification system. Licensees with PDEPs are required, under 10 CFR 50.200(c)(1)(iv)(B) of the final rule, to maintain the capability to notify responsible State and local governmental agencies within 60 minutes after declaring an emergency. Based on research and analysis showing that there would be at least 10 hours prior to a zirconium fuel cladding fire for licensees with PDEPs, sufficient time would be available for appropriate governmental authorities to inform the public

and initiate protective actions, if necessary. Such actions would be within the capabilities of OROs and would be similar to actions required for other hazards that do not require a dedicated hazard-specific offsite response capability. For additional information regarding all-hazards emergency response plans, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-12: A commenter asserted that there are several sensible requirements among the proposed planning standards of 10 CFR 50.200(b), such as requiring licensees to unambiguously define on-shift licensee responsibilities; provide adequate staffing for initial facility accident response in key functional areas, including interface with offsite support; provide procedures for notification of State and local emergency response; make provisions for prompt communication to emergency personnel; provide adequate emergency facilities and equipment to support the emergency response; prepare a range of actions to protect emergency workers and the public; and conduct regular training exercises, including with local emergency personnel (NRC-2015-0070-0330-0010). However, the commenter stated that both the current and proposed rule lack a mandate that the licensee share adequate information with emergency personnel before an emergency occurs, to enable them to participate in the planning process, and urged the NRC to include such requirements in 10 CFR 50.200, as well as a process for licensees to discuss and review sensitive security information with local officials (NRC-2015-0070-0330-0011).

NRC Response: The NRC agrees, in part, with this comment. The comment supports many of the planning standards of 10 CFR 50.200(b). However, the NRC disagrees that local emergency personnel are not included in the emergency planning process. The requirements in 10 CFR 50.200 address licensee sharing of information with emergency response personnel in several ways:

Paragraph 50.200(c)(1)(vi)(A)*(3)* of 10 CFR requires licensees to make a radiological orientation training program available to local services personnel.

Paragraph 50.200(c)(1)(vi)(B)*(3)* of 10 CFR requires licensees to enable any State or local government to participate in the licensee's drills and exercises.

Paragraph 50.200(c)(1)(ii) of 10 CFR requires licensees to review their EALs with the State and local governmental authorities on an annual basis.

Further, licensees are required to include descriptions of assistance expected to be provided by OROs in their emergency plans. For licensees with PDEPs, no action would be expected or required from State or local government organizations in response to an event at a decommissioning site other than firefighting, law enforcement, and ambulance/medical services. Thus, sharing of sensitive security information by the licensee is unnecessary because OROs do not need such security information to provide these services.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-13: Two commenters expressed concerns about the rulemaking's use of the EPA PAGs. One commenter stated that the proposed rule is "myopically focused" on the EPA PAGs (NRC-2015-0070-0259-0015). Another commenter claimed that the NRC characterizes the EPA PAGs as containing "limits" as part of the justification for why there is no need for formalized offsite radiological emergency planning and preparedness beyond 10 to 16 months at permanently defueled sites. The commenter believes this is inconsistent with the stated purpose of the EPA PAGs and concluded that the PAGs do not negate the need for formal offsite

radiological emergency planning and preparedness through the transition of spent fuel from the SFP into dry casks at decommissioned sites (NRC-2015-0070-0380-0006).

NRC Response: The NRC agrees, in part, with these comments. Specifically, the NRC disagrees with the comment that the proposed rule is myopically focused on the EPA PAGs and agrees with the comment that the PAGs do not negate the need for formal offsite radiological emergency planning and preparedness.

The EPA PAGs are guidelines to be considered in the context of incident-specific factors. The NRC uses these guidelines to represent the appropriate level of preparedness and response to a specific incident, which is typically captured at a specific emergency classification level based upon, for the most part, these guidelines. Even for operating reactors, the events that would result in the declaration of an Unusual Event (where no releases of radioactive material requiring offsite response or monitoring are expected) or Alert (where any releases are expected to be limited to small fractions of the EPA PAG exposure levels) emergency classification level do not pose any undue risk to public health and safety. When a decommissioning licensee has a PDEP or an IOEP, they present a very low likelihood of any credible accident resulting in a radiological release. Together with the time available between the initiating event and before the onset of a postulated fire to initiate mitigative actions consistent with plant conditions or, if necessary, for offsite authorities to employ their comprehensive emergency management plan to take protective actions, classification above the Alert level is no longer required.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-14: Several commenters expressed concerns about the proposed rule's perceived delegation of emergency response to FEMA and local governments after fuel has been in the SFP for 10 months. Commenters stated that this raised significant public safety concerns and claimed that neither FEMA nor local governments are prepared to handle radiological emergencies. For this reason, the commenters concluded that the responsibility for radiological emergencies needs to remain with licensees and the NRC (NRC-2015-0070-0394-0004, NRC-2015-0070-0327-0009, NRC-2015-0070-0370-0008).

A commenter from a State government cited previous comments from other governmental entities as support for the position that emergency planning professionals at all levels of government dispute the appropriateness of shifting to all-hazards planning while the risk of offsite radiological contamination remains. These other entities expressed concerns about the effectiveness of all-hazards emergency planning for offsite radiological emergency response (including a lack of evidence to support it) and noted that States have exercised regulatory authority to protect public health and safety with regards to this topic (NRC-2015-0070-0359-0012).

NRC Response: The NRC disagrees with these comments. For additional information regarding the NRC's basis for not requiring input from FEMA related to formal offsite radiological EP for licensees with a PDEP when determining if there is reasonable assurance of adequate protection, see the NRC Response to Comment 4.1-15.

The NRC disagrees that neither FEMA nor local responders are prepared to handle radiological emergencies. The Federal government's responses to various emergencies, including radiological emergencies, are described in the National Response Framework (NRF) (one of the five National Planning Frameworks constituting the National Preparedness System required by Presidential Policy Directive 8, "National Preparedness," dated March 30, 2011). In a letter to

the NRC dated August 12, 2022 (ML22228A227), FEMA provided the following statement regarding the decommissioning of the Indian Point Nuclear Generating Units 1, 2, and 3:

> FEMA will continue to support offsite organizations as they adjust their plans, capabilities, and resources to the changing radiological threat. Among the resources available to support FEMA stakeholders during the transition process include, but are not limited to, the National Preparedness System guidance materials, the Federal Radiological Preparedness Coordinating Committee, and assistance from FEMA Headquarters and Regional Staff.

In addition to Federal, State, and local response capabilities for radiological emergencies, licensees in Level 2 (i.e., licensees with a PDEP) are subject to the requirements of 10 CFR 50.200(b)(14) and (15). Paragraph 50.200(b)(14) of 10 CFR requires periodic exercises and drills to be conducted to evaluate major portions of emergency response capabilities, develop and maintain key skills, and identify and correct deficiencies; further, 10 CFR 50.200(b)(15) requires radiological emergency response training be provided to those who may be called on to assist in an emergency, which would include OROs with an emergency response role identified in the emergency plan.

For additional information regarding all-hazards emergency response plans to respond to radiological emergencies, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-15: A commenter expressed that providing the public with "reasonable assurance of adequate protection" requires OROs to have the ability to demonstrate independent measurements and analyses of radiological risks. The commenter asserted that sole reliance on information from the licensee is not sufficient (NRC-2015-0070-0259-0012).

NRC Response: The NRC disagrees with this comment. Due to the significantly reduced risk of a radiological event at a decommissioning nuclear power reactor in Level 2, the NRC will no longer require input from FEMA related to the state of OROs' emergency response plans when the NRC is making a determination that reasonable assurance of adequate protection exists. This is primarily due to offsite consequences being commensurate with other risks typically addressed in offsite non-radiological emergency plans developed per the NRF. Offsite emergency plan issues can be resolved in the established processes for NRF implementation, which are outside the regulatory authority of the NRC.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-16: A commenter stated that local government involvement in training exercises should be the default, rather than something that is merely allowed (NRC-2015-0070-0330-0015).

NRC Response: The NRC disagrees with this comment. The final rule requires the licensee to afford OROs the opportunity to participate in training and exercises performed by the licensee. The NRC cannot require local governments to participate in licensee activities.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-17: A commenter expressed concern with the requirements of 10 CFR 72.32(a), claiming that they do not provide enough protection of local communities, stating that opportunities for engagement with local agencies are "necessary but not sufficient," and recommended that the NRC require public safety involvement in development of the emergency plan (NRC-2015-0070-0330-0007).

NRC Response: The NRC disagrees with this comment. As explained by the Commission when it established 10 CFR 72.32 in "Emergency Planning Licensing Requirements for Independent Spent Fuel Storage Facilities (ISFSI) and Monitored Retrievable Storage Facilities (MRS); Final Rule" (60 FR 32430; June 22, 1995), those requirements sufficiently protect the public. In the preamble to that final rule, the Commission stated that the requirements of 10 CFR 72.32 "assure the public that local authorities will be notified in the event of an accident so that they may take appropriate actions. The NRC feels that such preparedness is prudent and consistent with the NRC's philosophy of defense-in-depth." The opportunity for any additional interactions related to the development of the emergency plan would be negotiated between the licensee and local governmental organizations.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-18: Several commenters expressed concern about the appropriateness of all-hazards planning (NRC-2015-0070-0293-0032, NRC-2015-0070-0380-0007, NRC-2015-0070-0340-0003, NRC-2015-0070-0359-0016). One commenter claimed that radiological accidents present a unique challenge, which EP in communities near decommissioning nuclear power plants should consider (NRC-2015-0070-0380-0007). Another commenter mentioned that FEMA has stated that all-hazards planning does not sufficiently address the unique requirements of radiological emergency planning. The commenter asserted that dedicated radiological emergency planning is more effective than all-hazards planning, and EP requirements must remain in place until spent fuel is moved into dry cask storage (NRC-2015-0070-0340-0003). Another commenter specifically claimed that mere all-hazards planning is not appropriate at Level 2 because there is still a risk of a zirconium fire and offsite radiological release while spent fuel remains in the SFP. The commenter urged the NRC to keep its prior approach to emergency planning, which was based on a probabilistic risk assessment (NRC-2015-0070-0359-0016).

NRC Response: The NRC disagrees with these comments. The NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plans" (December 1978) (ML051390356), Task Force concluded in 1978 that the objective of emergency response plans is to provide dose savings for a spectrum of accidents that could produce offsite doses in excess of the EPA PAGs—not to prevent all radiation doses to the public during an emergency. This construct is a risk-informed approach to radiological EP—dose savings for a spectrum of accidents as opposed to preventing all dose from the worst-case scenario. When a licensee enters Level 2 of the NRC's graded approach to decommissioning, with the accompanying reduction in radiological risk, the NRC does not have a technical justification for requiring a formal FEMA review of offsite radiological emergency plans as input into the NRC reasonable assurance finding, as explained in the proposed and final rule preambles.

For additional information regarding all-hazards emergency response plans to respond to radiological emergencies, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-19: A commenter asserted that although accident scenarios at a decommissioning facility may be fewer, radiological emergency planning has never been exclusively based on the probability of an accident and that, unless there is no evacuation potential, there is a need for radiological emergency planning. The commenter provided examples of risks and consequences, including describing possible causes of an SFP fire or a spent fuel dry cask disaster. The commenter cited studies indicating that an SFP fire would

contaminate an area four times the size of Massachusetts and lead to hundreds of billions in damages and cancers (NRC-2015-0070-0293-0031, NRC-2015-0070-0293-0034).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the events that could cause an SFP fire or release from a dry cask are significantly fewer than from an operating reactor; radiological emergency planning is not exclusively based on the probability of an accident; and radiological emergency planning is also based on capabilities and preparation to protect public health and safety in the event an accident.

The NRC disagrees that, as long as there is a potential need for an evacuation, there is a need for formal radiological emergency planning. For more information on the basis for this position, see the NRC Response to Comment 3.2-01 and the NRC Response to Comment 4.1-31. However, this does not mean that offsite EP is not warranted; offsite emergency response planning can be part of the all-hazards emergency plans, as explained in the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-20: A commenter urged the NRC to consider each all-hazard emergency operations plan and validate the plan against the planning standards and criteria identified in NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” Rev. 1 (November 1980) (ML040420012) and Rev. 2 (December 2019) (ML19347D139), and the planning principles outlined in CPG 101, Version 3, prior to the decommissioning process (NRC-2015-0070-0380-0016).

NRC Response: The NRC disagrees with this comment. The comment suggests that NRC review of all-hazards emergency plans against FEMA guidance is necessary when a licensee enters the decommissioning process.

The planning standards and criteria in NUREG-0654/FEMA-REP-1 referenced in the comment apply to operating large light-water reactor (LWR) reactor sites with dedicated offsite radiological emergency response programs and would not be applicable to a licensee with a PDEP.

Regarding the suggestion that the NRC review all-hazards emergency operations plans against CPG 101, for licensees with PDEPs, no action would be expected or required from State or local government organizations in response to an event at a decommissioning site other than firefighting, law enforcement, and ambulance/medical services. Requirements for licensees to maintain agreements for these services also exist outside of radiological EP, including the requirement for licensees to maintain a fire protection plan in 10 CFR 50.48, “Fire protection,” and the physical security requirements in 10 CFR Part 73, “Physical Protection of Plants and Materials.” The NRC therefore concludes that review of all-hazards plans against the guidance documents cited by the commenter is not necessary.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-21: A commenter expressed that all-hazards planning and radiological emergency planning do not need to be mutually incompatible. The commenter asserted that it is incorrect to assume that all-hazards plans already address radiological EP. The commenter suggested that for communities with decommissioning facilities, all-hazard plans could include a radiological incident annex to address the unique capabilities for radiological emergency planning that are no longer managed under a dedicated radiological emergency plan (NRC-2015-0070-0380-0001, NRC-2015-0070-0380-0017).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that ORO emergency plans could include radiological emergency planning. However, the NRC is not making offsite radiological emergency planning a requirement for a nuclear power plant licensee that has reached at least Level 2 (PDEP) of the graded approach to decommissioning. The NRC must have a regulatory basis and technical justification, based on the authorities granted to the agency under the AEA, for imposing a regulatory requirement. The NRC does not have a regulatory basis or technical justification for requiring a formal offsite radiological emergency response plan at Level 2. As described in the proposed and final rule preambles, the risk of an offsite radiological release is significantly lower, and the types of possible accidents are significantly fewer, at a nuclear power reactor that has permanently ceased operations and removed fuel from the reactor vessel compared to an operating nuclear power reactor. The public risk when all fuel is in the SFP and has sufficiently cooled does not meet the criteria that necessitates formal offsite radiological EP for an operating reactor or for licensees with a PSEP. Therefore, formal offsite radiological EP is not warranted to support the NRC's reasonable assurance determinations for these facilities.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-22: A commenter raised concerns about the potential for a State's all-hazards plans to fail in radiological emergencies causing panic and widespread disordered evacuation (NRC-2015-0070-0334-0011).

NRC Response: The NRC disagrees with this comment. Until all fuel has been removed from the reactor site, there is an onsite EP program that would respond to any emergency at the site and would interface with Federal, State, Tribal, and local responders that already have plans in place for these types of events.

A study of evacuations is provided in NUREG/CR-6864, "Identification and Analysis of Factors Affecting Emergency Evacuations," Volume 1 (January 2005) (ML050250245), which states, "[P]ublic emergency evacuations in response to natural disasters and hazardous materials accidents occur rather frequently in the United States. Emergency evacuations of at least 100 people occur more than once a week, and major evacuations of more than 1,000 people occur more than three times per month in the United States (Weston, 1989). These evacuations have generally proceeded safely and effectively, even when managed by local emergency response officials with little or no practical evacuation experience or planning." The NUREG also identified 230 evacuations that occurred between January 1, 1990, and June 30, 2003, where at least 1,000 people were evacuated. From these evacuations, 50 incidents were selected for case study analysis. The case study results showed that all 50 evacuations "safely evacuated people from the area, saved lives, and reduced the potential number of injuries from the hazard."

For more information regarding all-hazards emergency response plans, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-23: A commenter disagreed with the proposed rule's assertion that a combination of the licensee's onsite emergency response organization (ERO) and OROs' all-hazards emergency plans is sufficient to support appropriate response actions for permanently defueled sites. The commenter asserted that, based on their experience, decommissioned sites, including ISFSIs, and offsite all-hazards responders do not maintain the capability to assess radiological conditions (providing several examples). Further, the commenter stated that in the last seven years, there has been a loss of personnel experienced in radiological assessment at ISFSI licensees and OROs (NRC-2015-0070-0259-0016).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that the rule requires that once all fuel is in dry cask storage, licensees must maintain an IOEP.

The NRC disagrees that a licensee will not have adequate staff or equipment for responding to an event at an ISFSI. When a licensee transitions to an IOEP under 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste," the NRC still imposes requirements on the licensee to maintain a minimum staff to perform the functions of command and control, notifications and communication, radiological accident assessment, and onsite dose assessment and monitoring, as well as the functions of security, engineering support, and ISFSI condition evaluation, repair, and corrective actions. The licensee must also maintain emergency facilities and equipment to carry out the functions described above, as well as a Radiological Emergency Response Training program to ensure the licensee staff's continued proficiency in response skills. RG 1.235 provides further guidance related to the applicable requirements. The Federal government also maintains the necessary equipment and trained emergency response personnel to respond to any event involving an ISFSI.

See the NRC Response to Comment 4.1-14 for additional information regarding the abilities of Federal, State, and local governments to respond to radiological emergencies.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-24: A commenter expressed support for the NRC/FEMA all-hazards planning and approach and stated that efforts to regularly evaluate and improve the process should continue (NRC-2015-0070-0329-0056).

NRC Response: The NRC agrees with this comment. The FEMA all-hazards approach is an effective process for event response at a reactor that is permanently defueled and undergoing decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-25: A commenter stated that although the risk of a zirconium fire is lower by the time a plant reaches Level 2, the potential for a devastating, high-consequence event remains, and communities should be prepared for that type of disaster (NRC-2015-0070-0340-0004).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that communities should be prepared for disasters resulting from any industrial complexes within their boundaries. However, this preparation would typically be in accordance with offsite non-radiological emergency plan development, which is outside the scope of the NRC's regulatory authority. Due to the increased public risk from an operating reactor, the NRC requires input from FEMA as to the state of offsite preparedness for consideration when the NRC makes a finding that there is reasonable assurance of adequate protection at an operating nuclear power reactor. When this risk is reduced such that this input from FEMA is no longer required, such as for a nuclear power reactor licensee in decommissioning, the all-hazards offsite emergency response plans are sufficient to address the concerns.

The level of preparedness and protection is based on the risk profile related to the spent fuel location and plant status as a licensee progresses through each level of the decommissioning process until all spent fuel is removed from the site.

See the NRC Response to Comment 3.2-01 and the NRC Response to Comment 4.1-31 for more information on this topic.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-26: A commenter stated there is a potential conflict between the definition of Level 2 in the proposed rule (which states that all spent fuel will be in the SFP) and language in the preamble that states "The decay period could begin when the fuel is still in the reactor vessel…." The commenter asked how the NRC can be assured that any rods left in the reactor vessel will not overheat to above 900 degrees Celsius if adiabatic conditions apply (NRC-2015-0070-0337-0004).

NRC Response: The NRC disagrees with this comment. The language in Section III.H.2 of the preamble to the proposed rule reads, "The decay period could begin when the fuel is still in the reactor vessel but the reactor has permanently ceased operations." Once the reactor has permanently ceased operation, any fuel still in the reactor begins to decay due to the fission process being halted; this is the beginning of the decay period. A licensee does not enter Level 2 until the reactor vessel is permanently defueled and the fuel has decayed for 10 months (for a BWR), 16 months (for a PWR), or an alternative period of time approved by the NRC.

For fuel that remains within the reactor vessel after permanent cessation of operations, the licensee continues to monitor the fuel's temperature to ensure that the fuel is maintained below the parameters for cladding ignition temperatures within 10 hours under adiabatic conditions.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-27: A commenter referenced a dissenting vote from Commissioner Baran (November 2019) (ML19305C739) on SECY-19-0078, "Request by Entergy Nuclear Operations, Inc. for Exemptions from Certain Emergency Planning Requirements for the Pilgrim Nuclear Power Station" (August 2019) (Package ML18347A717). The commenter stated that Commissioner Baran notes that States' all-hazards emergency plans did not work for radiological emergencies, and that FEMA and States such as Massachusetts opposed the exemption granted to the Pilgrim Nuclear Power Station. The commenter stated that the NRC allowed the exemption because they believed there is a low probability of beyond-design-basis events that could initiate a zirconium fire in the SFP, and that, if the event occurred, 10 hours would be sufficient time to initiate appropriate mitigating actions. The commenter stated that these assumptions are incorrect and not supported by FEMA, the Massachusetts Emergency Management Agency, and others (NRC-2015-0070-0293-0030).

NRC Response: The NRC agrees, in part, with this comment. The NRC recognizes the dissenting vote from Commissioner Baran. However, the NRC disagrees with the comment's assertion that the NRC granted the licensee for the Pilgrim Nuclear Power Station the exemption from certain EP requirements based on incorrect beliefs. The Commission found that granting the exemptions would continue to provide reasonable assurance that: (1) an offsite radiological release would not exceed the limits of the EPA PAGs at the site's exclusion area boundary for remaining applicable design-basis accidents, and (2) in the unlikely event of a beyond-design-basis accident resulting in a loss of all SFP cooling, there would be sufficient time to initiate appropriate mitigation actions.

As explained in the proposed and final rule preambles and in the NRC Response to Comment 4.1-31, the NRC has determined that the 10-hour window included in the final rule is an adequate timeframe in which to implement mitigating actions, such as adding water to the SFP to make up for lost water inventory and providing notification to OROs for any appropriate offsite response actions, in the highly unlikely event of a spent fuel zirconium clad ignition accident.

There is currently no regulatory requirement for licensees of operating or decommissioning nuclear power reactors to fund the costs associated with State and local emergency planning.

Any current funding provided by licensees is the result of negotiations between State or local governments and the licensee.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-28: A commenter stated that requiring licensees to submit a request for NRC approval of an alternative spent fuel decay period for fuel that is not zirconium clad essentially transfers the analysis of the zirconium fire window for non-LWR fuels to a licensing action and removes it from public comment (NRC-2015-0070-0259-0010).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that, under the proposed rule, a licensee for a non-LWR reactor would need to submit an LAR in accordance with 10 CFR 50.90 for an alternative spent fuel decay period to implement the regulations associated with Level 2 of the graded approach to decommissioning. The detailed analysis supporting the proposed rule was limited to LWR zirconium clad fuel. The NRC continues to work on methods that will allow similar calculations to be performed in the future for non-LWR fuels.

Although the NRC review of the LAR would not be part of the public review and comment for this rulemaking, the public would be afforded an opportunity to provide, on a case-by-case basis, comments and request a hearing as part of the NRC's license amendment process. Further, as discussed in the NRC Response to Comment 16-09, the NRC is engaged in a rulemaking activity to establish an optional, technology-inclusive regulatory framework for use by applicants for new commercial advanced nuclear reactors (the 10 CFR Part 53, "Risk Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors" proposed rulemaking), which may use non-LWR fuels.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-29: A commenter stated that the NRC's 10-hour action window is based on the false and unsupported assumption that State and municipal emergency response personnel can facilitate an evacuation within 10 hours without the training and infrastructure required under the NRC's current emergency planning requirements (NRC-2015-0070-0359-0011). Another commenter stated the NRC's statement that the public could evacuate within 10 hours is "absurd on its face" absent funding for State and local radiological emergency planning (NRC-2015-0070-0293-0033). The commenter stated that 10 hours is not guaranteed to be enough time to put out a SFP (NRC-2015-0070-0293-0023). The commenter further stated that a fire onsite in a contaminated building during decommissioning can spread radiation offsite and expressed concerns about evacuation in the event of a radiological accident without offsite emergency planning (NRC-2015-0070-0293-0035).

NRC Response: The NRC disagrees with these comments. The 10-hour window included in the rule is not based on the time it would take to implement any specific protective measure. The timeframe is based on providing adequate time to implement mitigating actions, such as adding water to the SFP to make up for lost inventory and providing notification to OROs for any appropriate offsite response actions in the highly unlikely event of a spent fuel zirconium cladding ignition accident. Under the proposed and final rules, licensees have up to 1 hour to declare an emergency and then an additional 1 hour to notify OROs.

The 10-hour period begins when all cooling is lost to the spent fuel and conservatively does not consider the initiating event. As such, the time from initiating event to the time when loss of both water and air cooling can occur may range from several hours to days depending on the initiating event and potential damage to the pool walls, spent fuel cooling time, etc., thus

providing significant additional time in some cases to implement protective measures (see Task 2, “Spent Fuel Assembly Heat Up Calculations” in “Transmittal of Reports to Inform Decommissioning Plant Rulemaking for User Need Request NSIR-2015-001” (April 2016) (ML16110A431)).

See the NRC Response to Comment 4.1-31 for more information on the 10-hour timeframe.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-30: A commenter stated that the NRC should address post-operational emergency planning and security issues separately from the regulations that currently govern operating reactors. The commenter recommended that new emergency planning and security regulations set clear standards based on safety and environmental analysis under the AEA and NEPA. If site-specific factors are involved, the commenter stated that they should be addressed in individual licensing proceedings (NRC-2015-0070-0364-0013).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that post-operational emergency planning and security issues should be addressed separately from the regulations that currently govern operating reactors. The final rule accomplishes that by establishing an alternative, voluntary emergency planning framework for licensees in decommissioning and revising the current security regulations to allow them to apply to licensees in decommissioning.

However, the NRC disagrees that new emergency planning and security regulations should establish clear safety standards based on both safety and environmental analyses under the AEA and NEPA. The presence of an emergency plan or the absence of an emergency plan has no impact on the environment, design basis, severe accident probability-weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, or societal or economic impacts. Therefore, an EIS under NEPA would not typically include a discussion of an emergency plan.

In addition, certain site-specific factors (i.e., differences between BWR and PWR fuel cooling timelines) are already considered as part of the emergency planning framework established by this final rule. This means that individual licensing proceedings for emergency planning and physical security are no longer necessary for facilities that meet the requirements of the new and updated decommissioning regulations. For any facilities not able or willing to meet the prerequisite requirements to enter the new decommissioning framework, the licensee may still pursue individual changes to the licensing basis (via license amendment or exemption requests) to seek NRC approval to establish EP or physical security requirements that are appropriate to address any unique decommissioning situations or other site-specific considerations.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-31: A commenter stated that as part of the justification for the 10-hour mitigation timeframe, the NRC cites the Low Power Rule. However, according to the commenter, the Low Power Rule does not account for an SFP which may contain fuel in the “hot” category in which accidents with more serious consequences could occur (NRC-2015-0070-0380-0020). Another commenter stated that 10 hours is not enough time for offsite authorities to take appropriate response actions using an all-hazards approach emergency management plan. Additionally, the commenter stated that, as early as Level 2, challenging drills and exercises involving hostile action were stated not to be warranted, and ORO participation in radiological drills and exercises would no longer be required (NRC-2015-0070-0293-0038). A commenter recommended that the NRC seek and consider a jurisdiction’s assessment of its ability to adequately plan, prepare, and response to an SFP accident (NRC-2015-0070-0380-0015).

Moreover, the commenter also suggested the NRC consider the likelihood and impact of a simultaneous incident requiring the jurisdiction's emergency response capabilities during a spent fuel accident. The commenter suggested that the full spectrum of threats or initiating conditions (ICs) should inform appropriate mitigation strategies and response timelines, including beyond-design-basis accidents that challenge the 10-hour mitigation strategy (NRC-2015-0070-0380-0018).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the Low Power Rule (47 FR 30232; July 13, 1982) did not specifically mention an SFP that could contain spent fuel in the "hot" category, as described in NUREG/CR-6451, "A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants" (August 1997) (ML082260098). The NRC disagrees that 10 hours is not a sufficient amount of time for mitigation actions to be taken for an event involving an SFP. The basis of "at least 10 hours" is that it is the timeframe determined to be adequate to implement mitigating actions, such as adding water to the SFP to make up for lost water inventory and providing notification to OROs for any appropriate offsite response actions, in the highly unlikely event of a spent fuel zirconium cladding ignition accident.

The NRC also agrees that in Level 2, drills and exercises involving hostile action are no longer required, and ORO participation in radiological drills and exercises would no longer be required. However, licensees in Level 2 are still subject to the drill and exercise requirements of 10 CFR 50.200(b)(14) and (15). Paragraph 50.200(b)(14) of 10 CFR requires periodic exercises and drills to be conducted to evaluate major portions of emergency response capabilities, develop and maintain key skills, and identify and correct deficiencies. Paragraph 50.200(b)(15) of 10 CFR requires radiological emergency response training be provided to those who may be called on to assist in an emergency, which would include OROs with an emergency response role identified in the emergency plan.

The NRC considered the full spectrum of accidents with significant offsite consequences applicable to decommissioning nuclear power reactors. The events are dominated by the zirconium fire scenario, a postulated, but highly unlikely, beyond-design-basis accident that involves a major loss of water inventory from the SFP, resulting in a significant heat up of the spent fuel and culminating in substantial zirconium cladding oxidation, fire, and fuel damage. In 1978, an NRC and EPA task force established the planning basis for EP for nuclear power reactor accidents in NUREG-0396. NUREG-0396 states that while it is not appropriate to develop specific plans for the most severe and most improbable events, the characteristics of these events should be considered "in judging whether emergency plans based primarily on smaller accidents can be expanded to cope with larger events." This approach provides reasonable assurance that capabilities exist to minimize the impacts of even the most severe events. Consistent with this guidance, the NRC considered the potential impacts of a zirconium fire, even with the assurance that mitigating strategies are in place to prevent an offsite release from occurring for this highly unlikely beyond-design-basis event.

The results of studying the full spectrum of accidents with significant offsite consequences applicable to decommissioning nuclear power reactors is documented in NUREG-2161, NUREG-1738, and three additional SFP accident analyses in "Transmittal of Reports to Inform Decommissioning Plant Rulemaking for User Need Request NSIR-2015-001" (April 2016) (ML16110A431). The conclusions of all five studies support the technical basis for a graded approach to EP. Overall, these analyses: (1) demonstrate that a period of 10 hours provides sufficient time to implement mitigation measures for design-basis events at decommissioning sites, (2) provide a conservative basis for a spent fuel decay time beyond which the fuel in the SFP can reasonably be expected to take longer than 10 hours to heat up to ignition

temperature, and (3) provide additional understanding of the amount of time available for taking action to respond to beyond-design-basis events, including the margin of time that offsite agencies have to decide upon and initiate actions to protect public health and safety. The NRC applied these analyses and the considerations from previous studies of SFP risk to the planning basis elements from NUREG-0396 to develop the proposed regulations for EP at various levels during decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-32: A commenter stated, given the 1-hour period for emergency declaration and additional 1-hour period for notification of OROs, OROs may only have 8 hours to respond to a serious zirconium fire. The commenter stated that in order to provide credible and effective response, OROs should be fully aware of the risk and play a significant role in assessing this risk and their capabilities to mitigate impacts (NRC-2015-0070-0380-0021).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that in the rule, the licensee will have up to 1 hour to declare an emergency and then an additional 1 hour to notify OROs. The NRC disagrees that OROs may only have 8 hours to respond to a serious zirconium fire.

For additional information regarding the timeline for emergency response under a PDEP, see the NRC Response to Comment 4.1-29.

For additional information regarding all-hazards emergency response plans, see the NRC Response to Comment 4.1-02.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-33: Two commenters stated that the 10-hour window is sufficient for an emergency response to an SFP accident at a permanently defueled facility (NRC-2015-0070-0338-0020, NRC-2015-0070-0329-0021).

NRC Response: The NRC agrees with these comments. The NRC agrees that the 10-hour time period has been determined to provide a sufficient amount of time for an emergency response to an SFP event based on an all-hazards emergency response plan.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-34: A commenter stated that even assuming a zirconium fire scenario is the only SFP accident that might lead to a release offsite, such an accident still could easily exceed the EPA PAGs and extend far beyond the site boundary. Additionally, the commenter stated that NRC documents (referencing SECY-00-0145, “Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning” (June 2000) (ML003721626) and NUREG/CR-6451) indicate that fuel in the SFP remains in the “hot” category for five years (NRC-2015-0070-0380-0008).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that NRC documents state that for a postulated zirconium fire scenario, offsite doses could exceed the EPA PAGs under certain conditions (e.g., a major loss of water inventory from the SFP and no mitigating actions implemented). However, the zirconium fire scenario is a highly unlikely, beyond-design-basis accident scenario, notwithstanding whether the spent fuel in the SFP has less than 5 years of decay time. Moreover, as described in SECY-00-0145, after approximately 1 year of spent fuel decay time, there are no applicable design-basis accidents at a decommissioning facility that could result in an offsite radiological release exceeding the limits established by the EPA’s early phase PAGs at the exclusion area boundary for a zirconium fire

scenario when considering the very low likelihood of this event, together with the time available to take mitigative or protective actions between the initiating event and before the onset of a postulated fire.

The NUREG-0396 Task Force concluded, and the NRC maintains, that the objective of emergency response plans is to provide dose savings for a spectrum of accidents that could produce offsite doses in excess of the EPA PAGs, not to prevent all radiation doses to the public during an emergency. The absence of NRC regulatory standards for offsite radiological EP should not be construed to mean offsite emergency planning would be inadequate.

See the NRC Response to Comment 4.1-02 for more information regarding all-hazards emergency response plans.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-35: A commenter expressed concern for what happens should SFP incident mitigation fail, resulting in a zirconium fire without any formal offsite emergency planning or preparedness to address the unique hazard (NRC-2015-0070-0380-0019).

NRC Response: The NRC disagrees with this comment. The NRC disagrees that neither FEMA nor local responders are prepared to handle radiological emergencies.

For additional information regarding the Federal government's response to radiological emergencies, see the NRC Response to Comment 4.1-14.

Additionally, licensees in Level 2 are still subject to the drill and exercise requirements of 10 CFR 50.200(b)(14) and (15). Paragraph 50.200(b)(14) of 10 CFR requires periodic exercises and drills to be conducted to evaluate major portions of emergency response capabilities (including interfacing with OROs), develop and maintain key skills, and identify and correct deficiencies. Paragraph 50.200(b)(15) of 10 CFR requires radiological emergency response training be provided to those who may be called on to assist in an emergency, which would include OROs with an emergency response role identified in the emergency plan.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-36: A commenter stated that the phrase "as soon as possible and within 60 minutes" in 10 CFR 50.200(c)(1)(iii)(B) includes the words "as soon as possible," which are not used in the corresponding sentence in appendix E to 10 CFR Part 50 section IV.C.2. The commenter suggested revising this section to remove "as soon as possible" (NRC-2015-0070-0338-0105).

NRC Response: The NRC agrees with this comment. The first occurrence of the phrase "as soon as possible" in the first sentence of proposed 10 CFR 50.200(c)(1)(iii)(B), concerning the capability to assess, classify, and declare an emergency condition, is not used in the corresponding sentence in Appendix E to 10 CFR Part 50, Section IV.C.2. The NRC also agrees that this occurrence of the phrase "as soon as possible" is not needed because the statement "Licensees must not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded" later in the same paragraph captures the meaning of "as soon as possible".

Accordingly, the NRC is revising the rule language in 10 CFR 50.200(c)(1)(iii)(B) to remove the first occurrence of the phrase "as soon as possible" in response to this comment.

Comment 4.1-37: A commenter stated that the NRC should clarify whether a change to an NRC-approved IC/EAL for cask damage for a decommissioning facility, without changing an entire EAL scheme, is a reduction in effectiveness and would require a license amendment. The commenter recommended that the NRC revise 10 CFR 50.54(q)(8)(iii) to allow a licensee to make a change to an IC/EAL for cask damage without changing an entire EAL scheme (NRC-2015-0070-0338-0106).

NRC Response: The NRC disagrees with this comment. A change to proposed 10 CFR 50.54(q)(8)(iii) (renumbered to 10 CFR 50.54(q)(9)(ii) in the final rule) is not necessary because this regulation allows changes to a licensee's emergency plan, specifically to individual ICs/EALs, without prior NRC approval if the changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the applicable requirements in Appendix E to Part 50 and the planning standards of 10 CFR 50.47(b), or the applicable requirements of 10 CFR 50.200 or 10 CFR 72.32.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-38: Two commenters stated that proposed 10 CFR 50.47(f) ("The planning standards of paragraph (b) of this section do not apply to offsite radiological emergency response plans if the licensee's emergency plan is not required to meet these planning standards or if the plume exposure pathway EPZ does not extend beyond the site boundary") introduces a change that could be used by operating reactors to eliminate all offsite emergency response requirements. One commenter recommended that this paragraph be removed or revised to avoid unintended consequences of a potential change that has not been explicitly evaluated in the analysis of the rule (NRC-2015-0070-0259-0003). Another commenter recommended deleting the new language or clarifying the scope/applicability of the paragraph (NRC-2015-0070-0380-0005).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that, under 10 CFR 50.47(f), a currently operating reactor licensee with an analysis that demonstrates that the plume exposure pathway EPZ for its facility does not extend beyond the licensee's site boundary would not be required to meet the offsite radiological emergency response planning standards in 10 CFR 50.47(b). In this situation, the licensee would have to provide an analysis that demonstrates that its plume exposure pathway EPZ does not extend beyond the site boundary, and the NRC would have to approve this analysis. It is highly unlikely that a currently operating licensee could make this demonstration given the planning basis for the EP regulatory framework for large LWRs established in NUREG-0396.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.1-39: A commenter raised concerns about the continued mention of liquid radiological waste in Levels 3 and 4 in the proposed rulemaking. The commenter questioned the justification for keeping liquid waste onsite during the decommissioning process and claimed that SFPs are not safe. In particular, the comment cited problems unfolding in Ukraine as a reason to be concerned about the danger surrounding SFPs. The commenter stated that Fukushima/Daiichi showed us that spent fuel rods need to be placed in dry cask storage quickly (NRC-2015-0070-0337-0006).

NRC Response: The NRC disagrees with this comment. The radioactive waste onsite during the decommissioning process is a result of the decommissioning process itself. This could be in the form of radioactive liquids, components, and materials produced during decommissioning. The plan for removal of this inventory is based on the site-specific decommissioning plan and is

part of every decommissioning process. With respect to radioactive liquids stored and released during the decommissioning process, the NRC's regulations governing this process are found in 10 CFR Part 20.

For additional information regarding SFP safety, please see the NRC Response to Comment 3.2-01.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-40: A commenter suggested that the proposed rulemaking was made to accommodate licensee convenience or cost considerations. The commenter further claimed that, by "declining to relax" emergency planning requirements, the NRC would be encouraging prompt decommissioning, as licensees would have an incentive to transfer spent fuel into dry cask storage (NRC-2015-0070-0339-0016).

NRC Response: The NRC disagrees with this comment. As explained in the proposed and final rule preambles, the NRC is establishing appropriate requirements based, in part, on the risk to public health and safety and the common defense and security presented by a decommissioning nuclear power reactor. The NRC cannot and does not impose regulatory burden on licensees as financial motivation for voluntary actions.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-41: A commenter recommended that the NRC require licensees to provide the appropriate resources to maintain an effective radiological dose assessment capability for decommissioning Levels 1 through 3 (NRC-2015-0070-0292-0011).

NRC Response: The NRC agrees with this comment. The NRC is requiring that a licensee maintain the capability to perform radiological offsite dose calculations during the Level 1 phase of decommissioning. When the criteria that allow the licensee to transition to Level 2 are met, the licensee is required to maintain the capability for radiological accident assessment and support of operational accident assessment, of which a major task is to perform onsite dose assessment. The NRC requires licensees in Level 2 to determine the magnitude of, and continually assess the impact of, a radiological release, and, if a release is occurring, licensee staff is required to communicate that information to offsite authorities within 60 minutes to support appropriate response actions. When a licensee transitions to Level 3, the NRC requires that the licensee continue to support radiological accident assessment, operational accident assessment, and notifications and communications to State and Federal agencies.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-42: A commenter recommended that EALs for decommissioning facilities should not rely on the maintenance of procedures for potential aircraft threat because this does not apply to permanently shutdown facilities under 10 CFR 50.54(hh)(2). The commenter claimed that 10 CFR 50.54(hh)(1) and (2) require potential aircraft threat procedures to be maintained until the 10 CFR 50.82(a)(1) certifications are submitted. However, DG-1346 uses the terms "aircraft threat" and "aircraft attack" in its EALs. The commenter suggested that decommissioning EALs should instead rely on requirements that remain applicable, such as the 10 CFR 50.155(b)(2) extensive damage mitigation strategies for events involving loss of large areas of the facility (NRC-2015-0070-0378-0012).

NRC Response: The NRC agrees with this comment. The use of the terms "aircraft threat" and "aircraft attack" within DG-1346 was based upon 10 CFR 50.54(hh) and was incorrect. Paragraph 50.54(hh)(1) of 10 CFR applies to operating power reactors. Aircraft threats were

added to EAL schemes for operating reactors through NRC Security Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events" (July 2005) (ML051740058), because an aircraft-based event may introduce the need to relay information or protect plant personnel in a manner different from events for which licensees and OROs had typically planned and trained. The NRC is removing EALs related to aircraft threats and aircraft attacks for licensees in decommissioning Levels 2 and 3. Nevertheless, RG 1.235 will maintain EALs for security-related events as long as spent fuel is onsite and will only reference regulatory requirements applicable to decommissioning reactors.

Accordingly, the NRC revised the guidance document in response to this comment to remove EALs related to aircraft threats in Levels 2 and 3.

Comment 4.1-43: A commenter raised concerns about the proposed definition change for "emergency planning function," and claimed that removing the previous references to section IV of appendix E and the planning standards of 10 CFR 50.47(b) will make the definition overly broad. The commenter proposed including "as set forth in the applicable elements of the content of emergency plans and planning standards" instead (NRC-2015-0070-0338-0015).

NRC Response: The NRC disagrees with this comment. The NRC proposed removing the references to the planning standards of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50 from the definition of "emergency planning function" in 10 CFR 50.54(q)(1)(iii) because the proposed rule would establish alternative emergency planning standards under 10 CFR 50.200, which would not require compliance with 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC does not consider the references essential to the definition of "emergency planning function." The NRC also disagrees that adding "as set forth in the applicable elements of the content of emergency plans and planning standards" is essential to or adds additional clarity to the definition of "emergency planning function."

On November 16, 2023, the NRC published a final rule that revised the definition of "emergency planning function" in 10 CFR 50.54(q)(1)(iii) in the exact manner as the proposed rule (88 FR 80050). Therefore, this final rule does not include any additional changes to 10 CFR 50.54(q)(1)(iii).

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-44: A commenter suggested that the phrase "production" should be replaced with "product" on page 12272 of the FRN, Vol. 87, No. 42 (NRC-2015-0070-0338-0100).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that the phrase "production" should be "product" on page 12272 of the FRN. However, this reference is in the FRN only and not in the rule or guidance language.

Accordingly, the NRC is revising the preamble in response to this comment to remove the word "production" and replace it with the word "product."

Comment 4.1-45: A commenter suggested that the proposed 10 CFR 50.54(q)(8)(ii) should address SSC functions that are no longer needed to support an emergency planning function. The commenter claimed that the proposed 10 CFR 50.54(q)(8)(ii) could be interpreted as only applying when all of the SSC functions are no longer in service, so the paragraph should be clarified to allow functions of SSCs that do not support an emergency planning function to remain in service without this restriction (NRC-2015-0070-0338-0102).

NRC Response: The NRC agrees, in part, with this comment. The proposed rule language provides the necessary regulatory context and flexibility to support a licensee transitioning from

an operating reactor emergency plan to a PSEP, PDEP, and IOEP. Although this rulemaking is not addressing or revising the FSAR change management process in 10 CFR 50.59, in particular 10 CFR 50.59(c)(2)(vii); providing functional criteria for SSCs as they relate to emergency planning functions as defined in 10 CFR 50.54(q)(1)(iii); or addressing FSAR update timing in 10 CFR 50.71(e)(4), the proposed 10 CFR 50.54(q)(8) (renumbered to 10 CFR 50.54(q)(9) in the final rule) should be clarified to ensure that it meets the purpose of the proposed rule.

However, the NRC disagrees that addressing SSC functions within 10 CFR 50.54(q)(9) is appropriate. The purpose of the proposed 10 CFR 50.54(q)(8)(ii) and (iii) was to provide licensees with more information to support the 10 CFR 50.54(q)(3) evaluation of emergency plan changes as to whether the changes are a reduction in the effectiveness of the emergency plan and require prior approval from the NRC. A reduction in effectiveness would not occur if the equipment, instrument, or component is not operable or is not needed to support the FSAR during decommissioning. Using the FSAR, as revised, as a demarcation point where licensees can implement associated emergency plan changes without receiving prior approval from the NRC was reasonable when the NRC developed the proposed rule.

The NRC's review of this comment led to a reconsideration of the proposed language versus the overall purpose of the regulation. The NRC determined that revising the proposed rule language is appropriate to provide licensees with direction for implementing emergency plan changes when plant systems, instruments, or components are being removed from service as part of the decommissioning process. To ensure that these changes would not compromise the NRC's reasonable assurance finding, the NRC is establishing a clear operability-based demarcation point. Using the FSAR, as revised, is not the best way to do this because, under 10 CFR 50.71(e) and 10 CFR 50.71(e)(4), the timing of FSAR updates may not support timely updates to emergency plans.

However, the change management process that supports these FSAR changes is in 10 CFR 50.59. If the licensee's 10 CFR 50.59 evaluation supports the changes such that a license amendment is not necessary, or if the evaluation leads to a LAR and the licensee receives NRC approval, then the licensee can subsequently make the applicable changes to its emergency plan, including to EALs. In addition, there is no reason to have both proposed 10 CFR 50.54(q)(8)(ii) and (iii) if one provision can support emergency plan and EAL changes.

In response to this comment, for the reasons explained above, the NRC is merging proposed 10 CFR 50.54(q)(8)(ii) and (iii) (and renumbering it to 10 CFR 50.54(q)(9)(ii) in the final rule) and using 10 CFR 50.59(c) as the demarcation point, as follows:

> (ii) When a licensee determines under 10 CFR 50.59(c)(1) that a particular plant system, instrument, or component is no longer required to be operable, or receives NRC prior approval under 10 CFR 50.59(c)(2) that the plant system, instrument, or component is no longer required to be operable, then the licensee may make a determination under paragraph (q)(3) of this section that related changes to the emergency plan, including emergency action levels, are not reductions in effectiveness.

Accordingly, the NRC revised the rule language in response to this comment.

Comment 4.1-46: A commenter stated that there is no technical justification for postulating a contaminated injury once spent fuel is in dry cask storage, so the proposed regulatory improvements should eliminate the consideration of contaminated injured individuals (NRC-2015-0070-0338-0108).

NRC Response: The NRC disagrees with this comment. Preplanning efforts for medical service requirements are a reasonable and prudent measure. A site in the IOEP phase is still at risk of needing to respond to industrial accidents involving potentially contaminated liquid retention tanks or ponds, as well as other hazardous materials onsite. Therefore, the EP requirements for the IOEP phase for a licensee that implements the requirements of 10 CFR 72.32 include the medical services requirements in 10 CFR 72.3(a)(8) and medical training requirements in 10 CFR 72.32(a)(12)(i).

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-47: A commenter expressed concern with the proposed language in 10 CFR 50.200(c)(1)(i)(A)*(5),* asserting that PDEPs would not fall within the scope of "hostile action," while enhancements to EP in response to hostile action, such as alternative facilities for the staging of ERO personnel, protection of onsite personnel, and drills and exercises involving hostile action, would be unwarranted. The commenter urged NRC to revise the language in 10 CFR 50.200(c)(1)(i)(A)*(5)* to not include the term "hostile action" nor its definition (NRC-2015-0070-0338-0104).

NRC Response: The NRC disagrees with this comment. The term "hostile action" is not used in 10 CFR 50.200(c)(1)(i)(A)(*5*). This regulation, which requires licensees to identify the assistance expected from OROs with responsibilities for coping with the security events described in that provision, is necessary because the security events may require offsite law enforcement support. This regulation ensures that licensees can identify any gaps in offsite response to these security events and therefore plan accordingly.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-48: Regarding 10 CFR 50.54(y), a commenter suggested that the NRC should clarify that decisions to depart from the operating license or technical specifications can be authorized by a senior licensed operator, a CFH (for licensees who have docketed 10 CFR 50.82(a)(1) or 52.110(a) certifications), or any individual in a superior position to a senior licensed operator or CFH. The commenter suggested using "or by an appropriately trained senior on-shift licensee representative." The commenter stated this language would be consistent with NRC Regulatory Issue Summary (RIS) 2008-26, "Clarified Requirements of Title 10 of the Code of Federal Regulations (10 CFR) Section 50.54(y) When Implementing 10 CFR Section 50.54(x) to Depart from a License Condition or Technical Specification" (October 2008) (ML080590124) (NRC-2015-0070-0338-0136).

NRC Response: The NRC agrees with this comment. The NRC is revising 10 CFR 50.54(y) in several ways to reflect its graded approach to decommissioning. For an operating nuclear power reactor, decisions to depart from a license condition or technical specification must be approved by a licensed senior operator or an organizationally senior individual; this is a slight change in terminology from the current regulation but is not a substantive change. For licensees that have submitted the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications but have not yet placed all spent fuel in dry cask storage, decisions to depart from a license condition or technical specification must be approved by a licensed senior operator, a CFH, or an organizationally senior individual. Compared to the current 10 CFR 50.54(y), this provision represents a change in terminology and to the applicable phase of decommissioning when these actions can be taken. The bases for these changes are explained below and in the NRC Response to Comment 4.2-05.

To add clarity and ensure consistency in approval authorities across licensees' safety and security programs, the NRC is making the same changes to 10 CFR 73.55(p)(1)(i) and (ii). The

NRC proposed to align 10 CFR 50.54(y) and 10 CFR 73.55(p)(1)(i) and (ii) in the 2022 Proposed Rule, and the final rule does that, as described here and in the NRC Response to Comment 4.2-05.

In addition, as explained in the NRC Response to Comment 4.2-05, the NRC is adding to 10 CFR 50.54(y) and 10 CFR 73.55(p)(1) provisions affecting the decisions to depart from a license condition or technical specification and to suspend security measures, respectively, for the time period when all spent fuel from the reactor is in dry cask storage (i.e., Level 3 of the NRC's graded approach). In Level 3, the individual who must approve the decisions to depart from a license condition or technical specification under 10 CFR 50.54(y) or suspend security measures under 10 CFR 73.55(p)(1) is an individual designated by the licensee or an organizationally senior individual.

The term "organizationally senior individual" is used in the final rule to clarify the NRC's position and replace the words "as a minimum" in current 10 CFR 50.54(y) and proposed 10 CFR 73.55(p)(1)(i) and (ii). An organizationally senior individual will be a senior licensee representative responsible for overall site safety and security. These individuals should be in the direct reporting chain for the on-shift licensed senior operator during Level 1 (e.g., operations manager, plant manager, site vice-president), on-shift licensed senior operator or CFH during Level 2, and the individual designated by the facility licensee during Level 3.

The basis for this position comes from the preamble for the final rule that established 10 CFR 50.54(x) and (y) (48 FR 13966; April 1, 1983). In the preamble, the Commission stated that if "more senior licensee personnel" than the licensed senior operator are available, "the decision to depart from the license in an emergency would pass to them (as higher authorities in the chain of command)." This Commission position was reiterated in RIS 2008-26 in which the NRC staff stated the following:

> Section 50.54(y) of 10 CFR does not require that the decision to depart from the license or technical specifications be made only by a licensed senior operator or that the individual making the decision possess a senior operator's license. Rather, such a decision could be made either by any licensed senior operator or any individual in a superior position to a licensed senior operator. As stated in the [1983 final rule preamble], if "more senior licensee personnel" are available, "the decision to depart from the license in an emergency would pass to them (as higher authorities in the chain of command)." There is nothing in the rule to indicate that the "more senior licensee personnel" are also required to be licensed senior operators. In addition, there is nothing in the rule that would require the "more senior licensee personnel" to obtain the concurrence of a licensed senior operator to make such a decision, and the [preamble] does not contain any discussion suggesting such Commission intent.

Accordingly, the NRC is revising the rule language in 10 CFR 50.54(y) in response to this comment.

Comment 4.1-49: A commenter expressed concerns regarding NRC's increased deference to licensees and failure to incorporate readily knowable, site-specific concerns in the regulatory changes related to reduction of risk, such as local geography, climate change impacts, and other site-specific concerns (NRC-2015-0070-0330-0019).

NRC Response: The NRC agrees, in part, with this comment. The reduction in risk is based on the conditions of the reactor (completely shut down) and the fuel being moved into either the SFP or storage casks and being sufficiently decayed and cooled. However, the topography of the site and possible future climate impacts are not a factor in the determination of a risk

reduction for this rule and would not have any direct impact on the EP requirements associated with the final rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-50: A commenter disagreed with the proposed revision to add 10 CFR 50.54(t)(3), which stated "[t]he review of the emergency preparedness program elements is no longer required once all fuel is in dry cask storage." The commenter claimed that the timeframe for onsite storage of nuclear fuel in casks is indefinite and noted that dry casks are only licensed by the NRC for up to 40 years. The commenter stated that dry cask storage technology is relatively new, and its long-term reliability is not yet known. For this reason, the commenter urged the NRC to strike the proposed 10 CFR 50.54(t)(3) from the rule (NRC-2015-0070-0330-0018).

NRC Response: The NRC disagrees with this comment. The NRC licenses dry storage facilities or certifies dry storage system designs for up to 40 years and may renew the license or certificate term for up to an additional 40 years. There is currently no restriction on the number of renewals to dry storage license or certificate terms.

Dry cask storage systems have been used at U.S. nuclear power plants for more than 30 years with an excellent safety record. Part of the reason for that success is the robust design of the systems. Another reason is proper care and maintenance, including implementation of aging management programs (AMPs) required by the NRC. The NRC has conducted an extensive review of the materials used in dry cask storage systems, looking at how these materials might degrade over time. This review is documented in NUREG-2214, "Managing Aging Processes In Storage (MAPS) Report" (July 2019) (ML19214A111). As part of assembling this report the NRC reviewed specific dry cask storage system designs and the environments in which the systems operate. The report describes the scientific methods used to determine the possible effects of aging on the storage systems and what might cause those effects. It also includes examples of generic AMPs that licensees may use to develop their own programs. Additional guidance on aging management for dry storage systems was published in NUREG-1927, "Standard Review Plan for Renewal of Specific Licenses and Certificates of Compliance for Dry Storage of Spent Nuclear Fuel—Final Report," Rev. 1 (June 2016) (ML16179A148) and RG 3.76, "Implementation of Aging Management Requirements for Spent Fuel Storage Renewals" (June 2021) (ML21098A022). NRC inspectors examine licensees' implementation of AMPs to verify that any potential degradation is quickly identified and that corrective actions are taken to ensure the storage cask continues to function properly.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-51: A commenter recommended that the NRC reduce the proposed requirement to notify OROs from 60 minutes to 30 minutes or sooner after declaring an event, asserting that prompt response is important during a security-based event that requires response from LLEAs and establishment of an incident command post (NRC-2015-0070-0292-0010).

NRC Response: The NRC disagrees with this comment. Notifications to LLEAs are not made by the EAL declaration; they are made by actions covered by the licensee's security plan and associated implementing procedures.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.1-52: Regarding Sections C.3.l and C.3.n on page 25 of DG-1346, a commenter stated that the need for contaminated injured individual pre-planning should not be required for

licensees with IOEPs given the nature of the possible accidents with all spent fuel in dry storage. The commenter recommended revising 10 CFR 50.200(b)(12) to read, “Arrangements are made for medical services for contaminated injured individuals, until all the spent fuel is in dry cask storage” (NRC-2015-0070-0338-0060).

NRC Response: The NRC disagrees with this comment. Preplanning efforts for medical and public health support are a reasonable and prudent measure and consistent with 10 CFR 72.32(a)(8), which requires a licensee’s emergency plan to describe the means by which the licensee can promptly notify OROs and request offsite assistance, including medical assistance for the treatment of contaminated injured onsite workers when appropriate. A licensee in the IOEP phase is still at risk of needing to respond to industrial accidents involving potentially contaminated liquid retention tanks or ponds, as well as other hazardous materials onsite.

Accordingly, the NRC did not revise the guidance document in response to this comment.

4.2 Physical Security

Comment 4.2-01: A commenter provided suggestions to improve the consistency and clarity of the NRC’s proposed rule and ensure that it does not diminish protections for SNF against the design basis threat (DBT) for radiological sabotage. For example, the commenter suggested that the NRC remove the provision that would allow a general license ISFSI subject to 10 CFR 72.212(b)(9) to elect to shift from the security requirements of 10 CFR 73.55, “Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage,” to those of 10 CFR 73.51, “Requirement for the physical protection of stored spent nuclear fuel and high-level radioactive waste,” stating that there is no articulated valid specific rationale for this change. Further, the commenter stated that the proposed changes to 10 CFR 73.51 and 10 CFR 72.212(b)(9)(vii) are inconsistent with the introductory text in 10 CFR 72.212(b)(9), in that it is unclear whether a general licensee who implements the alternate approach would continue to be required to protect SNF against the DBT for radiological sabotage.

The commenter recommended that the NRC remove the proposed changes to 10 CFR 72.212(b)(9) and 10 CFR 73.51 from the final rule; alternatively, the NRC could retain the concept of a general licensee protecting the SNF against the DBT for radiological sabotage in 10 CFR 72.212(b)(9) and add clarifying language to 10 CFR 73.51 requiring a general licensee to protect the contained SNF against the DBT for radiological sabotage. The commenter described additional corrective changes and conforming changes that would be necessary if NRC chooses the alternative recommendation (NRC-2015-0070-0345-0001).

NRC Response: The NRC disagrees with this comment. As explained in the proposed rule regarding the use of 10 CFR 73.51 by general license ISFSIs, once all spent fuel has been moved to dry storage, general license ISFSIs share the same risk profile as specific license ISFSIs, and licensees holding a specific license are required to protect the SNF in the ISFSI in accordance with the physical security requirements in 10 CFR 73.51.

The NRC also does not agree that there is an inconsistency in the regulatory requirements as a result of the changes in this rulemaking. The introductory text in 10 CFR 72.212(b)(9) that requires licensees to protect against the DBT of radiological sabotage is subject to the conditions and exceptions in the final rule’s 10 CFR 72.212(b)(9)(vii), which allows licensees to protect the spent fuel in accordance with 10 CFR Part 72, Subpart H and 10 CFR 73.51, instead of 10 CFR 73.55.

The Commission has established requirements in 10 CFR 72.180, “Physical protection plan,” and 10 CFR 73.51 that adequately protect spent fuel in dry storage without the use of a DBT. The transition for general license ISFSIs to specific license ISFSI security requirements provides a consistent and distinct set of requirements for a facility that only possesses spent fuel in dry storage.

In addition, the NRC issued security orders to individual ISFSI licensees following the attacks of September 11, 2001. These orders ensured that a consistent overall protective strategy was put in place for all ISFSIs by establishing additional security measures and directing licensees to reevaluate the adequacy of their security programs, plans, and procedures. Therefore, all ISFSIs provide an equivalent level of protection for SNF in dry storage, regardless of the type of license (general or specific) that the ISFSI licensee possesses.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.2-02: Two commenters stated that the proposed definition of “decrease in safeguards effectiveness” does not take into account that 10 CFR 73.55(b)(3)(i) does not apply to licensees once all spent fuel has been placed in dry cask storage at the facility. Specifically, the commenters stated that the requirements of 10 CFR 73.55(b)(3)(i) to interdict and neutralize an adversary do not apply to a licensee with all spent fuel in dry cask storage. The commenters recommended rewording the new definition of “decrease in safeguards effectiveness” to clarify that evaluation of changes need to be made against 10 CFR 73.55(b)(3)(i), 10 CFR 72.212(b)(9)(i) through (vi), or Subpart H of 10 CFR Part 72 and 10 CFR 73.51. Both commenters stated that clarification also needs to be added to 10 CFR 72.186, “Change to physical security and safeguards contingency plans,” for consistency with the proposed addition to 10 CFR 50.54(p) (NRC-2015-0070-0338-0011, NRC-2015-0070-0257-0006).

NRC Response: The NRC agrees, in part, with this comment. The definition of “decrease in safeguards effectiveness” in the proposed rule was narrowly focused and specific to licensees that interdict and neutralize threats. The NRC revised the definition in the final rule to address its use by all licensees that implement security plans subject to 10 CFR 50.54(p).

The NRC does not agree that 10 CFR 72.186 should be modified for consistency. The discussion of changes to physical security plans that decrease the safeguards effectiveness in 10 CFR 72.186 remains adequate to address the security requirements for 10 CFR Part 72 specific licensees. Therefore, developing a separate or additional definition of “decrease in safeguards effectiveness” for specific licenses would be outside the scope of this rulemaking.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.2-03: A commenter requested clarification on the basis document to which the 10 CFR 50.54(p) standard applies. Specifically, the commenter asked whether a review of a proposed change under this section is to be evaluated against the plan most recently approved by the NRC (NRC-2015-0070-0338-0134).

NRC Response: For the purposes of determining whether a proposed change is a decrease in safeguards effectiveness under 10 CFR 50.54(p), the licensing basis document against which the licensee should evaluate the change is the security plan as approved by the NRC that is referenced in the facility’s license, including all subsequent changes made by the licensee, either with or without prior NRC approval under 10 CFR 50.54(p).

The comment did not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.2-04: A commenter suggested the proposed clarifying changes to 10 CFR 73.55(b)(3) should also be included in other paragraphs of the regulation containing the same wording. Specifically, the commenter recommended that the NRC make the same changes to 10 CFR 73.55(b)(9)(i) regarding the insider mitigation program (IMP) and 10 CFR 73.55(k) regarding response requirements, both of which also mention prevention of significant core damage (NRC-2015-0070-0338-0135).

NRC Response: The NRC disagrees with this comment. The revised 10 CFR 73.55(b)(3) makes clear that a licensee's physical protection program design is not required to protect against significant core damage once the licensee certifies that the reactor has ceased operation and all fuel has been permanently removed from the core. This change to the performance objective is consistent throughout the requirements of 10 CFR 73.55, such that the language that refers to significant core damage in other provisions of 10 CFR 73.55 ceases to have effect.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.2-05: Regarding 10 CFR 73.55(p), a commenter suggested that the NRC should clarify that decisions to suspend security measures can be authorized by a senior licensed operator, a CFH (for licensees who have docketed 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications), or any individual in a superior position to a senior licensed operator or CFH. The commenter suggested using "or by an appropriately trained senior on-shift licensee representative," consistent with RIS 2008-26 (NRC-2015-0070-0338-0136).

Two commenters suggested that 10 CFR 73.55(p)(1)(i) and (ii) be revised to include provisions "for an appropriately trained senior on-shift licensee representative" to authorize suspension of security measures in an emergency or severe weather event when all fuel has been transferred to dry cask storage and the site has achieved Level 3 (NRC-2015-0070-0338-0042, NRC-2015-0070-0329-0047).

NRC Response: The NRC agrees with the comments. As explained in the NRC Response to Comment 4.1-48 in Section 4.1, the NRC is making substantially similar revisions to 10 CFR 73.55(p)(1)(i) and (ii) regarding which licensee personnel can approve the suspension of security measures under 10 CFR 73.55(p)(1), that the NRC is making to 10 CFR 50.54(y) concerning which licensee personnel can approve the departure from a license condition or technical specification under 10 CFR 50.54(y). For an operating nuclear power reactor, decisions to suspend security measures must be approved by a senior licensed reactor operator or an organizationally senior individual. For licensees that have submitted the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications but have not yet placed all spent fuel in dry cask storage, decisions to suspend security measures must be approved by a senior licensed reactor operator, CFH, or organizationally senior individual. These changes to 10 CFR 73.55(p)(1)(i) and (ii) will make these provisions consistent with 10 CFR 50.54(y), as described in the 2022 Proposed Rule, which will facilitate licensee response during the types of emergencies addressed by these regulations. These edits also reflect the NRC's graded approach to decommissioning.

The NRC is also revising 10 CFR 73.55(p)(1) to address which licensee personnel must approve the suspension of security measures under 10 CFR 73.55(p)(1) when all spent fuel from the reactor is in dry cask storage (i.e., Level 3 of the NRC's graded approach). In Level 3, the individual who must approve the decisions to suspend security measures under 10 CFR 73.55(p)(1) will be an individual designated by the licensee or an organizationally senior individual. For a nuclear power reactor licensee in Level 3, these individuals will be a security supervisor in most cases. The key consideration involved in removing this authority from a CFH

in Level 3 is that the fuel is in a static, passively cooled state, and licensees may not have CFHs onsite. Based on those factors, authority to invoke 10 CFR 73.55(p)(1)(i) or (ii) is assigned to individuals specifically designated by the licensee. The designation ensures that both responsibility and accountability for the invocation of 10 CFR 73.55(p)(1)(i) and (ii) in Level 3 would continue to reside with licensee-identified individuals that have established organizational reporting relationships. Licensees should document the individuals with authority to suspend security measures in their security plans or implementing procedures. For these reasons, and to maintain alignment between licensees' safety and security programs, the NRC is making the same change to 10 CFR 50.54(y).

The final rule is also fixing an inconsistency presented in the 2022 Proposed Rule. In the 2022 Proposed Rule, the NRC would have required that the suspension of security measures under 10 CFR 73.55(p)(1)(i) and (ii) be approved by either a licensed senior operator or a CFH if the certifications required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) had been docketed by the NRC. However, in similar emergency circumstances, the Proposed Rule would have required the decision to depart from a license condition or technical specification under 10 CFR 50.54(x) and (y) be approved by either a licensed senior operator or a CFH if the certifications required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) had been submitted by the licensee to the NRC. So, in certain emergency situations, a CFH could approve the actions under 10 CFR 50.54(x) but not under 10 CFR 73.55(p)(1) if the certifications had been submitted by the licensee but not yet docketed by the NRC. To avoid an unnecessary procedural complication and to ensure the alignment of site processes during an emergency, the NRC is changing the term "docketed" in proposed 10 CFR 73.55(p)(1)(i) and (ii) to "submitted" in the final rule to be consistent with 10 CFR 50.54(y).

Accordingly, the NRC is revising the rule language in 10 CFR 73.55(p)(1) and 10 CFR 50.54(y) in response to these comments.

Comment 4.2-06: Regarding 10 CFR 73.51(a)(3), a commenter recommended replacing "When all spent fuel is in dry storage, and notification has been made to NRC under 10 CFR 72.212(b)(9)(vii)…." with, "When all spent fuel is in dry storage, and submittal has been made to NRC under 10 CFR 72.212(b)(9)(vii)" or with "and notification has been made to NRC under 72.212(b)(9)(vii)(B)" (NRC-2015-0070-0338-0137).

NRC Response: The NRC agrees, in part, with this comment. The suggested changes to 10 CFR 73.51 would provide partial clarity for describing the process outlined in 10 CFR 72.212(b)(9)(vii). The NRC is combining the two suggestions and revising the rule text in 10 CFR 73.51(a)(3) to clarify that general licensees can transition from the requirements in 10 CFR 73.55 to the requirements in 10 CFR 73.51 when, among other criteria, a submittal has been made to the NRC under the provisions of 10 CFR 72.212(b)(9)(vii)(B).

Accordingly, the NRC is revising the rule language in response to this comment.

Comment 4.2-07: The commenter stated that 10 CFR 73.51 uses the term "the protected area" in many locations, while 10 CFR 73.55 uses the term "a protected area." Because a licensee may establish more than one protected area (PA), and the use of "the protected area" could be interpreted to mean a licensee can only have one PA, the commenter recommended using "a protected area" consistently (NRC-2015-0070-0338-0138).

NRC Response: The NRC disagrees with this comment. The use of the term "a protected area" or "the protected area" does not adversely impact the implementation of 10 CFR 73.55 or 10 CFR 73.51 for licensees that operate an ISFSI. These regulations have used both terms since the 1998 and 2009 rulemakings that established those two 10 CFR Part 73 provisions,

and licensees have not had any identified issues with these terms. The term “protected area” is defined in 10 CFR 73.2, “Definitions.”

Accordingly, the NRC did not revise the rule language in response to this comment.

***Comment 4.2-08*:** A commenter expressed concern that the proposed rule’s changes to physical security requirements for decommissioning facilities would leave nuclear plants, such as the Pilgrim Nuclear Power Station, vulnerable to attack. The commenter asserted that ISFSIs are vulnerable, and the proposed rule should but does not provide appropriate protection for that vulnerability. The commenter stated that many U.S. ISFSIs are located in areas vulnerable to numerous security and environmental risks. The commenter, citing Dr. Gordon Thompson for the Massachusetts Attorney General, discussed several available means of attack on ISFSIs, including from drones, the creation of holes in a canister, and penetration by weapons. The commenter also discussed risks related to dry cask storage, including the potential of a dry cask canister rupture (NRC-2015-0070-0293-0020).

The commenter noted that these risks are of specific concern, considering that the U.S. stores cask and thin-walled canister systems outdoors, as compared to the hardened facilities with thick-wall bolted lid casks in Switzerland and Germany (NRC-2015-0070-0293-0006). The commenter urged the NRC to consider thick-wall casks that meet the American Society of Mechanical Engineers (ASME) N3 and other safety standards to protect against radiological sabotage, as well as environmental forces, such as salt-induced stress corrosion cracking. The commenter further noted that Pilgrim Nuclear Power Station’s ISFSI may be a tempting terrorist target due to the town’s symbolic value and cited the war in Ukraine and activity around Zaporizhzhia as evidence that reactors and spent fuel storage installations are pre-deployed nuclear weapons waiting to be detonated (NRC-2015-0070-0293-0024).

NRC Response: The NRC disagrees with these comments. These comments are out of scope for the current rulemaking effort, which relates to the regulations surrounding the decommissioning process and not the perceived risks of dry storage of SNF in an ISFSI. However, the NRC’s intelligence staff constantly monitor the current domestic and overseas threat environment for credible threats to NRC licensees and their facilities, including ISFSIs.

The intelligence staff assesses threats by reviewing thousands of classified and unclassified messages, evaluating intelligence products, and communicating with other intelligence and law enforcement agencies. In the event of an actual threat, the NRC’s intelligence staff forms the core of an interdisciplinary team that assesses the threat’s credibility, vulnerabilities, consequences, and, working with NRC physical security counterparts, can either recommend or require protective actions to address the threat.

The physical security requirements for specific and general licensed ISFSIs are considered equivalent, which includes the implementation of additional protective measures applied in 2002 in response to the events of September 11, 2001, that enhanced current security capabilities and readiness. The use of the existing 10 CFR Part 72 security requirements, as augmented by the additional protective measures, by a general license ISFSI licensee is adequate for the protection of spent fuel during dry storage.

In regard to the storage system designs used in the U.S. compared to those used overseas, the NRC has previously established that all dry cask storage systems approved for use by the NRC have had a robust engineering review to determine that the system meets all applicable regulatory safety requirements. As such, the NRC determined that ISFSIs employing dry storage systems with casks having an approved certificate of compliance from the NRC are safe for storage of SNF and there is no appreciable difference in the level of safety afforded by metal

casks with bolted lids compared to canister based systems that use a thick concrete or metal overpack structure for radiation shielding and physical protection.

With regard to ASME Boiler and Pressure Vessel (B&PV) Code, the NRC has accepted the design of storage system confinement SSCs fabricated in accordance with Section III, “Rules for Construction of Nuclear Facility Components,” Subsection NB, “Class 1,” criteria. The NRC has accepted the design of fuel basket structures fabricated in accordance with ASME B&PV Code Section III, Subsection NG, “Core Supports” criteria. For other safety structures of storage systems, the NRC has accepted the design of these components fabricated in accordance with ASME B&PV Code Section III, Subsection NF, “Supports.”

Based on the above, the NRC continues to have confidence in the safety and security of spent fuel stores in ISFSIs across the U.S. under the current requirements.

Accordingly, the NRC did not revise the rule language in response to these comments.

4.3 Cybersecurity

Comment 4.3-01: A commenter expressed support for the proposed cybersecurity provisions (NRC-2015-0070-0329-0004).

NRC Response: The NRC agrees with this comment. The revisions to the cybersecurity regulations clarify the applicability of those requirements to a nuclear power reactor during each stage of the decommissioning process. The comment supports the revisions to cybersecurity requirements and does not suggest a change to the proposed rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.3-02: Two commenters sought additional clarity regarding the proposed cybersecurity requirements. Specifically, both commenters requested that the NRC clarify in 10 CFR 73.55(b)(9) what elements of cybersecurity would be needed at Level 2 and beyond (NRC-2015-0070-0257-0007, NRC-2015-0070-0338-0012). One commenter recommended that the NRC clarify that once Level 2 is reached, no elements of cybersecurity would be needed for the IMP (NRC-2015-0070-0257-0007). The other commenter recommended specific changes to the wording of 10 CFR 73.55(b)(9)(ii)(C) (NRC-2015-0070-0338-0012).

NRC Response: The NRC agrees with these comments. As explained in the proposed rule’s discussion of the proposed changes to 10 CFR 73.54 and 10 CFR 73.55(c)(6), cybersecurity requirements are not needed once a licensee reaches Level 2 of the decommissioning graded approach. The NRC agrees that the IMP requirements in 10 CFR 73.55(b)(9)(ii)(C) need to reflect this graded approach.

Accordingly, the NRC is revising the rule language in response to these comments. Specifically, the final rule revises 10 CFR 73.55(b)(9)(ii)(C) to clarify that no elements of a cybersecurity plan are required for the IMP once Level 2 is reached during decommissioning.

Comment 4.3-03: A few commenters asserted that cybersecurity protections should remain in effect until all spent fuel is offsite or transferred to dry cask storage (NRC-2015-0070-0335-0004, NRC-2015-0070-0339-0005, NRC-2015-0070-0293-0007). In justifying this assertion, one commenter explained that, while the cessation of reactor operations reduces the overall risk to a host community, the risk of a zirconium fire is not eliminated as long as spent fuel remains in a SFP (NRC-2015-0070-0339-0005). Another commenter asserted that attacks on the ISFSI are credible and discussed the potential for a cyberattack to disrupt perimeter detection and security communications and disable access control doors and gates. The commenter also noted that

the Commonwealth of Massachusetts included cybersecurity requirements in its Settlement Agreement with Holtec Decommissioning International (NRC-2015-0070-0293-0007).

NRC Response: The NRC disagrees with these comments. There are fewer critical digital assets at a decommissioning reactor in comparison to the number of critical digital assets at an operating reactor. Once spent fuel is moved from the reactor vessel and placed in the SFP, the digital computers, communication systems, and networks that require cyber protection are primarily those associated with physical security and EP functions, as well as those safety systems that support operation of the SFP. Once the spent fuel has sufficiently decayed, the potential consequences of a cyberattack are significantly reduced. For an ISFSI, the NRC has separate security requirements in 10 CFR Part 72 that are not within the scope of this rulemaking.

The final rule does not prevent any decommissioning licensee from continuing to implement cybersecurity measures to comply with a settlement agreement such as the agreement between the Commonwealth of Massachusetts and Holtec.

For more information on the NRC's ISFSI security program, see the NRC Response to Comment 4.2-08.

Accordingly, the NRC did not revise the rule language in response to these comments.

4.4 Drug and Alcohol Testing

4.4.1 Scope 26.3(a)

***Comment 4.4.1-01*:** Several commenters supported the revision of 10 CFR 26.3, "Scope," to terminate the applicability of 10 CFR Part 26, "Fitness for Duty Programs," for the holder of a 10 CFR Part 52 combined license for a nuclear power reactor once the reactor permanently ceased operations and the 10 CFR 52.110(a) certifications have been submitted to the NRC.

Some commenters requested that 10 CFR Part 26 applicability terminate upon submission of the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications to the NRC instead of upon docketing of the certifications by the NRC as stated in the proposed rule. One commenter reasoned that the requested change would align with other paragraphs in 10 CFR Part 50, such as 10 CFR 50.54(hh)(2) [potential aircraft threat] and 10 CFR 50.155(a)(2)(i) [mitigation of beyond-design-basis events], that only require the submission of a certification to the NRC (NRC-2015-0070-0257-0008, NRC-2015-0070-0338-0013, NRC-2015-0070-0352-0001).

NRC Response: The NRC agrees, in part, with these comments. The comments support a change to terminate the applicability of 10 CFR Part 26 to 10 CFR Part 52 combined license holders once the reactor has permanently ceased operations and the 10 CFR 52.110(a) certifications have been submitted to the NRC. However, the NRC disagrees with terminating the applicability to 10 CFR Part 26 once the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications have been submitted to the NRC by the license holder but prior to the docketing of the certifications by the NRC. The docketing of the 10 CFR 50.82(a)(1) and 10 CFR 52.110(a) certifications ensures that the public is informed of this significant change in NRC-licensed facility operations, which triggers a number of changes in the regulatory requirements (not just 10 CFR Part 26 applicability).

In addition, in a functional sense, the docketing and public availability of these certifications in the ADAMS is typically completed the same day, or within a short period of time after, the licensee submits and the NRC receives the certification letter. Therefore, the elimination of the 10 CFR Part 26 requirements (or any other changes to the regulatory requirements for

decommissioning reactors that are related to the timing of the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications) based on docketing rather than submission of the decommissioning certifications will not have a material impact on the overall timing for the termination of the applicability of the program (or other requirements).

Accordingly, the NRC did not revise the rule language in response to these comments.

4.4.2 Criminal penalties (26.825(b))

Comment 4.4.2-01: One commenter supported the NRC's proposed rule change to remove 10 CFR 26.3 from the list of 10 CFR Part 26 sections excluded from criminal penalties under 10 CFR 26.825(a), stating that the NRC must take action if a FFD program is not in place by the specified time in the rule. The NRC believes that the commenter intended to reference 10 CFR 26.825(b), which is the paragraph that identifies the 10 CFR Part 26 sections exempt from criminal penalties (NRC-2015-0070-0352-0002).

Two commenters disagreed with the proposed rule change to eliminate 10 CFR 26.3 from 10 CFR 26.825(b). One commenter questioned making any violation of 10 CFR Part 26 a potential criminal matter, and specifically disagreed with the need to remove 10 CFR 26.3 from 10 CFR 26.825(b) given that an FFD program is no longer required "once certifications in 26.2(a)(2) are docketed." The NRC believes that the commenter intended to reference 10 CFR 26.3(a)(2) because 10 CFR Part 26 does not contain a 10 CFR 26.2 (NRC-2015-0070-0329-0043). The other commenter stated that the change to 10 CFR 26.825(b) was outside the scope of the rulemaking because the change did not apply to decommissioning facilities (NRC-2015-0070-0338-0132).

NRC Response: The NRC agrees, in part, with these comments. The NRC is removing 10 CFR 26.3 from 10 CFR 26.825(b) because 10 CFR 26.825(b) lists the 10 CFR Part 26 provisions that are excluded from criminal penalties; 10 CFR 26.3 includes a substantive requirement; and willful violations of, attempts to violate, or conspiracies to violate this substantive requirement need to be subject to criminal penalties. The NRC also notes that eliminating the reference to 10 CFR 26.3 in 10 CFR 26.825(b) is within the scope of this rulemaking because the NRC included changes to 10 CFR 26.3 in the proposed rule.

Accordingly, the NRC did not revise the rule language in response to these comments.

4.4.3 Insider mitigation program 73.55(b)(9)(ii)(B)(*2*)(*i*)

Comment 4.4.3-01: Two commenters agreed with the proposed rule amendments in 10 CFR 73.55(b)(9)(ii)(B)*(2)(i)* that would apply all requirements in 10 CFR Part 26, except for Subpart I, "Managing Fatigue," and Subpart K, "FFD Program for Construction," to four categories of individuals: (1) individuals who maintain unescorted access authorization and have unescorted access to a vital area; (2) individuals who perform CFH duties under 10 CFR 50.2 prior to all SNF at a site being placed in dry cask storage; (3) individuals who perform security-related functions under 10 CFR 26.4(a)(5); and (4) FFD program personnel under 10 CFR 26.4(g) (NRC-2015-0070-0352-0003, NRC-2015-0070-0338-0128).

One of the two comments stated that a potentially fatigued individual is not an indicator of an insider threat (NRC-2015-0070-0338-0128).

NRC Response: The NRC agrees, in part, with these comments. The comments support the proposed language for 10 CFR 73.55(b)(9)(ii)(B)*(2)(i)* and do not suggest any specific changes to the proposed rule.

Regarding the comment on a potentially fatigued individual, the NRC did not propose to include any fatigue management provisions in the insider mitigation requirements in 10 CFR 73.55(b)(9)(ii)(B)*(2)*.

Accordingly, the NRC did not revise the rule language in response to these comments.

4.4.4 Insider mitigation program 73.55(b)(9)(ii)(B)(*2*)(*ii*)

Comment 4.4.4-01: One commenter agreed with the proposed FFD program requirements described in 10 CFR 73.55(b)(9)(ii)(B)(*2*)(*ii*) that would apply to individuals granted unescorted access to the PA of a decommissioning facility (NRC-2015-0070-0338-0129).

Another commenter expressed opposition to the proposed FFD program requirements described in 10 CFR 73.55(b)(9)(ii)(B)*(2)(ii)*. The commenter stated that eliminating all but two core FFD program elements (pre-access and for cause testing and behavioral observation) would strip away defense in depth and thereby undermine the basic function of the FFD program. The commenter claimed that the proposed changes are not in the best interest of public health and safety and urged the NRC to reconsider its approach.

The commenter reasoned that proposing a full FFD program for personnel with unescorted access to the vital area of a facility, FFD program personnel, security personnel, and certified fuel operators means the licensee of a decommissioning site still must maintain a full FFD program, but not for PA only workers. The commenter questioned why the NRC would remove FFD requirements for certain personnel at decommissioning facilities when the NRC self-reports that all current decommissioning licensees maintain full FFD programs (NRC-2015-0070-0350-0002).

Specifically, the commenter requested that the following FFD requirements also be included in 10 CFR 73.55(b)(9)(ii)(B)*(2)(ii)*:

- FFD policy and procedures (10 CFR 26.27, “Written policy and procedures”).
- Training (10 CFR 26.29, “Training”).
- Random and follow-up testing (10 CFR 26.31(c)).
- Minimum sanctions (10 CFR 26.75, “Sanctions”).
- Questions to answer by individuals seeking employment (10 CFR 26.61, “Self-disclosure and employment history”; 10 CFR 26.63, “Suitable inquiry”; and 10 CFR 26.69, “Authorization with potentially disqualifying fitness-for-duty information”).
- Required drug testing panel (10 CFR 26.31(d)(3)); standard testing cutoff levels (10 CFR 26.161, “Cutoff levels for validity testing”; and 10 CFR 26.163, “Cutoff levels for drugs and drug metabolites”), and use of U.S. Department of Health and Human Services (HHS)-certified laboratories (10 CFR 26.153, “Using certified laboratories for testing specimens”).
- Required medical review officer (MRO) (10 CFR 26.183, “Medical review officer”).
- Required substance abuse expert (SAE) (10 CFR 26.187, “Substance abuse expert”).
- Determinations of fitness (10 CFR 26.189, “Determination of fitness”).
- Records retention, protection, and maintenance requirements (10 CFR 26.37, “Protection of information,” and 10 CFR 26.713, “Recordkeeping requirements for licensees and other entities”).

- Annual reporting requirements for testing data (10 CFR 26.717, “Fitness-for-duty program performance data”) (NRC-2015-0070-0350-0001; NRC-2015-0070-0351-0001).

NRC Response: The NRC agrees, in part, with these comments. As discussed in the FFD program elements below, additional 10 CFR Part 26 FFD program elements need to apply under 10 CFR 73.55(b)(9)(ii)(B)*(2)(ii)* to individuals granted PA-only unescorted access at a decommissioning power reactor site.

- **FFD policy and procedures** (10 CFR 26.27). The NRC agrees that an FFD policy is a necessary programmatic element that must apply to all personnel subject to an FFD program at a decommissioning site. An FFD policy ensures that each subject individual is informed of prohibited actions (e.g., sale/use/possession of drugs in the PA, consumption/possession of alcohol in the PA, attempting to subvert a required test) and obligations under the FFD program (e.g., reporting FFD concerns, which is an essential aspect of a behavioral observation program). FFD procedures ensure that consistency is maintained in the application of the FFD policy to subject personnel. The FFD policy and procedures form the basis for documenting how a licensee complies with the NRC’s regulatory requirements, provide protections to individuals in the workplace subject to an FFD program, and ensure that the NRC can exercise oversight of licensee compliance through program inspection.

  Accordingly, the NRC is revising the rule language in response to this comment.

- **Training** (10 CFR 26.29). The NRC agrees that all individuals subject to an FFD program at a decommissioning power reactor site must receive appropriate training (initial and annual refresher) to understand the licensee’s FFD policy and procedures, and to ensure that each individual granted PA-only unescorted access has the required knowledge and abilities to successfully perform activities under the behavioral observation program, such as: the ability to recognize illegal drugs and indications of the use, sale, or possession of illegal drugs; the ability to observe and detect performance degradation, indications of impairment, and behavioral changes; and reporting FFD concerns. Behavioral observation training is particularly important because it is relied upon to detect impairment in the workforce granted PA-only unescorted access, given that random drug and alcohol testing is not required in the final rule for these workers. The final rule requires individuals granted PA-only unescorted access to be subject to 10 CFR 26.33, “Behavioral observation,” which states, in part, that “behavioral observation must be performed by individuals who are trained under § 26.29.” The existing behavioral observation requirements in 10 CFR 73.56(f)(2) already apply to individuals granted unescorted access to the vital area, PA, or both, at a decommissioning nuclear power reactor site require initial and annual behavioral observation training, but do not explicitly address drugs and alcohol and the impacts on FFD nor include training on a licensee’s FFD policy and procedures.

  Accordingly, the NRC is revising the rule language in response to this comment.

- **Questions to answer by individuals seeking employment** (10 CFR 26.61; 10 CFR 26.63, “Suitable inquiry”). The NRC agrees that it is appropriate to require an individual that is applying for PA-only unescorted access at a decommissioning site to complete a self-disclosure statement under 10 CFR 26.61(b). The limited questions an individual must answer in a written self-disclosure statement focus on the denial or unfavorable termination of access under 10 CFR Part 26, as well substance abuse, misuse, and treatment, and legal actions associated with alcohol or drug use. A licensee needs this

information to determine if an assessment under 10 CFR 26.69, which is discussed later in this comment response, needs to be performed.

The NRC disagrees that requesting information on an individual's employment history under 10 CFR 26.61(c) is necessary to include in the final rule because this information is already obtained under 10 CFR 73.56, "Personnel access authorization requirements for nuclear power plants," which continues to apply to all individuals applying for unescorted access to a decommissioning power reactor site. Specifically, the background investigation performed under 10 CFR 73.56(d)(4) includes an employment history evaluation.

The NRC agrees that one element of the suitable inquiry under 10 CFR 26.63 should be completed for an individual that is applying for PA-only unescorted access at a decommissioning site. Specifically, the NRC has included in the final rule 10 CFR 26.63(d), which requires any licensee or other entity subject to 10 CFR Part 26, with an individual's signed consent, to disclose whether the individual's authorization was denied or terminated unfavorably as a result of a violation of the FFD policy. This provision ensures that information on an applicant's prior 10 CFR Part 26 FFD policy violation history can be obtained by a licensee to inform its authorization decision.

The NRC disagrees that the other elements of the suitability inquiry process in 10 CFR 26.63 should be included in the final rule. The 10 CFR 73.56(d)(4) employment history evaluation, which is performed as part of the background investigation completed when an individual applies for unescorted access, includes the requirement to question the applicant's present and former employers and for the applicant to provide any termination and other information that could reflect on an individual's trustworthiness and reliability.

Accordingly, the NRC is revising the rule language in response to this comment.

- **Follow-up testing** (10 CFR 26.31(c)(4)). The NRC agrees that follow-up testing must be required if a licensee chooses to grant an individual PA-only unescorted access at a decommissioning site if either of the following occurred: the individual had a unfavorable denial or termination of access for a violation of the drug and alcohol provisions of an FFD policy (e.g., a confirmed positive drug test result) as specified under 10 CFR 26.75 or the licensee obtained other potentially disqualifying FFD information during the access process, such as through the individual's completion of a self-disclosure statement under 10 CFR 26.61(b) (e.g., self-admitted treatment for a substance abuse disorder). In these two circumstances, the NRC also agrees that an individual must be evaluated and tested consistent with 10 CFR 26.69. Follow-up testing is particularly important for individuals granted PA-only unescorted access given that these individuals would not be subject to random testing under 10 CFR 73.55(b)(9)(ii)(B)*(2)(ii)*. The NRC is adding follow-up testing as a required condition of testing, which includes the requirements under 10 CFR 26.69.

  Accordingly, the NRC is revising the rule language in response to these comments.

- **Minimum sanctions** (10 CFR 26.75). The NRC agrees that the minimum sanctions in 10 CFR 26.75(a) through (g) also need to apply to all individuals that apply for, as well as those granted, PA-only unescorted access at a decommissioning power reactor site, when they are in violation of the FFD policy. First, a subversion attempt of a required drug or alcohol test is an act that serves as a basis for determining that an individual is not trustworthy and reliable. Second, because random testing is no longer required for individuals granted PA-only unescorted access, minimum sanctions offer a deterrent to

and consequence for prohibited substance use. Third, minimum sanctions provide a deterrent to prohibited substance use by individuals with a prior confirmed positive drug and/or alcohol test result under 10 CFR Part 26 (i.e., a second positive test result specifies a minimum denial of unescorted access for 5 years and a third positive test result requires a permanent denial of unescorted access). Given the consequence to an individual of a mandatory minimum denial of unescorted access for an FFD policy violation as specified in 10 CFR 26.75, the NRC also included two donor protections in the final rule. These include 10 CFR 26.37, "Protection of information," which requires a licensee, upon request, to provide an individual with a copy of all records pertaining to an FFD policy violation determination; and 10 CFR 26.39, "Review process for fitness-for-duty policy violations," which affords an individual determined to have violated the FFD policy the opportunity to request a review of the determination.

Accordingly, the NRC is revising the rule language in response to this comment.

- **Management actions regarding possible impairment** (10 CFR 26.77, "Management actions regarding possible impairment"). Although public comments on the proposed rule did not address 10 CFR 26.77, the NRC is including in the final rule the requirements in 10 CFR 26.77 that specify the actions a licensee must take if an individual is identified as being potentially impaired based on an observed behavior or physical condition that creates a reasonable suspicion of possible substance abuse (i.e., a behavioral observation). Paragraph 26.77(b)(1) of 10 CFR specifies that when drug and alcohol testing is performed on an individual, negative test results must be received before the individual can be permitted to return to performing the duties that require the individual to be subject to an FFD program. The proposed rule did not require that negative for-cause test results be received before permitting an individual granted PA-only unescorted access to return to covered work.

  Accordingly, the NRC is revising the rule language to address this oversight.

- **Drug testing panel (10 CFR 26.31(d)(3); Standard testing cutoff levels (validity testing – 10 CFR 26.161 and drug testing – 10 CFR 26.163); and Use of HHS-certified testing laboratory (10 CFR 26.153)**. The NRC agrees that the drug testing panel, drug and validity testing cutoff levels, and the use of HHS-certified laboratories also must apply to the testing of specimens collected from individuals applying for and those granted PA-only unescorted access at a decommissioning power reactor site. Applying a uniform approach to the testing of specimens ensures the consistency, accuracy, reliability, and detection capabilities of the tests performed. Performing validity testing on each urine specimen ensures that an individual cannot subvert the testing process. The NRC has chosen to include two additional requirements in the final rule to thwart possible subversion attempts – 10 CFR 26.105, "Preparing for the collection of a specimen for drug testing," and 10 CFR 26.111, "Checking the acceptability of the urine specimen." Both 10 CFR 26.105 and 10 CFR 26.111 include procedures intended to identify potential subversion attempts (e.g., emptying pockets, measuring the temperature of a urine specimen).

  Also, the NRC is including analogous changes in the final rule to ensure the consistency, accuracy, reliability, and detection capabilities of testing for alcohol to include required testing cutoff levels in 10 CFR 26.99, "Determining the need for confirmatory test for alcohol," and 10 CFR 26.103, "Determining a confirmed positive test result for alcohol," and required alcohol testing devices under 10 CFR 26.91, "Acceptable devices for conducting initial and confirmatory tests for alcohol and methods of use." Including required alcohol testing devices and alcohol testing cutoff levels aligns with the changes

in the final rule pertaining to drug testing of specimens and ensures that a consistent testing approach is maintained for the testing of drugs and alcohol. The NRC is also including 10 CFR 26.83, “Specimens to be collected,” in the final rule because it describes the specimens that may be collected for alcohol and drug testing under 10 CFR Part 26.

Accordingly, the NRC is revising the rule language in response to this comment.

- **Required medical review officer** (10 CFR 26.183). The NRC agrees that a qualified medical professional must be used to evaluate the results of drug tests performed on specimens provided by individuals applying for, as well as those granted, PA-only unescorted access at a decommissioning power reactor site. Therefore, the NRC is including in the final rule 10 CFR 26.183, “Medical review officer,” which establishes the qualifications and responsibilities to serve as an MRO for an FFD program. Two reasons support this decision. First, a confirmed positive drug test result from an HHS-certified laboratory may not be due to illicit drug use because an individual may have a legitimate medical explanation (i.e., use of a prescription medication). A test result review by a qualified MRO and discussion with the donor to assess legitimate medical use is a donor protection and requires medical training. Second, a review of validity test results (i.e., adulterated, substituted, invalid, and dilute positive results) is critical to determining if an individual has attempted to subvert the testing process and also requires medical training because a legitimate medical explanation also may exist for these test results. The NRC has also included in the final rule the requirements in 10 CFR 26.185, “Determining a fitness-for-duty policy violation,” which provide the detail on how an MRO is to evaluate each type of HHS-certified laboratory test result and consistently make an FFD policy violation determination.

  Accordingly, the NRC is revising the rule language in response to this comment.

- **Required substance abuse expert** (10 CFR 26.187). The NRC agrees that a qualified professional trained in the diagnosis and treatment of alcohol and controlled-substance abuse disorders must be used to evaluate individuals that apply for, as well as those granted, PA-only unescorted access when potentially disqualifying FFD information is obtained (e.g., 10 CFR 26.69, behavioral observation program) and when an individual violates the FFD policy (10 CFR 26.75). Therefore, the NRC is including in the final rule 10 CFR 26.187, “Substance abuse expert,” which establishes the credentials, knowledge, training, education, and responsibilities to serve as an SAE for an FFD program. Two reasons support this decision. First, if an individual violates the substance abuse provisions of the FFD policy, an SAE must perform a determination of fitness (DOF) under 10 CFR 26.189, which is a process described later in this comment response. A DOF establishes the conditions under which an individual may be determined to be fit to safely return to work following a violation of the FFD policy and includes recommendations on education, treatment, return to duty, follow-up drug and alcohol testing, and aftercare. Second, if potentially disqualifying FFD information is identified about an individual that is applying for unescorted access to the PA of a decommissioning site, or an individual with PA-only unescorted access is identified by the behavioral observation program as potentially impaired, a DOF by an SAE is required to ensure that an individual is fit for duty.

  Accordingly, the NRC is revising the rule language in response to this comment.

- **Determinations of fitness** (10 CFR 26.189). The NRC agrees that the DOF requirements in 10 CFR 26.189 must apply to individuals applying for, as well as those granted, PA-only unescorted access at a decommissioning power reactor site. The DOF

is a process entered once an individual is determined to be in violation of the licensee's FFD policy or unable to safely and competently perform assigned duties. Three reasons support the inclusion of 10 CFR 26.189. First, a DOF is required if a licensee is considering an individual for PA-only unescorted access and identifies information that requires following the process in 10 CFR 26.69. Second, a DOF is required if the 10 CFR 26.33 behavioral observation program identifies that an individual subject to the FFD program is potentially impaired or credible evidence of substance abuse is identified. Third, a DOF is required if an individual is determined to have violated the licensee's substance abuse provisions of the FFD policy and the licensee desires to return that individual to the performance of covered job functions. For each circumstance, a DOF is an assessment performed by a qualified professional of an individual's fitness that results in a determination of what steps to take to ensure an individual can safely and competently return to performing assigned duties or that the individual is unfit and should not be considered for the granting of unescorted access.

Accordingly, the NRC is revising the rule language in response to this comment.

- **Records retention, protection, and maintenance requirements** (10 CFR 26.37 and 10 CFR 26.713). The NRC agrees that the records retention, protection, and maintenance requirements in 10 CFR 26.37 and 10 CFR 26.713 also should apply to information generated with respect to activities performed under an FFD program for individuals applying for, as well as individuals granted, PA-only unescorted access to a decommissioning site. Retaining and controlling access to records is a donor protection measure. The retention of all records associated with a licensee's FFD policy violation determination is important given the consequence of the minimum sanctions that apply under 10 CFR 26.75. Retention and access to these records also provides an individual with information they can use to decide whether to request a review of the licensee's FFD policy violation determination under 10 CFR 26.39. The retention and maintenance of records also ensures that the NRC can exercise oversight of a licensee's compliance with regulatory requirements through inspection.

  Accordingly, the NRC is revising the rule language in response to this comment.

- **FFD program performance reporting** (10 CFR 26.717). The NRC agrees that collecting information on an annual basis on the drug and alcohol testing results for individuals applying for, granted, and denied PA-only unescorted access to decommissioning power reactor sites is appropriate for two reasons. First, these reports provide the NRC and the public with timely information about drug and alcohol use in the tested populations at NRC-licensed facilities, which contributes to timely NRC assessment of FFD program effectiveness, supports periodic NRC inspection, and maintains public confidence. Second, because the NRC is not requiring random or post-event testing for the population of the workforce granted PA-only unescorted access, it is important to receive timely information to evaluate drug and alcohol use trends in the pre-access, for-cause, and follow-up tests performed.

  Accordingly, the NRC is revising the rule language in response to this comment.

All FFD program elements discussed above must already be implemented at a decommissioning site for individuals subject to a full FFD program under the 10 CFR 73.55(b)(9)(ii)(B)(2)(*i*).

- **Random testing** (10 CFR 26.31(c)(5)). The NRC disagrees that random testing should apply to individuals granted PA-only unescorted access at decommissioning power reactor sites. The additional FFD program elements included in the final rule in response

to other public comments provide defense in depth to deter substance use by individuals granted PA-only unescorted access – specifically, completion of a self-disclosure statement (10 CFR 26.61(b)), training (10 CFR 26.29), required MRO review of test results (10 CFR 26.185), minimum sanctions for violations of the FFD policy (10 CFR 26.75), and follow-up testing of individuals with a prior 10 CFR Part 26 testing violation or substance misuse or abuse issue (10 CFR 26.31(c)(4)).

Another question raised by the commenter is whether the NRC assessed random drug and alcohol testing data submitted by decommissioning power reactor sites in its decision-making on why random testing is not necessary for PA-only unescorted access populations. The drug and alcohol testing information contained in the annual FFD program performance reports, which is submitted to the NRC by the licensees of decommissioning power reactor sites, does not specify the type of unescorted access granted to an individual that has violated the FFD policy; therefore, parsing information about individuals granted PA-only unescorted access is not possible. The data do reflect each FFD drug and alcohol testing violation associated with decommissioning sites. A review of random testing data during the years of 2010 through 2022 demonstrates low random testing positive rates, with an average of one positive test result per year per decommissioning power reactor site. In response to another public comment, the NRC is requiring in the final rule that the licensees of decommissioning power reactor sites report FFD program performance information on an annual basis for all the workforce subject to an FFD program.

The request to collect and drug test an oral fluid specimen instead of a urine specimen for random drug testing is beyond the scope of this rulemaking. The NRC did not propose the testing of oral fluid specimens for drugs in this rulemaking, although the use of oral fluid specimens for additional drug testing conditions could inform future considerations by the NRC. In response to another element of this comment response, the NRC is including in the final rule 10 CFR 26.83, “Specimens to be collected,” which describes the specimens that may be collected for alcohol and drug testing under 10 CFR Part 26. Oral fluid specimens are permitted to be collected and drug tested under most observed collection conditions.

Accordingly, the NRC is not revising the rule language in response to this comment.

Comment 4.4.4-02: One comment stated that since 10 CFR 73.51 does not require a licensee to maintain an IMP, 10 CFR 73.55(b)(9) also should not require an IMP after the licensee has submitted the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications and all irradiated fuel has been permanently removed from the SFP(s) (NRC-2015-0070-0338-0131).

NRC Response: The NRC disagrees with this comment. The final rule establishes a voluntary alternative that allows a licensee for a general license ISFSI to protect the facility in accordance with 10 CFR 73.51, which would not require an IMP. The process to transition from 10 CFR 73.55 to 10 CFR 73.51 is described in 10 CFR 72.212(b)(9)(vii) of this final rule. Therefore, it is not necessary to add a provision to 10 CFR 73.55 as suggested by the comment. If a licensee elects to continue protecting the facility in accordance with 10 CFR 73.55, then it would have the option to submit an LAR for changes to the IMP.

Accordingly, the NRC did not revise the rule language in response to this comment.

4.4.5 Guidance

Comment 4.4.5-01: One comment did not support the NRC updating RG 5.77, "Insider Mitigation Program," to provide guidance on the requirements in 10 CFR Part 26 that would apply to the licensees of decommissioning facilities through the 10 CFR 73.55(b)(9)(ii)(B) IMP as described in the Physical Security Plan. Instead, the comment expressed support for the development of a standalone industry-created guidance document for which industry would request NRC endorsement. The comment stated that a standalone guidance document would provide greater clarity, promote consistent implementation of the program, and avoid potential unintended impacts on previous commitments to NEI 03-12, "Template for the Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Independent Spent Fuel Storage Installation Security Program," made in the physical security plans of licensees. The comment stated that specific topics needing guidance included "training, reporting requirements, and violations" (NRC-2015-0070-0338-0130).

Another comment also supported the development of a standalone industry guidance document endorsed by the NRC. This comment stated that specific topics in the document should include guidance on "behavioral observation and employee assistance" as required elements of an IMP for a decommissioning facility (NRC-2015-0070-0257-0012).

NRC Response: The NRC disagrees, in part, with these comments. Specifically, the NRC disagrees that a standalone industry-created guidance document, in lieu of including specific FFD program requirements in 10 CFR 73.55(b)(9)(ii)(B) of the final rule, is appropriate. One reason the NRC initiated this rulemaking was to define the minimum FFD program elements that must be incorporated into a licensee's IMP at decommissioning power reactor sites. Guidance is not equivalent to a minimum set of enforceable requirements because a licensee would choose whether or not to adopt guidance and incorporate it as part of its licensing basis. Without a minimum set of regulatory requirements, no basis would exist for the NRC to ensure uniform adoption of the FFD program elements deemed necessary for the IMP at decommissioning power reactor sites. Guidance is certainly appropriate to provide information on compliance with regulatory requirements, and the industry may create implementing guidance and request NRC endorsement of that guidance document.

Subsequent to the public comment period on the proposed rule, the NRC published Rev. 1 to RG 5.77, "Insider Mitigation Program" (September 2022) (ML16342B024) and notified the public of this issuance in a September 8, 2022, FRN (87 FR 54861). Rev. 1 of RG 5.77 included guidance on FFD elements in Section 3.1.1, "Drug and Alcohol Testing Provisions." In the "Response to Public Comments on DG-5044, 'Insider Mitigation Program' (Proposed Revision 1 of RG 5.77)" (September 2022) (ML22152A224), the NRC disagreed with a public comment that requested that DG-5044 (subsequently RG 5.77, Rev. 1) not include guidance on IMPs during decommissioning.

In SECY-18-0055, the NRC staff described the relationship of the rulemaking to several guidance documents, one of which was RG 5.77. In Enclosure 3 to SECY-18-0055, the staff stated that it "will ensure that RG 5.77 is revised if necessary to be consistent with the final rule."

The NRC agrees that training, reporting requirements, violations, behavioral observation, and employee assistance should be FFD program topics addressed in the IMP, and the proposed and final rules address these topics.

For more information, see the NRC Response to Comment 4.4.4-01.

Accordingly, the NRC will revise RG 5.77 to be consistent with the final rule.

4.5 Certified Fuel Handler Definition and Elimination of Licensed Operators and the Shift Technical Advisor

Comment 4.5-01: A commenter claimed that for the rule to be successful, it needs to address the distinct status of "Stand-Alone ISFSI/Decommissioned Reactor." Specifically, the commenter proposed that the Commission issue a separate administrative rule to convert all 10 CFR Part 50 general ISFSI licensees into 10 CFR Part 72 licensees when only a standalone ISFSI remains. Further, the commenter asserted that the rule should recognize that a CFH is no longer needed onsite once a site reaches Level 3 and suggested there should be no requirement for 10 CFR Part 26 drug testing or fatigue applicability once sites reach "Stand-Alone ISFSI/Decommissioned Reactor" status. Finally, the commenter suggested that the Commission develop specific guidance that clarifies what provisions apply to "Stand-Alone ISFSI/Decommissioned Reactor" sites (NRC-2015-0070-0329-0060).

NRC Response: The NRC agrees, in part, with this comment. The regulations do not specify any staffing level requirements for decommissioning reactors; therefore, the NRC does not intend to add new requirements for staffing levels. However, DG-1347 will be updated to address acceptable staffing for ISFSI-only sites. As part of this update the NRC will clarify that the CFH qualification should not be necessary after all spent fuel has been transferred to dry storage (i.e., Level 3, IOEP) because the fuel is stored in a static condition.

However, the NRC disagrees that the Commission should issue a separate administrative rule to convert all 10 CFR Part 50 general license ISFSI licensees into 10 CFR Part 72 specific license ISFSI licensees when only a standalone ISFSI remains. For more information, see the NRC Response to Comment 4.11-05.

The NRC also disagrees that the Commission needs to develop specific guidance that clarifies what provisions apply to standalone ISFSI/decommissioned reactor sites. With the exception of the revised rule language in 10 CFR 50.82(a)(8)(v) and (vii) and 10 CFR 52.110(h)(5) and (7), regarding the frequency of decommissioning funding status reporting for standalone ISFSI/decommissioned reactor sites (for more information, see the NRC Response to Comment 5.10-01), all of the requirements for Level 3 are unchanged between an ISFSI-only site and a standalone ISFSI/decommissioned reactor site.

The specific provisions related to EP, physical security, cybersecurity, drug and alcohol testing, fatigue requirements, CFHs, decommissioning trust funds, onsite and offsite insurance, and backfitting across the levels established by the graded approach to decommissioning are addressed in the related sections of this document and the final rule. Because the NRC does not foresee a situation where the requirements for an ISFSI-only site and a standalone ISFSI/decommissioned reactor site would be different under the graded approach, there is no need for specific guidance in this area or the establishment of an additional level to the graded approach to decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.5-02: A comment jointly submitted by a few commenters claimed that the proposed rule's alternative CFH training program will create inconsistencies across the country for the workforce and safety practices associated with decommissioning. The commenters stated that the NRC should ensure that all facilities going through the decommissioning process have a certified shift technical advisor (STA) that not only is trained in the handling of spent fuel but is retained from the incumbent workforce (NRC-2015-0070-0366-0003). Along similar lines, another commenter stated that the CFH position should be subject to higher standards when

engaged in activities that represent significant safety consequences (NRC-2015-0070-0335-0002).

NRC Response: The NRC disagrees with these comments. The proposed CFH amendments are aligned with existing CFH training programs and practices at decommissioning nuclear power plants. These amendments codify broad-scope objectives for CFH training based on best practices and relying on the systems approach to training process that has been effective for decades in the regulation of training for licensed operators at operating reactor plants. Therefore, the NRC has found that the use of the systems approach to training process and the requirements of 10 CFR 50.120(b)(3) are appropriate and applicable for the training of non-licensed operators, including those who are also qualified as CFHs, for nuclear power reactors during the decommissioning process.

The STA is a staffing position that was created to support the control room team during reactor operations. The STA is trained to provide an independent engineering and accident assessment capability during abnormal and emergency conditions. The STA is not specifically trained in decommissioning operations. Therefore, the STA staffing requirement is not relevant to a decommissioning plant, and licensees consistently remove the position through a license amendment to the decommissioning plant's technical specifications.

Amending the regulations to clarify that an STA is not required in decommissioning allows for consistency across the country by clarifying the acceptability of discontinuing the STA training program and position from the minimum staffing requirements in the technical specifications for decommissioning facilities.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.5-03: A commenter expressed support for the revised definition of CFH (NRC-2015-0070-0257-0004).

NRC Response: The NRC agrees with this comment. The comment supports the proposed revision to 10 CFR 50.2, "Definitions," for the CFH and does not suggest a change to the proposed rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.5-04: A commenter expressed support for the NRC's proposed amendment to the definition of a CFH in 10 CFR 50.2 (NRC-2015-0070-0338-0139).

NRC Response: The NRC agrees with this comment. The comment supports the proposed alternative definition of CFH in 10 CFR 50.2 and does not suggest any changes to the proposed rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.5-05: Regarding the NRC's proposed revision of a footnote to the table titled "Minimum Requirements Per Shift for On-Site Staffing of Nuclear Power Units by Operators and Senior Operators Licensed Under 10 CFR Part 55" in 10 CFR 50.54(m)(2)(i), the commenter expressed support for the proposed addition of the note stating when the STA is no longer required but suggested additional clarifications, as summarized below:

- In addition to addressing the STA position, the change to 10 CFR 50.54(m)(2)(i) should also address both the expected addition of the CFH to shift staffing to replace the senior reactor operator/STA following permanent cessation of operations and the removal of the CFH from staffing requirements after all fuel has been transferred to dry storage.

- The change should also acknowledge licensee's ability to make these changes to shift staffing requirements without having to request prior NRC approval if all conditions associated with the change have been met. Specifically, the commenter suggested that the NRC include the following:
    - A note that specifies, when the number of nuclear power units operating is "None" because the unit has permanently ceased operation and completed all required certifications, shift staffing can be met with a CFH and non-licensed operators in lieu of the senior operator and operator requirement.
    - A note that specifies the CFH is not required upon completion of the transfer of all spent fuel to dry storage.

Addition of language that permits these changes (i.e., elimination of the STA position, replacement of minimum staffing positions with a CFH and non-licensed operators, and elimination of the CFH following transfer of fuel to dry storage) to be made without requiring the licensee to submit an LAR to the NRC for approval. Similarly, in DG-1347: Section 8.7, "Certified Fuel Handler Staffing and Management Role," it should be clarified that the CFH is not required upon completion of the transfer of all spent fuel to dry storage (NRC-2015-0070-0338-0140).

NRC Response: The NRC agrees, in part, with this comment. CFH, as defined by 10 CFR 50.2, is a type of job qualification and not a job title. The regulations do not direct a minimum level of staffing for decommissioning units; therefore, the proposed changes to the rule do not remove decommissioning staffing levels. In response to LARs from decommissioning licensees, the NRC staff has approved changes to the minimum levels for staff on shift in the administrative controls section of the plant's technical specifications. These amendments have each involved replacing the Senior Reactor Operator and Reactor Operator positions with one CFH and one non-licensed operator, respectively, to perform activities involving the functions discussed above. These prior approvals have addressed only a limited number of staffing scenarios that could be encountered at a decommissioning reactor and have generally been for a single-unit plant with one SFP. As such, adequate staffing levels are expected to vary based on: (1) the number of permanently shutdown reactor units on site; (2) whether any operating reactor units are on site; (3) how many active SFPs are on site; (4) whether and when all spent fuel has been relocated to an ISFSI; and/or (5) the organizational structure approved in the license.

The NRC agrees that the existing rule language is not clear that licensed operator staffing is no longer required following the submittal and docketing of the certifications required under either 10 CFR 50.82(a)(1) or 10 CFR 52.110(a). Therefore, the NRC is revising footnote 2 in the table to 10 CFR 50.54(m)(2)(i) to clarify that licensed senior operators, licensed operators, and STAs are not required upon the NRC's docketing of the licensee's certifications required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a). A license amendment is still necessary to amend staffing requirements covered by the facility's technical specifications; the clarification to the staffing table in 10 CFR 50.54(m)(2)(i) should simplify an LAR to amend staffing levels for the purposes of decommissioning.

The NRC agrees that additional clarifications regarding these changes should be added to RG 1.184, "Decommissioning of Nuclear Power Reactors," Rev. 2 (ML23061A053), Section 7.7, "Certified Fuel Handler Staffing and Management Role," for using CFH qualified individuals when all spent fuel is in dry storage. Should a licensee use the recommended guidance that the NRC provides with this rule, it would result in reduced burden to the NRC and cost savings to licensees associated with the lower complexity and level of effort needed to review related LARs to modify staffing levels for the purposes of decommissioning.

Accordingly, the NRC revised RG 1.184, Rev. 2 to clarify that CFHs are unnecessary at ISFSI-only sites.

4.6 Decommissioning Funding Assurance

Comment 4.6-01: Several commenters asserted that the proposed rule would weaken the NRC's financial assurance requirements. For example, a few commenters, including a form letter campaign, asserted that the proposed changes weaken the financial responsibility of the industry, which should be required to have secure funding for the full decommissioning process (NRC-2015-0070-0370-0006, NRC-2015-0070-0327-0002, NRC-2015-0070-0335-0003, NRC-2015-0070-0394-0009, NRC-2015-0070-0334-0009). One commenter specified that the proposed rule does not strengthen the standards or provide a higher level of assurance that adequate decommissioning funds will be available and urged that explicit requirements are needed to assure funding shortfalls are addressed in a timely manner (NRC-2015-0070-0335-0003). Another commenter similarly stated that the nuclear industry must be accountable to finance decommissioning in a timely manner (NRC-2015-0070-0386-0001).

Some commenters stated that decommissioning financial assurance should be available until the end of the decommissioning process (NRC-2015-0070-0370-0006, NRC-2015-0070-0334-0009, NRC-2015-0070-0394-0009) or until all spent fuel is in dry cask storage (NRC-2015-0070-0335-0003).

A commenter likewise recommended that the NRC reconsider the proposed rule's treatment of this topic, since experience has shown that current decommissioning funding mechanisms could prove insufficient to fully decommission reactors (NRC-2015-0070-0365-0021). The commenter stated that the AEA, 42 U.S.C. Section 2201, requires the Commission to establish regulations to ensure adequate financial surety will be provided for decommissioning before the termination of any license, and there is at best mixed evidence that the current rules achieve this legal directive. The commenter stated that the proposed rule does not go far enough to improve the current rules, and in some cases will make the existing financial shortfalls worse (NRC-2015-0070-0365-0022).

Another commenter specifically expressed opposition to the proposal to decrease the frequency of a licensee's funding assurance reporting and suggested that the NRC revisit and strengthen its overall funding assurance regime by requiring annual public financial reports concerning the trust balances during reactor operations (NRC-2015-0070-0339-0011).

NRC Response: The NRC disagrees with these comments. For operating reactors that are not within five years of ceasing power operations, a three-year reporting period is sufficiently timely for the NRC to monitor these licensees' decommissioning trust fund balances. Year over year returns can vary widely. In the event a licensee's decommissioning trust fund balance falls below the minimum amount required by the NRC, the amended regulations require licensees to make up the shortfall. The regulations also require licensees within five years of ceasing power operations to submit their decommissioning trust fund balances on an annual basis, which allows for adequate NRC oversight to ensure that the decommissioning trust fund is sufficient to fully decommission the plant once it is shutdown. Finally, during decommissioning, financial assurance status reports are required to be submitted annually until decommissioning has been completed but for the decommissioning of the ISFSI.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.6-02: A commenter, referencing Commissioner Baran's dissenting vote on SECY-18-0055, asserted that the lack of provisions in the proposed rule to strengthen

decommissioning funding assurance is a serious omission. The commenter discussed the importance of financial assurance for protecting public health and safety, urging that the purpose of financial assurance is to provide a second line of defense, if the financial operations of the licensee are insufficient, by themselves, to ensure that sufficient funds are available to carry out decommissioning (NRC-2015-0070-0293-0010). The commenter stated that the Department of Energy's (DOE's) Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste, upon which the NRC bases its assumption in the proposed rule that "the spent fuel is stored in an onsite ISFSI for 16 years before the spent fuel is transmitted to either an offsite ISFSI or a permanent geologic repository," is nowhere near appropriate authorization from Congress, and therefore, neither licensees nor the NRC can assume that waste will leave decommissioned sites any time soon (NRC-2015-0070-0293-0021). The commenter included in their comment a discussion of Holtec Decommissioning International's Pilgrim Nuclear Power Station, in which the commenter explains why there are insufficient funds in the decommissioning trust fund to complete the decommissioning of the Pilgrim Nuclear Power Station, and stated that the Pilgrim Nuclear Power Station can provide lessons as to how the proposed rule should, but does not, provide reasonable assurance (NRC-2015-0070-0293-0029).

NRC Response: The NRC agrees, in part, with these comments. Reasonable financial assurance is an important part of protecting the public health and safety. However, the NRC disagrees that the proposed rule does not provide reasonable financial assurance, as discussed in the NRC Response to Comment 4.6-01. The NRC also disagrees that there are insufficient funds to complete the decommissioning of the Pilgrim Nuclear Power Station. According to the latest report related to the decommissioning trust fund for the Pilgrim Nuclear Power Station, dated March 31, 2023, as of December 31, 2022, there are sufficient funds to complete the decommissioning of the plant.

The length of time spent fuel remains onsite is difficult to estimate because spent fuel removal from the reactor site is contingent upon a national policy for the final disposition of spent fuel. Estimates for the length of time spent fuel will be stored onsite made by the NRC are appropriate for estimating costs and are consistent with planning and assumptions made by the DOE for spent fuel storage. Additionally, the final rule requires licensees to report the status of their decommissioning funds, which during decommissioning will need to account for the costs associated with the continued storage of SNF.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.6-03: Two commenters expressed support for the proposed rule's modifications to decommissioning funding assurance reporting requirements (NRC-2015-0070-0368-0002, NRC-2015-0070-0329-0005). One of the commenters also expressed support for the change that additional funding assurance in a decommissioning funding assurance report be remedied by the time of the next report, which will assure consistency with RG 1.159, "Assuring the Availability of Funds for Decommissioning Production of Utilization Facilities" Rev. 3 (ML23072A029) (NRC-2015-0070-0329-0005).

NRC Response: The NRC agrees with these comments. Accordingly, the NRC amended 10 CFR 50.75(f)(1) to include the language "If in the report the funds projected to be available to decommission are less than the amount estimated to be required to decommission, then the next decommissioning funding status report for licensees that are not 'electric utilities' as defined in § 50.2, or the decommissioning funding status report two reports later for licensees that are electric utilities, may not have a shortfall." This is consistent with RG 1.159, Rev. 3.

Comment 4.6-04: A commenter suggested that the NRC remove the proposed change to 10 CFR 50.82(a)(9)(ii)(F), stating that this change is redundant since the requirement is already fulfilled as part of the annual reports submitted under 10 CFR 50.82(a)(8)(v) and (vii) and the triennial reports required under 10 CFR 72.30(c). Additionally, the commenter recommended that 10 CFR 72.30(c) be clarified to state that license renewal under 10 CFR 72.42, "Duration of license; renewal," is not applicable to general licensees (NRC-2015-0070-0338-0007).

NRC Response: The NRC disagrees, in part, with this comment. The proposed change to 10 CFR 50.82(a)(9)(ii)(F), which is replicated in 10 CFR 52.110(i)(2)(iii), clarifies that the funding sources for license termination, spent fuel management, and ISFSI decommissioning, as applicable, be identified. The requirements in 10 CFR 50.82(a)(8)(v) and (vii) and 10 CFR 52.110(h)(5) and (7) do not include that requirement.

Accordingly, the NRC did not revise the rule language in response to this comment.

However, the NRC agrees that 10 CFR 72.30(c) should be clarified to state that 10 CFR 72.42 does not apply to general licensees.

Accordingly, the NRC is revising the rule language in 10 CFR 72.30(c) to change the sentence "At the time of license renewal and at intervals not to exceed 3 years" to "At intervals not to exceed 3 years and at the time of specific license renewal."

4.7 Offsite and Onsite Financial Protection Requirements and Indemnity Agreements

Comment 4.7-01: A commenter proposed adding a paragraph (iii) to 10 CFR 50.54(w)(5), which would reduce the required amount of financial protection to $25 million once a licensee site is a Standalone ISFSI/Decommissioned Reactor (NRC-2015-0070-0329-0044). The commenter agreed that reductions in insurance amounts can be done without an NRC exemption (NRC-2015-0070-0329-0006).

NRC Response: The NRC disagrees with this comment. Because there is still a significant amount of radioactive material stored onsite when a licensee has a Standalone ISFSI/Decommissioned Reactor site, licensees need to maintain a higher level of onsite insurance coverage. According to SECY-96-256, "Changes to the Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w) and 10 CFR 140.11" (December 1996) (ML15062A483), a scenario of the rupture of a large liquid radwaste storage tank was estimated to result in an onsite waste cleanup cost of approximately $50 million with negligible radiological consequences offsite.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.7-02: A commenter disagreed with provisions of the proposed rule that would reduce the required amount of offsite liability from $450 million[1] to $100 million and onsite property insurance from $1.06 billion to $50 million once facilities reach Level 2. The commenter recommended that insurance levels remain the same until spent fuel has been removed from the site because the risk of a SFP fire remains. The commenter added that, while there is less risk after all the spent fuel has been moved into dry casks, dry casks are subject to sabotage, corrosion, and leaks that cannot be repaired. As an example, the commenter described the dry

[1] At the time the proposed rule was published, the dollar amount stated in § 140.11 was $450 million. On October 19, 2023, the NRC issued a final rule revising the amount from $450 million to $500 million (88 FR 71988).

casks that will remain indefinitely at the Pilgrim Nuclear Power Station. The commenter also commented that reducing offsite and onsite liability insurance provides no protection to the States and their citizens if the reactor is bought and being decommissioned by a limited liability company with no parent guarantee (NRC-2015-0070-0293-0008).

NRC Response: The NRC disagrees with these comments. In determining the adequate amount of financial protection for reactors in decommissioning, the NRC concluded that the risk associated with the limiting event—a beyond-design-basis zirconium fire—was sufficiently low, warranting a reduction in insurance coverage. Licensees in Level 1 of the graded approach would be required to maintain the full amounts of offsite liability and onsite property insurance currently required, until the licensee reaches Level 2 of the graded approach and the probability of a zirconium fuel cladding fire in the SFP is minimized (approximately 10 months for BWR or 16 months for PWR). A reactor in Level 2 of the graded approach will be required to maintain $100 million (offsite liability) and $50 million (onsite property) of financial protection. These amounts would provide coverage for damages caused to the physical property and other risks of direct physical loss at the site.

The NRC also disagrees that reducing offsite and onsite liability insurance would not protect the States where sites are located and their citizens. The rulemaking does not impact or revise any of the existing financial qualifications related to the purchase, sale, or transfer of an operating license, including a license for a plant that is being decommissioned.

Accordingly, the NRC did not revise the rule language in response to these comments.

4.8 Environmental Considerations

Comment 4.8-01: Commenters, in a form letter campaign, expressed the concerns that the proposed rule undermines environmental protections and that delaying the site-specific environmental review until after the decommissioning process is completed weakens the environmental information in the PSDAR. Some commenters stated that a site-specific NEPA review should occur early in the decommissioning process. Commenters asserted the proposed rule leaves it to the licensee, not the NRC, to determine the severity and scope of the potential harm from site-specific decommissioning activities without prior public review, opportunity for public involvement, or a clear mechanism to stop widespread environmental damage before it occurs (NRC-2015-0070-0327-0008, NRC-2015-0070-0394-0006, NRC-2015-0070-0293-0016, NRC-2015-0070-0334-0006, NRC-2015-0070-0330-0008).

One commenter contended that having an earlier NEPA review based on approval of a decommissioning plan would make more sense than at the time of license termination (NRC-2015-0070-0293-0016). To illustrate the importance of early NEPA review, several commenters stated that Holtec's plan to discharge radioactive contaminated water into Cape Cod Bay would not have been given serious consideration had a NEPA review occurred at the beginning of the decommissioning process, and significant savings to licensees, the State, and stakeholders would have resulted (NRC-2015-0070-0293-0016, NRC-2015-0070-0330-0008). Another commenter echoed the recommendation that all post-operational environmental impacts should be reviewed under NEPA (NRC-2015-0070-0379-0015). Another commenter similarly advocated for ensuring NEPA compliance with generic standards and site-specific decisions (NRC-2015-0070-0364-0018).

In addition, a few commenters jointly asserted the proposed rule allows licensees to self-report and certify environmental reviews without any oversight or scrutiny by the NRC. Commenters warned that self-certification of environmental standards that apply specifically to post-operational activities at nuclear reactors could lead to increased environmental hazards and

longer decommissioning timelines, most likely paid for by the host community. Commenters recommended that the NRC reverse its proposal and instead enact a standardized review subject to NRC approval (NRC-2015-0070-0366-0006).

Several commenters asserted that the NRC must require a site-specific environmental review before the commencement of decommissioning activities. As rationale for this position, one comment stated that PSDARs should include a new environmental review because, absent such a requirement, licensees could rely on decades-old environmental reviews to inform a decommissioning that could last as long as 60 years (NRC-2015-0070-0340-0001). Similarly, a commenter stated that if the original licensing documents (environmental report, environmental assessment (EA), environmental statement, or EIS) form the basis of the PSDAR, and if they are either not updated or insufficient, there is great potential for adverse impacts (NRC-2015-0070-0344-0002). A commenter stated that a negative consequence of the NRC not approving the PSDAR is that no NEPA environmental review is required before commencement of decommissioning activities (NRC-2015-0070-0293-0014).

A few commenters expressed opposition to the removal of the requirement that licensees affirmatively state that planned decommissioning activities are bounded by prior EISs (NRC-2015-0070-0293-0014, NRC-2015-0070-0359-0003, NRC-2015-0070-0370-0010). A commenter stated that Commissioner Baran in his dissenting vote on SECY-18-0055 explained that the proposed rule would "water down" already limited environmental information in the PSDAR by no longer requiring licensees to make the definitive conclusion that impacts will be bounded by previous EISs (NRC-2015-0070-0293-0014).

A commenter asserted that the proposed changes clearly de-emphasize environmental protections because it would only require an environmental impact review upon completion of decommissioning and would weaken the environmental information in the PSDAR. The commenter advocated that site-specific NEPA reviews should be initiated at the beginning of the decommissioning process and provide opportunities for local stakeholder involvement (NRC-2015-0070-0370-0010). A commenter reasoned that NEPA's purpose is to ensure the consideration of environmental actions before action is taken, but that the proposed approach would allow licensees to defer environmental review until the decommissioning approach has been decided and is underway. The commenter recommended that the "NRC determine whether further NEPA review is necessary and supplement the generic decommissioning environmental impact statement and/or any relevant plant-specific environmental impact statement as necessary" (NRC-2015-0070-0359-0003).

Finally, a commenter stated that the NRC currently only conducts an environmental justice (EJ) review concurrent with a NEPA review. The commenter stated that if the PSDAR is submitted but not approved by the NRC, then the NRC is not obligated to conduct a NEPA review or EJ outreach or engagement. Therefore, the commenter recommended that the NRC formally review PSDARs in order to engage with the community throughout the decommissioning process and ensure reasonable assurance of adequate protection to the public. The commenter added that community engagement provides for more efficient project management by licensees and better environmental monitoring by governmental entities (NRC-2015-0070-0259-0005).

NRC Response: The NRC disagrees with these comments. The final rule addresses public concerns about decommissioning activities taking place prior to a site-specific NEPA review being conducted during the NRC evaluation of the licensee's LTP. As noted in the 1996 Final Rule, "one of the primary goals of the PSDAR process is to promote public knowledge and provide an opportunity to hear public views on decommissioning activities before licensees commence decommissioning."

In 10 CFR 50.82(a)(4)(i)(B) of the final rule, licensees must discuss in the PSDAR whether the environmental impacts of planned decommissioning activities will be bounded by the environmental effects addressed in either the Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities (NUREG–0586) (August 1988) (ML18057B048), or NUREG-0586, Supplement 1 (ML023470327), or other appropriate federally issued environmental review documents, and the reasons for reaching that conclusion. The NRC reviews the PSDAR to determine if the licensee has provided sufficient bases as to whether site-specific environmental impacts will be bounded by the environmental review documents. Licensees must also describe any decommissioning activities whose environmental impacts will not be so bounded and will be evaluated before the licensee performs the activities. This process ensures that site-specific environmental impacts during decommissioning are considered and evaluated as needed before the action is taken, even absent formal NRC approval of the PSDAR, and ensures that the NRC is informed of the licensee's planned decommissioning activities in its oversight role.

In the final rule, 10 CFR 50.82(a)(6) specifically prohibits licensees from performing any decommissioning activities that result in significant environmental impacts not bounded by appropriate federally issued environmental review documents. This requirement ensures that site-specific decommissioning activities described in the PSDAR continue to be bounded by the environmental impacts addressed in appropriate environmental review documents. Before performing unbounded decommissioning activities, licensees must request an exemption or license amendment approval from the NRC. These licensing reviews would include any required NEPA reviews.

The regulatory basis for this rulemaking and the 1996 Final Rule found that there is no health and safety benefit to approving the PSDAR because of the reduction in risk to the public health and safety at a permanently shutdown and defueled reactor. Because approval of the PSDAR is not required, there is no associated licensing action for which the NRC would perform a NEPA review.

Furthermore, NRC regulations require licensees to submit an LTP at the end of decommissioning, which is approved via a license amendment. In order to terminate the license, the NRC must make decisions on the proposed actions described in the licensee's LTP to determine whether the site will meet the criteria for unrestricted release. The NRC's approval of an LTP is a licensing action requiring a NEPA review.

Leveraging the process described above to consider the potential environmental impacts of decommissioning from the planning stages (governed by the PSDAR requirement), through active dismantlement (governed by the 10 CFR 50.82(a)(6)(ii) requirement), and until license termination (governed by a requirement for a license amendment) ensures that unbounded impacts do not occur.

The NRC has authority over radiological effluent discharges at decommissioning nuclear power plants. NRC-licensed facilities may discharge monitored and treated radiological wastes (i.e., gases, liquids, or particulates) into the environment provided that dose limits to members of the public (see 10 CFR 20.1301, "Compliance with dose limits for individual members of the public") are not exceeded and that doses are maintained as low as reasonably achievable. Non-radiological liquid effluents are regulated under a Clean Water Act permit (e.g., National Pollutant Discharge Elimination System permit) issued by the EPA or the State. Recent site-specific issues at nuclear power plant sites undergoing decommissioning may be considered further during the update to the Decommissioning GEIS (NUREG-0586, Supplement 1), which is occurring as a separate activity from this rulemaking.

With respect to EJ, the NRC has revised the EJ guidance in RG 1.185, Rev. 2. This revised guidance instructs licensees to provide EJ information and demographic detail in the PSDAR. The NRC will also conduct a site-specific EJ impact analysis during the LTP NEPA review consistent with Commission policy direction. The NRC will promote community outreach and engagements throughout the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.8-02: Commenters asserted that the proposed rule would violate NEPA. For instance, several commenters stated that to come into compliance with the AEA and First Circuit precedent, the NRC must update its regulations to require a license proceeding to begin decommissioning, which will constitute a major Federal action triggering NEPA review (NRC-2015-0070-0365-0020, NRC-2015-0070-0364-0005). One of the commenters stated that if it is determined that a license proceeding is not required, a decommissioning plan should still be required that would trigger a NEPA review (NRC-2015-0070-0365-0020). The commenter also asserted that the proposed rule's allowance of site-specific environmental review to occur seemingly during decommissioning or right before license termination would clearly violate NEPA, since NEPA requires that environmental review occurs before actions are taken and that environmental review not be segmented (NRC-2015-0070-0365-0020).

One commenter explained that all post-operational activities have potentially significant and site-specific safety significance; therefore, they also have potentially significant environmental impacts and may not be exempted from NEPA consideration or relegated to a generic EA (NRC-2015-0070-0364-0005). The commenter stated that a revised proposed rule should require preparation of an EIS or EA to address the site-specific environmental impacts of post-operational activities to support a licensing decision. The commenter explained that the impacts of post-operational activities may not be discounted because they are less severe than the reactor's operation, and that the EIS for operating reactors does not necessarily bound the site-specific impacts of post-operational activities because they are different (NRC-2015-0070-0364-0005).

The other commenter further stated that the NRC should update NUREG-0586, Supplement 1, Volumes 1 and 2, "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Regarding the Decommissioning of Nuclear Power Reactors" (Decommissioning GEIS) and require updates to the Decommissioning GEIS no later than every 10 years. In addition, the commenter urged that, under NEPA, the NRC must require a site-specific supplemental EIS as part of every new decommissioning proceeding (NRC-2015-0070-0365-0020).

***NRC Response*:** The NRC disagrees, in part, with these comments. As explained in the NRC Response to Comment 2-02, the NRC is already in compliance with the AEA, NEPA, and court precedent. Therefore, the NRC disagrees that it must update its regulations to require a license proceeding and to conduct site-specific NEPA reviews earlier in the decommissioning process. The regulatory basis for this rulemaking and the 1996 Final Rule found that there is no health and safety benefit to approving the PSDAR because of the reduction in risk to the public health and safety at a permanently shutdown and defueled reactor. Because approval of the PSDAR is not required, there is no associated licensing action for which the NRC would perform a NEPA review.

The final rule continues to require licensees to submit a PSDAR, which must discuss whether the environmental impacts associated with planned site-specific decommissioning activities will be bounded by appropriate federally issued environmental review documents and the reasons

for reaching that conclusion and describe the activities that will not be so bounded and will be evaluated prior to their performance.

The NRC also disagrees with the need for a decommissioning plan to trigger a NEPA review prior to commencing decommissioning. Under 10 CFR 50.82(a)(6)(ii) and 10 CFR 52.110(f)(2), in the final rule, licensees are prohibited from performing decommissioning activities that result in significant environmental impacts not bounded by appropriate federally issued environmental review documents. This accounts for site-specific situations that may occur during decommissioning that are outside of the previously considered environmental reviews. If a licensee wanted to pursue a decommissioning activity that would result in significant environmental impacts not bounded, then the licensee would need to seek approval of a license amendment or an exemption from the requirements in 10 CFR 50.82(a)(6)(ii) or 10 CFR 52.110(f)(2), both of which would trigger NRC responsibilities under NEPA. The NRC regulations also require licensees to submit an LTP for NRC review and approval at least two years prior to license termination. The LTP is approved via a license amendment and, therefore, the NRC conducts a NEPA review of the activities described in the LTP. This three-part approach to considering environmental impacts during decommissioning (PSDAR, 10 CFR 50.82(a)(6)(ii), and the LTP) ensures that unbounded impacts do not occur.

The NRC agrees that NUREG-0586, Supplement 1, should be reviewed and updated. The review and update of NUREG-0586, Supplement 1, will be conducted separate from this rulemaking.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.8-03: A commenter asserted that the NRC must reconsider the environmental impacts of significantly delaying decommissioning under the SAFSTOR (deferred dismantling) and entombment (ENTOMB) options. The commenter asserted that a thorough NEPA analysis of the timing options for decommissioning would generally result in requirements for much more expeditious decommissioning, and a NEPA analysis would distinguish between the environmental impacts of extending the time for reactor decommissioning and the environmental impacts of extended onsite storage of spent fuel, which are completely different (NRC-2015-0070-0364-0005).

NRC Response: The NRC disagrees with this comment. The NRC reevaluated the three existing decommissioning options (DECON (immediate dismantling), SAFSTOR, and ENTOMB) and the timeframes associated with these options, which included consideration of the environmental impacts of each method. Appendix H of the regulatory basis for the proposed rule recommends that the guidance accompanying the final rule be updated to note that ENTOMB is no longer considered a feasible decommissioning option for U.S. nuclear power reactors because it does not meet the required regulatory timeframe for unrestricted release. The regulatory basis also recommended that guidance documents be updated to include more detailed descriptions of the information that the NRC seeks in the PSDAR related to the licensee's chosen decommissioning strategy, potential future uses of the power plant site, the overall plan for final disposition of the structures and other components at the facility, including the spent fuel, and the associated timelines. The proposed revisions to RG 1.184, Rev. 1 (October 2013) (ML13144A840) and RG 1.185, Rev. 1 (June 2013) (ML13143A259) incorporated these changes and were issued with the 2022 Proposed Rule as DGs titled DG-1347 and DG-1349, respectively. The final RG 1.184, Rev. 2 and RG 1.185, Rev. 2 are being issued with the final rule.

Based on lessons learned and experiences from previously decommissioned reactors, the NRC has found no indication that the use of DECON or SAFSTOR as decommissioning methods, or

the ability to switch between the two, has any substantial impact on public health and safety or the environment, or in any way diminishes the planning, preparation, and oversight conducted by the licensee or the NRC in decommissioning activities. Under either method, a licensee must complete decommissioning activities within 60 years in accordance with 10 CFR 50.82(a)(3) or 10 CFR 52.110(c) and discuss the environmental impacts of either approach in the PSDAR and the LTP, as well as observe the requirement of 10 CFR 50.82(a)(6)(ii) or 10 CFR 52.110(f)(2).

The environmental impacts of decommissioning a nuclear facility under three decommissioning alternatives (DECON, SAFSTOR, and ENTOMB) were first described in the 1988 Decommissioning GEIS (NUREG-0586) and were reevaluated as decommissioning options for nuclear power reactors in the 2002 supplement (NUREG-0586, Supplement 1). The review and update of NUREG-0586, Supplement 1, will be conducted separate from this rulemaking. The environmental impacts of the extended onsite storage of spent fuel are described in NUREG-2157, “Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel” (September 2014) (Package ML14198A440).

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.8-04: A commenter stated that the socioeconomic impacts to host communities from nuclear plant closures can be swift, severe, and lasting, since many highly skilled workers and their families relocate, procurement of local goods and services is significantly reduced, tax payments to local towns plummet, and housing values erode. The commenter requested that the NRC include consideration of socioeconomic impacts resulting from plant closure by revising the 2002 GEIS on Decommissioning of Nuclear Facilities, Supplement 1 to allow for the specific inclusion of impacts related to plant closure. The commenter further stated that the NRC staff has been directed by the Commission in the staff requirements memorandum (SRM) for SECY-18-0055 (November 2021) (Package ML21307A046) to update NUREG-0586, Supplement 1, Volumes 1 and 2. The commenter requested a status on the NUREG-0586 update. In addition, the commenter stated that it would seem logical that an update would be needed prior to the final rule taking effect. Lastly, the commenter requested that any update include the analysis of socioeconomic impacts resulting from nuclear power plant closure (NRC-2015-0070-0361-0001).

NRC Response: The NRC disagrees with these comments. As explained in the NRC’s regulatory basis for the proposed rule, the socioeconomic impacts of nuclear power plant decommissioning are addressed in the Decommissioning GEIS. However, the NRC plans to update the discussion of socioeconomic impacts in NUREG-0586, Supplement 1 separate from this rulemaking. The process to update NUREG-0586, Supplement 1 will include a public scoping comment period. Comments collected by the NRC will be considered in determining any changes in the Decommissioning GEIS to the scope of both generic and site-specific environmental impacts during decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.8-05: A commenter expressed appreciation for the NRC’s efforts to preserve and protect historic properties under the proposed rulemaking (NRC-2015-0070-0243-0002). Another commenter also expressed their desire to protect historic properties. It noted that the NRC must ensure compliance with NEPA and the National Historic Preservation Act (NHPA), specifically through consideration of information derived from NHPA section 106 archaeological surveys and input from culturally affiliated Tribes, during the decommissioning process (NRC-2015-0070-0369-0002).

Another commenter noted that many nuclear power plants were constructed prior to the passage of NEPA, the NHPA, and the Native American Graves Protection and Repatriation Act (NAGPRA). As a result, archaeological surveys and cultural resources assessments may not have been conducted in accordance with these laws. Therefore, the commenter advocated that archaeological surveys be conducted under NEPA and NAGPRA during the decommissioning process prior to any ground-disturbing activities. The commenter asserted that the NRC, not the licensee, must conduct government-to-government consultation and must uphold its trust responsibility to protect Tribal rights. The commenter asserted that the NRC must work with Tribes that may have historic or cultural ties to the area and a qualified anthropologist to collaboratively develop a systematic cultural affiliation study using archaeological, anthropological and historical literature reviews, Tribal resource maps, and other relevant data to identify potential impacts to off-reservation treaty rights areas (NRC-2015-0070-0294-0002).

NRC Response: The NRC disagrees, in part, with these comments. The NRC disagrees that it must conduct and consider archaeological surveys under NEPA, NHPA, and NAGPRA before ground-disturbing decommissioning activities. The regulatory process allows licensees to perform ground-disturbing activities under their PSDAR as long as the activities are bounded by appropriate federally issued environmental review documents, which typically include an evaluation of cultural and historic resources. Because approval of the PSDAR is not required, there is no associated licensing action for which the NRC would perform the types of reviews suggested by the comment. However, the final rule addresses the concern about decommissioning activities taking place prior to any NEPA, NHPA, or NAGPRA review by prohibiting the licensee from performing any decommissioning activity that results in significant environmental impacts, which includes impacts to cultural resources, not bounded by appropriate federally issued environmental review documents, in accordance with 10 CFR 50.82(a)(6)(ii) and 10 CFR 52.110(f)(2). This accounts for site-specific situations during decommissioning that were not previously considered in environmental reviews.

If a licensee needs to perform decommissioning activities with impacts not bounded by appropriate federally issued environmental review documents, potentially causing impacts to cultural resources, then the licensee would have to submit a request for a license amendment or exemption to perform the proposed activity, either of which actions would trigger a NEPA and NHPA review and consultation as part of the NRC's approval process. The licensee may also modify the decommissioning activity so that the impact could be avoided.

The NRC agrees that NHPA Section 106 review and consultation for license amendments or exemptions would be conducted by the NRC staff and not a licensee or some other proxy. A site-specific NEPA review and NHPA consultation is conducted when the LTP is submitted for NRC approval, at least two years prior to license termination. The NRC staff must also act in accordance with the Commission's "Tribal Policy Statement" (82 FR 2402; January 9, 2017) (ML17011A243) and uphold its trust responsibilities throughout the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.8-06: One commenter claimed that the provisions in 10 CFR 51.53(d) and 10 CFR 51.95(d) for an application to store spent fuel at a nuclear power reactor after expiration of the operating license are no longer needed and should be removed or clarified (NRC-2015-0070-0378-0002).

NRC Response: The NRC agrees with this comment. The provisions in 10 CFR 51.53(d) and 10 CFR 51.95(d) for an application or amendment to store spent fuel at a nuclear power reactor after expiration of the operating license have not been needed since the 1996 decommissioning rulemaking, which eliminated the 10 CFR Part 50 requirement for submittal of a license

amendment to change a decommissioning licensee's operating license to a possession-only license.

Currently, 10 CFR 50.51(b) establishes that the 10 CFR Part 50 license continues in effect beyond the expiration date for a facility that has permanently ceased operations in order to authorize ownership and possession of the production or utilization facility. During such a period of continued effectiveness, the licensee must continue to maintain the storage, control, and maintenance of the spent fuel in a safe condition. Additionally, the requirements in 10 CFR 51.53(d) and 10 CFR 51.95(d) only apply to production and utilization facilities. Materials facilities and any application to store spent fuel under 10 CFR Part 72 are subject to separate and corresponding environmental requirements in 10 CFR 51.61, "Environmental report—independent spent fuel storage installation (ISFSI) or monitored retrievable storage installation (MRS) license," and 10 CFR 51.97, "Final environmental impact statement—materials license."

Accordingly, the NRC is deleting the text concerning applicants for a license or license amendment to store spent fuel at a nuclear power reactor after expiration of the operating license for the nuclear power reactor from 10 CFR 51.53(d) and 10 CFR 51.95(d) in the final rule.

Comment 4.8-07: One commenter agreed that it is appropriate to consider an additional supplement to the GEIS but stated that the effort should not be tied to the proposed decommissioning rulemaking effort (NRC-2015-0070-0257-0009).

NRC Response: The NRC agrees with this comment. The NRC is updating NUREG-0586, Supplement 1, on a separate schedule from this rulemaking. The schedule for updating the Decommissioning GEIS will be made publicly available once it is established.

Accordingly, the NRC did not revise the rule language in response to this comment.

4.9 Record Retention Requirements

Comment 4.9-01: A commenter expressed support for removing record retention requirements for equipment that is no longer in use and relieving requirements to retain multiple copies of certain records (NRC-2015-0070-0329-0007).

NRC Response: The NRC agrees with this comment. The comment supports the revisions to record retention requirements and does not suggest a change to the proposed rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

4.10 Low-Level Radioactive Waste Transportation

Comment 4.10-01: A commenter expressed support for extending the window for notification of receipt of shipments of low-level radioactive wastes (NRC-2015-0070-0329-0008).

NRC Response: The NRC agrees with this comment. The comment supports the proposed revisions to the window of time for notification of receipt of shipments of low-level radioactive waste before a shipper would be required to investigate, trace, and report to the NRC any shipments of low-level radioactive waste for which the shipper has not received a notification of receipt.

The proposed rule would have extended the window from 20 days to 45 days. However, after publication of the proposed rule, the NRC received seven additional requests for exemption from the notification requirement. These requests indicate that 45 days may no longer be a

reasonable upper limit for this notification window based on the amount of time low-level radioactive waste shipments by rail can take, especially from facilities on the east coast of the U.S. that have limited or no direct rail access at the site.

Therefore, the NRC is extending the notification window to 90 days for receipt of shipments of low-level radioactive waste based on this new information and the continued conclusion that extension of the notification period would not result in an undue hazard to life or property. Shipments will continue to be tracked and monitored throughout their journeys, which ensures that shipments will not be misdirected, thereby meeting the intent of this shipping and notification requirement.

Accordingly, the NRC is revising Appendix G to 10 CFR Part 20 to extend the receipt notification window from 20 days to 90 days.

4.11 Spent Fuel Management Planning

Comment 4.11-01: A few commenters, including a form letter campaign, noted that the NRC must not abdicate its responsibility to review and approve irradiated fuel management plans (IFMPs). The commenters urged the NRC to impose regular oversight, inspection, and reporting requirements related to irradiated fuel management programs during decommissioning, stating that the proposed change sacrifices public and environmental safety in favor of the interests of the nuclear industry (NRC-2015-0070-0370-0005, NRC-2015-0070-0334-0007, NRC-2015-0070-0394-0008).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that regular NRC inspections, oversight, and reporting on decommissioning activities should be required. The NRC already inspects and provides oversight of licensees' decommissioning activities and spent fuel management. The NRC reports its inspection findings in inspection reports that are made publicly available, unless they contain classified, safeguards, or sensitive information.

However, the NRC disagrees with the comments that the NRC should approve licensees' IFMPs. The comments did not contain any specific information to support IFMP approval. As explained in the NRC Response to Comment 4.11-03, approving the IFMP by license amendment is unnecessary when licensees already have the authority to decommission the plant and SSCs under 10 CFR 50.59, 10 CFR 50.82, and 10 CFR 52.110, "Termination of license." The NRC is instead merging the IFMP requirements with the PSDAR provisions in 10 CFR 50.82 and 10 CFR 52.110. This change, coupled with the updates to RG 1.184, Rev. 2 and RG 1.185, Rev. 2 included with the final rule, will increase public transparency and access to information related to licensees' spent fuel management plans during decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.11-02: A commenter critiqued the proposed rule for inadequately protecting SFPs, stating that they are vulnerable to terrorist attacks (NRC-2015-0070-0327-0003).

NRC Response: The NRC disagrees with this comment. The NRC establishes requirements for the physical protection of spent fuel in both wet and dry storage. This final rule adopts a graded approach to implementing security requirements for reactors in decommissioning, including SFPs at these reactors. This graded approach takes into account a variety of factors, including site-specific conditions, such as the number of target sets, the nature of the threat, and the potential radiological consequences, including offsite releases, resulting from a successful attack on an SFP. The NRC has determined that decommissioning reactors have a reduced number of target sets and once spent fuel has cooled sufficiently in the SFP, the risk of

radiological consequences resulting in an offsite release is significantly reduced. The NRC has further determined that the security requirements in this final rule will ensure adequate protection at decommissioning reactors.

Licensees are responsible for providing protection from, and responses to, security-related events, which are addressed in the licensee's NRC-approved Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan, referred to collectively hereafter as ''Security Plans." The NRC routinely inspects licensees to ensure that they are meeting the regulatory requirements that are implemented by their NRC-approved Security Plans. The NRC constantly monitors the capabilities of potential adversaries and threats to facilities, material, and activities for the protection of spent fuel from radiological sabotage. Some key features of these protection programs include intrusion detection, alarm assessment and response, and offsite assistance, as necessary.

Over the last 20 years, there have been no radiation releases from an SFP that have affected the public. There have also been no known or suspected attempts to sabotage spent fuel. Nevertheless, the NRC is continually monitoring and evaluating the current threat environment for credible threats to NRC licensees and their facilities. The NRC responded to the terrorist attacks on September 11, 2001, by promptly requiring security enhancements for spent fuel storage, both in SFPs and dry casks.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.11-03: A few commenters expressed opposition to the NRC's proposed requirement for an IFMP to be submitted as a license amendment. Specifically, one commenter stated that, while generally in agreement with the content that would be required in the IFMP, it is unclear why 10 CFR 50.54(bb)(1) would state that the submittal of an IFMP requires an amendment to the license. Referencing 10 CFR 50.54(bb)(4) and 10 CFR 50.54(bb)(5), the commenter also asserted that, with the potential for revisions to the IFMP due to projected cost updates, requiring license amendment approvals would be overly burdensome. The commenter recommended that the NRC modify 10 CFR 50.54(bb)(5) to remove the requirement for a license amendment for "any changes to cost and schedule" (NRC-2015-0070-0257-0003).

Another commenter also disagreed with the proposal to require licensees to submit an IFMP as a license amendment, stating that it adds no measurable improvement to the adequate protection regarding site safety or security and produces additional inefficiencies and expenses (NRC-2015-0070-0329-0051). The commenter asserted that logic fails to justify the need for such a plan at this point in the dry cask storage era, since onsite dry cask storage is the sole national option available to licensees who are planning to decommission, and there already exist ample long-standing regulatory and inspection programs regarding dry cask storage. The commenter concluded that the proposal to require an IFMP is purely a compliance matter to make current regulatory language passages compatible with one another and stated that the proposed requirement is not relevant or needed for the safe decommissioning of permanently shutdown facilities or storage of the canisters in dry cask storage.

Regarding the assertion in the proposed rule that IFMP requirements would not apply to ISFSI-only licensees, the commenter requested that the NRC clarify in the rule text that this means that any ISFSI-only licensees would not have to submit changes to their current IFMP as a license amendment. The commenter added that stakeholders will want to know why some must submit changes as a license amendment and others do not. In addition, the commenter stated that the nature of amendments from ISFSI-only facilities are minor and thus do not warrant the expenditure of effort of the agency or its licensees and are not needed at all (NRC-2015-0070-0329-0011). The commenter recommended that the provisions in 10 CFR 50.54(bb)(1-6) be

deleted (NRC-2015-0070-0329-0045). The commenter also suggested deleting the amendments in proposed 10 CFR 51.53 and 10 CFR 51.95 (NRC-2015-0070-0329-0046).

A third commenter also objected to the proposal to require the IFMP to be reviewed and approved through the license amendment process, arguing that these proposed changes: (1) are inconsistent with the well-established regulatory frameworks for general licensing of ISFSIs pursuant to the Nuclear Waste Policy Act of 1982 (NWPA), and the decommissioning of power reactors that have been in place since 1990 and 1996, respectively; and (2) lack coherence, are contrary to the Commission's long-held position on the nature of the IFMP, and are unnecessary from a legal standpoint. The commenter agrees with the position taken by staff in SECY-18-0055. The commenter stated that the proposed revision is also inconsistent with one of the fundamental goals of this rulemaking "to reduce the need for LARs and exemptions from existing regulations" and, if finalized, would make the decommissioning process more burdensome for both the NRC and licensees, with no commensurate safety benefit (NRC-2015-0070-0338-0004, NRC-2015-0070-0338-0043, NRC-2015-0070-0338-0045).

The commenter advocated for removing the 10 CFR 50.54(bb) requirement for preliminary approval and final NRC review of the IFMP to create alignment with the level of review for the PSDAR; however, if the NRC decides to retain these requirements, the commenter suggested that the NRC issue preliminary approvals via letter and conduct the final review as part of the license amendment process associated with license termination. The commenter urged that relocating the IFMP submittal requirements from 10 CFR 50.54 to 10 CFR 50.82 and 10 CFR 52.110 would improve the clarity and efficiency of these requirements, reduce uncertainty, and enhance overall regulatory transparency and openness regarding decommissioning and spent fuel management planning, consistent with the stated purpose of the proposed rule (NRC-2015-0070-0338-0004, NRC-2015-0070-0338-0043).

NRC Response: The NRC agrees, in part, with these comments. The proposed approval of the IFMP (and changes to the IFMP) via license amendment is unnecessary when licensees already have the authority to decommission the plant and SSCs under 10 CFR 50.59, 10 CFR 50.82, and 10 CFR 52.110. The proposed rule approach would diverge from the current regulatory framework for the regulation of spent fuel storage under a general license, which, consistent with the NWPA, does not involve additional site-specific approvals. The NRC agrees that the IFMP is a planning document (for spent fuel management) that supports NRC information gathering, and that the NRC's review focuses on the identification of discrepancies or deficiencies and is intended to ensure that a licensee's spent fuel management plans are sound and will provide for adequate protection of public health and safety and the environment.

The NRC does not agree that there is a basis to eliminate the requirement for an IFMP. The requirement for licensees to provide the NRC with their spent fuel management planning information is still necessary because, until such time as DOE takes title to, and possession of, a licensee's spent fuel, the NRC regulates the licensee's storage of spent fuel.

The NRC agrees that either relocating the IFMP submittal requirements from 10 CFR 50.54 to 10 CFR 50.82 and 10 CFR 52.110 or otherwise aligning these requirements would improve the clarity and efficiency of these requirements, reduce uncertainty, and enhance overall regulatory transparency and openness regarding decommissioning and spent fuel management planning. Therefore, the NRC revised the rule and the corresponding guidance in RG 1.184, Rev. 2 and RG 1.185, Rev. 2. The NRC is merging the IFMP provisions into the PSDAR and decommissioning provisions in 10 CFR 50.82 and 10 CFR 52.110 and deleting the separate 10 CFR 50.54(bb) provision, so that a licensee's planning requirements for both decommissioning and spent fuel management will be captured in one place. Consequently, the IFMP information will be part of the PSDAR.

This approach will align and ensure consistency between licensees' decommissioning plans and spent fuel management plans, as actions taken to manage spent fuel include activities taken before and after decommissioning. This approach will also align the NRC's review of, oversight for, and public engagement on, those plans; improve efficiency of communications with stakeholders on the nexus between decommissioning and spent fuel management; and increase transparency and openness by expanding the public notice, comment period, and meeting already required for PSDARs to the spent fuel management information in IFMPs, thereby providing opportunities for stakeholder engagement on this information that do not exist under the current regulations.

Since IFMPs (and changes to IFMPs) will not be required to be submitted as LARs, there is no need to specify in the final rule that ISFSI-only (or standalone ISFSI/decommissioned reactor) sites would not have to submit changes to their current IFMP as an LAR. For all licensees, any changes to the IFMP information will be subject to the 10 CFR 50.82(a)(7) or 10 CFR 52.110(g) provision regarding licensee notifications on certain changes to the PSDAR.

Accordingly, the NRC is revising the rule language in 10 CFR 50.54(bb), 10 CFR 50.82, and 10 CFR 52.110 in response to these comments.

Comment 4.11-04: A commenter offered two critiques of the proposed rule with respect to spent fuel management planning. First, the commenter noted that in proposed 10 CFR 50.54(bb)(1), the provision related to decommissioning appears to be redundant or potentially conflict with existing regulations in 10 CFR 50.82 and 10 CFR Part 72 and, therefore, recommended that the provision be deleted. In addition, to the extent proposed 10 CFR 50.54(bb)(1) and (2) would require site-specific reviews of activities associated with a generally licensed ISFSI, the commenter stated that they are inconsistent with the general license provisions in 10 CFR Part 72 and should be withdrawn. The commenter also noted that decommissioning activities that would eliminate the capability to remove the spent fuel from the site are already prohibited by 10 CFR 50.82(a)(6), since this would both foreclose release of the site for unrestricted use and result in significant environmental impacts not previously reviewed. Lastly, the commenter requested clarification of an NRC statement in the preamble to the final rule regarding notifications to the NRC of spent fuel management and funding plans for prematurely shut down power reactors (59 FR 10268; March 4, 1994). The statement concerned the applicability of IFMP submittal requirements for spent fuel stored in an ISFSI in compliance with 10 CFR Part 72 (NRC-2015-0070-0378-0013).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the proposed approval of the IFMP (and changes to the IFMP) via license amendment is unnecessary when licensees already have the authority to decommission the plant and SSCs under 10 CFR 50.59 and 10 CFR 50.82 or 10 CFR 52.110. The NRC acknowledges that the proposed rule approach would diverge from the current regulatory framework for the regulation of spent fuel storage under a general license, which, consistent with the NWPA, does not involve additional site-specific approvals. However, the NRC does not agree that there is a basis to delete the requirement for an IFMP. The requirement for licensees to provide the NRC with their spent fuel management planning information is still necessary because, until such time as DOE takes title to, and possession of, a licensee's spent fuel, the NRC regulates the licensee's storage of spent fuel.

The NRC disagrees with the comment that 10 CFR 50.82(a)(6) (or the corresponding provision at 10 CFR 52.110(f)) already prohibits decommissioning activities that would eliminate the capability to remove spent fuel from the site. Retaining the explicit language from 10 CFR 72.218, "Termination of licenses" (that the IFMP must show how the spent fuel will be managed before starting to decommission SSCs needed for moving, unloading, and shipping irradiated

fuel), is needed for regulatory clarity because the decommissioning of the SSCs used for managing spent fuel would not necessarily foreclose release of the site or create unbounded environmental impacts.

Therefore, the NRC revised the rule and the corresponding guidance in RG 1.184, Rev. 2 and RG 1.185, Rev. 2 by merging the IFMP provisions into the PSDAR and decommissioning provisions in 10 CFR 50.82 and 10 CFR 52.110 and deleting the separate 10 CFR 50.54(bb) provision. The NRC also moved the language regarding the decommissioning of SSCs related to spent fuel management from 10 CFR 72.218 into the 10 CFR 50.82(a)(4) and 10 CFR 52.110(d) provisions in the final rule.

In response to the commenter's request for clarification of an NRC statement in the 1994 final rule preamble that 10 CFR 50.54(bb) spent fuel management and funding plans need not cover spent fuel while it is stored in an ISFSI under 10 CFR Part 72, the 1994 final rule preamble noted that the NRC would consider whether the provisions addressing funds to construct, operate, and decommission ISFSIs were adequate when it evaluated whether to pursue rulemaking to include spent fuel management and funding as part of decommissioning costs. Since then, the NRC promulgated requirements in 10 CFR 50.82(a)(4)(i) and 10 CFR 52.110(d)(1) for licensees to include the cost of managing spent (or irradiated) fuel in the PSDAR site-specific decommissioning cost estimate, as well as a requirement in 10 CFR 50.82(a)(8)(vii) and 10 CFR 52.110(h)(7) for licensees to submit reports on the cost and status of funding for managing spent fuel; this would include the costs of managing spent fuel stored in an ISFSI. To avoid duplication of funding requirements, the NRC is deleting the 10 CFR 50.54(bb) provision rather than moving it into 10 CFR 50.82 and 10 CFR 52.110 as part of the final rule.

Accordingly, the NRC is revising the rule language in response to this comment.

Comment 4.11-05: A commenter supported the proposed change to allow ISFSI general licensees to provide for physical protection of spent fuel under the same regulations for ISFSI specific licensees, adding that general licensees should be able to request administrative approval to convert to a specific license once they have a standalone ISFSI (NRC-2015-0070-0329-0003). The commenter further suggested that the NRC grant these site-specific licenses by administrative rule. The commenter added that revisions to DG-1346 would be needed to reflect this proposed change (NRC-2015-0070-0329-0058).

NRC Response: The NRC agrees, in part, with the comment. The NRC agrees that general license ISFSI holders should be allowed to provide for the physical protection of spent fuel under the same regulations as specific license ISFSI holders. The final rule reflects this. However, the NRC disagrees that general license ISFSI holders should be able to request an administrative approval to convert to a specific license once they have a standalone ISFSI (i.e., when all decommissioning work at the reactor facility is complete and the 10 CFR Part 50 license has been reduced to only cover the remaining footprint of the ISFSI).

The regulations in 10 CFR Part 72 establish the specific and programmatic requirements for an applicant wishing to gain NRC approval to "receive, transfer, and possess power reactor spent fuel, power reactor-related Greater than Class C (GTCC) waste, and other radioactive materials associated with spent fuel storage in an ISFSI." The provisions in Subpart K, "General License for Storage of Spent Fuel at Power Reactor Sites," issue a general license to existing 10 CFR Part 50 or 10 CFR Part 52 power reactor licensees for the purpose of spent fuel storage in an ISFSI without the need for a specific application to, or prior approval from, the NRC. Spent fuel stored under the general license must be possessed at the site under the 10 CFR Part 50 or 10 CFR Part 52 license for the reactor site.

Part of the basis for the 10 CFR Part 72, Subpart K general license is that existing reactor licensees have already established many of the requirements, procedures, and programs necessary for the safe storage of spent fuel in an ISFSI. This is based on their meeting similar requirements in 10 CFR Part 50 or 10 CFR Part 52 in areas such as radiation protection, EP, physical security, quality assurance, and training. The 10 CFR Part 72 general license provisions require the general licensee to review its 10 CFR Part 50 or 10 CFR Part 52 technical specifications and programs to determine if changes are needed to support storage of spent fuel under the general license and, if so, to obtain the necessary approvals. These provisions, coupled with the requirement for general licensees to use storage casks approved by the NRC that meet the requirements in Subpart L, "Approval of Spent Fuel Storage Casks," provide reasonable assurance that the 10 CFR Part 50 or 10 CFR Part 52 licensee can safely construct and operate an onsite ISFSI.

A request to convert a general license to a specific license would require the submittal of an application for a specific license demonstrating compliance with all of the programs and requirements described in 10 CFR Part 72, not just Subpart K, and would therefore not be a simple administrative change for the NRC to evaluate. In addition, the issuance of a specific license would be subject to the requirements of 10 CFR 72.16 and 10 CFR 72.46, including that the application for a specific license be noticed in the FR and that an opportunity to request a hearing be provided. Moreover, because the establishment of Level 3 in the graded approach (all spent fuel in dry storage) helps to ensure that the requirements for general licensees who still maintain a 10 CFR Part 50 license at this stage are essentially identical to those for specific licensees under 10 CFR Part 72, converting a general license to a specific license would be unnecessary under the framework established by the final rule.

Further, from an EP perspective, the four levels of decommissioning in the final rule and the rule language for each stage are adequate for the graded approach to decommissioning. The term "ISFSI-only" refers to sites that are still involved in decommissioning activities and where no spent fuel is stored in the SFP. The term "Standalone ISFSI/ Decommissioned Reactor" refers to sites where the license termination and decommissioning criteria in Subpart E of 10 CFR Part 20 have been met with the exception of the ISFSI area. Both of these sites would be permitted to adopt the EP requirements of 10 CFR 72.32. Additionally, the need to add an additional level for a completely decommissioned reactor with spent fuel stored onsite versus a reactor that has not been completely decommissioned with spent fuel stored onsite is unnecessary due to the EP requirements being the same for both conditions.

Accordingly, the NRC did not revise the rule language or RG 1.235 in response to this comment.

4.12 Backfit Rule

***Comment 4.12-01*:** Two commenters claimed that the backfit rule does not apply to the decommissioning of nuclear reactors (NRC-2015-0070-0340-0005, NRC-2015-0070-0365-0005). One comment stated that for the Commission to decide to apply the backfit rule to decommissioning reactors would be a conscious choice to change current regulations—not simply adhere to them—and would expand the remit of the backfit rule. The comment stated that, should the NRC arbitrarily decide to apply the backfit rule to decommissioning reactors, requiring the Commission to approve a PSDAR would not violate it (NRC-2015-0070-0340-0005).

The other commenter asserted that the backfit rule's plain language and rule history show that the rule does not apply to decommissioning. Specifically, the commenter noted that 10 CFR 50.109, "Backfitting," lists "design" 13 times, "construct" five times, and "operate" five times but

never lists anything related to possession-only, decommissioning, or license termination. In addition, the commenter stated that the proposed rule acknowledges that none of the backfit rulemakings even reference decommissioning. The commenter described the proposed rule's discussion of the backfit rule, claiming that six points made in the proposed rule support that the backfit rule does not apply to decommissioning, and two points provide unconvincing support that there is "uncertainty" as to whether the backfit rule applies to decommissioning. Accordingly, the commenter recommended that the NRC include a provision in the proposed rule that explicitly affirms the rule's limited scope (NRC-2015-0070-0365-0005).

NRC Response: The NRC disagrees with these comments. As explained in the proposed rule preamble, in SECY-98-253, "Applicability of Plant-Specific Backfit Requirements to Plants Undergoing Decommissioning" (November 1998) (ML992870107), the NRC staff identified numerous considerations that either support or do not support application of the Backfit Rule to NRC actions affecting power reactors in decommissioning. The Commission decided in the SRM for SECY-98-253 that the Backfit Rule applies to NRC actions affecting power reactors in decommissioning. The Commission directed the NRC staff to apply the then-current Backfit Rule to plants undergoing decommissioning until issuance of a final rule that would clarify the Backfit Rule's applicability by including in the NRC's regulations a Backfit Rule specifically for power reactors in decommissioning. The NRC is now issuing that final rule to reflect the Commission's long-standing policy.

Approximately 15 years before it issued the SRM for SECY-98-253, the Commission issued a policy statement, "Revision of Backfitting Process for Power Reactors" (48 FR 44173; September 28, 1983), in which the Commission explained that the Backfit Rule was necessary to ensure that the NRC would adequately identify, document, and justify certain new or changed requirements or staff positions to be imposed on nuclear power reactor licensees. These reasons for having a Backfit Rule for operating power reactors are the same reasons for having a Backfit Rule for decommissioning power reactors. The NRC is revising 10 CFR 50.109 in this rulemaking because not all 10 CFR 50.109 provisions were applicable to NRC actions affecting a decommissioning power reactor licensee. For completeness and clarity, the NRC is providing a Backfit Rule specifically for these decommissioning power reactor licensees.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.12-02: A commenter urged that the NRC cannot make additional changes to the backfit rule in this rulemaking that are applicable to operating reactors but unrelated to decommissioning. The commenter explained that, in the current 10 CFR 50.109(a)(1)(vi), the NRC proposes to insert a sentence explaining that a documented evaluation, which is used by the NRC to justify not performing a backfit analysis, must include a consideration of the costs of imposing the backfit if the basis for backfitting is bringing a facility into compliance with a license or the rules or orders of the Commission, or into conformance with the licensee's written commitments. The commenter urged that the NRC has no basis for making a change to operating reactor rules in this decommissioning rulemaking, and it is inappropriate and outside of the scope for NRC to add in a new standard for substantively unrelated provisions.

Further, the commenter stated that the proposed change to 10 CFR 50.109(a)(6) is precluded by the AEA. The commenter explained that the AEA bars the NRC from taking cost into consideration when achieving adequate protection, as affirmed by the United States Court of Appeals for the D.C. Circuit in *Union of Concerned Scientists v. U.S. Nuclear Regulatory Commission,* 824 F.2d 108 (NRC-2015-0070-0365-0029).

NRC Response: The NRC disagrees, in part, with this comment. The proposed change to 10 CFR 50.109(a)(1)(vi) is not unrelated to decommissioning. This change is also part of the

backfitting provisions for power reactor licensees in decommissioning (see proposed 10 CFR 50.109(b)(6)). As stated in the proposed rule, the establishment of a Backfit Rule for decommissioning power reactor licensees is to provide a framework so nuclear power reactor licensees in decommissioning "are the subject of similar backfitting provisions as they were during their operating phase." The proposed change to 10 CFR 50.109(a)(1)(vi) is consistent with the proposed addition of 10 CFR 50.109(b)(6).

Moreover, the requirement in proposed 10 CFR 50.109(a)(1)(vi) and (b)(6) to include consideration of the costs of imposing the modification in the documented evaluation required for the use of the compliance exception to support a backfitting action, is not precluded by the AEA. The comment correctly notes that the D.C. Circuit, in its 1987 decision in *Union of Concerned Scientists v. U.S. Nuclear Regulatory Commission*, held that the AEA bars the NRC from taking cost into consideration in adequate protection determinations. That decision is applicable to, among other things, the NRC's use of the adequate protection exceptions under 10 CFR 50.109(a)(1)(iv)(B) and (C) and proposed 10 CFR 50.109(b)(4)(ii) and (iii). However, that decision is not relevant here because the relevant proposed requirement concerns the use of the compliance exception to support a backfitting action under 10 CFR 50.109(a)(1)(iv)(A) or proposed 10 CFR 50.109(b)(4)(i).

Those backfitting actions are not necessary to ensure adequate protection and, therefore, do not rely on adequate protection determinations. The compliance exception justifies a backfit that is necessary to bring a facility into compliance with a license or the rules or orders of the Commission, or into conformance with written commitments by the licensee. Under the 2015 U.S. Supreme Court decision in *Michigan v. EPA*, 576 U.S. 743, the NRC must consider the cost placed on a licensee to comply with a backfit that is not necessary to ensure adequate protection. This decision is captured in the Commission's backfitting policy in Management Directive 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests" (September 2019) (ML18093B087). Thus, the requirement in 10 CFR 50.109(a)(1)(vi) and (b)(7) in the final rule to include a cost consideration in the documented evaluation required for the use of the compliance exception to support a backfitting action reflects this Supreme Court decision and Commission policy.

Accordingly, the NRC did not revise the rule language in response to this comment.

***Comment 4.12-03*:** A commenter suggested that the definition of "backfitting" under 10 CFR 50.109(b) explicitly state that the backfit rule applies to facilities that have permanently ceased operations and permanently removed fuel from the reactor vessel, regardless of how permanent cessation and defueling were given regulatory effect (NRC-2015-0070-0338-0031 and NRC-2015-0070-0338-0049).

NRC Response: The NRC agrees with this comment. The proposed 10 CFR 50.109(b) could be read that only licensees with docketed certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) would be within the scope of 10 CFR 50.109(b). Before the promulgation of the 1996 Final Rule, nuclear power reactor licensees used different processes to end their facilities' operating phase and begin decommissioning (e.g., requesting and receiving NRC approval of a decommissioning plan or a license amendment to allow possession but not operation of its facility). Notwithstanding which process they used, these licensees were, and may still be, in the decommissioning phase for their facilities. For those licensees still in the decommissioning phase, they are within the scope of 10 CFR 50.109(b).

Accordingly, the NRC is revising the rule language to clarify that the scope of 10 CFR 50.109(b) includes nuclear power reactor licensees during their decommissioning phase. To provide this

clarity, the NRC added a provision to 10 CFR 50.109(b) to list the type of entities within the scope of paragraph (b).

Comment 4.12-04: A commenter provided proposed edits that would remove the reference to SSCs "in use after permanent cessation of operations and certification of permanent removal of fuel from the reactor vessel has been docketed as required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) of this chapter" from the definition of backfitting. As basis for this proposed edit, the commenter explained that the way the definition of backfitting is constructed in the proposed rule, the applicability of paragraph (b) is unclear because the reference to permanently ceasing operation and permanently defueling is directly tied only to defining changes to SSCs that would meet the definition of backfitting; in addition, the proposed definition of backfitting could be read to limit backfitting to SSCs that are "in use" at permanently shutdown facilities, meaning that new or different NRC rules or interpretations that require changes to SSCs no longer "in use" at permanently shutdown facilities would not be covered by the definition of backfitting. The commenter asserted that there is no explanation or justification provided in the proposed rule for limiting the definition of backfitting in this way and claimed that such a limitation would be arbitrary and inappropriate (NRC-2015-0070-0338-0050).

NRC Response: The NRC agrees with this comment. The proposed rule language needs to be clarified with respect to the method for referencing SSCs in use after permanent cessation of operations and certification of permanent removal of fuel from the reactor vessel.

As stated in the proposed rule, the establishment of a Backfit Rule for decommissioning power reactor licensees would provide a framework so "nuclear power reactor licensees, which have had their 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications docketed by the NRC, are the subject of similar backfitting provisions as they were during their operating phase." For backfitting purposes, the operating phase begins on the date of issuance of the NRC approval (e.g., construction permit, operating license) and ends (under the current regulations) when the license no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel as provided by 10 CFR 50.82(a)(2) or 10 CFR 52.110(b).

The applicability of a Backfit Rule for decommissioning power reactors begins when the operating phase ends and stops when the NRC terminates the licensee's reactor license. The Backfit Rule for decommissioning power reactors applies to systems, structures, components, and the design of the facility and the procedures and organization required to decommission the facility. In some cases, the NRC's proposed action may affect a system, structure, component, design, procedure, or organization used by the licensee during operations and decommissioning (e.g., an SFP). In these cases, whether the NRC assesses its proposed action under 10 CFR 50.109(a) or (b) will depend on whether the licensee is in its operating or decommissioning stage.

Accordingly, the NRC is revising the rule language in response to this comment to remove the reference to systems, structures, or components "in use after permanent cessation of operations and certification of permanent removal of fuel from the reactor vessel has been docketed as required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) of this chapter." Instead, the NRC is adding a provision to 10 CFR 50.109(b) to clarify the types of entities within the scope of paragraph (b), as explained in the NRC Response to Comment 4.12-03.

Comment 4.12-05: A commenter recommended deleting the reference to the timing provisions in the proposed 10 CFR 50.109(b)(1) (i.e., the definition of backfitting applies after issuance of an operating license or combined license). The commenter explained that, because paragraph (b) of the proposed backfitting requirements would apply only to facilities that have permanently ceased operation and because such facilities would have necessarily been licensed to operate

prior to the time that they ceased operation, the timing provision in the proposed paragraph (b)(1) is unnecessary (NRC-2015-0070-0338-0051).

NRC Response: The NRC agrees, in part, with this comment. A timing provision is needed because the Backfit Rule must include the point in time after which an NRC modification or addition could constitute backfitting. However, the proposed timing provision is not needed because licensees in decommissioning must have been issued an operating license or combined license in order to reach the decommissioning stage. Instead, the NRC included the words, "after the date when the facility licensee met one of the criteria in paragraph (b)(1) of this section," to set the earliest date when the NRC modification or addition that could constitute backfitting could occur. That date is when the licensee begins the decommissioning phase for its facility.

Accordingly, the NRC is revising the rule language in response to these comments. The NRC replaced the words "after the date of issuance of the operating license issued under this part or combined license issued under subpart C of part 52 of this chapter" with "after the date when the facility licensee met one of the criteria in paragraph (b)(1) of this section" in 10 CFR 50.109(b)(2) of the final rule language.

Comment 4.12-06**:** A commenter provided comments on the backfit rule discussion in the preamble of the proposed rule. The commenter stated that they agree with the conclusion reached in that discussion (i.e., "the Backfitting Rule still applies to a licensee that has a license to only possess and own a facility") but expressed concern that the analysis provided overemphasizes the importance of interpreting the term "operate" in reaching that conclusion.

The commenter asserted that, to the extent the proposed rule's interpretation of the phrase "operate a facility" is intended to limit the applicability of the existing backfitting requirements to additions and modifications to the procedures and organization necessary to operate SFPs and associated equipment "necessary for compliance with 10 CFR 50.51(b)," it would unnecessarily narrow the applicability of the backfitting provision from "activities to decommission the reactor" as stated in SECY-98-253.

Furthermore, the commenter stated that the overly narrow interpretation of the term "operate" described in the proposed rule is inconsistent with recent NRC statements (referenced by the commenter) on the continuing effect of a licensee's operating license during decommissioning. The commenter concluded that the definition of backfitting under the existing requirements should be interpreted to be consistent with the language included in the proposed rule, which covers activities required to decommission the facility. Specifically, the commenter asserted that the term "procedures or organization required to . . . operate a facility" should be interpreted to mean "procedures or organization required to . . . decommission the facility." The commenter recommended that the NRC clarify this issue in the supplementary information published in the final rule (NRC-2015-0070-0338-0032).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that it does not need to try to fit a decommissioning reactor into the "operate the facility" language of the Backfit Rule to determine the scope of the backfitting provision for power reactors in decommissioning. As explained in the NRC Response to Comment 5.11-01, the purpose of the Backfit Rule is to ensure the NRC adequately identifies, documents, and justifies certain new or changed requirements or staff positions to be imposed on nuclear power reactor licensees.

As explained in the NRC Response to Comment 4.12-03, the Backfit Rule applies during the operating phase and the decommissioning phase of the facility license. The final rule clarifies that the Backfit Rule for decommissioning power reactors applies to systems, structures,

components, as well as the design of the facility and the procedures and organization required to decommission the facility. In some cases, the NRC's proposed action may affect a system, structure, component, design, procedure, or organization used by the licensee during operations and decommissioning (e.g., an SFP). In these cases, whether the NRC assesses its proposed action under 10 CFR 50.109(a) or (b) will depend on whether the licensee is in its operating or decommissioning stage.

The NRC disagrees that the proposed rule preamble would have narrowed the applicability of the Backfit Rule for decommissioning power reactor licensees in relation to SECY-98-253. Section 50.51(b) of the NRC's regulations reads, in part, as follows:

> During such period of continued effectiveness the licensee shall –
>
> (1) Take actions necessary to decommission and decontaminate the facility and continue to maintain the facility, including, where applicable, the storage, control and maintenance of the spent fuel, in a safe condition, and
>
> (2) Conduct activities in accordance with all other restrictions applicable to the facility in accordance with the NRC regulations and the provisions of the specific 10 CFR part 50 license for the facility.

Thus, 10 CFR 50.51(b) describes "activities to decommission a reactor." Paragraph (1) of 10 CFR 50.51(b) specifically requires the licensee to take actions "necessary to decommission and decontaminate the facility." Therefore, the applicability of the proposed rule backfitting provision would be consistent with SECY-98-253.

Accordingly, the NRC is revising the preamble in response to this comment to remove the discussion about the "operate a facility" language in 10 CFR 50.109(a)(1) and explain that the reasons for applying the Backfit Rule to NRC actions affecting nuclear power reactor licensees undergoing decommissioning are the same reasons for applying the Backfit Rule to NRC actions that affect licensees that are operating a nuclear power reactor.

4.13 Foreign Ownership, Control, or Domination

Comment 4.13-01: A commenter asserted that the proposed rule doubles down on departure from the express terms of the AEA and makes a disordered regulatory scheme worse. Specifically, the commenter stated that the NRC's attempt to redefine when a facility licensed under Part 50 or 52 is a production or utilization facility—for the purpose of addressing when the foreign ownership, control, or domination prohibition in 10 CFR 50.38 no longer applies—is at odds with the AEA and 10 CFR Parts 50 and 52, which the commenter asserted prohibit foreign ownership, control, or domination until the 10 CFR Part 50 or 52 license is terminated at the end of decommissioning. The commenter further stated that the AEA prohibition of foreign ownership, control, or domination materially concerns protecting the common defense and security and that because decommissioning necessarily involves SNF handling, storage, and security, this concern is fully applicable to reactors undergoing decommissioning. Finally, the commenter questioned how the proposed language would be implemented (NRC-2015-0070-0365-0006, NRC-2015-0070-0365-0024).

NRC Response: The NRC disagrees with these comments. The proposed rule does not conflict with the language and structure of the AEA or 10 CFR Parts 50 and 52. The AEA and 10 CFR Parts 50 and 52 define production and utilization facilities with respect to their capabilities. The NRC's regulations also provide that, consistent with other authorities under the AEA that are incorporated in the license, a Part 50 or 52 license continues in effect until the NRC terminates that license, and the proposed rule reaffirms this (see the NRC Response to Comment 2-01).

Therefore, there is necessarily a point in time during decommissioning, but prior to license termination, that a facility that retains a 10 CFR Part 50 or 10 CFR Part 52 license will no longer meet the definition of a production or utilization facility. The proposed rule defines this point in time consistent with NRC case law, the AEA and 10 CFR Parts 50 and 52 definitions of production and utilization facilities, and the NRC's existing decommissioning regulations. The proposed rule also states that for facilities that are no longer production or utilization facilities, the regulations applicable to production and utilization facilities continue to apply unless those regulations explicitly state otherwise.

The only existing regulation that the proposed rule changes with respect to the regulation's applicability to facilities that are no longer production or utilization facilities is 10 CFR 50.38, "Ineligibility of certain applicants," which is modified to state that the prohibition of the foreign ownership, control, or domination of licenses does not apply to licenses for these facilities. This change, though, is consistent with the AEA because the AEA only prohibits the foreign ownership, control, or domination of production and utilization facility licenses.

Notably, the proposed rule does not change the applicability, to facilities that are no longer production or utilization facilities, of the regulatory requirement that the NRC not approve a license transfer application if doing so would be inimical to the common defense and security or to the health and safety of the public. As to how the proposed rule would be implemented, in any case where a particular 10 CFR Part 50 or 52 license for a facility in decommissioning is sought to be transferred, the NRC would necessarily have to determine as part of its required review whether the facility is in fact no longer a production or utilization facility such that the 10 CFR 50.38 prohibition does not apply to the transfer.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 4.13-02: A commenter stated agreement with the proposed rule and characterized the proposed rule as "recogniz[ing] that there is no longer a production or utilization facility on-site after it permanently ceases operation" (NRC-2015-0070-0329-0009).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that the proposed rule change regarding when a facility is no longer a production or utilization facility should be made, but the NRC notes that the comment's characterization of the proposed rule is incomplete. Specifically, the proposed rule provides that a facility is no longer a production or utilization facility upon both its permanent cessation of operations and its modification to be incapable of making use of or producing special nuclear material without significant facility alterations necessary to restore this capability. The comment does not suggest any changes to the proposed rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

4.14 Clarification of Scope of License Termination Plan Requirement

Comment 4.14-01: Regarding the NRC's proposed amendments to clarify that the requirement for an LTP in 10 CFR 50.82(a)(9) and 10 CFR 52.110(i) applies only to power reactor licensees that commenced operation, a commenter recommended replacing the proposed definition of "commencement of operation" (specifically, the phrase "fuel loaded into the reactor") with "criticality achieved and fission products produced" in 10 CFR 52.110(i) and 10 CFR 50.82(a)(9) (NRC-2015-0070-0338-0010).

NRC Response: The NRC disagrees with this comment. Associating commencement of nuclear operations with the fuel being loaded into the reactor is a longstanding practice of the

NRC and is consistent across the regulatory frameworks established by 10 CFR Part 50 and 10 CFR Part 52. Accordingly, the NRC did not revise the rule language in response to this comment.

However, the NRC notes that, although not explicitly stated in 10 CFR 50.82(a)(9) and 10 CFR 52.110(i), the general purpose of an LTP is to provide the plan and method for radiological cleanup of the reactor facility and site. If a licensee has loaded fuel into the reactor but never reached criticality, no fission products would be produced and therefore no portions of the reactor facility would be radiologically contaminated such that they would need to be addressed using the LTP process. If a licensee decides to permanently cease operation in this situation, the NRC anticipates that the licensee could apply for an exemption under the provisions of 10 CFR 50.12, "Specific exemptions," from some or all of the requirements of 10 CFR 50.82(a)(9) and 10 CFR 52.110(i) related to the requirement to assemble an LTP for the facility, or have the option to assemble a very simplified LTP to discuss final cleanup and disposition of the reactor site. This approach continues to provide regulatory flexibility for any power reactor licensees that may find themselves in an unanticipated situation related to termination of the license.

Accordingly, the NRC did not revise the rule language in response to this comment.

4.15 Removal of License Conditions and Withdrawal of Orders Made Redundant by Regulation

Comment 4.15-01: A commenter agreed with the proposed changes to remove license conditions and withdraw orders that are made redundant by regulation (NRC-2015-0070-0329-0010).

NRC Response: The NRC agrees with this comment. The NRC's goals in this rulemaking are to maintain a safe, effective, and efficient decommissioning process and reduce the need for LARs and exemptions from existing regulations. These goals can be achieved by, in part, removing license conditions and withdrawing orders as described in the proposed rule. This comment supports the rulemaking and suggests no specific changes to the rule language.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 4.15-02: With regard to proposed 10 CFR 73.54(j), a commenter stated that the proposed language discussing removal of the cybersecurity plan license condition could be misleading because NRC approval via an LAR is required to remove the license condition from the license (NRC-2015-0070-0338-0133).

NRC Response: The NRC agrees, in part, with this comment. As the comment states, NRC approval via a license amendment would be required to remove the cybersecurity plan license condition from the license, which is why the NRC proposed rule preamble explained that the NRC would issue administrative license amendments in addition to issuing the proposed rule language. However, licensees would not need to submit an LAR for removal of the cybersecurity plan license condition. Further, the rule language proposed in the comment would achieve the same result as the rule language proposed by the NRC.

Accordingly, the NRC did not revise the rule language in response to this comment. However, the NRC did conform 10 CFR 73.54(j) to the rule language in similar provisions in 10 CFR 50.155(h).

5 SPECIFIC REQUESTS FOR COMMENTS

5.1 PSDAR Approval

5.1.1 Activities required before decommissioning

Comment 5.1.1-01: Commenters recommended that the NRC require approval of the PSDAR, a site-specific environmental review, and a hearing opportunity before a licensee undertakes any decommissioning activity (NRC-2015-0070-0380-0009, NRC-2015-0070-0379-0007). One commenter added that doing so would promote transparency and equity for a process that can be confusing and overwhelming to SLTT jurisdictions (NRC-2015-0070-0380-0009). Another commenter similarly urged that the NRC should receive, review, and approve detailed decommissioning plans before decommissioning work can begin, stating that the proposed rule is insufficient to protect public health and safety and ignores the NRC's role in protecting workers, communities, and the environment (NRC-2015-0070-0366-0008). A commenter asserted that the proposed rule further weakens an already inadequate PSDAR process (NRC-2015-0070-0335-0008).

NRC Response: The NRC disagrees with these comments. As discussed in the ANPR, the regulatory basis, and the guidance documents supporting the proposed rule, formal approval of the PSDAR is not necessary to provide adequate protection of the public health and safety during the decommissioning process. Requiring approval of the PSDAR would effectively reinstate the Decommissioning Plan review requirements removed from the regulations by the 1996 Final Rule, which established the current PSDAR process.

One of the main drivers for the 1996 Final Rule, beyond the recognition that decommissioning power reactors inherently pose less risk to public health and safety than operating reactors, was to provide more flexibility in dealing with premature closures and the decommissioning process in general while establishing "a level of NRC oversight commensurate with the level of safety concerns expected during decommissioning activities" (61 FR 39279). One of the primary methods for increasing this flexibility was removal of the NRC's approval of a Decommissioning Plan in favor of a licensee's submittal of the PSDAR to streamline the decommissioning process.

The 1996 Final Rule also recognized that many of the routine activities undertaken during decommissioning are similar to those a licensee carries out during operation, such as radiation protection, contamination control, and preparation for removal of large components. Because of the framework of regulatory provisions embodied in the licensing basis for the facility, these activities are already authorized under the license and do not present additional significant safety issues for which an NRC approval would be warranted. Therefore, it is appropriate that the licensee be permitted to proceed with certain decommissioning activities within established regulatory constraints without the need for a license amendment. Based on these factors, the 1996 Final Rule concluded that requiring explicit NRC approval of a Decommissioning Plan before allowing a power reactor licensee to begin decommissioning activities was not necessary for the protection of public health and safety or the environment.

There have been no significant technical or process changes since the implementation of the 1996 Final Rule to suggest that there would be a substantial health and safety benefit to approving the PSDAR under a similar process that was previously employed for approval of a Decommissioning Plan. Therefore, reinstating an approval requirement for the PSDAR would be contrary to the goals of the 1996 Final Rule, as well as the efficiency improvements that are one objective of the final rule.

The conduct of a site-specific environmental review and opportunity to request a hearing before a licensee undertakes any decommissioning activity, as suggested in a comment, would require as a precondition an NRC action such as a licensing action. The decommissioning process does not require this NRC action until the license termination stage. Therefore, the NRC does not perform a formal site-specific environmental review or offer a hearing opportunity at the beginning of the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-02: Many commenters asserted that the NRC must require formal PSDAR approval, mainly because doing so would provide meaningful public engagement opportunities. Commenters provided the following benefits of public engagement to support this assertion:

- A commenter stated that expanding public participation rights and requiring formal PSDAR approval would enhance "overall regulatory transparency and openness regarding decommissioning" through the proposed rule (NRC-2015-0070-0340-0001).
- A commenter stated that NRC approval of a PSDAR would provide the public with their only opportunity to weigh in on the decommissioning process—and its potential impacts on their health and safety—before the process begins (NRC-2015-0070-0340-0001).
- A commenter urged that requiring formal PSDAR approval would implement good policy and improve public trust (NRC-2015-0070-0365-0008).
- A commenter stated that its State laws have required more robust public participation than is required at the Federal level, and that, in instances where public engagement has been required by its State law, stakeholders have been able to secure valuable financial assurance, site restoration, and emergency planning commitments from licensees (NRC-2015-0070-0339-0002).

Several commenters expressed the following concerns about absence of NRC approval for PSDARs:

- A commenter asserted that foregoing NRC approval of PSDARs represents a departure from international guidance, providing a citation to an International Atomic Energy Agency (IAEA) recommendation (NRC-2015-0070-0339-0002).
- A commenter stated that reasonable assurances of adequate protection require continual and meaningful public engagement opportunities. The comment stated that the PSDAR process in the proposed rule fails to meet this standard and provided an example of how operator requests for exemptions have raised public concerns in the Indian Point decommissioning (NRC-2015-0070-0341-0002).
- A commenter stated that, absent a requirement that NRC approve the PSDAR, the decision to engage in Tribal consultation will be left up to licensees and valuable environmental and cultural resources may be endangered. The commenter provided examples of when Tribal consultation was vital to preserving archaeological resources (NRC-2015-0070-0344-0002).
- Referencing Commissioner Baran's dissenting vote on SECY-18-0055, a commenter stated that a negative consequence of the NRC not approving the PSDAR is that there is no opportunity for stakeholders to challenge the activities outlined in the PSDAR in an agency adjudicatory hearing (NRC-2015-0070-0293-0014).
- Also referencing Commissioner Baran's comments on PSDAR approval, a commenter stated that by only requiring the submission of a report without any agency or public

oversight, the NRC is ceding its regulatory role to protect workers, communities, and the environment (NRC-2015-0070-0343-0002).

- Also referencing Commissioner Baran's comments on PSDAR approval, a commenter asserted that, unless NRC requires its approval of PSDARs, public comments on PSDARs is a "foolish" exercise without a way to impact decision-making (NRC-2015-0070-0293-0014). Another commenter stated that, under the proposed rule, the PSDAR serves merely as an advisory role and that the public should have expanded rights to participate in the decommissioning planning process (NRC-2015-0070-0376-0005).

Two commenters expressed the importance of early public involvement in the decommissioning process (NRC-2015-0070-0340-0001, NRC-2015-0070-0370-0010). Other commenters recommended that the NRC provide for licensing decisions and a meaningful opportunity for a hearing on all post-operational activities, including dismantlement, decommissioning, and related measures for emergency planning, security, and insurance coverage (NRC-2015-0070-0364-0015, NRC-2015-0070-0327-0006). Another commenter urged that the final decommissioning rule should require a licensee to submit a detailed decommissioning plan that must be approved by the NRC before decommissioning work can begin (NRC-2015-0070-0343-0002).

A commenter expressed support for an expanded NRC role in the decommissioning process, including NRC approval of PSDARs, in a manner that would not make the process significantly more time-intensive or inefficient. The commenter emphasized balancing actions by licensees with needs of the host community and commented that Holtec, a licensee, has previously made statements indicating commitment to working with union labor but has broken these commitments in decommissioning projects. The commenter stated that communities have no recourse in these instances because the NRC and public have no role in approving PSDARs (NRC-2015-0070-0331-0004).

NRC Response: The NRC disagrees with these comments. As discussed in the ANPR, the regulatory basis, and the guidance documents supporting the proposed rule, formal approval of the PSDAR is not necessary for the protection of public health and safety or the environment. However, the NRC attempts to foster meaningful public engagement opportunities throughout the decommissioning process, including (1) during the public meeting held to discuss the PSDAR; (2) through participation in various decommissioning conferences and forums; (3) by accepting invitations to provide presentations and answer questions at the decommissioning community advisory panels (CAPs) at many decommissioning power reactor sites; and (4) at the public meeting held to discuss the licensee's LTP during the NRC's review of the license amendment to allow for incorporation of the LTP into the facility license.

The PSDAR must contain a description of the planned decommissioning activities, a schedule for their accomplishment, a discussion of whether the environmental impacts associated with site-specific decommissioning activities will be bounded by appropriate federally issued environmental review documents, the reasons for reaching that conclusion, and a description of any decommissioning activities whose environmental impacts will not be so bounded and will be evaluated prior to the performance of the activities. The PSDAR must also contain a discussion of the licensee's planned actions for managing irradiated fuel and a site-specific decommissioning cost estimate, including the projected cost of managing irradiated fuel (e.g., at an onsite ISFSI).

Although the primary function of the PSDAR is as a planning document to share the general decommissioning strategy and schedule with the NRC and the public, it also (1) informs the public of the licensee's planned decommissioning activities, including the management of spent

fuel; (2) assists in the scheduling of NRC resources for the appropriate technical review and inspection oversight activities; (3) ensures that the licensee has considered the costs of the planned decommissioning activities and provided an estimate of those costs; and (4) describes the environmental impacts of the planned decommissioning activities and ensures they are or will be bounded by those considered in appropriate federally issued environmental review documents.

Enhancements to the recommended type and level of detail of information included in the PSDAR are included in the revision to RG 1.185, Rev. 2, which is being issued with the final rule. These changes were made, in part, to address previous public comments related to the transparency of the PSDAR and its use by members of the public and other stakeholders to better understand the decommissioning process at specific plants. The increased level of detail is intended to provide the NRC and other stakeholders with additional information on the topics that historically have been of high public interest, as well as the subjects for which the NRC staff has previously needed to engage with licensees to obtain a more complete understanding as part of the agency's ongoing oversight of the decommissioning process.

Although not formally approved by the NRC, the NRC staff reviews the PSDAR and has the opportunity to raise any issues with the licensee prior to the licensee commencing major decommissioning activities if the staff identifies any issues during the 90-day period specified in 10 CFR 50.82(a)(5) or 10 CFR 52.110(e). Any health and safety comments raised by the public during the PSDAR public meeting and associated comment period, or concerns identified by the NRC during its routine decommissioning oversight activities, could lead to issues being raised. In practice, these items are addressed during the PSDAR review process through NRC requests for additional information from the licensee. This, along with the provisions of 10 CFR 50.82(a)(6) and 10 CFR 52.110(f), which limit the types of decommissioning activities a licensee can perform, ensure that decommissioning activities having a potential impact on public health and safety or the environment do not occur without prior review and approval, if necessary.

In addition, the NRC's continuing oversight of the decommissioning process from permanent shutdown, through fuel movement, decontamination, and dismantlement, until preparation of the site for unrestricted release, which is documented in publicly available inspection reports, ensures that if any decommissioning activities are identified that would be a significant change from the information provided in the PSDAR or challenge the requirements of 10 CFR 50.82(a)(6) or 10 CFR 52.110(f), those activities can be addressed by the NRC before they occur. The options available for addressing this type of departure include seeking formal NRC approval, requesting an exemption from the associated requirements as needed, or opting not to take the proposed action.

Regarding the comments on adherence to international standards, the NRC maintains awareness of all international decommissioning standards, including those promulgated by the IAEA, and incorporates that information into the NRC's regulations and guidance documents as applicable. However, the NRC does not intend to pursue formal approval of the PSDAR as described in the NRC Response to Comment 5.1.1-01.

Although the NRC recommends the establishment of a CAB or other type of public engagement panel for decommissioning power reactors as a best practice, the AEA does not give the NRC authority to mandate the creation of such entities or to direct State or public participation in the decommissioning process. The NRC has enhanced the discussion of public involvement during the decommissioning process in the revision to RG 1.185, Rev. 2 that is being issued with the final rule. This enhancement should serve to promote "community engagement in the process and ensure clarity and transparency of the process." The NRC also recognizes that individual States are able to enter into their own agreements with licensees regarding public and State

involvement in the decommissioning process, and in some cases to implement more restrictive requirements than the NRC in terms of the criteria for unrestricted site release, etc.

In addition, as required by the Nuclear Energy Innovation and Modernization Act (NEIMA), enacted by Congress in January 2019, the NRC provided Congress with a report on the best practices for CABs at nuclear power plants (ML20113E857). The report identifies “best practices with respect to the establishment and operation of a local community advisory board to foster communication and information exchange between a licensee planning for and involved in decommissioning activities and members of the community that decommissioning activities may affect.” These best practices include NRC observations in the areas of (1) early formation considerations, (2) charter development, (3) local preferences for engagement, (4) membership composition, (5) licensee participation, (6) meeting frequency, (7) public engagement, (8) funding, (9) use of experts and training, (10) topics to be brought before the board, and (11) sites with multiple advisory boards. Additional information on these observations is available in the NEIMA report.

With respect to the comment regarding Tribal consultation and potential impacts on environmental and cultural resources, 10 CFR 50.82(a)(6)(ii) and 10 CFR 52.110(f)(2) in the final rule state that licensees shall not perform any decommissioning activities that result in significant environmental impacts not bounded by appropriate federally issued environmental review documents. This will help account for site-specific situations that may occur during decommissioning that are outside the previously considered environmental impacts and ensure that such actions are not taken without prior review, to include Tribal and other consultations as necessary to bound the proposed environmental impacts. Specifically, if a licensee wanted to pursue a decommissioning activity that would result in environmental impacts not bounded by appropriate federally issued environmental review documents, including those on cultural or archeological resources, then the licensee would need to request a license amendment or an exemption, the application for which would trigger NRC responsibilities under Federal environmental statutes, including Tribal consultation as applicable. Alternatively, the licensee could modify the decommissioning activity so that the impacts would be bounded or decide not to perform the proposed activity so that the unbounded environmental impact does not occur.

In response to the comments regarding the opportunity for a hearing on all post-operational activities, including dismantlement, decommissioning, and related measures for emergency planning, security, and insurance coverage, the existing PSDAR process already provides an opportunity for stakeholder feedback, including a public meeting held in the vicinity of the licensee’s facility, as well as an opportunity for hearing and a public meeting when the licensee submits the LTP. The NRC expects that any health and safety concerns would be identified and addressed during these existing processes, as well as during the ongoing NRC inspection and oversight activities that take place throughout decommissioning in accordance with IMC 2561 and other regulatory interactions. Environmental concerns would continue to be identified and addressed under the provisions of 10 CFR 50.82(a)(6)(ii) or 10 CFR 52.110(f)(2), with related licensing actions subject to opportunity for a hearing.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-03: Two commenters suggested that the NRC should require mandatory public hearings and comment periods before NRC approval of PSDARs and require the establishment of citizens advisory panels or CAPs (NRC-2015-0070-0292-0002, NRC-2015-0070-0343-0002). One of the commenters urged that the NRC must do all it can to encourage community engagement in the process and ensure clarity and transparency of the process to allow for robust engagement (NRC-2015-0070-0343-0002). The other commenter recommended that the NRC should also establish a mechanism for providing timely information to the local

communities and establish a MOU-based process for State and local participation in NRC inspections (NRC-2015-0070-0292-0002).

NRC Response: The NRC disagrees with these comments. As discussed in the ANPR and the regulatory basis supporting the proposed rule, while there is a public comment period related to the PSDAR, there is no hearing opportunity provided because the NRC's review of the PSDAR is not a formal licensing action that would offer a hearing opportunity under 10 CFR Part 2, "Agency Rules of Practice and Procedure." However, a hearing opportunity is provided during the NRC review of the LTP, which is incorporated into a decommissioning facility's license via a license amendment. The approval process for a license amendment includes an opportunity to provide comments and request a hearing, coordination with the State, and an environmental review under the provisions of the NEPA.

Regarding the establishment of a community advisory board or other type of public engagement panel for decommissioning power reactors, see the NRC Response to Comment 5.1.1-02.

The NRC strives to provide timely information on the decommissioning of power reactor facilities to members of the public and other stakeholders. This information is contained on the NRC's public website and provided in periodic decommissioning and spent fuel management inspection reports, which are available along with other publicly available decommissioning documentation in ADAMS. In addition, individuals interested in correspondence related to a particular decommissioning facility can sign up for email distribution of all NRC documents related to that site through the agency's listserv application. These tools allow the public and other stakeholders to maintain awareness of decommissioning activities at various power reactors in a timely fashion.

The NRC notes that several States have entered into MOUs or similar, but less formal, agreements with the NRC regarding State participation in NRC inspection activities. The NRC welcomes such interactions and will continue to support agreements with interested States.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-04: Commenters, including a form letter campaign, urged that requiring review of PSDAR plans, requiring site-specific environmental reviews, and providing for meaningful public hearings is necessary for compliance with the AEA (NRC-2015-0070-0365-0008, NRC-2015-0070-0334-0004, NRC-2015-0070-0394-0003, NRC-2015-0070-0364-0003). Specifically, a few commenters urged that the proposed rule violates the AEA and *Citizen Awareness Network v. NRC* by failing to provide for NRC licensing approval and public hearing opportunities for post-operational decisions on decommissioning, emergency planning, environmental requirements, and security (NRC-2015-0070-0334-0004, NRC-2015-0070-0364-0003, NRC-2015-0070-0394-0003). One commenter added background on how the First Circuit reached its decision in *Citizen Awareness Network* and claimed that the 1996 Final Rule contravened *Citizen Awareness Network* by eliminating NRC licensing of decommissioning activities. The commenter reasoned that distinctions made by the NRC in support of the 1996 Final Rule did not have merit.

The commenter stated that the NRC relies on similar logic in the current proposal but that the mere similarity of decommissioning activities to operations does not mean such activities were contemplated by the original license; the commenter concluded that, therefore, a new licensing decision is necessary to support decommissioning, and NRC must approve PSDARs (NRC-2015-0070-0364-0003). Similarly, another commenter asserted that, to comply with its obligations under the AEA, the NRC must ensure proposed decommissioning plans adequately protect public health and safety by reviewing and either approving or rejecting licensees' PSDARs (NRC-2015-0070-0359-0003).

Another commenter wrote that the proposal focuses on efficiency and that, to better reflect the purpose of the AEA and to efficiently inform the decommissioning process, it should promote public participation. The commenter cited a research study and a few legal cases as demonstrating that robust public participation facilitates efficient projects and commented that NRC licensing proceedings provide for substantive public participation. The commenter added that expanding public participation in nuclear facility decommissioning would be consistent with international practice and other industrial decommissioning in the United States, and, furthermore, would simply reflect a "course correction" to practices before the 1996 Final Rule. Additionally, the commenter stated that NRC approval of PSDAR plans would better provide for public safety (NRC-2015-0070-0365-0001).

NRC Response: The NRC disagrees with these comments. As explained in the NRC Response to Comment 2-02, the NRC is already in compliance with the AEA and court precedent. Therefore, the NRC disagrees that it must update its regulations to require a license proceeding to approve the PSDAR, provide an opportunity for a hearing, or conduct site-specific environmental reviews earlier in the decommissioning process. As noted by the Commission in the 1995 Proposed Rule and the 1996 Final Rule, the Commission provided its reasoning underlying its approach of allowing major decommissioning activities to proceed under the PSDAR process as long as the activities meet 10 CFR 50.59 and would not result in: (1) the elimination of the potential for unrestricted release, (2) significant environmental impacts not previously considered in EISs, and (3) there no longer being reasonable assurance that adequate funds will be available for decommissioning. This rationale continues to apply to the current rulemaking, and a new licensing decision is not necessary to support decommissioning.

Public participation is part of the NRC's cornerstones for effective regulation of the decommissioning process, and the agency will continue to seek out additional opportunities for public involvement in addition to those discussed in the NRC Responses to Comments 4.8-01, 5.1.1-02, 5.1.1-03, and 5.1.1-04.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-05: A comment stated that by not requiring PSDAR approval, the NRC would be withholding its own expertise on nuclear safety, plant operations, and ability to ensure that a decommissioning plan supports public safety (NRC-2015-0070-0340-0001). The comment added that, should the NRC arbitrarily decide to apply the Backfit Rule to decommissioning reactors, requiring the Commission to approve a PSDAR would not violate it (NRC-2015-0070-0340-0005).

NRC Response: The NRC disagrees, in part, with these comments. The NRC disagrees that it is withholding its expertise. The NRC review of a PSDAR involves subject matter experts in the areas of decommissioning, financial assurance, environmental impacts, spent fuel management, and others as necessary to evaluate whether the information in the PSDAR meets the requirements of 10 CFR 50.82(a)(4)(i) or 10 CFR 52.110(d)(1), as applicable. Although the PSDAR is not formally approved, this NRC review of the PSDAR content ensures that the licensee's decommissioning plans are protective of public health and safety and the environment. In addition, as informed by the PSDAR, NRC inspections throughout decommissioning provide oversight of the licensee's activities and ensure that these activities are being conducted safely and in accordance with the applicable regulatory requirements.

Additional information on the NRC's review of the PSDAR and oversight during decommissioning is provided in the NRC Response to Comment 5.1.1-02.

In addition, specific NRC approval of a PSDAR would not change the level of NRC expertise available to support general discussions regarding "nuclear safety, plant operations, and ability to ensure that a decommissioning plan supports public safety." As discussed in the NRC Responses to Comments 4.8-01, 5.1.1-02, 5.1.1-03, and 5.1.1-04, the NRC participates in numerous forums related to nuclear safety topics in general, and power reactor decommissioning activities in particular, and the agency will continue to seek additional opportunities for public and stakeholder involvement throughout the decommissioning process.

The NRC also disagrees that applying the backfit rule to decommissioning reactors is arbitrary, as explained in the NRC Response to Comment 4.12-01. The NRC is not requiring its approval of the PSDAR, as explained in the NRC Response to Comment 5.1.1-01. To require approval of the PSDAR would be such a fundamental change to the NRC's decommissioning regulatory framework that assessing whether such a change would constitute backfitting would require several significant, hypothetical assumptions.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-06: A commenter stated that the proposal would eliminate the PSDAR requirement that cost estimates include the projected cost of managing spent fuel (NRC-2015-0070-0293-0014).

NRC Response: The NRC disagrees with this comment. The PSDAR requirements in the final rule continue to require that the decommissioning cost estimate include the cost of managing spent fuel (see 10 CFR 50.82(a)(4)(i)(D)), and a similar provision was added to the decommissioning requirements in 10 CFR Part 52 (see 10 CFR 52.110(d)(1)).

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.1.1-07: Two commenters urged the Commission not to require approval of the PSDAR, a site-specific environmental review, or a hearing opportunity before undertaking any decommissioning activity (NRC-2015-0070-0329-0012, NRC-2015-0070-0338-0017). Specifically, one commenter stated that NRC approval of the PSDAR would not add to the safety and security of the regulatory framework that encompasses decommissioning efforts, especially given a history of successful decommissioning without such approval and the NRC's role in approving LTPs. The commenter stated that requiring approval would be an additional and unnecessary step, since it would not address any deficiency in the adequate protection of the public health and safety in the decommissioning process. In addition, the commenter asserted that there should be no requirement for a site-specific environmental review. The commenter reasoned that decommissioning a nuclear power plant does not constitute a new major Federal licensing action because the current licensing framework assumes operations cessation and facility decommissioning. The commenter stated that a public hearing would bring no additional safety or security benefits to the process (NRC-2015-0070-0329-0015).

NRC Response: The NRC agrees with these comments. The comments align with the regulatory framework being implemented by the final rule and with NRC comment responses on similar topics.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-08: A commenter cited the 1996 Final Rule and the NRC's response to comments on the associated proposed rule as stating that initial decommissioning activities (i.e.,

dismantlement) are not significantly different from routine operations; thus, these activities do not present significant safety issues warranting an NRC decision or constitute a variation of the terms of the license–which, the commenter wrote, is the triggering element for NRC licensing activity under the AEA and NRC precedent (NRC-2015-0070-0338-0017). Instead, the commenter stated, the PSDAR is a planning document to facilitate oversight of licensee activities–and this function is evidenced by instances of public engagement with decommissioning under the 1996 Final Rule.

Further, the commenter asserted that the current decommissioning process provides assurance that the environmental impacts of decommissioning are adequately addressed and communicated to the public by requiring that licensees provide a basis for whether decommissioning activities are bounded by previously issued or generic environmental reviews. With respect to an opportunity for a public hearing, the commenter stated that the PSDAR, in its current form, is a valuable tool in facilitating licensee interactions with community engagement panels and State and local governments. The commenter stated that the current approach is effective and should not be modified (NRC-2015-0070-0338-0017). Finally, the commenter stated that "a change to the NRC's regulations requiring prior approval of a PSDAR via a license amendment would meet the definition of backfitting" (NRC-2015-0070-0338-0017).

Similarly, another commenter recommended that, in considering whether PSDARs should require NRC approval, a new, site-specific environmental review, and/or hearing opportunities before decommissioning activities, the NRC rely on the statement of considerations in the response to comments for the 1996 Final Rule. The commenter stated that this document explained how, under the 1996 rule, site-specific activities that could result in significant environmental impacts not previously reviewed were prohibited. The commenter stated that the document also clarified the NRC's position that licensees can perform some activities without an approved decommissioning plan and described the purpose of the PSDAR "to inform the public and provide a forum to hear public views, the role of State and local governments, and the more formal public participation process established for license termination" (NRC-2015-0070-0378-0005).

NRC Response: The NRC agrees, in part, with these comments. Most of the comments align with the regulatory framework being implemented by the final rule and with NRC comment responses on similar topics. The NRC is not requiring its approval of the PSDAR, as explained in the NRC Response to Comment 5.1.1-01. To require approval of the PSDAR would be such a fundamental change to the NRC's decommissioning regulatory framework that assessing whether such a change would constitute backfitting would require several significant, hypothetical assumptions.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.1-09: A commenter asserted that:

- Formal approval of the PSDAR would provide no benefit to the public and, counterproductively, would delay a licensee's undertaking of decommissioning activities;
- NRC's current process has been effective for many years and many reactors, and current mechanisms for decommissioning oversight have been proven;
- Current reviews of decommissioning funding assurance and financial qualification in the context of license transfers for decommissioning already provide adequate transparency into and scrutiny of the PSDAR; and

- A license amendment for a PSDAR is not necessary or legally appropriate because decommissioning involves no expansion or modification of the license's terms (NRC-2015-0070-0368-0003).

NRC Response: The NRC agrees with this comment. The comment aligns with the regulatory framework implemented by the final rule and with NRC comment responses on similar topics. In addition, the NRC agrees that pursuing formal approval of a PSDAR via a license amendment would be complicated by the fact that there would be no "expansion or modification" of the activities authorized by the facility operating license to evaluate the acceptability of the PSDAR against. Such a review would very likely take longer than the 90-day window currently outlined by 10 CFR 50.82(a)(5) and 10 CFR 52.110(e) before a licensee can undertake major decommissioning activities, which could delay decommissioning activities while an NRC review was underway.

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

5.1.2 Other activities to increase transparency and public trust

Comment 5.1.2-01: A commenter requested, in light of the economic importance of nuclear facilities to their host communities, that the NRC expand the scope of the proposed rule to make community input, impact, and recovery part of the decommissioning rules and process. Specifically, the commenter requested that the NRC:

- Designate and define the community's role during the decommissioning process;
- Expand community leaders' and stakeholders' control over decision-making that impacts their community;
- Provide safeguards for, and require input from, communities affected by sold nuclear assets, reasoning that decommissioning companies without longstanding relationships with host communities may not be sufficiently incentivized to consider community impacts; and
- Require that the entity decommissioning a plant allocate funding from its decommissioning fund for measures like economic and environmental impact assessments, job retraining programs, redevelopment projects for the creative reuse of site-adjacent land, and other projects designed to ameliorate the negative economic impacts of plant closure (NRC-2015-0070-0377-0001).

NRC Response: The NRC disagrees with these comments. While the agency recognizes the importance of nuclear facilities to their host communities both during operation and decommissioning, the NRC does not have the authority to mandate community participation in the decommissioning process, nor to designate or define the type, scope, or level of engagement between decommissioning licensees and interested stakeholders. Beyond this type of requirement being outside the jurisdiction of the NRC as established by the AEA, there is a large range in the level of public interest in decommissioning across the facilities that are currently permanently shutdown. Therefore, implementing a set of requirements for community involvement in the decommissioning process would remove the flexibility for communities and licensees to establish a level of participation and interaction that is appropriate for the particular power reactor site. Currently these interactions range from informal annual public forums to discuss the status of decommissioning to State-mandated oversight boards that are structured and established through specific legislation. Removing the flexibility for stakeholders to

determine the appropriate level of interaction would not be an improvement to the current regulatory framework.

With regard to the consideration of specific community impacts, as explained in the NRC's regulatory basis for the proposed rule, the socioeconomic impacts of nuclear power plant decommissioning are addressed in the Decommissioning GEIS. However, the NRC plans to update the discussion of socioeconomic impacts in NUREG-0586, Supplement 1, separately from this rulemaking according to published schedules. The process to update NUREG-0586, Supplement 1, will include a public scoping comment period to collect comments on the topics that should be considered during the update. Comments collected by the NRC will be considered in determining any changes in the Decommissioning GEIS to the scope of both generic and site-specific environmental impacts during decommissioning.

Finally, with respect to allocating funding from the decommissioning trust fund for "measures like economic and environmental impact assessments, job retraining programs, redevelopment projects for the creative reuse of site-adjacent land, and other projects designed to ameliorate the negative economic impacts of plant closure," the AEA does not give the NRC the authority to allow the decommissioning trust fund to be used for these types of activities. Under AEA Section 161i(4), the NRC's authority is only "to ensure that sufficient funds will be available for the decommissioning of any production or utilization facility…."

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.2-02: A commenter stated that the proposal represents an additional step in a trend by the NRC to minimize community involvement, citing a Commission SRM dated January 14, 1993 (ML003760989) and related legal case (NRC-2015-0070-0364-0001). The commenter suggested that the NRC set clear, specific, and comprehensive standards for post-operational activities to ensure that decommissioning and spent fuel storage are carried out in a manner that protects public health and safety. The commenter recommended using the 1988 Final Rule and supporting GEIS as a starting point (NRC-2015-0070-0364-0017).

Aside from the description of the decommissioning alternative that will be used, the commenter suggested that the final plan should include a description of the plans to ensure occupational and public safety and to protect the environment during decommissioning; a description of the final radiation survey to ensure that remaining residual radioactivity is within levels permitted for releasing the property for unrestricted use; an updated cost estimate; and, as appropriate, a description of quality assurance and safeguards provisions, as well as an estimate of the cost required to accomplish the decommissioning. To increase transparency and public trust, the commenter stated that all post-operational activities should be approved in licensing proceedings, with an opportunity for public comment (NRC-2015-0070-0364-0008, NRC-2015-0070-0364-0017).

NRC Response: The NRC disagrees with these comments. Public participation is part of the NRC's cornerstones for effective regulation of the decommissioning process, and the agency will continue to seek out additional opportunities for public involvement in addition to those discussed in the NRC Response to Comments 4.8-01, 5.1.1-02, 5.1.1-03, and 5.1.1-04.

Another cornerstone of the decommissioning process is to provide "clear, specific, and comprehensive standards for post-operational activities to ensure that decommissioning and spent fuel storage are carried out in a manner that protects public health and safety." The NRC believes the current regulatory framework for decommissioning, as updated by the final rule, meets this objective. As noted in the NRC Response to Comment 5.1.1-01 reverting to previous version(s) of the decommissioning requirements would not support this goal or be warranted by a corresponding increase in the protection of public health and safety or the environment.

In terms of the type and level of detail of information provided in the decommissioning plan, the NRC notes that the revision to RG 1.185, Rev. 2, which is being issued with the final rule, will include instructions to licensees regarding adding additional information to the PSDAR on the topics that historically have been of high public interest, such as potential environmental impacts, the decommissioning cost estimate, and potential future use of the site, among others. Additional information related to the final radiation survey plan to ensure that remaining residual radioactivity is within the levels permitted for releasing the property for unrestricted use will be included in the LTP, which is incorporated as a license amendment to the licensee's facility operating license.

For other items such as changes to a decommissioning power plant's technical specifications or quality assurance plan, the licensee will continue to need to request NRC review and approval of any proposed changes before they can be implemented. In the case of technical specification changes, this would be done via a license amendment, which would offer the public an opportunity to provide comments and request a hearing. This process will not be changed by the final rule. The PSDAR, the decommissioning licensing actions, and the LTP, coupled with the NRC's ongoing oversight throughout the decommissioning process, ensure that public health and safety and the environment are protected throughout these activities.

Finally, as explained in the NRC Response to Comment 2-02, the NRC disagrees that it must update its regulations to require a license proceeding to approve all post-operational activities or provide an opportunity for public comment.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.2-03: A commenter recommended that assistance should be provided to SLTT jurisdictions to better understand the impact of the rule to their communities, since the proposed rule, regulatory analysis (RA), DGs, and other references are numerous and are not written for the layperson's understanding. The volume of information is overwhelming to SLTT partners who do not have dedicated resources available to review the volume of materials (NRC-2015-0070-0380-0010).

NRC Response: The NRC agrees, in part, with this comment. The NRC is committed to working with its SLTT partners in accordance with the NRC's Tribal Policy Statement, which is intended to encourage and facilitate Tribal involvement in activities under NRC jurisdiction, as well as the NRC Principles of Good Regulation involving openness and clarity. For specific assistance with NRC rulemaking activities, including the proposed rule, RA, DGs, etc., associated with the earlier stages of rulemaking, SLTT representatives are invited to reach out to the individual(s) listed as contacts in the FRN that publish these various documents to ask questions or request clarity on specific sections of the rule or other documents. Likewise, for specific assistance with aspects of this final rule, SLTT representatives can reach out to the contacts listed in the FRN that published this final rule.

The NRC attempts to capture timely information on the decommissioning rulemaking efforts on the NRC's public website and provides links to all publicly available rulemaking documentation in ADAMS.

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.1.2-04: A commenter asserted that the proposed rule fails to sufficiently outline the NRC's public engagement strategy with CAPs, like the Oversight Board, especially with respect to common information requests and similar issues. The comment stated that after-the-fact

engagement by the NRC, as required by the LTP, is insufficient for public engagement (NRC-2015-0070-0341-0004).

Another commenter also emphasized the importance of community advisory organizations to improve public engagement. The commenter stated that guidance focused on increasing transparency and promoting public education at various stages of decommissioning may help communities better prepare for plant retirement, identify local impacts, troubleshoot future problems, and build trust during the process. The commenter suggested that one tool to promote community engagement is the formation of CABs. The commenter recommended that the NRC encourage, as a best practice, empowering CABs and licensees to jointly develop workforce transition plans for displaced, contracted-out unionized laborers. The commenter asserted that these plans should be appended to PSDARs and should prioritize employment with equivalent wages and benefits. The commenter added that licensees should be barred from treating basic wage and benefit data for decommissioning as proprietary (NRC-2015-0070-0331-0005).

Another commenter also expressed support for the use of CAPs, stating that CAPs have been effective in ensuring that the questions and concerns of local stakeholders are addressed in decommissioning activities. The commenter urged that, at a minimum, the proposed rule should recognize this conduit and require the NRC to acknowledge and respond to any information requests from CAPs (NRC-2015-0070-0259-0006).

NRC Response: The NRC agrees, in part, with these comments. As discussed in the NRC Response to Comment 5.1.2-01 and others, the NRC agrees that community advisory organizations are a best practice for decommissioning facilities but cannot mandate their creation because doing so is beyond the agency's jurisdiction under the AEA. In addition, there is no one-size-fits-all approach to community engagement, so the NRC seeks to maintain the flexibility to allow decommissioning licensees and the surrounding communities to enter into whatever level of community interaction and engagement is appropriate for their situation. The NRC has also enhanced the discussion of public involvement during decommissioning in the revision to RG 1.185, Rev. 2 that is being issued with the final rule. This enhancement should serve to promote engagement between decommissioning licensees and the surrounding communities.

With regard to the consideration of workforce transition plans, contract or union laborers, or wage and benefit data, this type of information is generally outside of the purview of the NRC except as it relates to ensuring that a decommissioning licensee maintains an appropriately large and skilled workforce to complete the planned decommissioning activities within the applicable NRC requirements. However, the socioeconomic impacts of nuclear power plant decommissioning are addressed in the Decommissioning GEIS, which the NRC plans to update during a future activity as directed by the Commission. The process to update NUREG-0586, Supplement 1, will include a public scoping comment period to collect comments on the topics that should be considered during the update. These comments will be considered in determining changes in the Decommissioning GEIS to the scope of both generic and site-specific impacts during decommissioning.

With regard to information requests or responding to questions and concerns from community advisory organizations associated with decommissioning facilities, the NRC attempts to be responsive to such requests. Members of the NRC staff have also, upon invitation, participated in numerous meetings of decommissioning community advisory organizations to make presentations on various topics of interest to local stakeholders and answer questions. Finally, the NRC has made updates to the NRC public website to include additional information and responses to frequently asked questions related to the decommissioning of power reactor

facilities. These updates provide increased transparency and promote public education related to various stages of the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.2-05: A commenter asserted that the only way for the NRC to increase transparency and public trust is to include the public in the decommissioning process with meaningful hearing rights (NRC-2015-0070-0365-0009). Another commenter stated that increased opportunities for public participation, hearing rights, and availability of public information can help increase transparency and public trust in the decommissioning process (NRC-2015-0070-0379-0008).

NRC Response: The NRC disagrees with this comment. As explained in the NRC Response to Comment 2-02, the NRC disagrees that it should update its regulations to require a license proceeding to approve all post-operational activities, or the PSDAR, which would be the primary means to introduce hearing rights earlier in the decommissioning process. Specifically, the AEA provides for an opportunity for a hearing "in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees." However, the PSDAR does not modify the types of activities authorized by the facility operating license, nor is it part of a formal licensing action, and is therefore not subject to the opportunity for hearing rights.

The NRC strives to provide transparent and timely information on the decommissioning of power reactor facilities to members of the public and other stakeholders. This information is contained on the NRC's public website and provided in periodic decommissioning and spent fuel management inspection reports, which are available along with other publicly available decommissioning documentation in ADAMS. In addition, individuals interested in correspondence related to a particular decommissioning facility can sign up for email distribution of all NRC documents related to that site through the agency's listserv application. These tools allow stakeholders to maintain awareness of decommissioning activities at various power reactors in a timely fashion.

Accordingly, the NRC does not revise the rule language in response to this comment.

Comment 5.1.2-06: A commenter, referencing Commissioner Baran's dissenting vote on SECY-18-0005, urged that educating the public and supporting knowledge and awareness should be part of the NRC's job. The commenter further urged that the NRC needs to acknowledge Native Americans and build upon Indigenous ideas and provided citations in emphasizing this position with regard to spent fuel waste (NRC-2015-0070-0337-0005).

NRC Response: The NRC agrees, in part, with this comment. As discussed in the NRC Response to Comment 5.1.2-03, the NRC is committed to working with its Tribal partners in accordance with the NRC's Tribal Policy Statement.

The NRC also strives to promote knowledge and awareness about the decommissioning process by maintaining information regarding various decommissioning facilities on the agency's public website, keeping and updating lists of the responses to frequently asked questions on decommissioning issues of high public interest on the NRC public website, and leveraging lessons learned and other information in the updates to various decommissioning guidance documents, including the RGs being issued with the final rule.

The comment did not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.1.2-07: A commenter stated that annual dissemination of public information must be maintained so long as spent fuel remains onsite, and until all fuel is removed from the site, the sites should be obligated to educate nearby communities of the potential risk and protective measures to ensure their safety in worst-case scenarios. The commenter wrote that reduced risk only justifies discontinuing public engagement once risk has been eliminated and supported retaining public education requirements at the PDEP stage (NRC-2015-0070-0379-0006). The commenter urged that the impermissible suppression of public participation by the NRC is an ongoing and persistent issue within the agency's current practices, and the NRC should take the current rulemaking opportunity to remedy this issue and provide for robust, meaningful public participation throughout the decommissioning process, including applicable hearing rights (NRC-2015-0070-0379-0005).

NRC Response: The NRC agrees, in part, with these comments. Public information related to decommissioning facilities is maintained on the NRC's public website and remains available until the point the operating license is terminated. For the power reactor facilities that have a general license ISFSI (which is the majority of power reactor facilities), license termination will not occur until all fuel is removed from the site. The publicly available information includes access to all records important to decommissioning, including NRC inspection and other reports and documentation, as well as the public reports that are still required to be submitted by the licensee during decommissioning (e.g., effluent release, radiological monitoring, financial assurance reports, etc.).

The NRC also strives to promote knowledge and awareness about the decommissioning process by maintaining up to date information regarding various decommissioning facilities on the agency's public website, keeping and updating lists of the responses to frequently asked questions on decommissioning issues of high public interest on the NRC public website, and leveraging lessons learned and other information in the updates to various decommissioning guidance documents, including the RGs being issued with the final rule.

Public participation is part of the NRC's cornerstones for effective regulation of the decommissioning process, and the agency will continue to seek out additional opportunities for public involvement in addition to those discussed in the NRC Response to Comments 4.8-01, 5.1.1-02, 5.1.1-03, and 5.1.1-04.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.2-08: A comment jointly submitted by a few commenters recommended that the NRC should ensure that licensees moving forward with decommissioning submit community engagement plans that create opportunities for public comment, public forums, long-term financial plans, stable employment, and environmental review plans consider community needs (NRC-2015-0070-0366-0005).

NRC Response: The NRC disagrees with this comment. The NRC reasoning regarding community engagement organizations, public forums, opportunities for public comment, the socioeconomic impacts of decommissioning, and environmental reviews during decommissioning are captured in the NRC Responses to Comments 4.8-04, 5.1.2-01, and 5.1.2-04.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.1.2-09: A commenter stated that the current regulatory scheme sufficiently promotes transparency and public trust (NRC-2015-0070-0329-0013). The commenter commended the NRC staff for making itself available to Federal, State, and local officials and

the public to participate in dialogue concerning the decommissioning regulatory framework and spent fuel management requirements (NRC-2015-0070-0329-0016).

NRC Response: The NRC agrees that the current regulatory scheme sufficiently promotes transparency and public trust. The NRC maintains its willingness to remain available to Federal, State, Tribal, and local officials and the public to engage in dialogue on specific topics related to decommissioning and spent fuel management, as well as when invited to participate in community advisory organization meetings or other decommissioning forums.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

5.1.3 Role of State or local governments

Comment 5.1.3-01: A commenter recommended that the proposed rule include "Tribal governments" in sections of the regulation that list the roles of State and local governments (NRC-2015-0070-0243-0001).

Another commenter asserted that Tribal governments, as sovereign entities for which the Federal government has trust obligations, must be included in the decommissioning process. The commenter stated that the NRC must ensure that utilities include Tribes in communications, planning (including emergency response), and decommissioning activities. The commenter encouraged the inclusion of Tribes with cultural or historic ties to the area on local decommissioning community engagement panels or boards. In addition, when a licensee is required to coordinate, plan, work with, or notify State and local governments, the commenter recommended that the NRC add "Tribal governments or Tribal officials," so Tribes are included in planning and communications efforts associated with nuclear power plants' EP and planning activities (NRC-2015-0070-0294-0003, NRC-2015-0070-0294-0001).

Similarly, another commenter recommended that the final rule be revised to recognize that Tribes have an interest and potential role in the decommissioning of nuclear power plants; in addition, the NRC should ensure that impacted Tribes are part of any CABs or CAPs that are established by the licensee as part of the decommissioning process. The commenter also based its positions in the Federal trust responsibilities regarding Indian Tribes and Executive Order (E.O.) 13175, "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249; November 9, 2000) (NRC-2015-0070-0344-0001).

Another commenter also cited E.O. 13175 and the "Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships" in its request to be included in decision-making related to decommissioning to ensure that Tribal interests are represented (NRC-2015-0070-0369-0001). The commenter recommended that the NRC offer technical assistance to Tribal governments to ensure that they are not disadvantaged in their ability to meaningfully engage during decommissioning. The commenter suggested that the NRC should also provide funding assurance to support decommissioning activities and ensure Tribes are involved throughout the process. The commenter also recommended the NRC develop proactive relationships with Tribes to enhance coordination. The commenter stated that NUREG-2173 "Tribal Protocol Manual" Rev. 1 (July 2018) (ML18214A663) and Tribal Policy Statement outlines Tribal engagement and must be "fully integrated before and during the rulemaking process prior to public involvement." The commenter insisted that the NRC expand efforts to identify culturally affiliated Tribes early in rulemaking processes (NRC-2015-0070-0369-0003).

NRC Response: The NRC agrees, in part, with these comments. As discussed in the NRC Response to Comment 5.1.2-03, the NRC strives to include Tribal governments in the regulatory process at the same level as State and local governments. In addition, where the NRC regulations refer to State and local governments, in practice, the NRC considers Tribal governments to be included in the scope of that group. However, as discussed in the NRC Response to Comment 5.1.2-01, while the NRC agrees that community advisory organizations are a best practice for decommissioning facilities, the NRC does not have the authority under the AEA to mandate the creation or membership of such groups, such as including Tribal governments. The NRC also cannot provide funding for such organizations or specifically manage how the organization engages with stakeholders.

With respect to coordination with Tribal governments during planning and communication efforts associated with nuclear power plants' EP and planning activities, the final rule does not change the principles from the NRC's Tribal Policy Statement (ML17011A243). As stated in the January 9, 2017, FRN that issued the Tribal Policy Statement (82 FR 2402), "The NRC Tribal Policy Statement formally reflects the NRC's recognition of the Federal Trust Responsibility and the NRC's commitment to a government-to-government relationship with federally recognized Tribes that is distinct from interactions with members of the public. The NRC will consult in good faith with Indian Tribes on agency actions that have substantial direct effects on one or more Indian Tribes as well as those agency actions for which Tribal consultation is required under Federal Statute."

The NRC Response to Comment 5.1.2-03 also discusses the role of SLTT jurisdictions in the decommissioning process and the NRC's commitment to engaging with those partners in accordance with the NRC's Tribal Policy Statement. Several of the considerations the NRC takes into account when coordinating with OROs are discussed in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 2. This document is used for the development and review of licensee and ORO emergency plans. Section I.B, "Scope," states, in part, "For a tribal government participating in the REP Program, it is recommended that the tribal government enters into consultation with both the NRC and FEMA." The NRC defined the term "consultation," in the FRN announcing the issuance of the NRC Tribal Policy Statement, as follows:

> Consultation means efforts to conduct meaningful and timely discussions between the NRC and Tribal governments on the NRC's regulatory actions that have substantial direct effects on one or more Indian Tribes and those regulatory actions for which Tribal consultation is required under Federal statute. The NRC's Tribal consultation allows Indian Tribes the opportunity to provide input on regulatory actions with Tribal implications and those where Tribal consultation is required, and is different from the outreach and public comment periods. The consultation process may include, but is not limited to, providing for mutually-agreed protocols, timely communication, coordination, cooperation, and collaboration. The consultation process provides opportunities for appropriate Tribal officials or representatives to meet with NRC management or staff to achieve a mutual understanding between the NRC and the Tribes of their respective interests and perspectives.

The NRC promotes knowledge and awareness about the decommissioning process by maintaining up to date information regarding various decommissioning facilities on the agency's public website, keeping and updating lists of the responses to frequently asked questions on decommissioning issues of high public interest on the NRC public website, and leveraging lessons learned and other information in the updates to various decommissioning guidance

documents, including the RGs being issued with the final rule. In addition, representatives from Tribal governments are invited to reach out with questions or clarifications to the technical contact listed on any rulemaking or decommissioning licensing activity, or to the appropriate NRC Tribal Liaison, to receive technical assistance on ongoing matters.

Part of the purpose of the NRC's Tribal Liaison program is to develop proactive relationships with Tribes to enhance coordination in accordance with the NRC's Tribal Protocol Manual and Tribal Policy Statement. In addition, for this rulemaking the NRC has worked with Tribal governments, including culturally affiliated Tribes, to ensure they are "fully integrated before and during the rulemaking process prior to public involvement." This effort included early interactions with Tribes during the ANPR, regulatory basis, and proposed rule stages of the rulemaking.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-02: A commenter incorporated and reasserted the comments submitted by New York, Connecticut, Massachusetts, and Vermont in response to the NRC's ANPR on November 19, 2015, and draft regulatory basis (April 2017) (ML17047A413) on March 15, 2017. These States reiterated that NRC has continually disregarded the concerns of host States by weakening of decommissioning regulations in favor of industry (NRC-2015-0070-0359-0001).

NRC Response: The NRC disagrees with this comment. The comments submitted on the ANPR and the draft regulatory basis for this rule were considered by the NRC and used to inform the conclusions reached in the final regulatory basis and the proposed rule. These conclusions were based on the information included in each of those documents and do not weaken the decommissioning regulations in favor of industry or disregard the concern of host States. The comments do not suggest any specific changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-03: A commenter stated that the proposed rule restricts the involvement of local government and community input, excluding those most impacted by nuclear power plants, whether decommissioned or operational (NRC-2015-0070-0287-0002).

Similarly, another commenter stated that the proposed rule does nothing to increase State, local government, and the public's involvement in decommissioning decision-making and, as a result, site-specific knowledge is missed (NRC-2015-0070-0293-0015).

A commenter stated that community input, impact, and recovery must be a part of any decommissioning process. This commenter warned that leaving out the local voice is not only wrong but lacks a comprehensive approach to achieving the best decommissioning outcome available (NRC-2015-0070-0244-0001).

A commenter encouraged the NRC to welcome the State of Michigan to assist in the oversight of the decommissioning process (NRC-2015-0070-0252-0002).

NRC Response: The NRC disagrees with these comments. The final rule does not restrict the involvement of State or local governments or the availability of community input to the decommissioning process. As discussed in the NRC Response to Comment 2.1.2-01, while the NRC cannot mandate the participation of specific stakeholders, there is no restriction regarding the involvement of State or local governments or members of the public in the decommissioning process. Many States have entered into specific decommissioning agreements with the licensees for permanently shutdown power reactors, which includes the opportunity for various stakeholders to provide input to, and participate in, the decision-making process. These agreements, as well as the other methods various decommissioning licensees use to engage

with the public, allow for State and local governments and impacted communities to retain flexibility in setting up a model for interaction that is appropriate to the level of interest at the site.

The comments do not suggest any specific changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-04: A commenter suggested that, before approving a PSDAR, the NRC should invite the host State to file an opinion of support, opposition, or conditional support that includes specific recommendations for changes to the PSDAR to which the NRC should then be obligated to respond. The commenter added that host States should then be granted automatic party status as intervenors on any issues they wish to raise through an adjudicatory hearing (NRC-2015-0070-0339-0003). Additionally, the commenter requested that the NRC expressly acknowledge the authority of host States over nuclear licensee activities affecting non-radiological materials, waste, and radiation that falls below levels of NRC regulatory concern (NRC-2015-0070-0339-0015).

Another commenter asserted that the proposed rule should provide a role for State and local governments to review and provide meaningful input in the approval process, as well as oversight of the decommissioning process. The commenter suggested that the Indian Point site Joint Proposal is an example that could be used to develop this framework, allowing for strict State oversight of the activities, including regular oversight board meetings and an onsite State inspector (NRC-2015-0070-0379-0009).

NRC Response: The NRC disagrees, in part, with these comments. The NRC recognizes the host State's role and interest in the decommissioning of a nuclear power reactor, and expressly invites the State to provide comments on the PSDAR as part of the comment period and public meeting associated with the PSDAR. These comments are considered during the NRC's review of the PSDAR and routinely addressed in the assessment letter the NRC issues at the end of this process. However, as explained in the NRC Response to Comment 5.1.1-01 and others, the NRC does not formally approve the PSDAR, and therefore there are no associated hearing rights or intervenor party status to consider for States.

With respect to the authority of States over certain non-radiological aspects of decommissioning, in general the NRC agrees that the NRC only has jurisdiction over the radiological components of decommissioning as they relate to the protection of public health and safety and the environment and the common defense and security. The remaining non-radiological activities are regulated by the State or other Federal agencies, the extent of which can vary widely between States. For instance, the NRC has regulatory requirements governing the discharge of radioactive gaseous and liquid effluents from nuclear facilities. The EPA issues National Pollutant Discharge Elimination System permits that establish requirements for the discharge of non-radiological constituents of wastewater. But in some States, the EPA delegates the regulation of non-radiological effluents to State agencies; the States then implement non-radiological effluent limits through a State Pollutant Discharge Elimination System permit.

Finally, in regard to State oversight of decommissioning and the use of onsite State inspectors, several States have imposed or entered into various types of agreements with decommissioning licensees in terms of oversight and onsite inspection resources. The NRC has no specific policy or requirements related to State involvement in the oversight of decommissioning licensees, especially since the level of interest varies widely between decommissioning facilities. The NRC will typically invite State inspectors to participate in the NRC's radiological oversight activities in

accordance with established MOUs or as part of the agency's routine government-to-government interactions. The NRC welcomes such interactions and will continue to support agreements with various interested States.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-05: A commenter asserted that States maintain very serious interests in radiological matters that could affect the health and safety of the public and natural resources. As such, the commenter urged that the State radiation control programs are a major stakeholder for the proposed rule, since any rules made for decommissioning nuclear reactors will affect not only NRC licensees but also the States where reactors are sited (NRC-2015-0070-0259-0002). The commenter concluded by stating that the standard for reasonable assurance of adequate protection of public safety and the environment during and following decommissioning can only be achieved through meaningful engagement with those that live in the communities surrounding the facilities and those State and local officials that represent their interests (NRC-2015-0070-0259-0008).

NRC Response: The NRC agrees, in part, with these comments. As discussed in the NRC Response to Comment 5.1.3-04, the NRC recognizes State radiation control programs' role and interest in the decommissioning of a nuclear power reactor. The NRC is always interested in these organizations promoting engagement during the decommissioning process by providing comments on the PSDAR, participating in decommissioning forums organized or attended by the NRC staff, such as the annual Conference of Radiation Control Program Directors, and maintaining awareness of, or participating in, the activities of any community advisory organization associated with decommissioning facilities within their State.

The comments do not suggest any specific changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-06: Two commenters expressed support for CAPs and Commissioner Baran's suggestion in his dissenting vote on SECY-18-0055 that "[t]he revised draft proposed rule should require NRC to respond to information requests from any CAP established by a host State" (NRC-2015-0070-0365-0010, NRC-2015-0070-0376-0003). One of the commenters also supported the establishment of CAPs or similar organizations by local governments (NRC-2015-0070-0376-0003).

NRC Response: The NRC agrees, in part, with these comments. Please see the NRC Response to Comment 5.1.3-06 for additional information regarding the NRC's inability to mandate the establishment of CABs and the agency's general strategy for responding to information requests from any CAP established by a host State.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-07: A comment jointly submitted by two commenters stated that State and local governments should have all rights to which the AEA entitles them, and those rights should not be denied or abridged by the decommissioning rule. The commenters asserted that the proposed rule's use of the phrase "various roles" signals that the NRC views public participation in its decisions as more of a parlor game than a legal requirement and urged that recognizing the full rights of States, local governments, and Tribal governments to participate in formal proceedings, with rights of appeal to Federal court, is mandatory (NRC-2015-0070-0364-0009).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that State, local, and Tribal governments should have all rights to which the AEA entitles them. However, the NRC disagrees that the final rule "denies or abridges" any of the rights currently offered by the AEA to States, local governments, and Tribal governments.

The NRC also disagrees that the agency views public participation in the decommissioning process as something that is not required. The regulations in 10 CFR 50.82 and 10 CFR 52.110 require the NRC to offer the opportunity for public participation (in the form of a public meeting and public comment period) during both the PSDAR and LTP phase of decommissioning. However, as explained in the NRC Response to Comments 2-02 and 5.1.1-01, the NRC does not formally approve the PSDAR, and therefore there are no associated hearing rights to consider for States at that point in the process. However, hearing rights are offered during the LTP phase, as well as during any other licensing proceeding undertaken during decommissioning (e.g., changes to the technical specifications for the facility).

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

***Comment 5.1.3-08*:** A commenter asserted that SLTT jurisdictions should be provided a role in the decommissioning process and suggested that, at each level, the SLTT jurisdictions should review planning and preparedness capabilities and identify what capabilities are necessary to maintain protection of public health and safety prior to moving to the next level in the process (NRC-2015-0070-0380-0013). The commenter added that State and local jurisdictions have the ultimate authority to determine the risks posed to their communities and to what level they need to prepare, and the partnership built between communities during the operations of a nuclear power plant should carry forward into decommissioning to provide continued joint preparedness to maintain the health and safety of the surrounding communities (NRC-2015-0070-0380-0003).

NRC Response: The NRC disagrees, in part, with these comments. The NRC Response to Comment 5.1.2-03 discusses the role of SLTT jurisdictions in the decommissioning process and the NRC's commitment to engaging with those partners in accordance with the NRC's Tribal Policy Statement.

With respect to coordination with SLTTs during review of the planning and preparedness capabilities associated with nuclear power plants' emergency plans, as well as the risks posed to surrounding communities and to what level they need to prepare, that risk is already a cornerstone in onsite and offsite emergency planning for the agency, and this is being continued under the final rule. For example, 10 CFR 50.200(c)(1)(ii)(A) of the final rule requires licensees to review EALs with State and local governmental authorities on an annual basis. The NRC Response to Comments 3.2-01, 4.1-02, and 4.1-14 further discuss the risks posed to surrounding communities from a decommissioning facility and the Federal guidance available to SLTTs to determine and implement an appropriate level of EP.

The final rule also continues to require licensee coordination with offsite organizations related to emergency plans, including those for decommissioning power reactors. In addition, the NRC considered what opportunities or strategies could be used to support public awareness and engagement on the content of decommissioning emergency plans. This information is captured in RG 1.235, being issued with the final rule.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.1.3-09: A commenter recommended that the NRC establish a formal process for the local and host State inspectors to observe or participate in the NRC's inspections through an MOU (NRC-2015-0070-0292-0002).

NRC Response: The NRC disagrees with this comment. Several States have entered into MOUs or similar, but less formal, agreements with the NRC regarding State participation in NRC inspection activities, but the NRC has no specific policy or requirements related to State involvement in the NRC's oversight of decommissioning licensees. The agency does not intend to formalize this process, especially since the level of State interest varies widely between decommissioning facilities and there would be no one size fits all approach to these interactions. However, the NRC welcomes such interactions and will continue to support agreements with interested States.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.1.3-10: A commenter asserted that a role for States and local governments in the decommissioning has already been successfully demonstrated (NRC-2015-0070-0329-0014). The commenter added that State and local governments have successfully been involved in the process to varying extents in facility decommissioning, depending upon local conditions and attitudes, and requiring the role by rule is not necessary from a safety and security viewpoint. The commenter stated that such a requirement would usurp State and local prerogatives to establish a role that fits the location (NRC-2015-0070-0329-0017).

NRC Response: The NRC agrees with these comments. The NRC agrees that mandating a role for State and local governments in the decommissioning process is not necessary from a public health and safety standpoint, and that maintaining the current framework allows for decommissioning licensees and the surrounding communities to have flexibility in entering into the types and engagement that are most suited to the local interests.

The comments do not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to these comments.

5.2 Timeframe for Decommissioning

5.2.1 Advantages/disadvantages of prompt decontamination

Comment 5.2.1-01: Several commenters provided general support for prompt decommissioning.

A few commenters opined that the period of time in which a site is required to be cleaned up should be reduced from 60 years to as soon as possible, with due consideration for worker and public health and safety and EJ (NRC-2015-0070-0334-0008, NRC-2015-0070-0370-0004, NRC-2015-0070-0394-0007, NRC-2015-0070-0389-0001). Likewise, another commenter asserted that prompt decommissioning should be the expectation, not an option, and the proposed rule should require decommissioning to be completed as soon as technically and financially feasible (NRC-2015-0070-0335-0007).

A comment jointly submitted by a few commenters asserted that the current timeframe of up to 60 years is unacceptable, poses increased risk to the health and safety of communities and the environment, and forgoes an opportunity to extend the existing workforce into the decommissioning phase of work—which would maintain a level of consistency not only for the workers, but for the local economy. The comment suggested that the NRC should require a

timeline for decommissioning that ensures a timely and efficient process and ensures continuity of employment. In addition, the comment stated that the NRC should require decommissioning plans that will restore the site as expeditiously and as safely as possible, reasoning that timely decommissioning is beneficial for the health and safety of the communities, workers, the environment, and for repurposing the site for future economic uses (NRC-2015-0070-0366-0007).

A commenter recommended that the NRC reassess the timeline for decommissioning, since the current 60-year period is a disruptive and wasteful practice with no basis in safety. The commenter urged that the final decommissioning rule should make the standard timeline for decommissioning a prompt start upon shutdown and, at most, only allow SAFSTOR in very limited cases (NRC-2015-0070-0343-0005).

NRC Response: The NRC disagrees with these comments. While the NRC recognizes that the recent trend for nuclear power reactors entering decommissioning is for licensees to pursue prompt decommissioning, the regulation at 10 CFR 50.82(a)(3) and 10 CFR 52.110(c) states that decommissioning will be completed within 60 years of permanent cessation of operations. The 60-year timeline described in the NRC decommissioning regulations is the result of a risk-informed performance-based decision documented in the 1988 Final Rule. Specifically, the NRC based the 60-year timeline on the following health and safety factors:

- *The time needed for the decay of several predominant radiological isotopes to reduce radiation exposures to workers, in accordance with the as low as reasonably achievable principles*. Sixty years roughly corresponds to 10 half-lives for cobalt-60, one of the predominant isotopes remaining in a decommissioning nuclear reactor facility. After 50 years, most of the short-lived isotopes, which provide the most dose and exposure to workers during decommissioning, will have decayed to background levels, leaving the licensee with 10 additional years to dismantle and decontaminate the facility.
- *The ability to effectively maintain safety and institutional controls throughout the project*. Based on the technical data collected, the 60-year period appears to be a reasonable expectation for the maintenance of institutional controls. For periods beyond 60 years, an evaluation of the need for additional institutional controls may be required. Institutional controls include engineered controls such as fences and restrictions on the site's deed that restrict land uses such as use as a park or for farming during the period of decommissioning. Institutional controls could also include ownership by the Federal or State government, thus providing an additional legal mechanism to restrict access.
- *The overall costs of decommissioning as a function of time*.

During the 1988 rulemaking, the NRC determined that using the DECON method, or using the SAFSTOR method for up to 50 years, plus 10 years for decontamination and dismantlement activities, would be a reasonable approach for decommissioning a nuclear power reactor. DECON and SAFSTOR both have benefits when chosen as the decommissioning method and can be carried out in a manner that protects public health and safety. Specifically, the benefits of DECON include the removal of contaminated systems, components, and structures to a degree that will allow for unrestricted use of the site soon after shutdown. The benefits of SAFSTOR include an allowance for radioactive decay to occur to a level that decreases the net radiological contamination remaining at the site, both in terms of potential occupational exposure and overall waste volumes created. During subsequent decommissioning rulemaking activities, including an analysis during the creation of the proposed rule for this rulemaking, this underlying technical basis for the 60-year timeframe did not change.

Therefore, the NRC sees no direct health and safety benefit to requiring prompt decommissioning as opposed to allowing licensees the flexibility to determine the decommissioning timeframe that is most beneficial for their particular facility within the 60-year required window. The current decommissioning requirements establish a timeline for decommissioning that ensures a timely and efficient process for restoration of the site, while maintaining public health and safety, occupational safety, and the protection of the environment.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.2.1-02: A comment jointly submitted by two commenters commented that the Commissioners instructed NRC staff to address the timeframe for decommissioning in the proposed rule. The commenters stated that they have previously commented on this issue in responding to the ANPR, and they stand by those comments, adding that it is past time for the NRC to provide its own analysis of current information (NRC-2015-0070-0364-0010).

NRC Response: The NRC disagrees with this comment. As discussed in the ANPR, the regulatory basis, and the guidance documents supporting the proposed rule, the NRC analyzed the timeframe for decommissioning as part of the proposed rule and determined that no public health or safety improvements would be gained by regulatory changes to the decommissioning timeframe. The NRC based this finding on a review of the preambles to the 1988 and 1996 Final Rules, lessons learned since 1996, stakeholder comments on the ANPR and draft regulatory basis published for this rulemaking activity, and other technical data that informed previous decommissioning rulemaking activities about the 60-year timeframe to complete decommissioning, as well as an assessment of the current ongoing decommissioning activities. This effort constitutes an independent NRC analysis of current information regarding the appropriate timeframe to complete decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.2.1-03: A commenter recommended that the NRC require that decommissioning be completed within 10 years from the permanent cessation of operations to allow former plant sites to be returned to productive re-use in a timeframe that provides a meaningful opportunity for a host community to mitigate post-closure impacts. The commenter stated that the current timeframe of 60 years is an economic injustice that hinders a host community's ability to mitigate the significant impacts of plant closure (NRC-2015-0070-0361-0002). Similarly, another commenter expressed support for the NRC to prefer accelerated decommissioning whenever possible to help blunt the immediate economic losses following a plant shutdown, and to help expedite release of the site to the local community for productive use. The commenter added that accelerated decommissioning still needs to provide fair wages and employment opportunities for workers (NRC-2015-0070-0331-0003).

Another commenter also stated that the rule should require decommissioning to be completed as soon as possible, because: (1) prompt decontamination can take advantage of the first-hand knowledge of the workers who recently operated the plant; (2) States, local communities, and plant workers have expressed a strong interest in prompt decommissioning because of the employment and land redevelopment benefits it provides; (3) IAEA safety standards state that "[t]he preferred decommissioning strategy shall be immediate dismantling" unless it is not practicable; (4) decommissioned reactors have shown a rapid decommissioning is doable; and (5) longer decommissioning timeframes can increase overall costs as a result of maintenance, security, and other long-term expenses (NRC-2015-0070-0293-0012).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that prompt decommissioning is technically and financially feasible, should that approach support the

business decisions for a specific licensee. However, socioeconomic information such as post-closure economic impacts of decommissioning, potential economic and workforce losses due to permanent shutdown of a nuclear power reactor, fair wage and employment opportunities, and the specifics of future beneficial reuse of the site, is generally outside of the statutory purview of the NRC. The exceptions relate to ensuring that a decommissioning licensee maintains an appropriately large and skilled workforce to complete the planned decommissioning activities within the applicable NRC requirements and that adequate funds are maintained throughout the decommissioning process to complete radiological cleanup of the site.

The socioeconomic impacts of nuclear power plant decommissioning are addressed in the Decommissioning GEIS, which the NRC plans to update during a future activity as directed by the Commission. The process to update NUREG-0586, Supplement 1, will include a public scoping comment period to collect comments on the topics that should be considered during the update. These comments will be considered in determining changes in the Decommissioning GEIS to the scope of both generic and site-specific impacts during decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.2.1-04: Two commenters also requested that the NRC eliminate the ENTOMB strategy and not allow licensees up to 60 years to decommission their facilities as a right (NRC-2015-0070-0359-0005, NRC-2015-0070-0339-0004). One of the commenters stated that lengthy delays with SAFSTOR may pose heightened risks to public health, while prompt DECON brings significant potential benefits, such as the ability to retain experienced and knowledgeable staff at reactors transitioning from power generation to DECON. Further, the commenter stated that prompt decommissioning also benefits the local economy by limiting near-term job losses, generating economic activity, and preparing the site expeditiously for reuse. The commenter suggested that the NRC should use this rulemaking to require generally that licensees decommission their reactors no later than 10 years after closure of the last operating reactor at a facility (NRC-2015-0070-0359-0005). The other commenter similarly stated that completing radiological decommissioning within just 10 years of shutdown is not only feasible–it has already occurred at several reactor sites. The commenter recommended that the NRC should therefore take this opportunity to require that licensees decommission their reactors sites as soon as technically feasible (NRC-2015-0070-0339-0004).

NRC Response: The NRC agrees, in part, with these comments. The NRC reevaluated the three existing decommissioning options (DECON, SAFSTOR, and ENTOMB) and the timeframes associated with these options in Appendix H of the regulatory basis for the proposed rule (ML17215A010). In the regulatory basis, the NRC recommended that the guidance accompanying the final rule be updated to note that ENTOMB is no longer considered a feasible decommissioning option for U.S. nuclear power reactors because it does not meet the required regulatory timeframe for unrestricted release. The final RG 1.184, Rev. 2, and RG 1.185, Rev. 2, being issued with the final rule incorporate these changes to reflect that ENTOMB is not a standard decommissioning strategy for U.S. nuclear power reactors.

The NRC disagrees that use of the SAFSTOR option creates lengthy delays in decommissioning or poses a heightened risks to public health and safety. When the NRC completed an analysis of the timeframes associates with the decommissioning options in 2017, 30 nuclear power reactors had permanently ceased operation; 10 reactors promptly completed decommissioning after stopping operations; and collectively, the remaining 20 power reactors had approximately 500 years of being placed in SAFSTOR, with 7 of these reactors remaining in SAFSTOR for an average of 40 years or more. Given that all of these reactors have and continue to be maintained safely in SAFSTOR, as demonstrated by ongoing NRC inspections (conducted at least annually) and oversight activities at each facility, the NRC has no reason to

recommend or consider changing the Commission's original determination that decommissioning can be completed safely at any time during the 60-year timeframe. This timeframe remains protective of public health and safety.

The NRC Response to Comments 5.2.1-01 and 5.2.1-03 address the need to establish a different, namely shorter decommissioning timeframe and the NRC's role in the socioeconomic and occupational impacts of decommissioning, respectively.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.2.1-05: A commenter discussed the three options currently available for decommissioning—DECON, SAFSTOR, and ENTOMB—including the advantages and concerns associated with each method (NRC-2015-0070-0292-0003).

NRC Response: The NRC agrees, in part, with this comment. The NRC evaluated the three existing decommissioning options, DECON, SAFSTOR, and ENTOMB, and reached the same general set of advantages and disadvantages for each option as described in the comment.

The comment does not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.2.1-06: A commenter asserted that the advantages of prompt decontamination far outweigh the disadvantages, especially when it comes to protecting communities and skilled workforces (NRC-2015-0070-0365-0011). The commenter recommended that the NRC eliminate the ENTOMB decommissioning option. The commenter further commented that the NRC should, at a minimum, fundamentally revise the DECON and SAFSTOR options to require decommissioning to begin as soon as feasible after a reactor is permanently shutdown. The commenter stated that doing so would be beneficial to workers, the community, and the host States, and added that the AEA requires the NRC to revise the decommissioning timeframe because Section 103 of the AEA requires that the facility's license include a specific termination date no longer than 40 years after issuance (NRC-2015-0070-0365-0004).

Another commenter also added that, consistent with Commissioner Baran's dissenting vote on SECY-18-0055, ENTOMB should not be considered a decommissioning strategy (NRC-2015-0070-0293-0013).

NRC Response: The NRC agrees, in part, with these comments. As noted in the NRC Response to Comment 5.2.1-04, the ENTOMB option is being removed from the NRC's decommissioning guidance because ENTOMB is not considered a strategy for unrestricted release, which is the general goal of decommissioning. The response to Comment 5.2.1-04 also discuss the NRC position on: (1) the current decommissioning strategies and timeframes being protective of the public and radiation workers; (2) requiring decommissioning to commence as soon as feasible after a reactor is permanently shutdown; and (3) the socioeconomic impacts of decommissioning.

The NRC disagrees that Section 103 of the AEA requires that the facility's license include a specific termination date no longer than 40 years after issuance or could be interpreted to mean that DECON or SAFSTOR be completed within the 40-year period. As explained in the NRC Response to Comment 2-01, there is a difference between a license that has expired and a license that has been terminated. 10 CFR Part 50 and 10 CFR Part 52 operating licenses issued under the authority of AEA Section 103c that are not renewed before they expire may continue in effect past their expiration dates, even when the expiration date is 40 years after the issuance of the operating license. There is no requirement in Section 103 of the AEA related to the specific timeframe for completion of decommissioning for nuclear power reactors.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.2.1-07: A commenter stated that the current 60-year timeframe has a sound technical and policy basis, and there is no compelling safety or security basis for revisiting this aspect of the NRC's rules. The commenter stated that devoting agency resources to evaluating rule changes that would modify the 60-year timeframe currently provided in the regulations would not increase efficiency or reduce burden on either the NRC or licensees and, instead, the scope of this rulemaking should be limited to achieving the primary objective articulated in the ANPR, which is "to implement appropriate regulatory changes that reduce the number of licensing actions needed during decommissioning" (NRC-2015-0070-0338-0018).

NRC Response: The NRC agrees with this comment. The comment aligns with the regulatory framework being implemented by the final rule and with NRC comment responses on similar topics.

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.2.1-08: A commenter stated that licensees should retain the flexibility to consider all factors impacting the radiological decommissioning of their sites without additional arbitrary or artificial constraints not connected to the public health and safety. Further, the commenter stated that the Commission should clarify the process for licensees to seek Commission approval for greater than 60 years, particularly as it relates to multiple units on a single site (NRC-2015-0070-0368-0005).

NRC Response: The NRC agrees with this comment. The comment aligns with the regulatory framework being implemented by the final rule and with NRC comment responses on similar topics, especially as they relate to the ability of a decommissioning licensee to retain flexibility in addressing the factors that may impact the radiological decommissioning of the facility.

Under 10 CFR 50.82(a)(3) or 10 CFR 52.110(c), the Commission must approve completion of decommissioning beyond 60 years and will consider this extension only when necessary to protect public health and safety. Factors that the NRC will consider in evaluating an alternative that provides for completion of decommissioning beyond 60 years after permanent cessation of operations include unavailability of waste disposal capacity and other site-specific factors affecting the licensee's capability to carry out decommissioning, including the presence of other operating nuclear facilities at the site or the intention to decommission all reactors at a multi-unit site on a consolidated schedule. The NRC would consider these factors as part of its review process if a decommissioning licensee requested an exemption from the 60-year timeframe under the provisions of 10 CFR 50.82(a)(3) or 10 CFR 52.110(c).

In addition, in cases where the specific exemption criteria of 10 CFR 50.82(a)(3) or 10 CFR 52.110(c) cannot be met, the NRC has determined that licensees may request an exemption from the 60-year decommissioning timeframe in a manner consistent with other regulatory exemptions sought under 10 CFR 50.12 or 10 CFR 52.7, "Specific exemptions." In this situation, a licensee could use the general exemption criteria in 10 CFR 50.12 or 10 CFR 52.7 to obtain NRC approval of an alternative decommissioning timeframe if that approach meets specific requirements including one or more of the special circumstances listed in 10 CFR 50.12 or 10 CFR 52.7, is authorized by law, will not present an undue risk to public health and safety, and is consistent with the common defense and security.

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.2.1-09: A commenter stated that prompt decontamination has become prevalent due to the availability of low-level radioactive waste disposal capacity, technological improvements, efficiencies that have yielded reductions in exposure to workers and time to complete tasks, and new business models featuring entities that implement these improvements well within the budgeted amounts for decommissioning. The commenter stated that in this environment, a requirement for prompt decommissioning is not necessary (NRC-2015-0070-0329-0018).

NRC Response: The NRC agrees with this comment.

The comment does not suggest any changes to the rule language or associated guidance documents. Accordingly, the NRC did not revise the rule language in response to this comment.

5.2.2 Decisions about timeframe on a site-specific basis

Comment 5.2.2-01: A commenter supported some regulatory flexibility in allowing the NRC to make decisions about the timeframe for decommission on a site-specific basis. However, the commenter stated that the current system of permitting decommissioning to occur within 60 years violated the AEA and is problematic for workers, communities, States, and the environment. The commenter urged that the final decommissioning rule should require decommissioning to occur as soon as practicable upon final cessation of reactor operations (NRC-2015-0070-0365-0012).

NRC Response: The NRC disagrees, in part, with this comment. The NRC agrees that regulatory flexibility is necessary in making site-specific decisions about the appropriate timeframe to decommission a nuclear power reactor, but notes that these decisions are often business decisions made by the facility licensee. The NRC's role in this process is to ensure that decommissioning is completed within the 60-year timeframe, and is conducted safely, securely, and with adequate funding to complete radiological cleanup of the site. The NRC Response to Comment 5.2.1-06 discusses the NRC position on the 60-year decommissioning timeframe violating the AEA.

The NRC Response to Comments 5.2.1-01 and 5.2.1-03 address the need to establish a different, namely shorter, decommissioning timeframe and the NRC's role in the socioeconomic and occupational impacts of decommissioning, respectively.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.2.2-02: In response to the NRC's request for comment on the advantages and disadvantages of the NRC evaluating and making a decision about the timeframe for decommissioning on a site-specific basis, a commenter stated that the NRC should not decide the timeframe for decommissioning on a site-specific basis. The commenter reasoned that debates on how quickly a specific site undergoes and completes decommissioning allow local communities and stakeholders to express views and, at times, strong preferences on the timeframe under consideration. The commenter added that if there arises a public health and safety or national security matter requiring a faster or slower pace, the NRC may issue an Order to that effect. Additionally, the commenter stated that situations calling for exemptions from the 60-year timeframe are becoming more common and that the NRC should develop a framework for processing such exemptions (NRC-2015-0070-0329-0019, NRC-2015-0070-0329-0054).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the agency should not determine the timeframe for decommissioning a nuclear power reactor on a site-specific basis but should retain the current 60-year requirement, which allows licenses to

maintain flexibility in choosing a decommissioning approach that is beneficial to their site's unique decommissioning considerations. The NRC also agrees that if an issue arises during decommissioning that impacts the public health and safety or national security, the NRC may issue an Order to any decommissioning licensee to address the issue. This could include the need to increase or decrease the speed of decommissioning at a specific facility.

The NRC Response to Comment 5.2.1-08 includes a discission of the existing NRC framework for evaluating decommissioning timeframes beyond 60 years using the exemption process. However, the NRC disagrees with the statement that situations calling for exemptions from the 60-year timeframe are becoming a more common occurrence. If anything, the NRC notes that prompt dismantlement is happening at the majority of decommissioning reactor sites and SAFSTOR is less utilized by the current decommissioning fleet.

Accordingly, the NRC did not revise the rule language in response to this comment.

5.3 Emergency Planning

All comments related to the NRC's emergency planning Specific Requests for Comment are reflected in Section 4.1, "Emergency Preparedness," of this document.

5.4 Emergency Response Data Systems

Comment 5.4-01: Several commenters stated that the emergency response data system (ERDS) should continue to be required until all spent fuel is removed from the reactor site (NRC-2015-0070-0379-0011, NRC-2015-0070-0334-0012, NRC-2015-0070-0293-0028, NRC-2015-0070-0359-0013, NRC-2015-0070-0335-0005, NRC-2015-0070-0370-0009, NRC-2015-0070-0327-0010, NRC-2015-0070-0394-0005).

A commenter stated that an advantage to maintaining aspects of the ERDS until all spent fuel is removed from the pool would be that it would address stakeholder ease related to ending transmission of ERDS data (NRC-2015-0070-0329-0022).

NRC Response: The NRC disagrees with these comments. In particular, the NRC disagrees that there is an advantage to maintaining ERDS until all spent fuel is removed from the pool.

The ERDS is not a licensee system. The NRC implemented ERDS to upgrade its ability to acquire data from nuclear power plants in the event of an emergency at a plant. Once a reactor is shutdown and permanently decommissioned, there is no need for ERDS and the required information is able to be provided by separate means. The NRC's position on the applicability of the ERDS requirement in Appendix E of 10 CFR Part 50 is captured in a letter from Robert Lewis, Division of Preparedness and Response, Office of Nuclear Security and Incident Response (NSIR), "Emergency Response Data System at Plants that Have Permanently Ceased Operations" (June 2014) (ML14099A520), which was validated in the Commission's decision in CLI-15-20, "Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station)" (October 2015) (ML15274A084).

In the preamble for the ERDS Final Rule (56 FR 40178; August 13, 1991), the NRC stated the objective of the rule was to provide a reliable and effective communication system that would allow the NRC to monitor critical parameters during an emergency. However, as stated in the Robert Lewis letter, the requirements in Section VI of Appendix E do not apply to nuclear power reactor licensees who have submitted a certificate of permanent cessation of operation (see Section VI.2 of Appendix E). In addition, the Commission stated the following in the *Vermont Yankee* decision:

> Compared to a reactor accident, a spent fuel pool accident is a slower-moving event with far fewer parameters for a licensee to monitor, fewer kinds of potential accidents, and more time available to take mitigative and corrective actions. Moreover, without an operating reactor in the picture, the entire focus of the licensee's staff can be on the spent fuel pool. And once a reactor has shut down, the potential for a release from a spent fuel pool will diminish with time as the decay heat of the fuel drops, given that no fresh spent fuel will be added to the pool. It is reasonable, therefore, to read the rule exemption as applying to facilities that have permanently shut down reactor operations and defueled their reactors, as the Board found.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.4-02: Several commenters opposed ERDS requirements for permanently shutdown facilities (NRC-2015-0070-0329-0022, NRC-2015-0070-0329-0057, NRC-2015-0070-0338-0021, NRC-2015-0070-0338-0114, NRC-2015-0070-0338-0111, NRC-2015-0070-0338-0112, NRC-2015-0070-0338-0113). A commenter stated that a disadvantage to requiring ERDS capability is that it would require continuation of ERDS beyond a time, and without a reason, tied to the NRC's statutory mission (NRC-2015-0070-0329-0057).

Another commenter stated that there is no apparent safety justification to revise the required ERDS parameters to include data points for an SFP at a permanently shutdown facility when it is not required for operating plants (NRC-2015-0070-0338-0021, NRC-2015-0070-0338-0114). The commenter also noted that the NRC has maintained that after permanent cessation of operations, the licensee can evaluate a change to its emergency plan to remove ERDS information (NRC-2015-0070-0338-0111).

Once the reactor is permanently defueled, there is no longer the need to transmit a large number of data points to monitor potentially rapidly changing parameters associated with the spectrum of postulated accidents involving an operating reactor (NRC-2015-0070-0338-0112). The commenter stated that maintaining an ERDS would impose additional burdens on licensees to maintain and periodically test the ERDS link (NRC-2015-0070-0338-0113).

NRC Response: The NRC agrees with these comments.

The commenters did not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

5.5 Cybersecurity

Comment 5.5-01: A commenter stated that the proposed rule eliminates the requirement to defend against cyberattacks for BWRs 10 months after the cessation of power generation, which leaves digital security communication equipment and security cameras vulnerable. The commenter stated that the Commonwealth of Massachusetts' settlement agreement with Holtec Pilgrim took corrective actions that required a cybersecurity plan with 10 cybersecurity measures. The commenter stated that cyber protection should not be left up to chance that the host State can reach an agreement with the licensee (NRC-2015-0070-0293-0019).

NRC Response: The NRC disagrees with this comment. There are fewer critical digital assets at a decommissioning reactor in comparison to the number at an operating reactor. The potential consequences of a cyberattack are significantly reduced after all spent fuel has been in the SFP for at least 10 months after cessation of power generation for BWRs or 16 months for PWRs if the fuel meets the criteria in § 50.54(q)(8)(ii) or an NRC-approved alternative spent fuel

decay period, submitted under § 50.54(q)(8)(ii)(A) or (B) (i.e., Level 2 of decommissioning). Furthermore, the NRC has determined that after the applicable spent fuel decay period, the length of time it would take for adiabatic heat up to reach ignition temperature would allow sufficient time for a licensee to put mitigation measures in place to prevent a radiological release that would have offsite consequences. Therefore, under the provisions of the final rule, the cybersecurity license condition may be removed, and the requirements of 10 CFR 73.54 no longer apply, after the applicable spent fuel decay period has elapsed. The final rule ensures that facilities apply a graded approach to removing cybersecurity protections based on the decommissioning levels and the decreasing number of digital assets that are required during the various decommissioning levels. The NRC has determined that the final rule provides reasonable assurance that the SFP remains adequately protected. The NRC further notes that nothing in the final rule would prevent a licensee from continuing to implement or reaching an agreement with applicable State authorities to continue implementing cybersecurity controls at the licensee's decommissioning facility.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.5-02: A commenter stated that there are no advantages to extending cybersecurity requirements to a reactor that has been defueled and permanently shutdown (NRC-2015-0070-0338-0022). Similarly, another commenter stated that an advantage of extending cybersecurity requirements to shutdown nuclear power plants is that the requirement would seemingly and easily address the unease of some stakeholders. The commenter stated that a disadvantage would be that the NRC would require continuation of cybersecurity requirements beyond a time and without a reason that can be tied to its statutory mission. The commenter also stated that the continued expenditure of licensee funds for activities contrary to safety considerations unnecessarily draws resources from the decommissioning funds (NRC-2015-0070-0329-0023).

NRC Response: The NRC agrees with this comment.

The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

5.6 Existing Level of Insurance

Comment 5.6-01: A commenter stated that there are no advantages to requiring the existing level of insurance to be maintained until all spent fuel is in dry cask storage. However, the commenter noted that there are multiple disadvantages of delaying reduction of insurance coverage amounts until all fuel is in dry storage. These include that that it would create an unnecessary decrease in regulatory certainty as a result of adopting an approach that differs from the valid approach taken in granting multiple exemptions in this area, it would depart from the foundational basis for the rulemaking, and it would unnecessarily delay the reduction in regulatory burden warranted at Level 2.

Additionally, the commenter stated that there is a misstatement in the NRC's question, which states that to transition to the proposed Level 2 financial protection amounts, a licensee would be required to submit an analysis that demonstrates a reduced risk of zirconium fire. The commenter asserted that the proposed rule only requires an analysis if the licensee wishes to use an alternative to the 10- or 16-month spent fuel decay periods permitted pursuant to the proposed rule. The commenter stated that this error should be corrected in the discussion in the final rule (NRC-2015-0070-0338-0023).

***NRC Response*:** The NRC agrees with this comment. The NRC acknowledges that the NRC request for comment on the insurance topic was incomplete. The request for comment stated

that in order to reduce the insurance amounts, a licensee “would have to submit an analysis that demonstrates a reduced risk of a zirconium fuel cladding fire in the SFP.” That analysis is required only if the licensee elects to submit for NRC approval a time period for spent fuel decay that is different than the default 10 months (for a BWR) or 16 months (for an PWR). The NRC’s request for comment omitted the 10- and 16-month time periods.

The comment does not suggest any specific changes to the proposed rule. The NRC acknowledges that the NRC request for comment on the insurance topic was incomplete. The request for comment stated that in order to reduce the insurance amounts, a licensee “would have to submit an analysis that demonstrates a reduced risk of a zirconium fuel cladding fire in the SFP.” That analysis is required only if the licensee elects to submit for NRC approval a time period for spent fuel decay that is different than the default 10 months (for a BWR) or 16 months (for an PWR). The NRC’s request for comment omitted the 10- and 16-month time periods.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.6-02: A commenter stated the proposed rule properly sets an adequate level of insurance. Additionally, the commenter stated that once the fuel is all in dry cask storage, plant decommissioning work is otherwise completed, and all that remains is the stored spent fuel and associated security and administrative structures, further reductions in the levels of insurance are warranted (NRC-2015-0070-0329-0024). Another commenter stated that the reduction of insurance at Level 2 is commensurate with risk reduction (NRC-2015-0070-0368-0006).

NRC Response: The NRC agrees, in part, with these comments as they endorse the proposed rule and do not suggest any specific changes to the rule language. However, the NRC disagrees that additional reductions in the level of insurance are warranted once a facility reaches standalone ISFSI/decommissioned reactor status. The existing levels of insurance for Level 3 facilities are intended to ensure adequate funds are available to address credible types of onsite or offsite incidents until all of the spent fuel is removed from the site.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.6-03: A commenter recommended that licensees be required to maintain the existing level of liability insurance until Level 3 (NRC-2015-0070-0292-0006). Similarly, another commenter stated that the NRC should require the existing level of financial insurance be maintained until all spent fuel is in dry cask storage, and the possibility of a zirconium fire in a SFP is zero (NRC-2015-0070-0339-0007).

NRC Response: The NRC disagrees with these comments. The legal and associated technical basis for granting exemptions from 10 CFR Part 140, “Financial Protection Requirements and Indemnity Agreements,” is set forth in SECY-93-127, “Financial Protection Required of Licensees of Large Nuclear Power Plants During Decommissioning” (May 1993) (ML12257A628). In SECY-93-127, the NRC staff concluded that there was a low likelihood and reduced short-term public health consequences of a zirconium fire once a decommissioning plant’s spent fuel has sufficiently decayed. The legal analysis underlying SECY-93-127 concluded that, upon a technical finding that lesser potential hazards exist after permanent cessation of power operations (and the reactor having no “rated capacity”), the Commission has the discretion under the Price-Anderson Act (PAA) to reduce the amount of insurance required of a licensee undergoing decommissioning.

At the time of reactor shutdown, the risk for a potential offsite radiological release from a zirconium fire is very low when compared to an operating reactor because of design provisions that prevent a significant reduction in coolant inventory in the SFP. This risk becomes no longer

credible once the continual reduction in decay heat provides ample time to restore coolant inventory and permits air cooling in a drained SFP. After that time, the probability of a large offsite radiological release from a zirconium fire is negligible for permanently shutdown reactors.

In addition, the NRC conducted an evaluation of the potential for offsite damage to determine the appropriate level of offsite insurance for permanently shutdown facilities. The NRC staff concluded that, aside from the handling, storage, and transportation of spent fuel and radioactive materials for a permanently shutdown and defueled reactor, no reasonably conceivable potential accident existed that could cause significant offsite damage warranting maintenance of the level of insurance required for an operating reactor.

Accordingly, the NRC did not revise the rule language in response to these comments.

5.7 Generic Decommissioning Funding Formula

Comment 5.7-01: A commenter expressed support for Commissioner Baran's observations in his dissenting vote on SECY-18-0055 that the decommissioning formula does not account for the full costs of decommissioning, only the bulk funds necessary for radiological decontamination (NRC-2015-0070-0376-0004). A commenter expressed support for the reconsideration of the existing generic decommissioning funding formula. Another commenter requested that the NRC strengthen its funding assurance regime, specifically the generic formula, which the commenter stated does a poor job of capturing actual, site-specific costs, or require licensees to fund their NDTs based on site-specific estimates (NRC-2015-0070-0365-0021, NRC-2015-0070-0359-0007).

A commenter stated that the NRC concedes that the minimum decommissioning formula has not been updated in over 30 years. The commenter claimed that updating a 30-year old measure for mitigating the environmental impacts of decommissioning reactors is easily identifiable as a NEPA requirement for this rulemaking, and that the NRC would not ask the public if the formula should be updated if it were in compliance with NEPA. Instead, the commenter stated, the NRC should update the formula and data and evaluate its effectiveness (NRC-2015-0070-0364-0011).

NRC Response: The NRC disagrees with these comments. The decommissioning funding minimum formula is not a measure for mitigating the environmental impacts of decommissioning reactors. Further, although the decommissioning funding amounts certified by licensees under 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," do not represent the actual cost of plant decommissioning, they do provide reasonable assurance that licensees have available the bulk of the funds to safely decommission the facility. In addition, under 10 CFR 50.75(f), licensees are required at about five years prior to the end of reactor operations to submit a preliminary decommissioning cost estimate, which is later updated in the PSDAR, and to begin reporting decommissioning trust fund balances annually. Together, these requirements provide the licensee enough time to adjust the trust fund balance to give reasonable assurance that the cost of decommissioning will be covered.

Since 1998, licensees have been required to annually adjust the amount that must be provided in the decommissioning trust using the labor and energy factors in 10 CFR 50.75(c)(2), as well as the waste burial factor provided in the latest version of NUREG-1307, "Report on Waste Burial Charges: Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities" Rev. 19 (February 2023) (ML23044A207). Licensees must also report the status of their decommissioning funds every two years (but the final rule is changing that frequency to every three years) to account for, in part, changes in costs of these factors (with this periodicity decreasing to annually towards the end of operations, as discussed above).

Additionally, in response to the Commission's direction in the SRM for SECY-06-0065, "Office of the Inspector General Recommendations on Decommissioning Funding Assurance" (May 2006) (ML061370418), the NRC commissioned a study to reevaluate the adequacy of the NRC minimum formula in 10 CFR 50.75(c). The study was performed by the Pacific Northwest National Laboratory (PNNL) and is documented in draft report "Assessment of the Adequacy of the 10 CFR 50.75(c) Minimum Decommissioning Fund Formula" (November 2011) (ML13063A190).

In 2013, based on its review of the PNNL study, consideration of recommendations from the U.S. Government Accountability Office (GAO) in GAO-12-258, "NRC's Oversight of Nuclear Power Reactor' Decommissioning Funds Could Be Further Strengthened" (May 2012)(https://www.gao.gov/products/gao-12-258), and subsequent stakeholder engagement, the NRC concluded in SECY-13-0066, "Staff Findings on the Table of Minimum Amounts Required to Demonstrate Decommissioning Funding Assurance" (June 2013) (ML13127A234), that a revision of the formula was not warranted at that time. The formula successfully establishes a common minimum standard (or reference level) by which licensees must accumulate funds for decommissioning during the life of the operating license. Use of the formula is supplemented by a site-specific decommissioning cost estimate at five years prior to permanent cessation of operations, or within two years following a premature shutdown.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.7-02: A commenter stated they would prefer if the NRC eliminated the generic decommissioning funding formula and instead require licensees to perform a site-specific cost estimate (SSCE) during a reactor's operating phase as it generates electricity and revenues (NRC-2015-0070-0339-0008). Another commenter stated that the generic formula only considers the cost of decommissioning and no other costs such as spent fuel management or site restoration. The commenter further stated that it is their understanding that no commercial nuclear reactor has been decommissioned for the formula amount (NRC-2015-0070-0293-0009).

NRC Response: The NRC disagrees, in part, with these comments. The NRC agrees that the decommissioning funding minimum formula considers only the costs of decommissioning but no other costs such as spent fuel management or site restoration. The reason for this is that the term "decommission," as defined in 10 CFR 50.2, means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. Therefore, decommissioning, as used in the NRC regulations, refers exclusively to radiological decommissioning. Planning for spent fuel management costs is addressed by other NRC regulations, and imposing requirements for site restoration beyond the NRC's requirements for radiological decommissioning is not within the NRC's statutory authority.

The NRC disagrees that an SSCE should be required during operation. Doing so would place an unnecessary burden on the licensee, and, as many plants are years from decommissioning, any SSCE would not be able to take into account future changing financial conditions and advances in technology and would, effectively, not be any more accurate than the current formula. In accordance with 10 CFR 50.75(f)(3), licensees are required at about five years from the projected end of operations to submit a preliminary SSCE. This, along with having to report the decommissioning trust fund balance annually from that point on, gives the licensee enough time to adjust, and the NRC enough time to verify, the trust fund balance to give reasonable assurance that the cost of decommissioning is covered.

Regarding the statement that no commercial nuclear power reactor has been decommissioned for the formula amount, the NRC has limited data regarding that assertion. The formula amount, along with other NRC regulatory requirements regarding decommissioning, has provided sufficient funding for reactors that have been decommissioned. Once a reactor begins decommissioning, the formula amount is no longer required to be met. Instead, the licensee must ensure funding to its SSCE, and that estimate is updated every year.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.7-03: A commenter stated that there are no advantages to spending NRC and stakeholder resources to explore methods to update the table of minimum amounts provided in 10 CFR 50.75(c). The commenter stated that the generic formula has provided an effective and consistent method for determining the amount of decommissioning funding assurance required during plant operation. Additionally, the commenter discussed the NRC statement that the table of minimum amounts has not been updated in 30 years. The commenter stated that, while this is true for the table, 10 CFR 50.75 requires application of an adjustment factor that considers changes in costs associated with labor, energy, and low-level radioactive waste burial, which are updated every two years. In response to the question, the commenter also stated that the GAO recommended that the NRC define what it meant when it says that the minimum formula represents the bulk of the funds needed for decommissioning. The commenter concluded that the "bulk of funds" represents the low end of the range of decommissioning costs likely to be incurred by commercial power reactor licensees, which is a rational approach that avoids overfunding (NRC-2015-0070-0338-0024).

Another commenter stated that efforts to refine a more precise estimate at any time will not account for changes in decommissioning practices, technologies, disposal methods, and business models (NRC-2015-0070-0329-0025).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the existing minimum formula for determining the required amount of decommissioning funding should be maintained and that a more precise estimate during operations will not account for possible changes in decommissioning practices, technologies, disposal methods, and business models. However, the additional regulations that require a preliminary SSCE and then a final SSCE are necessary, in addition to the minimum formula, to provide reasonable assurance that sufficient funds are available to complete the radiological decommissioning of the site.

The NRC disagrees with the comment that the NRC needs to define the "bulk of funds" needed for decommissioning. The minimum formula is meant to provide, along with the NRC's other requirements, reasonable assurance that licensees have sufficient funds to decommission the site at the end of operations. The minimum formula provides an amount such that when the preliminary SSCE is required to be completed at approximately five years before the end of operation, the licensee should have most of the funds necessary to cover the estimate, and if not, there is sufficient time to make up any shortfall.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.7-04: A commenter discussed the generic formula as it applies to multi-reactor sites. The commenter stated that the minimum formula amount, and the previous independent study documented in SECY-13-0066, appear to only consider standalone decommissioning facilities. This would result in the formula amount overestimating actual decommissioning costs at multi-reactor sites by not accounting for the economies of scale and improved efficiencies to be realized through the coordination of decommissioning projects. The commenter concluded

that effective coordination could be expected to reduce overall costs by a magnitude comparable to the differences in applying an updated formula (NRC-2015-0070-0378-0006).

NRC Response: The NRC disagrees with this comment. The minimum formula is intended to cover the bulk of the decommissioning costs for each reactor unit at a given site. While there may be economies of scale for a multi-unit site undergoing decommissioning at the same time, the current formula allows for a more conservative approach to ensure that sufficient funds are available to complete the decommissioning of each reactor unit regardless of the decommissioning activities at other collocated units.

Accordingly, the NRC did not revise the rule language in response to this comment.

5.8 Site-Specific Cost Analysis

5.8.1 Full site investigation and characterization at the time of shutdown

Comment 5.8.1-01: A commenter stated that there is no advantage offered by requiring a full site investigation at the time of shutdown as 10 CFR 50.82 already requires licensees to create a site-specific decommissioning cost estimate and incorporate the existing records that are required to be maintained pursuant to 10 CFR 50.75(g). These records include drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, the cost estimate performed for the decommissioning funding plan, the licensed site area, which must include a site map, and unusual occurrences involving the spread of contamination in and around the facility (NRC-2015-0070-0338-0025).

On a similar note, a commenter stated that the question posed by the NRC mistakenly presumes that a full site investigation and characterization are somehow necessary in advance of preparation of a site-specific decommissioning cost estimate, which is not the case. The commenter claimed that the NRC already requires a full site investigation at the appropriate time: at the license termination stage (NRC-2015-0070-0368-0007). Similarly, another commenter stated that radiological data obtained at the time of shutdown would have limited or questionable use to predict the effects of radiation release criteria many years or decades in the future. Furthermore, at a site with multiple reactors, a full site investigation and characterization would be impractical until site-wide reactor operations have ceased (NRC-2015-0070-0378-0007).

NRC Response: The NRC agrees with these comments. The NRC does not need to require a full site investigation at the time of shutdown because existing regulations already require licensees to submit a site-specific decommissioning cost estimate and incorporate into that cost estimate known contamination from existing records. The NRC also agrees that radiological data obtained at the time of reactor shutdown would be of little value in predicting which areas could be released for unrestricted use many years or decades in the future. The amount of radioactive contamination declines as time passes, and licensees perform remediation on the site during the decommissioning process, such that radiological data obtained at the time of shutdown would be outdated by the time the licensee seeks license termination many years or decades later.

Accordingly, the NRC did not revise the language in response to these comments.

Comment 5.8.1-02: A commenter stated that an advantage of requiring a full site investigation and characterization at the time of shutdown would be that there would be a radiological estimate of the site for NRC and public consumption. In contrast, the commenter stated that a disadvantage would be that a more complete characterization can be made based on findings

during decommissioning, and any changes to a site characterization could be seen as a deficiency, especially by some stakeholders, on the part of the licensee and NRC (NRC-2015-0070-0329-0026).

NRC Response: The NRC agrees, in part, with this comment. At the time of permanent shutdown, a licensee will already have a set of records related to, among other things, "spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site," in accordance with 10 CFR 50.75(g). This information will be used to inform a historical site assessment, which is a key component of providing an initial radiological characterization of the site. Therefore, requiring a full site investigation and radiological characterization at the time of permanent shutdown would be of limited additional value at this point in decommissioning.

The NRC agrees that a more complete radiological characterization can be provided based on the specific site characterization work conducted during decommissioning in support of the LTP and to demonstrate that the site is eligible for unrestricted release in accordance with 10 CFR 20.1402, "Radiological criteria for unrestricted use." This characterization information is also important to informing the licensee's plans for remediation of the site, as well as remaining dismantlement activities, which are often of more interest to stakeholders than the initial radiological inventory.

Accordingly, the NRC did not revise the language in response to this comment.

Comment 5.8.1-03: Two commenters stated that the NRC should require that the PSDAR cost estimates be based on an in-depth investigation and characterization of the reactor site, which can identify significant and potentially unrecognized radiological and non-radiological contamination (NRC-2015-0070-0359-0004, NRC-2015-0070-0359-0009, NRC-2015-0070-0339-0009). One of the commenters stated that absent NRC action, host States will use their own regulatory authority to address financial assurance concerns. For example, after two years of litigation, the company that is decommissioning the Indian Point station in New York entered into an agreement with the State and committed to perform a full site investigation and characterization of the facility, provide financial assurance for site restoration, and return 50% of the spent fuel reimbursements to the decommissioning trust funds (NRC-2015-0070-0359-0009).

NRC Response: The NRC agrees, in part, with these comments. The NRC disagrees that an in-depth investigation of the reactor site is needed at the time of permanent cessation of operations. See the NRC Response to Comments 5.8.1-01 and 5.8.1-02 for further explanation. The NRC agrees that the PSDAR cost estimate must be based on characterization of the reactor site using historical records, as required by 10 CFR 50.75(g). The PSDAR includes a SSCE. Licensees are required by 10 CFR 50.75(g)(1) to keep records of spills and other unusual occurrences involving the spread of contamination in and around the facility; the SSCE takes that information into account. Accordingly, the PSDAR, through the SSCE, includes the cost for any type of known contamination without the need for a separate, in-depth investigation of the reactor site.

Accordingly, the NRC did not revise the language in response to these comments.

5.8.2 Site-specific cost estimate

Comment 5.8.2-01: A commenter stated that there are no advantages to requiring a site-specific decommissioning cost estimate during operations, and that to do so would put an additional burden on the NRC to review the estimates and could impact the clarity and

effectiveness of the current regulatory framework. The commenter stated that the current regulations adequately ensure that decommissioning funding assurance is provided throughout the life of a nuclear power facility (NRC-2015-0070-0338-0026).

Another commenter expressed that efforts to refine a more precise decommissioning cost estimate at any time, but especially during power operations, would not account for changes in future decommissioning practices, technologies, disposal of materials, and business models. Therefore, there are no advantages to establishing such a requirement (NRC-2015-0070-0329-0027).

NRC Response: The NRC agrees with these comments.

The comments do not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.8.2-02: A commenter stated that using the generic formula during reactor operations is significantly more efficient and should continue to be relied upon until site-specific decommissioning cost estimates are required in accordance with the current regulations. The commenter stated that the detailed decommissioning plans necessary to support SSCEs for coordinated projects that are developed many years in advance of decommissioning would be subject to significant revisions, and the usefulness of these plans and cost estimates would be limited (NRC-2015-0070-0378-0008).

NRC Response: The NRC agrees with this comment.

The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.8.2-03: A commenter stated that the generic formula provides a useful reference for calculating the minimum amount of required decommissioning funds. However, the results of the NRC formula compared to SSCEs and actual costs could vary significantly. The commenter suggested that the NRC should require SSCEs during operations, as well as part of the PSDAR submittal. The commenter also stated that the NRC should consider decommissioning as part of the plant life cycle and reexamine its cost estimate for decommissioning. Additionally, the commenter stated that the NRC should use the information obtained from the already decommissioned nuclear plants in the United States to determine whether the current methodology is adequate for estimating the cost of decommissioning (NRC-2015-0070-0292-0007). Similarly, another commenter stated that the NRC should require an SSCE during operations because it would more accurately project actual costs and would ensure that host States and communities are not left with financial challenges (NRC-2015-0070-0339-0009).

NRC Response: The NRC agrees, in part, with these comments. The generic formula provides a useful reference for calculating the minimum amount of required decommissioning funds, which provides the bulk of the funds needed for decommissioning. In addition, the NRC has evaluated plants that have completed decommissioning and has identified no issues with the mechanisms or requirements for the funding of decommissioning. The NRC will continue to glean information related to decommissioning costs and funding going forward to ensure that the methodology continues to be adequate.

The NRC disagrees that an SSCE should be required during operation. Doing so would place an unnecessary burden on the licensee, and, as many plants are years from decommissioning, any SSCE would not be able to take into account future changing financial conditions and advances in technology and would, effectively, not be any more accurate than the current formula. For other aspects of the comments, see the NRC Response to Comment 5.7-01.

Accordingly, the NRC did not revise the rule language in response to these comments.

5.9 Decommissioning Trust Fund

Comment 5.9-01: A commenter stated that the lack of funds to facilitate economic development planning is a major obstacle to host community revitalization. Therefore, the commenter recommended that the NRC revise its regulations to permit the host community to access funds of up to 2% of the NDT total value for local economic development purposes. The commenter explained that NDTs are experiencing healthy market returns, with these funds realizing an average of 10.5% increase in 2020. The funds would be made available starting five years before scheduled license termination and would provide the host community substantial and much-needed resources (NRC-2015-0070-0361-0003).

NRC Response: The NRC disagrees with this comment. Under its enabling statute, the authority of the NRC is limited to providing reasonable assurance of adequate protection of public health and safety, promoting the common defense and security, and protecting the environment with respect to source, byproduct, and special nuclear material. Community revitalization is outside the NRC's statutory authority. Licensees may request exemptions from the NRC to use excess decommissioning funds for spent fuel management and site restoration, in accordance with existing regulations. Once decommissioning is complete and the license has been terminated, the NRC has no jurisdiction over how remaining decommissioning funds are used.

Accordingly, the NRC did not revise the rule language in response to this comment.

5.9.1 Trust fund assets for spent fuel management

Comment 5.9.1-01: A commenter stated that the NRC must not allow decommissioning trust fund assets to be used for Federal spent fuel management obligations. The commenter stated that it has not identified a basis for the NRC staff to authorize a licensee to deplete money from a trust established for site decommissioning and convert those funds to an account to cover a separate Federal agency's obligations for contract breaches (NRC-2015-0070-0339-0010).

Several commenters stated that the trust fund assets should only be used for decommissioning (NRC-2015-0070-0365-0014, NRC-2015-0070-0365-0021, NRC-2015-0070-0364-0016, NRC-2015-0070-0292-0004). Another commenter also stated that decommissioning trust funds should not be used for spent fuel management, but rather any excess should be used to benefit the ratepayers that contributed to the fund. The commenter stated that if the trust funds are used for spent fuel management, any funds as reimbursement from the DOE must then be returned to the decommissioning trust fund (NRC-2015-0070-0379-0012).

NRC Response: The NRC disagrees with these comments. Spent fuel is ultimately the responsibility of DOE, but until such time as the DOE takes title to and possession of nuclear power reactor licensees' spent fuel, the NRC regulates these licensees' storage of spent fuel. Licensees currently store their spent fuel long-term in ISFSIs, which are regulated under 10 CFR Part 72. In addition, under 10 CFR 50.82(a)(4)(i)(D) or 10 CFR 52.110(d)(1)(iv) of the final rule, licensees must submit a site-specific decommissioning cost estimate that includes the projected cost of managing spent fuel. Under 10 CFR 50.82(a)(8)(vii) and 10 CFR 52.110(h)(7), licensees must annually submit a report on the status of funding for managing spent fuel.

The NRC's regulations already prohibit licensees from using decommissioning trust funds for anything but radiological decommissioning, and the NRC is not changing that prohibition in the final rule. However, under its existing regulations the NRC may grant exemptions from its

regulations, including exemptions to allow a licensee to use decommissioning trust funds for uses other than radiological decommissioning, when the balance of the decommissioning trust funds is demonstrated to exceed the amount needed for radiological decommissioning and all applicable requirements for exemptions are met. In the event that, during decommissioning, a licensee's level of funding falls below the amount needed to finish decommissioning, if the licensee has such an exemption, that exemption can be revoked by the NRC. Notwithstanding the exemption, the licensee would be required to detail its plan to return the trust fund balance to the level needed to complete decommissioning.

Where a licensee is an electric utility, as defined in 10 CFR 50.2, the regulatory authority for the licensee determines the disposition of any decommissioning trust funds left over after radiological decommissioning of the site is complete. If the licensee is not an electric utility, any funds remaining are the property of the licensee, subject to any agreements made with local and State authorities. The NRC has no jurisdiction over the use of the funds after decommissioning is complete and the license is terminated.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.9.1-02: A commenter recommended that regulations be amended to allow the use of decommissioning trust funds for spent fuel management, provided that funding for radiological decommissioning is adequate, which can be assessed on a case-by-case basis. Additionally, the commenter stated that the return of assets to the trust within an established period of time should not be required and would be inappropriate considering how the trust was established (NRC-2015-0070-0338-0027). Another commenter agreed and stated that, to date, licensees have been allowed to make trust fund expenditures for spent fuel management after demonstrating that there is an adequate surplus, and exemptions for these expenditures are well-known and effective. The commenter also stated that there are no disadvantages to allowing decommissioning trust fund assets to be used for spent fuel management (NRC-2015-0070-0329-0028).

Another commenter stated that while they support the Commission's refusal to authorize a generic exemption to allow the use of decommissioning trust fund assets for spent fuel management, the NRC should strengthen its funding assurance regulations to require that any case-specific exemption authorizing the use of trust funds for spent fuel management be conditioned on the return of those funds to the trust within a reasonable period of time. The commenter stated that this requirement is just common sense (NRC-2015-0070-0359-0008).

NRC Response: The NRC disagrees, in part, with these comments. The NRC agrees that the return of assets to the decommissioning trust within an established period of time should not be required and would be inappropriate considering how the trust was established. In addition, the NRC has no authority to compel a licensee to add to the decommissioning trust as long as the balance in the trust is sufficient to complete radiological decommissioning. However, the NRC disagrees that its regulations should be amended to allow for the use of the trust funds for spent fuel management. Licensees have options to provide funding for spent fuel management, including establishing sub-accounts within the trust, seeking funds from the U.S. government under DOE under breach of contract claims, and requesting an exemption from the NRC.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.9.1-03: A commenter stated that NRC guidance on funding for spent fuel management should be updated to consider recovering spent fuel management costs from the DOE through litigation or settlement agreements. In addition, guidance should be provided for acceptable means to establish and fund separate sub-accounts in the decommissioning trust

fund for spent fuel management activities. The commenter stated that, lacking effective guidance, the majority of licensees have continued to report funds accumulated for spent fuel management as part of the amount of funds reported for radiological decommissioning, which then may not be reallocated for other purposes. Finally, the commenter stated that licensees should continue to have the option to request exemptions under the existing 10 CFR 50.12 criteria (NRC-2015-0070-0378-0009, NRC-2015-0070-0378-0003).

NRC Response: The NRC disagrees, in part, with this comment. The NRC agrees that licensees should have the option to request exemptions under 10 CFR 50.12. The final rule does not change that position. See the NRC Response to Comment 5.9.1-01 for additional information.

The NRC disagrees that guidance should be updated to consider recovering spent fuel management costs from the DOE. Licensees are responsible for ensuring reasonable assurance for adequate funding for radiological decommissioning, as well as for managing spent fuel until the DOE takes title to and possession of the spent fuel. Licensees have flexibility in how they provide funding for spent fuel management. The NRC has allowed licensees to take credit for funds from the U.S. government (although that credit cannot be the only source of funds) and has granted exemptions to use excess decommissioning trust funds. This existing precedent is available to licensees.

Accordingly, the NRC did not revise the rule language in response to this comment.

5.9.2 Non-radiological site restoration

Comment 5.9.2-01: A commenter stated that in the past, site restoration costs were incurred late in the process, after radiological decommissioning had been completed, which would mean that the funds were no longer regulated by the NRC. The commenter went on to state that, now, many projects perform site restoration concurrently with radiological decommissioning, therefore there are significant advantages to allowing the decommissioning trust fund assets to be used for non-radiological site restoration prior to the completion of decommissioning, which include:

- Provides for a shorter total schedule for site restoration and final release;
- Eliminates risk of requiring duplicate decontamination or remediation activities for radiological and non-radiological contaminants;
- Utilizes similar equipment and labor resources; and
- Allows earlier site access for re-purposing (NRC-2015-0070-0338-0028).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that many current decommissioning licensees seek to perform site restoration concurrently with radiological decommissioning and have sought NRC exemptions to approve use of portions of the decommissioning trust fund for site restoration activities. These exemptions ensure that adequate funds remain available for radiological decommissioning of the site while releasing other funds for use in site restoration, including non-radiological site restoration.

The NRC disagrees that there are “significant advantages to allowing the decommissioning trust fund assets to be used for non-radiological site restoration prior to completion of decommissioning.” The timing of these site restoration activities is a business decision on the part of the licensee and is not regulated by the NRC. A licensee’s approach to, and timing of, site restoration is considered acceptable so long as (1) adequate funds remain available to complete radiological decommissioning and (2) decommissioning can be completed within 60 years.

The comment does not suggest any changes to the rule language. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.9.2-02: A commenter stated that should there be projected surpluses in the fund after estimates and use of the fund for spent fuel management, there are no disadvantages to allowing assets to be used for non-radiological site restoration in accordance with Federal, State, and local requirements (NRC-2015-0070-0329-0029). Similarly, another commenter stated that if a licensee's trust is overfunded, the rule should permit licensees to use those funds for other purposes supportive of, and consistent with or in furtherance of, decommissioning the site. The commenter stated that the NRC should not proscriptively require in all cases the return to the trust of funds allowed for irradiated fuel management activities and should not require that recoveries from spent fuel litigation or settlements be returned to the trust (NRC-2015-0070-0368-0009).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that, should there be projected surpluses in the decommissioning trust fund after SSCEs and use of the fund for spent fuel management, there are no disadvantages to allowing assets to be used for non-radiological site restoration in accordance with Federal, State, and local requirements. An exemption from the NRC would be required to use the excess decommissioning trust funds for site restoration.

The NRC disagrees that the regulations should allow the use of excess decommissioning trust funds for non-radiological decommissioning or "other purposes supportive of, and consistent with or in furtherance of, decommissioning the site." However, licensees continue to have options to provide funding for spent fuel management, including establishing sub-accounts within the decommissioning trust fund, seeking funds from the U.S. government due to breach of contract related to taking possession and ownership of the spent fuel, and requesting an exemption from the NRC.

The NRC agrees that the NRC should not require the return to the trust of funds allowed for irradiated fuel management activities and should not require that recoveries from spent fuel litigation be returned to the trust. It is outside the NRC's jurisdiction to regulate how decommissioning trust funds are managed outside of ensuring that there is adequate funding available to ensure safe and complete radiological decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

5.10 Timing of Decommissioning Funding Assurance Reporting

Comment 5.10-01: A commenter stated that the proposed change is consistent with the purpose of the rule in that it minimizes non-beneficial burden on licensees and the NRC staff associated with frequent reporting and review of information. Extending the reporting period from two years to three years appropriately recognizes that licensees are still required to review the status and adequacy of their funds on an annual basis (NRC-2015-0070-0368-0010).

A commenter stated that if the reporting frequency was extended to three years, there would be consistency with the requirements for ISFSI funding assurance reporting in 10 CFR 72.30(c), which is important because the reporting requirements rely on similar methodology and use the same funding assurance mechanism. Aligning the time requirements of these reports will reduce the burden and create more certainty in the schedule and process for these reports. Since the requirement only applies to operating units that are not within five years of shutdown, it does not reduce the effectiveness of the reports as there is sufficient time for the licensee to

obtain additional funding assurance prior to shutdown, if necessary (NRC-2015-0070-0338-0029).

Another commenter agreed and stated that the NRC need not depend solely on decommissioning funding status reporting to spot emerging deficiencies in licensee activities or conditions that might affect inadequate funding (NRC-2015-0070-0329-0030).

NRC Response: The NRC agrees with these comments. Requiring decommissioning funding status to be reported every three years for operating power reactors provides consistency with the reporting requirements for ISFSI decommissioning funding assurance reporting in 10 CFR 72.30(c) and allows licensees to align these two funding reports, which utilize similar methodologies and use the same funding assurance mechanism.

In addition, because licensees will still review the status and adequacy of their decommissioning funding on an annual basis, any potential deficiencies will be identified and addressed. This ensures that the reports themselves are not the only method for spotting deficiencies or maintaining awareness of decommissioning funding assurance.

Based on discussions in this area, the NRC is also revising the final rule to allow decommissioning licensees who have completed reactor decommissioning and reduced the 10 CFR Part 50 license to comprise only the footprint of the ISFSI (also called Standalone ISFSI/Decommissioned Reactor Sites) to return to triennial decommissioning funding reporting under 10 CFR Part 50. This aligns the requirements for ISFSIs under a general license after the completion of reactor decommissioning with those of specific license ISFSIs where the 10 CFR Part 50 license has been fully terminated at the completion of reactor decommissioning.

Accordingly, the NRC is revising 10 CFR 50.82(a)(8)(v) and 10 CFR 52.110(h)(5) to require annual submission of decommissioning funding status reports until the licensee has completed its final radiation survey and demonstrated that residual radioactivity has been reduced to a level that permits termination of its license or termination of its license with the exception of the ISFSI. A similar change is being made to 10 CFR 50.82(a)(8)(vii) and 10 CFR 52.110(h)(7) to state that if the licensee has completed its final radiation survey and demonstrated that residual radioactivity has been reduced to a level that permits termination of its license with the exception of the ISFSI, the decommissioning funding status report must be submitted at intervals not to exceed 3 years, and this report may combine reporting requirements with 10 CFR 72.30.

Comment 5.10-02: A commenter asserted that the proposed rule “actively undermines” financial assurance requirements by permitting licensees of operating reactors to certify that their NDTs meet or exceed the formula amount at 10 CFR 50.75(c) on a triennial basis instead of biennially. As a result, licensees are more likely to underfund their decommissioning commitments. The commenter also requested that the NRC clarify how it plans to enforce its decommissioning funding requirements against limited liability companies with no other assets outside the NDTs in the event of a funding shortfall (NRC-2015-0070-0359-0006).

NRC Response: The NRC disagrees with this comment. For operating reactors that are not within five years of ceasing power operations, a three-year reporting period is sufficiently timely for the NRC to monitor these licensees’ decommissioning trust fund balances. Year over year returns can vary widely. In the event a licensee’s decommissioning trust fund balance falls below the minimum amount required by the NRC, the amended regulations require licensees to make up the shortfall. The regulations also require licensees within five years of ceasing power operations to submit their decommissioning trust fund balances on an annual basis, which allows for adequate NRC oversight to ensure that the decommissioning trust fund is sufficient to

fully decommission the plant once it is shutdown. Finally, during decommissioning, financial assurance status reports are required to be submitted annually until decommissioning has been completed but for the decommissioning of the ISFSI.

During decommissioning, the regulations require that if the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion and this requirement is not being changed in this final rule. Additionally, the current regulations prohibit licensees from performing any decommissioning activities that result in there no longer being reasonable assurance that adequate funds will be available for decommissioning (10 CFR 50.82(a)(6)(iii) or 10 CFR 52.110(f)(3)) and stipulate that decommissioning trust funds may not be used if withdrawals from the trust fund would inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust fund needed to ensure the availability of funds to ultimately release the site and terminate the license (10 CFR 50.82(a)(8)(i)(C) or 10 CFR 52.110(h)(1)(iii)).

Accordingly, the NRC did not revise the rule language in response to this comment.

5.11 Backfit Rule

Comment 5.11-01: A commenter stated that the question posed by the NRC regarding the advantages and disadvantages of applying the Backfit Rule to decommissioning nuclear power plants makes it clear that the Backfit Rule does not currently apply to decommissioning, and therefore the NRC does not need to ensure the rule complies with the Backfit Rule. Additionally, the commenter expressed that the Backfit Rule should not apply to decommissioning nuclear power plants (NRC-2015-0070-0365-0016).

NRC Response: The NRC disagrees with this comment. As explained in the NRC Response to Comment 5.11-01, the Backfit Rule applies to NRC actions affecting power reactor licensees in decommissioning. To clarify this point, the NRC amended 10 CFR 50.109 in the final rule to include a backfitting provision for power reactor licensees in decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.11-02: Two commenters stated that they do not see any disadvantages to applying the 10 CFR Part 50 backfitting requirements to facilities undergoing decommissioning (NRC-2015-0070-0338-0030, NRC-2015-0070-0329-0031). One commenter claimed that the Commission's Backfit Rule should continue to apply to commercial power reactors that transition to decommissioning status because those facilities remain subject to licenses issued pursuant to 10 CFR Part 50, 10 CFR Part 52, and 10 CFR Part 72 throughout decommissioning, and such decommissioning licensees are entitled to rely upon NRC staff regulatory positions as included in license conditions and NRC policy. The commenter further stated that application of the Backfit Rule to decommissioning sites is consistent with prior Commission decisions (references provided by NEI) and that it would be consistent with the NRC's Principles of Good Regulation (specifically reliability and efficiency) (NRC-2015-0070-0338-0030). The other commenter stated that an advantage of this is that the licensees and the Commission can take actions that end requirements that are no longer needed for licensing and compliance as the level of risk drops according to the status of the spent fuel (NRC-2015-0070-0329-0031).

NRC Response: The NRC agrees with these comments.

The comments do not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

5.12 Exemptions

5.12.1 Current 10 CFR 50.12 approach

Comment 5.12.1-01: A commenter expressed support for amending the regulations to reduce the need for unnecessary regulatory exemptions as an underlying goal of the proposed rule. However, the commenter stated that it is reasonable to expect that there will continue to be instances unique to a licensee's situation. Therefore, 10 CFR 50.12, "Specific exemptions," should continue to be adequate for these instances (NRC-2015-0070-0338-0034). Another commenter stated that there is a purpose and benefit in retaining the options available under 10 CFR 50.12 for exemptions from the current or revised rule. The commenter stated that no general rule can foresee all situations that may become present. The commenter stated that the NRC staff should consider milestone goals for exemption approvals based on previously granted exemptions (NRC-2015-0070-0368-0011). Another commenter stated that the NRC should continue to allow exemption requests under 10 CFR 50.12 as the process has proven to provide adequate protection of the public health and safety (NRC-2015-0070-0329-0032).

NRC Response: The NRC agrees with these comments. A mechanism for requesting exemptions from the updated decommissioning requirements in the final rule will still be necessary to address any situations not currently foreseen as part of this rulemaking.

The comments do not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.12.1-02: A commenter expressed concern that should the proposed rule be finalized as is, exemptions may be requested by those who are in varying levels of spent fuel transfer when reaching actual ISFSI-only status. Therefore, the commenter recommended an additional level be added to the graded approach (NRC-2015-0070-0329-0032).

NRC Response: The NRC disagrees with this comment. Upon reaching ISFSI-only or standalone ISFSI/decommissioned reactor status, all licensees will generally be at the same point in their spent fuel transfer activities (i.e., all spent fuel in dry cask storage at the ISFSI with not additional activities planned until the fuel can be removed from the site), which would correspond to Level 3 of the graded approach. At Level 3 the requirements applicable to the remaining ISFSI are similar regardless of whether the former reactor site is still undergoing decommissioning. However, if a licensee at any stage of decommissioning encounters a unique situation not foreseen as part of this rulemaking, they will still have the option to pursue an exemption from the decommissioning regulations under the provisions of 10 CFR 50.12.

The NRC also disagrees that an additional level needs to be added to the graded approach to decommissioning, as discussed in the NRC Response to Comment 4.5-01.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.12.1-03: A commenter stated that the current application of exemptions in the decommissioning process is unacceptable, and it is critical that the proposed rule fill this regulatory gap (NRC-2015-0070-0379-0002). Another commenter stated that exemptions should only be used in truly special circumstances and the NRC should not be allowed to skirt review required within the rulemaking process (NRC-2015-0070-0379-0003, NRC-2015-0070-0379-0014). A commenter stated they agree with Commissioner Baran's dissenting vote on

SECY-18-0055 that one of the main purposes of the rule is to move away from regulation by exemption, and the rule should establish clear expectations that exemptions will be granted rarely (NRC-2015-0070-0365-0017). Another commenter echoed these sentiments and stated that exemptions for plants should be seriously examined and avoided except for in emergency situations (NRC-2015-0070-0343-0003).

NRC Response: The NRC agrees, in part, with these comments. One of the goals of the final rule is to decrease the number of exemptions a licensee must seek when transitioning from operation to decommissioning. This will remove the need to "regulate by exemption" by codifying several of these standard changes based on the reduced risks once a plant has permanently shutdown, as well as increase regulatory clarity and stability by applying a graded approach to decommissioning that is applicable to all licensees without the need for additional approvals from the NRC.

The NRC disagrees that the application of exemptions during the decommissioning process is unacceptable and recognizes that the use of exemptions may still be necessary during the decommissioning process to address unique site-specific situations or other items not foreseen by this rule.

The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

5.12.2 Standard for granting exemptions

Comment 5.12.2-01: A commenter stated that no special exemption process is warranted for plants in decommissioning (NRC-2015-0070-0368-0012). Another commenter stated that existing processes and standards are effective in guiding the staff (NRC-2015-0070-0329-0053).

NRC Response: The NRC agrees with these comments. A mechanism for requesting exemptions from the updated decommissioning requirements implemented by the final rule will still be necessary to address any situations not currently foreseen as part of this revision, but the NRC does not envision the need for a special exemption process to cover decommissioning power reactors.

The comments do not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

5.12.3 Opportunity for public to weigh in

Comment 5.12.3-01: Several commenters expressed support for some form of requirement for public participation in the exemption process. One commenter agreed with Commissioner Baran's proposal in his dissenting vote on SECY-18-0055 that any final rule should require the NRC to seek public comment on any request for an exemption and respond to any comments received in a written, publicly available decision document (NRC-2015-0070-0339-0012). Two commenters agreed and stated it should be required that the public be allowed to weigh in on the exemption process (NRC-2015-0070-0379-0013, NRC-2015-0070-0365-0018). A commenter stated the NRC should consider requiring public comments and public meetings for exemptions and amendments (NRC-2015-0070-0343-0004).

NRC Response: The NRC disagrees with these comments. While the NRC's regulations require the agency to provide members of the public with an opportunity to provide comments and request a hearing on certain licensing actions, such as the issuance of a license, license

amendments, and license transfers, the NRC's regulations governing exemptions do not include similar requirements for public participation. Because the exemption process in 10 CFR 50.12 is applicable to all licensees with a 10 CFR Part 50 license, any changes to this process would be applicable to both operating and decommissioning plants, which is outside the scope of this rule.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 5.12.3-02: A commenter stated that Federal courts have confirmed that the public has no generalized right to participate in the NRC exemption process. The commenter stated that the NRC should continue to follow its longstanding precedent with respect to effective regulation (NRC-2015-0070-0368-0013). Another commenter stated that the public has ample opportunity to weigh in on all proposed exemption requests given the effectiveness of community engagement, and the NRC has demonstrated its availability and willingness to discuss, in depth, any request that comes forward (NRC-2015-0070-0329-0034).

NRC Response: The NRC agrees with these comments. The comments align with the current regulatory framework, as well as the exemption process being continued under the final rule.

The comments do not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

5.12.4 Other process changes

Comment 5.12.4-01: A commenter expressed agreement with Commissioner Baran's suggestion in his dissenting vote on SECY-18-0055 that the rule should require any requests for an exemption from the decommissioning regulations to be granted or denied by the Commission rather than NRC staff (NRC-2015-0070-0339-0013).

NRC Response: The NRC disagrees with this comment. The authority for approving exemptions is established by the Commission and can be delegated to NRC staff management. In most cases, that authority has been delegated to NRC staff management. The Commission has not determined that exemptions from decommissioning regulations should be reviewed by the Commission. For any delegated authority, NRC staff management ensures the adequate level for approval is maintained based on internal standards and staff procedures.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.12.04-02: A commenter stated that it cannot think of any reason to make other process changes (NRC-2015-0070-0329-0035).

NRC Response: The NRC agrees with this comment. The NRC has not identified other process changes that should be considered in determining whether to grant exemptions from the new or amended decommissioning regulations.

The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

5.13 Applicability

Comment 5.13-01: A commenter stated that when the new decommissioning regulations become effective, plants undergoing decommissioning will be in Level 2 or 3 as defined by the regulations and will have received exemptions, license amendments, and other forms of regulatory relief needed to support their transition through decommissioning. The commenter

claimed that the proposed rule would not result in conditions that are contrary to the licenses held by decommissioning companies. However, a significant exception would include the proposed requirement to submit an LAR for an IFMP. Regarding definition of the stages of decommissioning, the commenter stated that the proposed rule does not sufficiently distinguish between plants that are in active decommissioning with all spent fuel in dry storage and plants that have achieved ISFSI-only status after completion of decommissioning and recommended that an additional level be defined between the proposed Level 3 and Level 4 (NRC-2015-0070-0338-0035).

NRC Response: The NRC agrees, in part, with this comment. At the time the final rule becomes effective, decommissioning licensees will likely be in various stages of the decommissioning process and may have spent fuel stored in SFPs, ISFSIs, or both. These licensees will have applied for or perhaps been granted various exemptions, license amendments, and other forms of regulatory relief (e.g., rescission of security orders) necessary to support the transition of the licensing basis from operations to decommissioning. The implementation of the final rule will have no effect on these previously issued licensing actions since the new and amended decommissioning requirements align with the changes previously sought via exemption or license amendment.

As to the concern regarding the LAR submittals for IFMPs, under the final rule, licensees will not need to submit LARs related to the IFMP. This decision is explained in the NRC Response to Comment 4.11-03.

The NRC disagrees that an additional level needs to be added to the graded approach to decommissioning to distinguish between plants that are in active decommissioning with all spent fuel in dry storage and plants that have achieved ISFSI-only status, as discussed in the NRC Response to Comment 4.5-01. In addition, Section II.E of the FRN that published the final rule specifically addresses the applicability of the rule to ISFSI-only and standalone ISFSI/decommissioned reactor sites.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.13-02: A commenter stated that they foresee a number of issues stemming from the requirements to have the NRC approve the IFMP and treat any changes as license amendments. The commenter expressed concern with the timing of the completion of the Commission's direction to revise the GEIS on Decommissioning of Nuclear Facilities, the implementation of a new Policy Statement and processes with respect to EJ, and the intended additional attention to environmental matters in the PSDAR. (NRC-2015-0070-0329-0036). Lastly, the commenter noted the absence in the rule text of a definition of "Standalone ISFSI/Decommissioned Reactor" (NRC-2015-0070-0329-0042).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that, under the final rule, licensees will not need to submit LARs related to the IFMP. This decision is explained in the NRC Response to Comment 4.11-03.

The NRC disagrees that the planned updates to NUREG-0586, Supplement 1 (Decommissioning GEIS), or implementation of any changes related to the NRC's ongoing assessment of its approach to EJ, will impact the implementation of the final rule. The NRC staff will remain engaged in the ongoing discussions in these areas, will assess the impact of any changes on the decommissioning regulations, and will adjust the reviews of any incoming decommissioning licensing actions or PSDARs as needed to address future revisions.

The NRC disagrees that an additional level needs to be added to the graded approach to decommissioning, as discussed in the NRC Response to Comment 4.5-01. However, Section

II.E of the FRN that published the final rule specifically addresses the applicability of the rule to ISFSI-only and standalone ISFSI/decommissioned reactor sites and includes a description of the attributes of the two types of decommissioning sites.

Accordingly, the NRC did not revise the rule language in response to these comments.

5.14 Insurance for Specific License ISFSI

Comment 5.14-01: In response to the specific request for comment related to insurance for specific license ISFSIs, the commenter stated that the NRC should maintain a better distinction between decontamination and decommissioning and spent fuel storage. For instance, the rule should clearly provide that decommissioning funds may not be used for purposes related to spent fuel storage. In addition, the commenter stated it should be clear that PAA insurance coverage stops at the time a 10 CFR Part 50 license is terminated, and that whether this rulemaking is used to address this topic, or the NRC conducts a separate rulemaking, there should be no regulatory gap or confusion (NRC-2015-0070-0364-0012).

NRC Response: The NRC disagrees, in part, with this comment. The NRC disagrees that its regulations need to more clearly specify that decommissioning funds may not be used for purposes related to spent fuel storage. The regulations are already very clear that the decommissioning trust funds are to be used for radiological decommissioning only; an exemption from the regulations is required if licensees want to use excess funds for spent fuel management and site restoration. The NRC also disagrees that its regulations should state that the PAA insurance coverage stops when the NRC terminates the licensee's 10 CFR Part 50 license. Under Article II.1 of the NRC's form of indemnity agreement with licensees furnishing insurance policies as proof of financial protection in 10 CFR 140.92, Appendix B, licensees are required to maintain nuclear liability insurance coverage, as described in their indemnity agreement, "until all the radioactive material has been removed from the location and transportation of the radioactive material from the location has ended as defined in subparagraph 5(b), Article I, or until the Commission authorizes the termination or modification of such financial protection." Termination of a 10 CFR Part 50 license has no impact on the terms of the indemnity agreement.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.14-02: A commenter stated the NRC should address the disparity between specific license and general license ISFSIs by taking an administrative action to convert the Part 50 license to a 10 CFR Part 72 license once all that remains is the standalone ISFSI. The commenter stated that there is little to be gained by a licensee applying for a change from 10 CFR Part 50 to 10 CFR Part 72 from an operational, resources, and licensing viewpoint (NRC-2015-0070-0329-0037).

NRC Response: The NRC disagrees with this comment. As explained in the NRC Response to Comment 4.11-05, the NRC cannot take an administrative action to convert a 10 CFR Part 50 license to a 10 CFR Part 72 license. Applying to the NRC for such a change would be at the discretion of the licensee and is a business decision not regulated by the NRC.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.14-03: A commenter stated that no disparity exists between the financial protection requirements for specific license and general license ISFSIs because the Congressionally mandated liability coverage obligation for general license ISFSIs stems from the 10 CFR Part 50 license, not the 10 CFR Part 72 license. The commenter also stated that insurance amounts for

specifically licensed 10 CFR Part 72 facilities have been successfully addressed on a site-specific basis without the need for NRC regulation and there is no need for the NRC to impose additional requirements mandating insurance coverage for existing specific 10 CFR Part 72 licensees. Additionally, the commenter stated that the discretionary imposition of new requirements mandating insurance coverage for existing specific 10 CFR Part 72 licensees would constitute an addition or modification of procedures required to operate an ISFSI, which would meet the definition of backfitting in 10 CFR 72.62. Thus, the commenter stated that prior to imposing a requirement, the NRC would need to meet the backfitting requirements provided in 10 CFR 72.62(b) and (c) (NRC-2015-0070-0338-0036).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that if the NRC were to impose new requirements mandating insurance coverage for existing specific 10 CFR Part 72 licensees, the NRC would need to meet any applicable backfitting requirements.

The NRC disagrees that there is no financial protection requirement disparity between specific license and general license ISFSIs. A disparity exists related to financial protection for ISFSIs, insofar as a general license ISFSI under 10 CFR Part 50 must maintain some level of financial protection, but a specific license ISFSI under 10 CFR Part 72 does not. The ISFSI regulations in 10 CFR Part 72 do not require any insurance or financial liability protection for specific license ISFSIs.

Addressing the financial protection disparity between specific license and general license ISFSIs would require rulemaking that is considered beyond the scope of this rulemaking. The NRC will consider whether to conduct a separate rulemaking to address this concern.

Accordingly, the NRC did not revise the rule language in response to this comment.

5.15 Recordkeeping Requirements under 10 CFR Part 52

***Comment 5.15-01*:** In order to promote regulatory consistency across the NRC's recordkeeping requirements, a commenter expressed support for changing Section X, "Records and Reporting," of the applicable Appendices to 10 CFR Part 52 to conform to the proposed changes to record retention requirements for nuclear power reactors in the decommissioning process. As proposed by the NRC, these licensees would no longer be required to retain certain records associated with SSCs that are no longer in service or necessary to keep the plant in a safe condition. The change to the 10 CFR Part 52 Appendices would allow this change to apply to records of departures from the certified design as well as the associated SSCs when those SSCs are no longer in service or necessary to keep the plant in a safe condition. (NRC-2015-0070-0338-0037).

NRC Response: The NRC agrees with this comment. The NRC is revising Section X, "Records and Reporting," of the applicable Appendices to 10 CFR Part 52 to allow licensees for which the NRC has docketed the certifications required under 10 CFR 52.110(a) to stop retaining records of departures from the certified design associated solely with SSCs that have been permanently removed from service using an NRC-approved change process. This change will be consistent with the same change being made to 10 CFR 52.63, "Finality of standard design certification."

Accordingly, the NRC is revising the rule language in the Appendices for certified designs in 10 CFR Part 52 in response to this comment.

5.16 Identical Requirements Under 10 CFR 50.82 and 10 CFR 52.110

Comment 5.16-01: A commenter expressed that they had no strong opinion on what approach is taken by the NRC to maintain consistency between 10 CFR 50.82 and 10 CFR 52.110 (NRC-2015-0070-0338-0038). Another commenter stated that they do not anticipate having members licensed under 10 CFR Part 52 and therefore have no opinion on this at this time (NRC-2015-0070-0329-0039).

NRC Response: The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

5.17 Removal of License Conditions and Withdrawal of Orders

Comment 5.17-01: A commenter supports the NRC's proposal to improve regulatory efficiency by rescinding orders and license conditions that have become duplicative with existing regulations (NRC-2015-0070-0338-0039).

NRC Response: The NRC agrees with this comment. The NRC's goals in this rulemaking are to maintain a safe, effective, and efficient decommissioning process and reduce the need for LARs and exemptions from existing regulations. These goals can be achieved by, in part, removing license conditions and withdrawing orders as described in the proposed rule.

The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 5.17-02: A commenter discussed how they learned, during the consideration of activities that might have been affected at various points in the COVID-19 crisis, that identical facilities can have identical requirements recorded in different licensing spaces, but an effort to harmonize this situation is not needed in the rulemaking (NRC-2015-0070-0329-0040).

NRC Response: The comment does not suggest any specific changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

5.18 Spent Fuel Management Planning

Comment 5.18-01: A commenter stated that if the NRC were to retain the requirement for approval of the IFMP via the license amendment process, the proposed requirement to submit any changes to the IFMP as LARs is overly broad and unnecessarily burdensome (NRC-2015-0070-0338-0006).

NRC Response: The NRC agrees, in part, with this comment. As discussed in the NRC Response to Comment 4.11-03, the NRC revised the rule and the corresponding guidance in RG 1.184, Rev. 2 and RG 1.185, Rev. 2 by merging the IFMP provisions into the PSDAR requirements and decommissioning provisions in 10 CFR 50.82 and 10 CFR 52.110, as well as deleting the separate 10 CFR 50.54(bb) provision related to the IFMP. Therefore, the IFMP (and future changes to the IFMP) are not required to be submitted as LARs under the final rule.

Accordingly, the NRC did not revise the rule language in response to this comment.

6 REGULATORY FLEXIBILITY CERTIFICATION

No comments are associated with this issue.

7 REGULATORY ANALYSIS

7.1 Estimated Costs of the Proposed Rule and Alternatives

Comment 7.1-01: A commenter expressed support for Commissioner Baran's position in his dissenting vote on SECY-18-0055 that the rule unduly favors the interests of the industry over all other stakeholders. The commenter expressed appreciation of Commissioner Baran's consideration for the shifting cost burden to State and local governments by reducing EP and insurance protections while risks are still present (NRC-2015-0070-0376-0002).

NRC Response: The NRC disagrees with this comment. The costs and benefits of the rule do not prioritize the nuclear industry or any other group. The NRC uses current cost-benefit guidelines developed by OMB and the NRC and enhanced in response to GAO audits, to consider costs and benefits to all affected entities. The cost estimate is generated with a focus on objectivity. The NRC also disagrees with the comment that costs are shifted. The EP and insurance requirements are appropriately reduced commensurate with the reduction in risk at a decommissioning site. There is currently no regulatory requirement for licensees of operating nuclear power plants to fund the costs associated with State and local emergency planning. Any current funding provided by licensees is the result of negotiations between the State or local governments and the licensee.

Accordingly, the NRC did not revise the rule language in response to this comment.

7.2 Estimated Benefits of the Proposed Rule and Alternatives

Comment 7.2-01: A commenter asserted that the proposed changes would turn exemptions into regulations and result in savings to licensees and the NRC but not to the public. The commenter wrote that, for example, the proposal would allow industry to forego emergency planning but that these costs would simply be transferred to FEMA, State, and local responders. The commenter urged that the savings to State and local governments and the public are unrelated to public health and safety and criticized the proposal as treating the revocation of rights to challenge exemption applications as a source of cost savings. The commenter stated that the proposal would reduce transparency and engagement in decommissioning planning (NRC-2015-0070-0293-0002).

NRC Response: The NRC disagrees with this comment. Regarding the comment that this rulemaking transfers the costs of emergency planning to offsite responders, please see the NRC Response to Comment 4.1-02. The NRC disagrees that the savings to State and local governments and the public is unrelated to public health and safety. The NRC is eliminating certain requirements that are not necessary to maintain adequate protection of the public health and safety during the decommissioning of a nuclear power reactor due to the reduced risks to the public. The NRC, licensees, State and local governments, and the public will experience some cost savings from the reduction in technical and procedural requirements, but they will not experience a reduction in the level of public health and safety. See the NRC Response to Comment 4.1-03 for more information on this topic. The NRC also disagrees with the comments about the right to challenge exemption requests and the proposed rule reducing transparency and engagement in decommissioning planning. Exemption requests do not provide for stakeholder participation, whereas this rulemaking has given the public numerous opportunities to provide their input on the NRC's proposals to revise the decommissioning planning framework. Also, the final rule does not change the public engagement requirements, such as the public meetings held at the PSDAR and LTP phases of decommissioning.

Accordingly, the NRC did not revise the rule language in response to this comment.

***Comment 7.2-02*:** A commenter stated that the NRC should consider whether the changes in the proposed rule benefit the public or instead only bolster the nuclear industry's bottom line. The commenter advocated for prioritizing maximum safety in nuclear energy rather than adopting "reasonable" or "adequate" standards, further reasoning that the $17 million of calculated benefits of the proposed rule is a meager saving compared to decommissioning costs overall and the importance of safety.

The commenter also suggested that the proposed rule should first consider reallocation of excess resources that result from changes to the safety and security measures to benefit the local communities. For example, the commenter suggested that any excess capacity from onsite firefighting forces could be used to support local firefighting forces (NRC-2015-0070-0379-0016).

NRC Response: The NRC disagrees with this comment. The NRC determined that the changes in this rulemaking will not increase risk to public health and safety and will result in net benefits to the public. The NRC disagrees with the comment that reasonable and adequate standards for protection are not sufficient, and that maximum safety levels should instead be prioritized for nuclear power reactors. Adequate protection is the level of protection established by Congress in the AEA. The NRC also disagrees with the comment that because the savings are small relative to the overall cost of decommissioning, the proposed rule must be reconsidered. The NRC's cost benefit guidelines direct the NRC to consider incremental costs and benefits, and that is how the RA was performed.

In addition, the NRC disagrees that it should reallocate excess resources. The decommissioning trust funds are required to be used for radiological decommissioning only. Licensees may request exemptions to use excess funds for spent fuel management and site restoration. Once decommissioning is complete and the license has been terminated, the NRC has no jurisdiction over how the remaining balance, if any, is used.

Accordingly, the NRC did not revise the rule language in response to this comment.

7.3 Other Comments on the Regulatory Analysis

***Comment 7.3-01*:** A commenter stated that the RA does not reflect the proposed rule's changes in any reasonable level of detail and does not credibly support moving forward with the proposed rule changes. The commenter asked if the NRC analysis accounted for the number of reactors at each site and for second license renewals. The commenter also asked why a cost for "pre-access drug and alcohol testing" was included (NRC-2015-0070-0348-0001).

Another commenter stated that the NRC provided too little support for its estimated savings and that commenters cannot evaluate if the estimate is credible, accurate, and reflective of current operations. The commenter stated that several licensees have demonstrated that shorter timelines are possible for the movement of fuel from the SFP to dry storage. The commenter stated that this must be considered in the analysis because it lowers the costs for the FFD program, which reduces the estimated savings from the rule changes. The commenter criticized staffing assumptions as relying on 32-year-old, outdated data, and stated that the NRC should be able to use more recently collected information (NRC-2015-0070-0401-0001).

NRC Response: The NRC agrees, in part, with these comments. The NRC agrees that the staffing assumptions, in terms of full-time equivalent versus the number of personnel, used outdated data. In the final rule, the NRC revised the assumptions on the size of the workforce at

a decommissioning power reactor site using annual FFD program performance drug and alcohol testing data submitted to the NRC by the licensees of nine decommissioning power reactor sites during the years 2009 through 2022. The NRC also agrees with the comment that secondary license renewals should be used in the analysis, and that longer decommissioning time periods were used than now seems appropriate. At the time the proposed rule and RA were completed, the issue of secondary license renewals was not resolved, and in fact had gone through differing potential outcomes, making it reasonable to assume the status quo. Also, the more rapid decommissioning activities by some licensees had not occurred when the analysis on the proposed rule was performed. The NRC revised the estimated number of years from the start of decommissioning to the transfer of all spent fuel to dry storage based on the completed fuel transfer campaigns at eight decommissioning power reactors sites during the years 2018 through 2022. The RA also now assumes that all operating reactors will seek secondary license renewals. Finally, the NRC agrees that no changes were proposed to pre-access drug and alcohol testing. The final rule also does not include changes to pre-access drug and alcohol testing, so the RA for the final rule does not include any associated cost related to this item.

Accordingly, the NRC revised the final rule RA by incorporating these updated assumptions.

The NRC disagrees that the RA does not provide a reasonable level of detail or support for the proposed rule changes. The level of detail in the RA is not reflective of the detail used in developing it, but instead is the level typically provided in RAs as appropriate to demonstrate the analysis that the agency performed and provide the numerical inputs that generated the results. The RA does not specifically consider the number of reactors at each site but notes that typically all reactors at a site do not permanently cease operations at the same time. Therefore, a licensee would not need to wait until all reactors at its site have ceased operations to begin moving some spent fuel to dry storage.

Comment 7.3-02: A commenter asserted that the costs and benefits outlined in support of the proposed rule clearly prioritize the nuclear industry and, in this light, questioned the basis under which the NRC considered the proposed regulatory amendments (NRC-2015-0070-0287-0003).

NRC Response: The NRC disagrees with this comment. The costs and benefits do not prioritize the nuclear industry or any other group. The NRC uses current cost-benefit guidelines to consider costs and benefits to all affected entities, and the cost estimate is generated with a focus on objectivity.

Accordingly, the NRC did not revise the final rule RA in response to this comment.

8 BACKFITTING AND ISSUE FINALITY

Comment 8-01: A commenter suggested adding a new Level 4 to the NRC's graded approach to decommissioning for licensees who have completed decommissioning activities but still have an ISFSI. The commenter claimed that this new Level 4 "would aid in clarifying unclear backfit applicability" (NRC-2015-0070-0329-0059).

NRC Response: The NRC disagrees with this comment. Adding a Level 4 for "Stand-Alone ISFSI/Decommissioned Reactor" to the graded approach to decommissioning requirements would not change which licensees are within the scope of the NRC's Backfit Rule. As explained in the NRC Response to Comment 4.12-04, the applicability of the 10 CFR Part 50 Backfit Rule for decommissioning power reactor licensees ends when the NRC terminates the licensee's reactor license. If the licensee has a 10 CFR Part 72 specific license, then the licensee is within the scope of the backfitting provision in 10 CFR 72.62 for its ISFSI until termination of the 10 CFR Part 72 license under 10 CFR 72.54.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 8-02: A commenter expressed agreement with the NRC that the majority of the changes proposed in the rulemaking do not constitute backfitting. The commenter reasoned that the proposed changes would largely either provide voluntary alternative approaches to licensees, are non-mandatory relaxations of existing requirements, or would not otherwise meet the "effect" element of backfitting. However, the commenter disagreed with the idea that removing portions of the regulations does not constitute an amendment of those regulations and, after an analysis of common and NRC-specific uses of the term "amend," recommended removing this justification as unsupportable and unnecessary. The commenter further recommended replacing this justification with an explanation as to why the relevant provisions do not constitute backfitting (NRC-2015-0070-0338-0033).

NRC Response: The NRC agrees with this comment. The term "amending" can have multiple definitions and interpretations. Removing a requirement generally does not constitute backfitting under 10 CFR 50.109 because such an NRC action typically does not result in a modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct, or operate a facility. In some cases, removing a requirement may still meet the definition of backfitting, so the NRC must show that its removal of a requirement does not constitute backfitting.

Accordingly, the NRC included language in the final rule preamble in response to this comment to explain how each removal of a requirement in the final rule does not constitute backfitting.

Comment 8-03: A commenter discussed the backfitting assessment for the proposed new spent fuel management requirements and the revisions related to IFMPs. Specifically, the commenter stated that characterizing the new spent fuel management requirements as a "clarification of a reporting requirement" is inaccurate, since the proposal would impose a new, substantive requirement for the amendment of a facility license as part of the licensee's notification to the NRC of its funding program for irradiated fuel. The commenter asserted that this change meets the definition of backfitting (NRC-2015-0070-0338-0046, NRC-2015-0070-0338-0044).

NRC Response: The NRC disagrees with this comment. The NRC does not dispute that, under the proposed rule, licensees may have had to revise their procedures to clarify the process for seeking NRC approval of their IFMPs. However, procedural changes to reflect NRC administrative requirements would not have been a modification to a licensee's procedures required to "operate a facility" within the meaning of 10 CFR 50.109(a)(1). Licensees were already required to have an IFMP and submit it for NRC approval. The method of receiving that approval (e.g., by letter or license amendment) is an NRC administrative process, not a process related to operating a facility. Therefore, requiring a licensee to submit an LAR to seek NRC approval of an IFMP would not have constituted backfitting under 10 CFR 50.109.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 8-04: A commenter stated that the proposed modifications to the security plan change process under 10 CFR 50.54(p) are mandatory because, whether the licensee considers a change to its security plan to be required by regulations or not, the license would have to make the change under the applicable change control requirements. Thus, the commenter claimed the security plan change process modifications cannot be excluded from backfitting (NRC-2015-0070-0338-0047).

NRC Response: The NRC disagrees with this comment. The NRC does not dispute that licensees may have to revise their procedures to clarify the process for making security plan changes. However, procedural changes to address NRC administrative requirements do not constitute changes required to "operate a facility" within the meaning of 10 CFR 50.109(a)(1). For example, the need to request an NRC approval as a license amendment does not represent an action within the scope of "backfitting" as defined in 10 CFR 50.109(a)(1) because the method of receiving that approval is an NRC administrative process, not a process related to operating a facility. In addition, the procedures a licensee uses to decide whether to change its security plan are not procedures required to operate a facility. Therefore, revisions to the process for making security plan changes do not constitute backfitting under 10 CFR 50.109.

Accordingly, the NRC did not revise the rule language in response to this comment. The NRC did revise the backfitting discussion in the preamble consistent with this comment response.

Comment 8-05: A commenter agreed with the NRC that the proposed changes to the frequency requirements for decommissioning funding reporting do not constitute backfitting but recommended that the NRC explain why this is the case. The commenter reasoned that this is so because this change is a non-mandatory relaxation of an existing requirement (NRC-2015-0070-0338-0048).

NRC Response: The NRC agrees with this comment. Changing the frequency of decommissioning funding reporting from at least once every two years to at least once every three years relaxes the requirement. However, a licensee could still submit its decommissioning funding report every two years. Thus, a licensee could continue to comply with the previous two-year requirement and still satisfy the final rule's three-year requirement. This makes the relaxation non-mandatory and, as explained in Management Directive 8.4, non-mandatory relaxations of regulations generally do not meet the definition of ''backfitting.'' The change to the frequency of decommissioning funding reporting provides the voluntary relaxation of a requirement and, thus, does not constitute backfitting.

Accordingly, the NRC did not revise the rule language in response to this comment. The NRC did revise the backfitting discussion in the preamble consistent with this comment response.

Comment 8-06: A commenter discussed potential "Backdoor Backfits" that would occur should the rule and guidance be finalized as is. The commenter stated that, for example, in requiring that revisions to IFMPs be treated as license amendments, the Commission is in fact imposing a new requirement. The commenter stated that revising an IFMP is not necessary and should be terminated once the fuel is in dry cask storage. Another example of a "backdoor backfit" is that the proposed revision to 10 CFR 73.55(p) reads as if a CFH is needed at all decommissioned or decommissioning sites to suspend security measures in the event of an emergency or severe weather. The commenter stated that NEI discussed this issue in their comment, and the commenter endorses NEI's suggestions. Thirdly, the commenter expressed concern that confusion will remain over the matter of FFD requirements at what the commenter would describe as a Level 4 site (i.e., standalone ISFSI/decommissioned reactor) (NRC-2015-0070-0329-0031).

NRC Response: The NRC disagrees with this comment. Requiring that revisions to IFMPs be treated as license amendments would not constitute backfitting. As explained in the NRC Response to Comment 8-03, requiring licensees to use the license amendment process to seek NRC approval of an IFMP would not have constituted backfitting. Therefore, requiring licensees to use the license amendment process to revise their IFMPs would also not have constituted backfitting.

The proposed revision to 10 CFR 73.55(p) did not mean that a CFH was needed at all decommissioned or decommissioning sites to suspend security measures in the event of an emergency or severe weather. As explained in the NRC Response to Comment 4.2-05, the NRC is revising 10 CFR 73.55(p)(1) to clarify the positions that can suspend security measures in the event of an emergency or severe weather.

Whether a licensee is in the proposed rule's Level 3 or the comment's Level 4, no FFD requirements would apply to the licensee if the licensee were complying with the physical security requirements under 10 CFR 73.51. For a licensee implementing a physical security program under 10 CFR 73.55, the FFD program requirements included as part of the IMP under 10 CFR 73.55(b)(9)(ii)(B) would apply.

Accordingly, the NRC did not revise the rule language in response to this comment.

9 CUMULATIVE EFFECTS OF REGULATION

Comment 9-01: In response to the specific requests for comments included in Section X of the proposed rule, Cumulative Effects of Regulation, a commenter provided the following comments:

- Assuming that a final rule is published in late 2023 or early 2024 and contains an implementation period of 90-180 days, there should be ample time to complete any needed changes to programs and procedures affected by the rule.
- Cumulative effects of regulation challenges are not expected from this rule, other than the proposed new requirement to submit IFMPs to the NRC for approval in the form of LARs.
- Two other actions by the Commission intersect with this rulemaking and may influence a licensee's ability to plan for decommissioning in a timely fashion: one involves the decision to defer the completion of the revised GEIS for decommissioning to a date that is likely to occur after this rule becomes final, another includes the future implementation of a Commission Policy Statement on EJ. Both of these actions will influence the treatment of environmental matters in the PSDAR. The commenter suggested that NRC explore ways to address the regulatory uncertainties these pending actions could create, possibly by promulgating interim guidance.
- The unintended consequences of the proposed new requirement to submit IFMPs to the NRC for approval in the form of LARs could be significant, including the potential for lengthy public challenges to the NRC's previous conclusions around the reasonableness of spent fuel storage plans during site-specific licensing reviews.
- The NRC cost-benefit analysis appears reasonable (NRC-2015-0070-0338-0040).

NRC Response: The NRC agrees, in part, with this comment. The NRC does not anticipate implementation challenges from this final rule because it is creating an alternative regulatory framework for decommissioning, which is primarily optional for licensees. Section II.D of the final rule, "Applicability to NRC Licensees During Operations," identifies three areas of the final rule that apply to NRC licensees during operations: (1) the process to change a licensee's security plan, (2) the timing of decommissioning funding assurance reporting requirements, and (3) identification of 10 CFR 26.3, "Scope," as a regulation with substantive requirements that could result in criminal penalties if violated. The NRC did not receive public comments identifying these provisions as implementation challenges.

As explained in the NRC Response to Comment 4.11-03, the NRC is not requiring in the final rule that licensees submit LARs related to the IFMP. Consequently, the NRC does not expect any implementation challenges with the IFMP aspects of the final rule.

The NRC disagrees that the planned updates to the Decommissioning GEIS or implementation of any changes related to the NRC's ongoing assessment of its approach to EJ will impact the implementation of the final rule. The NRC staff will remain engaged in the ongoing discussions in these areas, will assess the impact of any changes on the decommissioning regulations, and will adjust the reviews of any incoming decommissioning licensing actions or PSDARs as needed to address future revisions of the Decommissioning GEIS or EJ Policy Statement.

Accordingly, the NRC did not revise the rule language or establish a separate compliance date in response to this comment. The final rule will be effective 30 days after publication in the FR.

10 PLAIN WRITING ACT

No comments are associated with this issue.

11 NATIONAL ENVIRONMENTAL POLICY ACT

Comment 11-01: A commenter asserted that the proposed rule, if finalized, would constitute a major Federal action that may significantly impact the environment. The commenter reasoned that the proposal increases risks related to zirconium fires by eliminating emergency planning requirements. Therefore, the commenter wrote, NEPA requires that the NRC prepare an EIS on the rulemaking (NRC-2015-0070-0359-0014).

NRC Response: The NRC disagrees with this comment. The NRC prepared a draft EA instead of a draft EIS for the proposed rule because the NRC found that the proposed rule would not: (1) increase the probability of consequences of accidents; (2) result in a significant change in the type or amount of effluents released offsite; (3) cause any significant increase in public or occupational exposure; or (4) result in significant non-radiological impacts. This determination was based, in part, on studies related to the risk of an SFP accident at a nuclear power reactor site in decommissioning, including the risk of a zirconium fire. The proposed rule preamble included a discussion of the zirconium fire scenario and SFP studies that demonstrate the zirconium fire risk is very small once the spent fuel has reached a sufficiently low decay heat level.

In addition, a NEPA review is used to determine if a proposed Federal action would have a significant effect on the quality of the human environment. The presence or absence of an emergency plan does not affect the potential risk of a facility to impact the quality of the human environment. The purpose of an emergency plan is to respond to the potential risk created by a facility; an emergency plan does not affect or change any potential hazard posed by the facility.

Accordingly, the NRC did not revise the rule language in response to this comment.

12 PAPERWORK REDUCTION ACT

No comments are associated with this issue.

13 CRIMINAL PENALTIES

No comments are associated with this issue.

14 VOLUNTARY CONSENSUS STANDARDS/NATIONAL TECHNOLOGY TRANSFER AND ADVANCEMENT ACT

No comments are associated with this issue.

15 AVAILABILITY OF GUIDANCE

15.1 DG-1346, "Emergency Planning for Decommissioning Nuclear Power Reactors" and Other Commends Addressing Emergency Action Levels

Comment 15.1-01: A commenter stated that PSEP and PDEP EALs for DU2 and DA2 rely on wide-range level monitoring instrumentation implemented by NRC Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation" (March 2012) (ML12056A044), as indicated by use of the defined terms Level 1, Level 2, and Level 3. For a license that has not docketed the 10 CFR 50.82(a)(1) certifications, 10 CFR 50.155(e) allows that wide-range SFP level monitoring is not required if all the fuel in a SFP has decayed for at least 5 years, according to the commenter. The commenter stated that imposing these requirements through the EAL schemes for decommissioning facilities when the regulations provide relief once the reactor is permanently defueled would add a burden on licensees to maintain this capability with no significant safety benefit (NRC-2015-0070-0378-0010).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that NRC Order EA-12-051 does not apply to licensees in decommissioning and agrees that for a licensee that has docketed the 10 CFR 50.82(a)(1) (or 10 CFR 52.110(a)) certifications, 10 CFR 50.155(e) states that wide-range SFP level monitoring is no longer required after the fuel in an SFP has decayed for at least 5 years. However, 10 CFR 50.200(c)(1)(ii), "Assessment actions," and (iii), "Activation of emergency organization," requires, in part, that licensees have EALs that are based on in-plant conditions, instrumentation, and onsite monitoring for the spectrum of potential decommissioning emergency conditions.

For a licensee with a PSEP or PDEP, the primary emergency condition the emergency plan is intended to address is lowering SFP level, which, if left uncorrected, may lead to onsite radiological consequences and an unlikely but possible zirconium fire with offsite radiological consequences. Therefore, SFP level monitoring EALs are needed for PSEP and PDEPs because, given the potential radiological consequences if the SFP level drops, the licensee needs to determine whether it must notify local and State agencies, the Commission, and other Federal agencies, and also needs to determine when and what type of protective measures should be considered within the site boundary to protect health and safety. However, the licensee has flexibility in how this is to be accomplished and can provide alternatives to the NRC for review and approval.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-02: A commenter stated that there is ambiguity associated with the terms "onsite," "offsite," and "site boundary," and recommended that the NRC add the phrases "within the Exclusion Area Boundary" and "beyond the Exclusion Area Boundary" where applicable. The commenter also recommended that the NRC define the term "site boundary" (NRC-2015-0070-0338-0016).

NRC Response: The NRC agrees, in part, with this comment. The NRC disagrees with the addition of the proposed language. However, the NRC agrees that "onsite," "offsite," and "site boundary" should be defined in RG 1.235.

The NRC revised the language that was in DG-1346 to include the following definitions, which are consistent with those in NUREG-0654/FEMA-REP-1, Rev. 2:

> Onsite: the owner-controlled area (OCA) of a commercial nuclear power plant.
>
> Offsite: outside of the boundaries of the OCA.
>
> Site boundary: the line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee.

In addition, the NRC defined "exclusion area" to mean the area surrounding the reactor where the licensee has the authority to determine all activities, including exclusion or removal of personnel and property.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-03: A commenter stated that references to versions of NUREG-0654/FEMA-REP-1 are inconsistent within Section C.1 of DG-1346 (NRC-2015-0070-0338-0053).

NRC Response: The NRC agrees with this comment. Accordingly, the NRC moved the contents of footnote 2 on page 7 of DG-1346 to a new paragraph under Section C.1 stating "Licensees making changes to their emergency plans based on a different version of NUREG-0654/FEMA-REP-1 than that used in their operating emergency plans should indicate the version on which the changes are based. Methods or solutions that differ from those described in any version of NUREG-0654/FEMA-REP-1 issued by the NRC may be deemed acceptable if a licensee makes available sufficient bases and information for the NRC staff to evaluate whether the proposed alternatives(s) meet the intent of the planning standards." Additionally, the footnote 2 annotation in Section C.1.a.(1) was deleted.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-04: A commenter stated that an alternate location is not necessary when in the PDEP state. Additionally, the commenter noted that the requirement for an alternate location was in a draft version of ISG-02 but was removed in the final issued version. The commenter recommended that the NRC eliminate the reference to an alternate location from Section C.2.h.(1)a of DG-1346 to align with the requirements of ISG-02, Attachment 1, H.2., page 38 (NRC-2015-0070-0338-0054).

The commenter also stated that for PDEPs and IOEPs, ICs/EALs should not be based on hostile action or its associated requirements. A commenter stated that, in the proposed rule, PDEPs would not fall within the scope of hostile action, and enhancements to EP in response to hostile action, such as alternative facilities for the staging of ERO personnel and protection of onsite personnel, would not be warranted. The commenter further noted that PDEPs are excluded from the definition of hostile action and its related requirements as they apply to EP. The commenter suggested revising references to hostile action in Attachment 2 (NRC-2015-0070-0338-0090).

NRC Response: The NRC agrees with this comment. The 2011 final rule, "Enhancements to Emergency Preparedness Regulations" (76 FR 72560; November 23, 2011), added the requirement for nuclear power reactor licensees to have an alternative facility(ies) that would be accessible even if the site was under threat of or experiencing hostile action, to function as a staging area for augmentation of emergency response staff. As explained in the 2022 Proposed Rule preamble and this final rule's preamble, hostile action requirements are not applicable to licensees with PDEPS and IOEPs.

Accordingly, the NRC revised the guidance document in response to this comment to remove the reference to an alternate location that was in Section C.2.h.(1)a of DG-1346. In addition, the NRC revised the guidance document to restore the term Security Events and remove references to hostile action aircraft for licensees with a PDEP or IOEP.

Comment 15.1-05: A commenter stated that the last sentence on page 21 of Section C.3 of DG-1346 is not correct because 10 CFR 72.32(a) refers to applicability only. Additionally, the commenter stated that 10 CFR 72.32(a)(1) through (16) and Section C.3, pp. 22-25 of DG-1346 are not equivalent and should not be construed as such. The commenter recommended that NRC revise the last sentence on page 21 of DG-1346 to clarify that an IOEP prepared using the criteria in Section C.3 satisfies the information requirements in 10 CFR 72.32(a)(1) through (16) (NRC-2015-0070-0338-0055).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that the last sentence on page 21 of DG-1346, "An IOEP prepared in accordance with 10 CFR 72.32(a) should meet the following criteria," is not correct. The NRC disagrees that 10 CFR 72.32(a) refers to applicability only. Paragraph 72.32(a) of 10 CFR not only describes the applicability of the regulation, but it also states that the emergency plan for an ISFSI must include the information contained in 10 CFR 72.32(a)(1) through (16).

Accordingly, the NRC revised the last sentence on page 21 of DG-1346 to read, "An IOEP prepared in accordance with the following criteria will satisfy the requirements of 10 CFR 72.32(a)."

Comment 15.1-06: Regarding the second bullet under Section C.3 on page 21 in DG-1346, a commenter recommended that the NRC revise a reference from "10 CFR 72.32" to "10 CFR 72.32(a)" because a licensee with a 10 CFR Part 72 general license may comply with 10 CFR 72.32(c) (NRC-2015-0070-0338-0056).

NRC Response: The NRC agrees with this comment. The second bullet under Section C.3 on page 21 in DG-1346 should stipulate "10 CFR 72.32(a)" because the second bullet is intended for a holder of a 10 CFR Part 72 specific license.

Accordingly, the NRC revised the second bullet under Section C.3 in the guidance document to read as follows:

> **Specific license**: If a power reactor licensee chooses to apply for a 10 CFR Part 72 specific license, the licensee would need to provide, as part of its application, an emergency plan that complies with the emergency planning requirements of 10 CFR 72.32(a).

Comment 15.1-07: Regarding Table B-1-ISFSI in Section C.3 on page 23 in DG-1346, a commenter stated that the use of "On-Call" could mean a variety of ready expected status, and the commenter recommended using "In contact" instead (NRC-2015-0070-0338-0057).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that the use of "On-Call" means a variety of expected ready status. The purpose of this guidance is to have engineering support and support of operational accident assessment available within the time requirements and in the locations specified in the licensee's approved emergency plan. If a licensee chooses to have emergency response personnel respond in a virtual capacity, for example, then that would be part of the licensee's approved site-specific emergency plan. The NRC disagrees that the language used in DG-1346 to describe the status of augmented staff

capable of response in 2 hours should be revised as proposed in this comment because, as described above, such a change is unnecessary.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-08: A commenter recommended the NRC delete Section C.3.h.(1)a.i on page 24 in DG-1346. The commenter stated that the section requires meteorological equipment, and past precedence has not required physical equipment (only provisions for acquiring data) (NRC-2015-0070-0338-0058).

NRC Response: The NRC disagrees with this comment. DG-1346 does not impose any regulatory requirements. The guidance document provides decommissioning nuclear power reactor licensees with one method considered acceptable by the NRC for meeting the applicable EP requirements in 10 CFR Part 50. The NRC does not require a decommissioning licensee to have meteorological equipment, although 10 CFR 50.200(c)(1)(v)(B) requires the licensee to maintain equipment for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials to the environment.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-09: A commenter recommended that Section C.3.j.(1)b of DG-1346 either provide basis for requiring respiratory protection during the IOEP phase or remove the requirement, asserting that there is no design basis accident at the IOEP phase that would result in airborne radioactivity (NRC-2015-0070-0338-0059).

NRC Response: The NRC disagrees with this comment. DG-1346 does not impose any regulatory requirements. The guidance document provides decommissioning nuclear power reactor licensees with one method considered acceptable by the NRC for meeting the applicable EP requirements in 10 CFR Part 50. The NRC does not require a decommissioning licensee to have a respiratory protection program, although having one is a reasonable and prudent protection strategy. A licensee in the IOEP phase may still need to respond to an industrial accident involving potentially contaminated liquid retention tanks or ponds, as well as other potential airborne hazardous materials onsite.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-10: A commenter asserted that Section C.3.p.(1) on page 25 of DG-1346 should be revised to include the exception that Section C.2.p.(9) does not apply once all spent fuel is in dry cask storage, consistent with 10 CFR 50.54(t)(3) in the proposed rule (NRC-2015-0070-0338-0061).

NRC Response: The NRC agrees with this comment. The final rule includes 10 CFR 50.54(t)(3), which states, “The review of the emergency preparedness program elements is no longer required once all fuel is in dry cask storage.” Therefore, Section C.2.p.(9) does not apply to a licensee with an IOEP.

Accordingly, in response to this comment, the NRC revised Section C.3.p.(1) of the guidance document to read, “The emergency plan should continue to follow guidance in Section C.2.p(1) – (8) of this RG.”

Comment 15.1-11: A commenter stated that Section C.3.n.(1)a of DG-1346 does not make sense as written. In Section C.3.n.(1)a, the commenter proposed deleting the phrase “The emergency plan should address the following” and removing “a” from the reference to Section C.2.n(1)a (NRC-2015-0070-0338-0062).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that Section C.3.n.(1)a is not clear. However, the NRC disagrees with the suggested revision, which would remove the provision for critiques of exercises in Section C.2.n.(1)b from Section C.3.n.(1). Paragraph 70.32(a)(12)(ii) of 10 CFR requires the performance of exercise critiques for a specific license ISFSI, so the NRC kept this guidance and removed the exception language from Section C.3.n.(1).

Accordingly, in response to this comment, the NRC revised Section C.3.n.(1) of the guidance document to state, "The emergency plan should continue to follow guidance in Section C.2.n of this RG."

Comment 15.1-12: A commenter asked for clarification as to whether the last paragraph in the Generic EAL guidance section on page A-5 of DG-1346 is discussing changes beyond those needed for transitioning to the PSEP stage. The commenter requested further clarification of what would constitute an entire scheme change (NRC-2015-0070-0338-0064).

NRC Response: The NRC understands the comment to be referring to the second paragraph in section 2.2 on page A-5 of DG-1346. The NRC agrees that the paragraph lacks clarity. The guidance should have read that "licensees may make changes to individual EALs based on plant conditions that are physically unrealizable or instrumentation that is no longer in service due to decommissioning. These types of changes are not considered reductions in effectiveness provided that the evaluation under 10 CFR 50.54(q)(3) demonstrates that these changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the applicable requirements. However, an entire EAL scheme change, such as replacing the PSEP EAL scheme with the PDEP EAL scheme when the licensee transitions to Level 2, would require licensee submission of a license amendment and NRC approval before implementing the change."

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-13: A commenter stated that PDEPs would not fall within the scope of "hostile action," and enhancements to EP in response to hostile action would not be warranted. The commenter suggested that the hostile action definition note should clarify that hostile action is also not necessary for ISFSIs and state that elements of security-based events, vice hostile actions, are still applicable to PDEPs and IOEPs (NRC-2015-0070-0338-0065).

NRC Response: The NRC agrees with this comment. As explained in the NRC Response to Comment 4.1-42, hostile action-based EALs and EAL guidance related to aircraft attacks and aircraft threats are not applicable to decommissioning facilities in Levels 2 and 3. DG-1346 has been corrected to remove reference to "hostile action," "aircraft attack," and "aircraft threats" for licensees with a PDEP or IOEP. DG-1346 will maintain EALs for security-related events as long as spent fuel is onsite.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-14: A commenter stated that emergency classification level (ECL) definitions for decommissioned plants should take into consideration the location of the fuel. The commenter specifically stated that the definition of ALERT on page A-13 of DG-1346 refers to "level of safety of the plant," which the commenter asserted does not align with the IOEP. The commenter recommended replacing "of the plant" with "within the protected area" (NRC-2015-0070-0338-0066).

NRC Response: The NRC disagrees with this comment. The ECL definitions apply to three levels of decommissioning (i.e., PSEP, PDEP, and IOEP). Making an ECL definition specific to the site conditions for IOEP could potentially invalidate the definition for one or both of the other two levels. DG-1346 provides guidance for one way that the NRC has found acceptable for a licensee to meet the applicable regulations. A licensee may propose any change to the guidance to support the development of an entire EAL scheme for NRC review and approval.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-15: A commenter stated that the definition of GENERAL EMERGENCY on page A-13 of DG-1346 refers to "core degradation" and "containment integrity," which the commenter asserted does not align with the PSEP stage with spent fuel in wet storage. The commenter recommended rewording the definition to align with the PSEP (NRC-2015-0070-0338-0067).

NRC Response: The NRC disagrees with this comment. A licensee could still have fuel in the core while in the PSEP phase, in which case the references to "core degradation" and "containment integrity" would still be applicable. The ECL definitions apply to three levels of decommissioning (i.e., PSEP, PDEP, and IOEP). Making the definition of GENERAL EMERGENCY specific to the site conditions for PSEP would then invalidate the definition for the other two levels. DG-1346 provides guidance for one way that the NRC has found acceptable for a licensee to meet the applicable regulations. A licensee may propose any change to the guidance to support the development of an entire EAL scheme for NRC review and approval.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-16: A commenter asserted that the language "within a relatively short period of time" in the definition for IMMINENT on page A-14 of DG-1346 is subjective, and the commenter recommended deleting this phrase (NRC-2015-0070-0338-0068).

NRC Response: The NRC disagrees with this comment. The words "within a relatively short period of time" are the same words used in current ECL and EAL descriptions containing the term "IMMINENT." (See NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Rev. 6 (November 2012) (ML12326A805)).

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-17: A commenter stated that the definition of "UNUSUAL EVENT" on page A-15 of DG-1346 refers to "level of safety of the plant," which does not align with the IOEP. The commenter recommended replacing "of the plant" with "within the protected area" (NRC-2015-0070-0338-0069).

NRC Response: The NRC disagrees with this comment. The ECL definitions apply to three levels of decommissioning (i.e., PSEP, PDEP, and IOEP). Making an ECL definition specific to the site conditions for IOEP could potentially invalidate the definition for one or both of the other two levels. DG-1346 provides guidance for one way that the NRC has found acceptable for a licensee to meet the applicable regulations. A licensee may propose any change to the guidance to support the development of an entire EAL scheme for NRC review and approval.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-18: A commenter asserted that the list of references on page A-16 of DG-1346 does not include NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Rev. 7 (January 2023) (ML23027A078), and suggested the NRC add it (NRC-2015-0070-0338-0070).

NRC Response: The NRC disagrees with this comment. NEI 99-01, Rev. 7, has not been endorsed by the NRC, the latest draft (ML23027A078) does not include decommissioning EALs, and the draft refers to DG-1346 as one document for decommissioning EAL scheme development guidance.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-19: A commenter stated that the Developer Notes on pages A-31 and A-32 of DG-1346 discuss the SFP level as determined in NRC Order EA-12-051, but asserted this Order may no longer be applicable if the licensee has asked for rescission. The commenter recommended the NRC clarify that the Order is being used as a reference and that there is likely no need to maintain the SFP instrumentation as was needed during operation (NRC-2015-0070-0338-0071).

NRC Response: The NRC agrees, in part, with this comment. The NRC Response to Comment 15.1-01 provides information on the need for wide-range SFP level monitoring, and the applicability of NRC Order EA-12-051, after a licensee has docketed the 10 CFR 50.82(a)(1) (or 10 CFR 52.110(a)) certifications.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-20: A commenter stated that including separate ICs/EALs for ISFSI security-based events (EU1 and EA1) from those for the site (DU3 and DA3) in DG-1346 is redundant and will unnecessarily complicate event classifications for decommissioning sites. The commenter recommended that the NRC revise the guidance to be consistent with NEI 99-01, Rev. 6, which addresses security-based events for ISFSIs under the same ICs/EALs as the site (NRC-2015-0070-0338-0073).

NRC Response: The NRC disagrees with this comment. The NRC recognizes the redundancy in these EALs but disagrees that it will unnecessarily complicate event classifications for decommissioning sites. The three EAL scheme levels presented in DG-1346 are intentionally depicted as separate and distinct schemes for ease of use and to aid in understanding the differences in EP between the levels of decommissioning. The intent of this approach is for each EAL scheme to be able to be used as a standalone reference for each of the three distinct levels of decommissioning, rather than combining all decommissioning EALs into one attachment.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-21: A commenter stated that IC DU1 and the associated EALs are unnecessary as the covered events present a very low safety risk to the public. The commenter stated that activation of the site emergency plan and ERO mobilization would not be necessary to effectively respond to the event. The commenter suggested that DG-1346 EALs should be consistent with NEI 99-01, Rev. 7 (NRC-2015-0070-0338-0074).

NRC Response: The NRC disagrees with this comment. NEI 99-01, Rev. 7, has not been endorsed by the NRC, the latest draft (ML23027A078) does not include decommissioning EALs, and the draft refers to DG-1346 as one document for decommissioning EAL scheme development guidance. Proposed EAL DU1 presents a very low safety risk to the public, which is why it is a Notification of Unusual Event (NOUE) (note the “U” in DU1 means it is a NOUE). The ERO is not mobilized for NOUEs. The purpose of this NOUE is primarily to serve as a precursor event to EAL DA1, the Alert classification, which does require ERO mobilization.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-22: A commenter stated that IC DU1 EAL #1 and IC DA1 EAL #1 may lead to an inappropriate emergency classification, noting that EAL values calculated using assumed source terms and meteorological conditions will likely be different than those present during an actual event. The commenter stated that the preferred approach is to perform a dose assessment at the time of the event using actual effluent monitoring readings and meteorological conditions. The commenter recommended that if IC DU1 is retained in the EAL scheme, IC DU1 EAL #1 in Attachments 1 and 2 should be removed, and the EAL Note should also be removed (NRC-2015-0070-0338-0075, NRC-2015-0070-0338-0077).

NRC Response: The NRC agrees, in part, with these comments. The NRC disagrees that IC DU1 EAL #1 and IC DA1 EAL #1 may lead to an inappropriate emergency classification. It is unlikely that an effluent monitor EAL threshold pre-calculated to represent the dose at the site boundary, using annual average meteorology and a one-hour release duration, will correspond to a dose assessment performed using actual meteorology and a longer release duration. This is a known situation that is partially mitigated by specifying that the pre-calculated effluent monitor EAL thresholds be used for declarations until the results of a dose assessment using actual meteorology become available. The NRC agrees that EAL values calculated using assumed source terms and assumed meteorological conditions (affecting plume transport and dispersion) may be different than those present during an actual event, perhaps significantly so. At a permanently defueled facility, these conditions are primarily associated with the spent fuel and the SFP systems used to provide cooling and shielding. The NRC included effluent IC/EALs in DG-1346 to provide a basis for classifying events that cannot be readily classified based on observable conditions alone.

Since dose assessment should be performed for releases at lower emergency classification levels, the uncertainty in the effluent monitor EAL thresholds should not preclude a timely General Emergency declaration and issuance of protective action recommendations.

Plant condition ICs were included to address the precursors to radioactivity release to ensure anticipatory action. The effluent ICs do not stand alone, nor do the plant condition ICs. The inclusion of both categories fully addresses the potential event spectrum and compensates for potential deficiencies in either. IC DU1 states that the escalation of the ECL would be via IC DA1, and IC DA1 EAL #2 states, “Dose assessment using actual meteorology indicates doses greater than 10 mrem total effective dose equivalent (TEDE) at or beyond (site-specific dose receptor point).” Hence, the preferred approach to perform a dose assessment at the time of the event using actual effluent monitor readings, thereby yielding the emergency classification most reflective of the actual facility condition, is accomplished in the manner described in DG-1346. However, dose assessment results may not result in a significant change to the declared EAL because there is little to no pressure behind the release pushing it out to the public, unlike that from an operating reactor.

Accordingly, the NRC did not revise the guidance document in response to these comments, but the NRC did add guidance related to dose assessment results from events occurring only in the SFP.

Comment 15.1-23: A commenter stated that IC DU1 and EAL #2 and IC DA1 and EAL #3 for release of liquid radioactivity are unnecessary as this event is bounded by other EALs. Given the effluent dilution and dispersion that could reasonably be expected to occur between the source of the liquid and the site boundary, the commenter stated it is highly unlikely that doses that present elevated risk to the public could be reached. The commenter stated that if IC DU1 is retained in the EAL scheme, then references to a release of liquid radioactivity in IC DU1 and EAL #2 should be deleted in Attachments 1 and 2 (NRC-2015-0070-0338-0076). Additionally, the commenter recommended deleting the IC DA1 reference to a release of liquid radioactivity

and deleting EAL #3 for analysis of liquid effluent sample in Attachments 1 and 2, as well as the discussion of liquid release in the Basis (NRC-2015-0070-0338-0078).

NRC Response: The NRC disagrees with these comments. The specific threshold value for IC DA1 and IC DU1 are not based on particular values of offsite dose or dose rate; therefore, the concern of effluent dilution and dispersion that could reasonably be expected to occur between the source of the liquid (e.g., a tank) and the site boundary is not applicable. The threshold for these EALs is intended to indicate the loss of plant control implied by a radiological release that exceeds a specified multiple of the Radiological Effluent Technical Specifications release limits for a specified timeframe.

Accordingly, the NRC did not revise the guidance document in response to these comments.

Comment 15.1-24: A commenter stated that IC DS1 EAL #1 and IC DG1 EAL #1 should be deleted because they may lead to an inappropriate emergency classification. The commenter stated that EAL values calculated using assumed source terms and assumed meteorological conditions (affecting plume transport and dispersion) will likely be different than those present during an actual event, according to the commenter. The commenter suggested that the NRC delete IC DS1 EAL #1 and IC DG1 EAL #1 in Attachment 1 (NRC-2015-0070-0338-0079, NRC-2015-0070-0338-0080).

NRC Response: The NRC agrees, in part, with these comments. The NRC disagrees that IC DS1 EAL #1 and IC DG1 EAL #1 may lead to an inappropriate emergency classification. It is unlikely that an effluent monitor EAL threshold pre-calculated to represent the dose at the site boundary, using annual average meteorology, and a one-hour release duration, will correspond to a dose assessment performed using actual meteorology, and a longer release duration. This is a known situation that is mitigated in part by specifying that the pre-calculated effluent monitor EAL thresholds be used for declarations until the results of a dose assessment using actual meteorology become available. The NRC agrees that EAL values calculated using assumed source terms and assumed meteorological conditions (affecting plume transport and dispersion) may be different than those present during an actual event, perhaps significantly so. At a permanently defueled facility, these conditions are primarily associated with the spent fuel and the SFP systems used to provide cooling and shielding. The NRC included effluent IC/EALs in DG-1346 to provide a basis for classifying events that cannot be readily classified based on observable conditions alone.

Since dose assessment should be performed for releases at lower emergency classification levels, the uncertainty in the effluent monitor EAL thresholds should not preclude a timely General Emergency declaration and issuance of protective action recommendations.

Plant condition ICs are included to address the precursors to radioactivity release to ensure anticipatory action. The effluent ICs do not stand alone, nor do the plant condition ICs. The inclusion of both categories fully addresses the potential event spectrum and compensates for potential deficiencies in either. IC DS1 EAL #2 and ICF DG1 EAL #2 state, “Dose assessment using actual meteorology indicates doses greater than 100 mrem TEDE at or beyond (site-specific dose receptor point).” Hence, the preferred approach to perform a dose assessment at the time of the event using actual effluent monitor readings, thereby yielding the emergency classification most reflective of the actual facility condition, is accomplished in the manner described in DG-1346.

Accordingly, the NRC did not revise the guidance document in response to these comments.

Comment 15.1-25: Regarding the Developer Notes for IC DG1 in Appendix A of DG-1346, a commenter stated that the discussion of EPA PAGs in the second paragraph on page A-29 references thyroid committed dose equivalent (CDE), but EPA-400/R-17/001, "PAG Manual: Protective Action Guides and Planning Guidance for Radiological Incidents" (January 2017), eliminated the 5 rem thyroid CDE as a PAG for evacuation or sheltering in the early phase. The commenter recommended that the NRC delete the reference to thyroid CDE from the Developer Notes for IC DG1 (NRC-2015-0070-0338-0081).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that EPA-400/R-17/001 eliminated the 5 rem thyroid CDE dose as a PAG for evacuation or sheltering in the early phase. The NRC disagrees that the reference in the Developer Notes discussion in DG-1346 for IC DG1 to thyroid CDE relates to the eliminated 5 rem CDE PAG dose for evacuation or sheltering; it is merely a discussion of how the dose quantity TEDE (as defined in 10 CFR Part 20) is used in lieu of "…sum of [effective dose equivalent] EDE and [committed effective dose equivalent] CEDE…."

Accordingly, the NRC did not revise the guidance document in response to these comments.

Comment 15.1-26: A commenter stated that NRC Order EA-12-051, which was rescinded, was issued to operating power reactor licensees, and not to licensees for permanently defueled reactors. However, the commenter noted that licensees for facilities transitioning to decommissioning have implemented an NRC-approved EAL scheme based on NEI 99-01, Rev. 6, Appendix C "Permanently Defueled Station ICs/EALs," which does not include EALs that rely on wide-range SFP level instrumentation required by NRC Order EA 12-051. NEI 99-01, Rev. 6, Section 6, "Abnormal Rad Levels / Radiological Effluent ICs/EALs," for operating reactors includes three EALs within ICs AA2, AS2, and AG2 that reflect the availability of the enhanced SFP level instrumentation associated with NRC Order EA-12-051.

Additionally, the commenter stated that the NRC no longer requires licensees in decommissioning to have a reliable means to remotely monitor wide-range SFP levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event with the potential to challenge both the reactor and SFP. The commenter noted that, in accordance with 10 CFR 50.155(a)(2)(i), once a licensee has submitted the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications, the licensee does not need to comply with the requirements of 10 CFR 50.155(e) for SFP monitoring, which made the wide-range SFP level instrumentation required by NRC Order EA-12-051 generically applicable. The commenter concluded that ICs and EALs in Appendix A should not rely on wide-range SFP level instrumentation with the same or similar capability as required by 10 CFR 50.155(e), and previously by Order EA-12-051, as stated in 10 CFR 50.155(a)(2)(i) (NRC-2015-0070-0038-0072, NRC-2015-0070-0338-0082). The commenter further suggested that the NRC revise the wording of ICs DU2 and DA2 on page A-31 of DG-1346 to align with the proposed language of ICs AU2 and AA2 in NEI 99-01, Rev. 7 (NRC-2015-0070-0338-0072).

NRC Response: The NRC disagrees, in part, with this comment. The NRC Response to Comment 15.1-01 provides information on the need for wide-range SFP level monitoring, and the applicability of NRC Order EA-12-051, after a licensee has docketed the 10 CFR 50.82(a)(1) (or 10 CFR 52.110(a)) certifications. The NRC disagrees that the guidance supporting this final rule should align with NEI 99-01, Rev. 7. See the NRC Response to Comment 15.1-18 for additional information addressing NEI 99-01, Rev. 7.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-27: A commenter recommended that the NRC clarify in DG-1346, Appendix A, that licensees in PSEP or PDEP with some spent fuel stored in the ISFSI may combine separate ICs/EALs for security-based events at the site and at the ISFSI in order to clarify their applicability to the current level of decommissioning. The commenter also suggested the NRC clarify that this combination of IC/EALs would not require a license amendment subject to 10 CFR 50.54(q)(3). The commenter cited several references within DG-1346 and also RIS 2003-18, Supplement 2, Rev. 4, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels" (January 2003) (ML051450482) to support this recommendation (NRC-2015-0070-0338-0083).

NRC Response: The NRC disagrees with this comment. The three EAL scheme levels presented in DG-1346 are intentionally depicted as separate and distinct schemes for ease of use and to aid in understanding the differences in EP (i.e., PSEP, PDEP, and IOEP) between the levels of decommissioning. The purpose of this approach is for each EAL scheme to be able to be used as a standalone reference for each of the three distinct levels of decommissioning, rather than combining all decommissioning EALs into one attachment.

DG-1346 does not impose any regulatory requirements. The guidance document provides decommissioning nuclear power reactor licensees with one method considered acceptable by the NRC for licensees to develop an acceptable EAL scheme for each level of decommissioning. A licensee may propose a change to the approach described in the guidance to support the development of an entire EAL scheme for NRC review and approval. However, DG-1346 is considered guidance and licensees can provide alternatives, including combining EALs from different schemes.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-28: A commenter stated ICs DU5, DU6, and DU7 in Attachments 1 and 2 of DG-1346, Appendix A have not been required for previously shutdown facilities and asserted no safety concerns have been identified that indicate a need for the NRC to impose new requirements. The commenter proposed deleting these ICs (NRC-2015-0070-0338-0084).

NRC Response: The NRC disagrees with this comment. DG-1346 and RG 1.235 do not impose any regulatory requirements. The guidance document provides decommissioning nuclear power reactor licensees with one method considered acceptable by the NRC for meeting the applicable EP requirements. In addition, the goals of this rulemaking and guidance development include incorporating lessons learned from decades of decommissioning power reactors. Changes to endorsed EAL scheme development guidance do not mean that the previous guidance had any safety significant issue; these changes are enhancements to existing guidance.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-29: A commenter asserted that IC DU8 in Appendix A, Attachments 1 and 2 of DG-1346 is not necessary because the covered event presents a very low safety risk to the public, noting that the event would be classified under IC DU2 if it persisted. The commenter recommended the IC be revised to reflect recent changes to IC/EALs proposed to be included in the next revision to NEI 99-01 and other relevant guidance documents (NRC-2015-0070-0338-0085).

NRC Response: The NRC disagrees with this comment. The purposes of IC DU2 and IC DU8 are distinctly different. IC DU2 is based on the SFP water level value that corresponds with the lower end of the level range necessary to prevent significant dose consequences from direct

gamma radiation to personnel performing operations in the vicinity of the SFP. IC DU8 is based on the site-specific temperature calculated by the licensee where fuel damage is likely to begin and not a concern for bulk boiling in the SFP.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-30: A commenter proposed revisions to IC/EAL EU2 in DG-1346 to conform to recent changes to NEI 99-01 (NRC-2015-0070-0338-0086).

NRC Response: The NRC disagrees with this comment. The NRC disagrees that the guidance supporting this final rule should align with NEI 99-01, Rev. 7. See the NRC Response to Comment 15.1-18 for additional information addressing NEI 99-01, Rev. 7.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-31: A commenter stated that the IOEP EAL scheme in DG-1346 does not include judgment-based EALs DU4 and DA4 (unlike the PSEP and PDEP schemes) and recommended their inclusion to be "consistent with precedent and previous NRC guidance" (NRC-2015-0070-0338-0087, NRC-2015-0070-0338-0093).

NRC Response: The NRC disagrees with this comment. Judgment-based EALs for an IOEP are not necessary when the only events of significance are already addressed adequately. PSEPs and PDEPs have the potential for situations where the approved EAL scheme may not result in a clear EAL threshold being met; therefore, maintaining an allowance for judgment-based EALs is prudent. An IOEP has very limited risk potential as compared to a PSEP and PDEP and does not need additional judgment-based EALs. The only risks associated with an IOEP are based upon a cask breach resulting in increasing radiation or a security event, both of which are adequately addressed by EALs.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-32: A commenter recommended replacing "Control Room" with "Security Alarm Station" and "offsite response organizations (ORO's)" with "offsite agencies" or "resource assistance" in the IOEP EAL on page A-78 of DG-1346, to reflect the fact that standalone ISFSIs no longer have a control room and do not have to maintain an ORO (NRC-2015-0070-0338-0088).

NRC Response: The NRC disagrees with this comment. Licensees can use terminology they consider applicable to their PSEP, PDEP, or IOEP. DG-1346 provides guidance using common terminology, but licensees can use alternative terminology and submit it for NRC review and approval as necessary.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-33: A commenter asserted that IC EU1 EAL #3, "A validated notification from the U.S. Nuclear Regulation Commission (NRC) providing information of an aircraft threat," is not currently within the EALs of standalone ISFSI sites. The commenter recommended the NRC delete IC EU1 EAL#3 for IOEP (NRC-2015-0070-0338-0089).

NRC Response: The NRC disagrees, in part, with this comment. Security-related events for ISFSIs are covered under ICs HU1 and HA1. The current standalone ISFSI EAL E-HU1, located in NEI 99-01, Rev. 6, has a note in the basis section that states, "Security-related events for ISFSIs are covered under ICs HU1 and HA1." Specifically, IC HU1 #3 states, "A validated notification from the NRC providing information of an aircraft threat." Therefore DG-1346 is

consistent with other regulatory guidance concerning ISFSI EALs. However, specific reference to aircraft threats is only required for operating reactors, so the NRC revised the guidance to remove reference to aircraft threats.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-34: A commenter stated that for ISFSIs and IOEPs, ICs/EALs should not be based on potential aircraft threat. 10 CFR 50.54(hh)(1) requires licensees to develop, implement and maintain procedures if notified of a potential aircraft threat. 10 CFR 50.54(hh)(2) states that 10 CFR 50.54(hh)(1) does not apply after the licensee has submitted the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications. The commenter stated that the preamble for the 2009 final rule, "Power Reactor Security Requirements" (74 FR 13926; March 27, 2009), also stated, in part, that the NRC believes it is inappropriate that 10 CFR 50.54(hh) should apply to a permanently shutdown defueled reactor where the fuel was removed from the site or moved to an ISFSI. The commenter concluded that ICs/EALs associated with the mitigative strategies and response procedures for potential or actual aircraft attack procedures should not be included for the ISFSI, as part of a PDEP site, or for IOEPs with all spent fuel removed from the SFP and stored at the ISFSI (NRC-2015-0070-0338-0091).

Regarding Appendix A of DG-1346, a commenter stated that the "NRC should identify the process controlling and licensee responsibility for [NRC headquarters operation officer] HOO communications related to aircraft threats" and cited the Appendix to an NRC Lessons Learned Report ("Appendix to Power Reactor Transition from Operations to Decommissioning Lessons Learned Report" (October 2016) (ML16302A022)) as it relates to the HOO communicating with the licensee. The commenter stated that the resolution will depend on the resolution of other comments that aircraft threat does not apply for ISFSIs at PSEPs and PDEPs or for IOEPs (NRC-2015-0070-0338-0092).

NRC Response: The NRC agrees, in part, with this comment. As explained in the NRC Response to Comment 4.1-42, hostile action-based EALs and EAL guidance related to aircraft attacks and aircraft threats are not applicable to decommissioning facilities in Levels 2 and 3. The guidance document has been corrected to remove reference to "hostile action," "aircraft attack," and "aircraft threats" for licensees with a PDEP or IOEP. RG 1.235 will maintain EALs for security-related events as long as spent fuel is onsite.

HOOs may still communicate to licensees credible aircraft threats for licensee consideration of possible action.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-35: A commenter stated that the minimum ERO staffing tables/matrices in DG-1346, Sections C1-C3 are not consistent with PSEPs, PDEPs, and/or IOEPs previously approved by the NRC. The commenter proposed revising ERO staffing tables/matrices for consistency (NRC-2015-0070-0338-0094).

NRC Response: The NRC disagrees with this comment. Previous NRC-approved PSEPs, PDEPs, and/or IOEPs were prepared for a specific licensee and their specific situation. The final rule is applicable to any power reactor licensee transitioning from an operating status to a decommissioning status. Therefore, the ERO staffing tables in DG-1346 do not need to be consistent with previous NRC-approved PSEPs, PDEPs, and/or IOEPs (although the ERO staffing tables listed in DG-1346 are consistent with previously issued decommissioning guidance). Licensees can provide alternative approaches to the guidance for NRC review and approval as desired.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-36: A commenter recommended referencing 10 CFR 50.54(q)(7)(ii) in the bullets on page B-1 of DG-1346 because it is applicable to the transition to PDEP (NRC-2015-0070-0338-0095).

NRC Response: The NRC agrees with this comment. Appendix B of RG 1.235 should discuss proposed 10 CFR 50.54(q)(7)(ii) (renumbered to 10 CFR 50.54(q)(8)(ii) in the final rule) as applicable to the transition to PDEP.

Accordingly, the NRC revised the guidance document in response to this comment by adding the following two bullets referencing 10 CFR 50.54(q)(8)(ii) to Appendix B:

- 10 CFR 50.54(q)(8)(ii)(A) supplements 10 CFR 50.54(q)(3) by allowing licensees the option to transition to a PDEP sooner than the required 10 months for a boiling-water reactor or 16 months for a pressurized-water reactor after permanent cessation of operations by submitting a license amendment request for NRC approval of an alternative spent fuel decay period supported by a site-specific analysis described in 10 CFR 50.54(q)(8)(ii)(C).
- 10 CFR 50.54(q)(8)(ii)(B) requires licensees to request NRC approval of a site-specific alternative spent fuel decay period, supported by a site-specific analysis described in 10 CFR 50.54(q)(8)(ii)(C), if the licensee's fuel assembly with the highest burnup transferred to the spent fuel pool at the time of shutdown exceeds a burnup of 72 GWd/MTHM or does not have zirconium cladding.

Comment 15.1-37: A commenter recommended that Appendix B of DG-1346 be expanded to include additional guidance for the transition to IOEP, in particular with respect to several references to 10 CFR 72.32 in 10 CFR 50.54(q) (NRC-2015-0070-0338-0096).

NRC Response: The NRC disagrees with this comment. Additional guidance is not needed to understand how 10 CFR 72.32 applies during the transition from PDEP to IOEP. The regulations and Section C, Staff Regulatory Guidance, of RG 1.235 provide information for licensees transitioning to IOEPs, including:

- 10 CFR 72.32(a) states that the requirements described in 10 CFR 72.32(a)(1) through (16) do not apply to an ISFSI located on the site or within the exclusion area of a nuclear power reactor. Further, 10 CFR 72.32(a) states that these requirements would not apply to an ISFSI located on the site of a nuclear power reactor that is not licensed under 10 CFR Part 50 or 10 CFR Part 52.
- The requirements in 10 CFR 50.54(q)(9)(i) are only applicable to initial plan changes made under paragraph 10 CFR 50.54(q)(3) to comply with the requirements of 10 CFR 50.200 or 10 CFR 72.32(a).
- 10 CFR 72.32(c) states that, for an ISFSI located on the site or within the exclusion area (as defined in 10 CFR Part 100, "Reactor Site Criteria") of a nuclear power reactor, the emergency plan required by 10 CFR 50.160, 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50, or 10 CFR 50.200(a) or (b) will satisfy the requirements of 10 CFR 72.32(c).
- The applicability language in 10 CFR 50.200(b) includes licensees that elect in 10 CFR 50.54(q)(8)(ii) to comply with 10 CFR 50.200(b) for their PDEP.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-38: A commenter stated that the zirconium fire analysis performed under 10 CFR 50.54(q)(7)(ii)(A) or (B) for NRC approval of an alternative spent fuel decay period should not require a LAR because the acceptance criteria is already specified in the same regulation (i.e., 10 CFR 50.54(q)(7)(ii)(C)). The commenter further cited 10 CFR 50.155(a)(2)(ii) for support because that section does not require an LAR for similar approval. The commenter proposed that instead of requiring an LAR, the NRC should allow the 10 CFR 50.54(q)(7)(ii)(A) or (B) analysis to be submitted to the NRC at least 60 days prior to implementation in accordance with 10 CFR 50.54(q)(8)(i) (NRC-2015-0070-0338-0098).

NRC Response: The NRC disagrees with this comment. The zirconium fire analysis and subsequent LAR described in proposed 10 CFR 50.54(q)(7)(ii)(A) and (B) (renumbered to 10 CFR 50.54(q)(8)(ii)(A) and (B) in the final rule) will only be required: (1) if the licensee requests a transition to a PDEP sooner than the required 10 months for a BWR or 16 months for a PWR after permanent cessation of operations and docketing of the certifications required under 10 CFR 50.82(a)(1) or 10 CFR 52.110(a); (2) if the fuel assembly with the highest burnup from the final offload that is transferred to the SFP has a burnup of more than 72 gigawatt days per metric ton of heavy metal (GWd/MTHM); or (3) if the spent fuel cladding material is not zirconium.

This NRC review is necessary in the first instance because of the significance of the risk posed by a zirconium fire during the 10- or 16-month timeframe. For the other two circumstances, the NRC requires the analysis and LAR because the studies used by the NRC to establish the 10- and 16-month timeframes for PWRs and BWRs were based solely on as assumption of a burnup of 60 GWd/MTHM and zirconium cladding fires, as described in section III.G of the proposed rule. When the licensee does not conform to the stated criteria in 10 CFR 50.54(q)(8)(ii), the NRC must evaluate the risk of these unanalyzed conditions and reach a conclusion that reasonable assurance of adequate protection is maintained.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-39: A commenter stated that—in reference to DG-1346, Appendix B, Section B-1.1 on page B-2, item d—the statement “the need for incident planning remains as long as licensed radioactive material remains onsite” should be clarified. The commenter proposed removing ambiguity referencing the need for incident planning “as in conflict with the proposed 10 CFR 50.54(q)(7)(iv)” and to consider using terminology such as “All-Hazards Planning” (NRC-2015-0070-0338-0097).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that there is some ambiguity in Appendix B, Section B-1.1, item d of DG-1346. However, the NRC disagrees with the suggested revision. As long as fuel remains onsite, there will be a need for an onsite emergency plan.

Accordingly, the NRC revised the language in Section B-1.1, item d of DG-1346 to read as follows: “Although certain design-basis accidents analyzed in the facility’s licensing basis may no longer be applicable because of the permanent cessation of operation, or because of changes to the facility (as reflected in the FSAR), the need for an emergency plan remains as long as spent fuel remains onsite.”

Comment 15.1-40: A commenter asserted that the word “buses” is not spelled correctly in six locations throughout the document and recommended the NRC correct the spelling (NRC-2015-0070-0338-0099).

NRC Response: The NRC agrees, in part, with this comment. The different spelling of “busses” and “buses” are interchangeable for electrical distribution terminology. However, the NRC agrees that the spelling should be standardized for continuity throughout the guidance document.

Accordingly, the NRC revised the guidance document to use the term “buses.”

Comment 15.1-41: In Appendix A to DG-1346, a commenter recommended the NRC revise “Permanent” to “Permanently” in the title of Attachment 2 and revise “ISFI” to “ISFSI” in Attachment 3. The commenter further recommended the NRC correct the Table of Contents pages for Attachments 1, 2, and 3 (NRC-2015-0070-0338-0115).

NRC Response: The NRC agrees with this comment. The NRC agrees that the Table of Contents for Appendix A (page A-3) of DG-1346 reads “Permanent Defueled Emergency Plan Emergency Action Level Scheme” and should read “Permanently Defueled Emergency Plan Emergency Action Level Scheme.” Additionally, the NRC agrees that attachment 3 reads “ISFI Only Emergency Plan Emergency Action Level Scheme” and should read “ISFSI Only Emergency Plan Emergency Action Level Scheme,” and that, in the Table of Contents for Appendix A, the page numbers for Attachments 1, 2, and 3 are all off by 1.

Accordingly, the NRC revised the guidance document consistent with this comment response.

Comment 15.1-42: In Appendix A to DG-1346, a commenter stated that there is an extra “in” in the last sentence of the last paragraph on pages A-76 and A-82 and recommended the NRC delete it (NRC-2015-0070-0338-0116).

NRC Response: The NRC agrees with this comment.

Accordingly, the NRC revised the guidance document to remove the additional “in” in the last paragraphs on pages A-76 and A-82 of DG-1346.

Comment 15.1-43: A commenter expressed concern about the number of separate references back to and/or modifications to portions of the guidance addressing PDEPs in the section addressing IOEPs. The commenter recommended that guidance be developed specifically for IOEPs (NRC-2015-0070-0329-0048).

NRC Response: The NRC agrees, in part, with this comment. The NRC has found that inclusive regulatory guidance documents are the preferred way for providing methods to meet the regulatory requirements that are relative to a single overarching process. However, unnecessary duplication is not an efficient method. The three separate EAL schemes, each applicable to a decommissioning phase (PSEP, PDEP, and IOEP), may have some redundancy but are an attempt to ensure clarity of how and when each EAL scheme can be used. The NRC reviewed the guidance to ensure that unnecessary duplication was removed.

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-44: A commenter stated that DG-1436 misses the mark on properly including local governments in the emergency response process. The commenter stated that the EP guidance does not provide a host community with any ability to shape emergency plans that rely on local resources. The commenter suggested that the guidance go further and encourage or even require agreements with LLEAs (NRC-2015-0070-0330-0005).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that DG-1346 Sections C.2.a.(3) and (b)(5) both describe local public safety involvement in emergency

response for events at a facility. However, the NRC does not agree that the EP guidance does not provide a host community with the ability to shape emergency plans that rely on local resources. DG-1346 sections C.2.b.(5) and C.2.c.(1) both discuss arrangements and letters of agreement with external organizations that capture mutually agreed upon authorities, responsibilities, and limits on the actions of the contractor, private organizations, and local services support groups. The NRC also disagrees with the suggested changes to the guidance documents to add requirements for licensees. The guidance provides an acceptable means of meeting the regulations outlined in the rule; NRC guidance documents cannot impose requirements on a licensee.

Accordingly, the NRC did not revise the guidance document in response to this comment.

Comment 15.1-45: A commenter stated that, although hostile action does not apply to a PDEP, DG-1346 uses the term “hostile action” in several PDEP and IOEP EALs for the purpose of classifying security-based events and to distinguish event classification levels. This creates regulatory uncertainty, according to the commenter (NRC-2015-0070-0378-0011).

NRC Response: The NRC agrees, in part, with this comment. See NRC Responses to Comments 4.1-42, 4.1-47, 15.1-13, and 15.1-34 as they relate to the term “hostile action.”

Accordingly, the NRC revised the guidance document in response to this comment.

Comment 15.1-46: Two commenters raised concerns that changes to 10 CFR 50.54(q)(8)(iii) and 10 CFR 50.200(c)(1)(ii)(B) conflict. The commenters noted that 10 CFR 50.54(q)(8)(iii) allows that certain changes to EALs are not reductions in effectiveness and thus do not need to be submitted to the NRC for prior approval, but 10 CFR 50.200(c)(1)(ii)(B) appears to require prior NRC approval via a license amendment to change the entire EAL scheme, without exception. One commenter suggested that the NRC resolve these inconsistencies (NRC-2015-0070-0257-0011). Another commenter specifically suggested that the proposed regulations should be revised to clarify that changing the entire EAL scheme to a scheme appropriate for decommissioning facilities with spent fuel stored in an SFP or dry cask storage system would not be considered a reduction in effectiveness and thus would not require prior NRC approval via a license amendment (NRC-2015-0070-0338-0103).

NRC Response: The NRC agrees, in part, with these comments. Proposed 10 CFR 50.54(q)(8)(iii) stated that changes to individual EALs based on plant conditions that are not physically achievable or instrumentation that is no longer in service due to the transition to decommissioning are not reductions in effectiveness provided that a 10 CFR 50.54(q)(3) evaluation demonstrates that the change does not reduce the capability of taking timely and appropriate protective actions. As explained in the NRC Response to Comment 4.1-45, the NRC is merging and revising proposed 10 CFR 50.54(q)(8)(ii) and (iii) and renumbering it to 10 CFR 50.54(q)(9)(ii) in the final rule.

Paragraph 50.200(c)(1)(ii)(B) of 10 CFR in the final rule requires a licensee desiring to change its entire EAL scheme to submit an application for a license amendment and receive NRC approval before implementing the change.

The NRC disagrees there are any inconsistencies in this part of the rulemaking, and the NRC disagrees with the comment’s suggested revision. Appendix E to 10 CFR Part 50, Section IV.B.2 states that licensees desiring to change their entire EAL scheme must receive prior NRC approval. The preamble for the January 1, 2005, final rule titled “Emergency Planning and Preparedness for Production and Utilization Facilities” (70 FR 3591), describes the conversion from one EAL scheme to another as a major change, and states that NRC review and approval

for such major changes in EAL methodology is necessary to ensure that there is reasonable assurance that the final EAL change will provide an acceptable level of safety.

Accordingly, the NRC did not revise the guidance document in response to these comments.

Comment 15.1-47: Regarding 10 CFR 50.54(q)(8) and DG-1346, Section C.1.d., a commenter suggested that a licensee for a Level 1 decommissioning facility should have the option to continue using the EAL scheme in effect prior to submitting the 10 CFR 50.82(a)(1) or 10 CFR 52.110(a) certifications. The commenter noted that licensees for decommissioning facilities shutdown since 2013 have not included an EAL scheme change with LARs for PSEP changes, stating that these licensees continued to apply the IC/EALs that remain applicable to a "PERMANENTLY DEFUELED REACTOR" or "AT ALL TIMES." The commenter recommended that the NRC guidance in DG-1346 (Section C.1.d) clarify that this continues to be an acceptable option pursuant to 10 CFR 50.54(q)(8) (NRC-2015-0070-0338-0107).

NRC Response: The NRC agrees, in part, with this comment. A licensee for a Level 1 decommissioning facility may maintain the operating reactor EAL scheme or even entire emergency plan. However, that licensee may not be able to simply eliminate EALs that are not applicable to a decommissioned facility. Such changes may be considered an EAL scheme change needing NRC review and approval prior to implementation.

Accordingly, the NRC did not revise the guidance document in response to this comment.

15.2 DG-1347, "Decommissioning of Nuclear Power Reactors"

Comment 15.2-01: A commenter recommended revising DG-1347 (RG 1.184) to clarify that an on-shift CFH is not required after all fuel has been transferred to dry cask storage (NRC-2015-0070-0338-0041).

NRC Response: The NRC agrees with this comment. The NRC is adding guidance to RG 1.184, Rev. 2, Section 7.7, "Certified Fuel Handler Staffing and Management Role," related to using CFH qualified individuals when all spent fuel is in dry storage. See the NRC Response to Comment 4.5-05 for additional information on these related changes.

Accordingly, the NRC is revising RG 1.184, Rev. 2 to clarify that CFHs are unnecessary at ISFSI-only sites.

Comment 15.2-02: A commenter suggested several in-line edits to DG-1347, including deleting Section 3 on Page 12 (NRC-2015-0070-0329-0049).

NRC Response: The NRC agrees with this comment. The proposed edits relate to removing the separate description and requirements for an IFMP from RG 1.184, Rev. 2, as well as updating the discussion of the role of a CFH when a facility reaches Level 3 of the graded approach to decommissioning (see also the NRC Response to Comment 15.2-01).

The requirements for an IFMP are being merged into the provisions for a PSDAR contained in 10 CFR 50.82(a)(4) and 10 CFR 52.110(d). Therefore, the discussion of spent fuel management planning requirements is being moved into RG 1.185, Rev. 2, and out of RG 1.184, Rev. 2.

Accordingly, the NRC is revising RG 1.184, Rev. 2 to remove or update the discussion of the IFMP and clarify that CFHs are unnecessary at ISFSI-only sites.

15.3 DG-1348, "Assuring the Availability of Funds for Decommissioning Production or Utilization Facilities"

Comment 15.3-01: A commenter stated that RG 1.159, Rev. 3 should include a definition of "decommissioning planning." The commenter suggested that the definition include the preparation of a historical site assessment, a site characterization report, and the LTP, as well as site characterization survey, sampling, and analysis information (NRC-2015-0070-0257-0005).

NRC Response: The NRC disagrees, in part, with this comment. Defining the phrase "decommissioning planning" to include every possible decommissioning evolution would be difficult to do and of limited benefit to licensees who maintain the flexibly to make independent business decisions about many of the aspects of decommissioning planning. However, the NRC does agree that adding examples, such as those suggested, would be beneficial to licensees.

Accordingly, the NRC revised the Decommissioning Funding subsection of Section B, "Discussion," in RG 1.184 to include the examples suggested above as examples of decommissioning planning.

Comment 15.3-02: A commenter recommended that the NRC staff change the date of the first required triennial decommissioning funding status report in DG-1348 to reflect the implementation date of the final rule since it is currently outdated (NRC-2015-0070-0338-0008).

NRC Response: The NRC agrees with this comment. The revised due date in the final rule for the first triennial decommissioning funding status report is March 31, 2025.

Accordingly, the NRC revised RG 1.159, Rev. 3 to reflect the appropriate date based on the issuance of the final rule.

15.4 DG-1349, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report"

Comment 15.4-01: A commenter suggested modifying DG-1349 to clarify that business confidential information is not expected to be submitted as part of the PSDAR (NRC-2015-0070-0338-0009).

NRC Response: The NRC agrees with this comment. The NRC is modifying the discussion of several items in RG 1.185, Rev. 2, to clarify that licensees do not in general need to submit information at a level of detail that would include business confidential information as part of the publicly available portions of the PSDAR. However, if a licensee determines that proprietary or business confidential information is necessary to support the discussion in the PSDAR, then a redacted version of the PSDAR should also be provided for public use.

Accordingly, the NRC is revising RG 1.185, Rev. 2 to specify that, if needed, licensees should provide for public use, redacted versions of PSDARs containing business confidential information.

Comment 15.4-02: A commenter suggested several revisions to DG-1349 to address the circumstances under which the NRC may issue a request for additional information (RAI) following the submission of the PSDAR (NRC-2015-0070-0329-0050).

NRC Response: The NRC agrees, in part, with this comment. The NRC is revising Section 6, "Public Involvement During the Decommissioning Process," of RG 1.185, Rev. 2, to make clear

that some licensees will have established community engagement panels before submission of the PSDAR, and to clarify what information could be included in the PSDAR related to these existing organizations.

However, the NRC disagrees that the discussion of the RAI process for PSDARs needs to be updated to remove language related to reasons why the NRC could find a PSDAR to be deficient. Although the NRC does not formally approve the PSDAR, the agency's sufficiency review has been part of the PSDAR process since the 1996 Final Rule was implemented, and the NRC will continue to review incoming PSDARs to ensure that the submitted information meets the requirements of 10 CFR 50.82(a)(4)(i) or 10 CFR 52.110(d)(1). The use of RAIs to address any areas where the PSDAR content does not meet the regulatory requirements is an effective tool to ensure that the information submitted by licensees in the PSDAR can be addressed or updated to meet the applicable decommissioning requirements.

Accordingly, the NRC is revising RG 1.185, Rev. 2 to update the discussion of the timing for establishment of community engagement panels as it relates to the information included in the PSDAR.

15.5 Other Comments

No comments are associated with this issue.

16 OTHER COMMENTS ON THE PROPOSED RULEMAKING

Comment 16-01: A few commenters provided input generally related to the proposed rule and the decommissioning of specific nuclear facilities.

Two commenters discussed the decommissioning of the Holtec Pilgrim Nuclear Plant in Plymouth, Massachusetts (NRC-2015-0070-0334-0003, NRC-2015-0070-0256-0001). One commenter discussed how, in Plymouth, there have been no public hearings or public input into how funds in the $1.2 billion decommissioning trust fund—which was inherited by Holtec when it purchased the Pilgrim plant—are used. The commenter stated that, with the new proposed rules, the NRC abdicates its responsibility for oversight and the nuclear industry, including Holtec, will not be held accountable. The commenter stated that, though Holtec promised "openness and transparency," it has frequent concerns from the public and EPA and that, under the proposed rule, the public would be left without further recourse (NRC-2015-0070-0334-0003). The other commenter wrote that, in its decommissioning plan, Holtec plans to release one million gallons of radioactive effluent into Cape Cod Bay. The commenter expressed disappointment that the proposed rule would not limit this discharge or expand regulatory oversight of Holtec's decommissioning planning and activities (NRC-2015-0070-0256-0001).

Several commenters expressed concern that the proposed rule would allow a decrease in oversight at the Indian Point plant and the potential dumping of nuclear waste into the Hudson River (NRC-2015-0070-0282-0001, NRC-2015-0070-0274-0001, NRC-2015-0070-0286-0001, NRC-2015-0070-0279-0001, NRC-2015-0070-0285-0001, NRC-2015-0070-0280-0001, NRC-2015-0070-0278-0001, NRC-2015-0070-0276-0001, NRC-2015-0070-0281-0001, NRC-2015-0070-0275-0001, NRC-2015-0070-0272-0001). One commenter stated that the loosening of regulations cannot be allowed because of attendant risks, urging the NRC to reconsider this action.

NRC Response: The NRC disagrees with these comments. The comments include general criticism of the proposed rule with no additional information for the NRC to consider, or raise site-specific concerns which are outside the scope of this rulemaking. In addition, the current

rulemaking effort does not impact or make any changes to the NRC requirements related to the discharge of radiological effluents as part of the decommissioning process.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-02: A commenter who lives within a few miles of the Indian Point Energy Center expressed concern and opposition to the proposed regulations. The commenter wrote that the proposal would further reduce NRC oversight of the decommissioning process and that such a reduction would endanger public health and safety (NRC-2015-0070-0324-0001).

A comment jointly submitted by several legislators from the communities surrounding the Indian Point Energy Center strongly disagreed with any assumption that nuclear plants in the decommissioning phase pose less danger to the surrounding communities. Since heavy decommissioning work will be conducted while multiple high pressure gas pipelines continue to operate on the site, the legislators called for strong EP regulations, as opposed to "watered-down" requirements in the proposed rule (NRC-2015-0070-0393-0001).

A commenter also addressed the Indian Point facility, urging that the NRC's planned "rollbacks"—including allowances for the dumping of nuclear waste into the Hudson River, the relaxation of tracking requirements of nuclear waste, and reduction of oversight of decommissioning facilities—insulates plant owners from accountability and reduces transparency. The commenter stated that the safety of Indian Point should be a priority for the NRC and urged that the NRC should continue granting exemptions on an individual basis. The commenter stated that doing otherwise would risk missing nuances key to understanding specific facilities such as Indian Point (NRC-2015-0070-0289-0002).

Finally, a comment jointly submitted by several commenters expressed concern for the proposal, stating that the NRC's approach has lacked transparency and that the agency has regulated "by exemption" following the transfer of the Indian Point Facility Operating Licenses for Units 1, 2, and 3. The commenters also criticized the transfer of the general license for the Indian Point ISFSI from without a public meeting (NRC-2015-0070-0341-0001). The commenters stated that they share the concerns of constituents in the Lower Hudson Valley communities surrounding Indian Point regarding a lack of public engagement from the NRC (NRC-2015-0070-0341-0005). The commenters urged the NRC to schedule a meeting with constituents from the Cortlandt Town Hall before making a determination on the proposed rule (NRC-2015-0070-0341-0001). The commenters also stated that New York's ability to reach a settlement agreement with Holtec, resulting in the formation of the Indian Point Decommissioning Oversight Board, does not relieve the NRC of responsibility to hold licensees accountable for their conduct in decommissioning (NRC-2015-0070-0341-0003).

NRC Response: The NRC disagrees with these comments. The comments include general criticism of the proposed rule with no additional information for the NRC to consider, or include information that is out of scope for the current rulemaking activity. Many of the comments raise site-specific concerns which are also outside the scope of this rulemaking, or are addressed elsewhere in a generic fashion (e.g., see the NRC's public website for additional information regarding the discharge of radiological effluents during decommissioning).

Additional information regarding the NRC's oversight of decommissioning, the reduction in risk at decommissioning nuclear power reactors and associated EP changes, the continuation of requirements for tracking shipments of low-level radioactive waste throughout transit, the use of the exemption process within the decommissioning regulations, and the opportunities for public involvement in the decommissioning process are all addressed in other comment responses or as part of the ANPR, the regulatory basis, and the guidance documents supporting the proposed and final rule.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-03: A commenter stated that the NRC needs to strike a balance between applying the proposed regulations to plants undergoing decommissioning and not disrupting current decommissioning agreements negotiated under the current regulatory framework (NRC-2015-0070-0339-0006). The commenter stated that sites in decommissioning should not automatically be exempt from requirements under the proposed rule. The commenter supported Commissioner Baran's proposal in his dissenting vote on SECY-18-0055 for licensees to submit a report assessing how new or amended requirements would impact decommissioning at their site and urged the NRC not to interfere with licensees' existing commitments to State and local government and applicable State public utility commission orders (NRC-2015-0070-0339-0014). Finally, the commenter recommended that the NRC keep resident inspectors onsite to oversee decommissioning activities until licensees obtain partial site release. The commenter reasoned that public interest in government oversight of facilities often increases after shutdown and that States should not be responsible for this effort (NRC-2015-0070-0339-0006).

NRC Response: The NRC disagrees with these comments. The final rule will not disrupt any current agreements between decommissioning licensees and other non-NRC entities, including the State, local governments, decommissioning oversight boards, or public utility commissions. These agreements exist primarily outside of the NRC's regulations related to the radiological decommissioning of nuclear power reactors and are not directly affected by the changes being implemented with the final rule. In addition, most of the provisions of the final rule are applicable to decommissioning licensees on a voluntary basis and may be adopted as necessary for facilities in different stages of the decommissioning process. Therefore, there will be no impact on the commitments of decommissioning licensees related to non-NRC stakeholders.

The NRC also disagrees that sites in decommissioning will be automatically exempt from certain requirements under the provisions of the final rule. While several regulations are being revised to allow changes to certain decommissioning programs without the need for a specific exemption from the NRC requirements, these changes cannot be made until the licensee demonstrates that it meets the underlying assumptions of the graded approach to decommissioning. In certain cases this also involves providing documentation to the NRC to explain the changes to various programs as the licensee moves through the stages of the decommissioning process (e.g., the updates to the emergency plan must be submitted to the NRC for information and in support of future inspection and other oversight activities).

Finally, the NRC disagrees that an NRC resident inspector should remain onsite until decommissioning activities are complete and the licensee has obtained a partial site release. Consistent with agency procedures, the NRC typically maintains a full-time resident inspector onsite during part of the first year after permanent shutdown of a power reactor. The resident inspector oversees the plant transition from operation to permanent shutdown in order to verify that the licensee complies with their license, technical specifications, and procedures related to entering decommissioning. During the first year, the licensee prepares the plant for safe decommissioning. The actions taken by the licensee include the modification of systems to include deenergizing and dewatering, shipment of radioactive waste, emptying of tanks, draining of systems, and electrical isolation of components.

After the initial transition to decommissioning, the level of inspections will be commensurate with the licensee's planned decommissioning activities. The NRC inspection effort at plants being decommissioned is less than at an operating reactor site, which is commensurate with the changing scope of activities at a decommissioning facility. Rather than maintaining a continual presence, NRC inspectors at a decommissioning facility will be onsite to cover specific activities of higher risk or interest (e.g., the movement of spent fuel into an ISFSI), as well as to provide

oversight of the licensee's overall programs and approach for decommissioning. During active decommissioning, NRC inspectors may be at the facility 2 or 3 weeks of the month. During a long-term storage period, they would be present several times a year. As during plant operations, the decommissioning inspection staff is supplemented with special inspection expertise as needed, which includes security, emergency response, health physics, environmental monitoring, and engineering. NRC inspections continue throughout decommissioning until the licensee demonstrates that the site meets the license termination requirements.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-04: A comment jointly submitted from two commenters also criticized the NRC for including 48 questions in the proposed rule, which demonstrates "the NRC's view of itself as a bystander rather than a regulator in the decommissioning decision-making process." The commenters stated that the NRC asked 86 questions in the 2015 ANPR and that, subsequent to the ANPR and Commission instruction to NRC staff to collect information, NRC should have made its own conclusions consistent with its statutory obligations (NRC-2015-0070-0364-0006).

NRC Response: The NRC disagrees with this comment. The NRC seeks public comment and stakeholder feedback during various phases of the rulemaking process consistent with established agency practices. Given the amount of time that the current decommissioning rule has been under development, the NRC provided additional questions for stakeholders to consider as part of the proposed rule to solicit information on additional experiences or data points that may have occurred since the ANPR and regulatory basis were issued in 2015 and 2017, respectively. All the public and stakeholder feedback received throughout the rulemaking process helps the NRC establish appropriate requirements. The final rule represents the NRC's conclusions related to these requirements consistent with its statutory authority.

The comments include general criticism of the proposed rule with no additional information for the NRC to consider or include information that is out of scope for the current rulemaking activity. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-05: A comment jointly submitted from two commenters requested that the NRC provide for the renewal of operating licenses for decommissioning purposes and set termination dates that account both for safety and environmental implications and the need to complete safety and environmental reviews and adjudicatory hearings (NRC-2015-0070-0364-0019).

NRC Response: The NRC interprets this comment to mean that there should be a licensing action at the time of permanent shutdown of a nuclear power reactor that would reflect that the facility is in a decommissioning status and establish the dates for completion of this process. The NRC disagrees with this comment. One of the major changes promulgated by the 1996 Final Rule was removal of the need for a specific license amendment (via the change to a possession-only license) upon the transition from operations to decommissioning. As discussed in the NRC Response to Comment 5.1.1-01, the NRC does not intend to return to a regulatory framework that would require a specific change to the operating license upon permanent shutdown of a nuclear power plant.

Further, as discussed in the NRC Response to Comments 2-01 and 4.8-5, the NRC has already considered the continuation of the 10 CFR Part 50 operating license during decommissioning to beyond the license expiration date, as well as made changes to 10 CFR 50.51 to address inconsistent wording about the need for specific operating license changes after promulgation of the 1996 Final Rule.

In all cases licensees must complete decommissioning in accordance with the NRC's safety and environmental requirements, as well as adhere to the provisions of 10 CFR 50.82(a)(3) or 10 CFR 52.110(c) to complete decommissioning within 60 years, unless a specific exemption is granted.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-06: A commenter supported Commissioner Baran's dissenting vote on SECY-18-0055 and recommended that NRC staff revise the proposed rule in accordance with these suggestions (NRC-2015-0070-0335-0009).

NRC Response: The NRC disagrees, in part, with this comment. The NRC has reviewed and incorporated, where appropriate, the views of Commissioner Baran in the proposed rule FRN as directed by the Commission in the SRM for SECY-18-0055. The NRC reviewed and responded to public comments referencing Commissioner Baran's vote in other NRC responses in this document.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 16-07: Some commenters referenced or supported comments that they had submitted earlier, or that were submitted by other entities:

- Two commenters adopted the comments submitted by Citizens Awareness Network and Nuclear Information and Resource Service (NRC-2015-0070-0333-0001, NRC-2015-0070-0379-0001).
- A commenter wished to reference comments submitted on March 18, 2016 (ML16081A495) and June 13, 2017 (ML17165A386) in early stages of this rulemaking and supported the comments submitted by the Attorneys General of New York, Connecticut, Michigan, Vermont, and Massachusetts on August 30, 2022 (NRC-2015-0070-0376-0001).
- A commenter noted the comments it had previously submitted on the ANPR published on November 15, 2015, and encouraged the NRC to reconsider its previous input (NRC-2015-0070-0259-0001).
- A commenter stated that it supports the comments that the NEI submitted on behalf of the nuclear industry and actively assisted in the preparation of those comments (NRC-2015-0070-0378-0001). Another commenter also expressed its support for NEI comments (NRC-2015-0070-0329-0041).
- A commenter endorsed the comments of the C-10 Research and Education Foundation (NRC-2015-0070-0353-0001).

NRC Response: The NRC agrees, in part, with these comments. The NRC considered previously submitted comments during the development of the proposed rule as discussed in the final regulatory basis and the proposed rule. The NRC has reviewed and incorporated, where appropriate, the separate comment submissions listed in the summary. The NRC's responses to comments submitted on the proposed rule are discussed in this document under the appropriate topic heading. These comments express support for other comments and do not provide any new information for consideration.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-08: Many commenters urged the NRC to consider the economic impacts of decommissioning on the workforce at nuclear facilities:

- A comment jointly submitted by several commenters claimed that the NRC should create requirements for retaining the workforce of the facility during decommissioning since they already possess the training and technical expertise to safely conduct decommissioning. The commenters also advocated for an environmental impact analysis requirement that would require licensees to formulate decommissioning plans that minimize local economic hardship through worker retention and transition strategies. The commenters added that the decommissioning plans should require strict financial planning for licensees to ensure that the costs of decommissioning are not passed on to taxpayers or the local communities (NRC-2015-0070-0366-0002).
- A commenter commented that a unionized contractor workforce can provide licensees with some labor cost certainty, and that contractor laborers who rely on the plant for employment are adversely affected by plant closures. As a result, the commenter claimed that workforce transition plans should account for the effects of plant closures on contract laborers (NRC-2015-0070-0331-0006).
- A commenter urged the NRC to require licensees to submit an economic impact analysis of their decommissioning plans that aims to minimize local economic hardship due to the decommissioning process (NRC-2015-0070-0366-0004).
- Some commenters urged the NRC to incorporate more opportunities for public hearings and engagement into the proposed rulemaking:
    - A commenter expressed concern that the lack of post-operational licensing decisions or public hearings reduce accountability for safety and environmental planning protection measures, including emergency planning (NRC-2015-0070-0394-0002).
    - A commenter wrote that the proposed rule lacks opportunities for public engagement and creates a lack of accountability for licensees, who are subject to lowered emergency planning and security requirements (NRC-2015-0070-0327-0004).

NRC Response: The NRC disagrees with these comments. The NRC reasoning regarding public engagement, public hearings, the socioeconomic impacts of decommissioning, and environmental reviews during decommissioning are captured in the NRC Responses to Comments 4.8-04, 5.1.2-01, and 5.1.2-04, among others.

With regard to the consideration of workforce retention and transition strategies, contract or union laborers, or an economic impact analysis, this type of information is generally outside of the purview of the NRC except as it relates to ensuring that a decommissioning licensee maintains an appropriately large and skilled workforce to complete the planned decommissioning activities within the applicable NRC requirements. However, the socioeconomic impacts of nuclear power plant decommissioning are addressed in the Decommissioning GEIS, which the NRC plans to update during a future activity as directed by the Commission. The process to update NUREG-0586, Supplement 1, will include a public scoping comment period to collect comments on the topics that should be considered during the update. These comments will be considered in determining changes in the Decommissioning GEIS to the scope of both generic and site-specific impacts during decommissioning.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 16-09: A commenter stated that the proposed rule is not technology inclusive but rather appears to be focused primarily on existing LWR technology. The commenter warned

that the proposed rule may not have adequately assessed potential risks associated with advanced non-LWR reactor designs; some vendors, for example, are proposing the use of sodium bonded fuels, which introduces the additional risks associated with sodium which is pyrophoric in both air and water (NRC-2015-0070-0259-0009).

NRC Response: The NRC agrees with this comment. The proposed rule is primarily focused on existing LWR technology. In a separate rulemaking activity, the NRC is proposing to establish an optional technology-inclusive regulatory framework for use by applicants for new commercial advanced nuclear reactors (the 10 CFR Part 53 rulemaking).

In SECY-23-0021, "Proposed Rule: Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors (RIN 3150-AK31)" (March 2023) (Package ML21162A093), the topic of decommissioning is discussed in the 10 CFR Part 53 proposed rule preamble and rule text. Subpart G (Framework A) and subpart Q (Framework B) are about decommissioning advanced reactors. Those subparts are closely modeled after the current decommissioning requirements in 10 CFR Part 50 that are technology neutral (for example, a radiological site characterization and an LTP). In addition, there is a question in the draft proposed rule FRN that mentions this decommissioning rulemaking: "What aspects of this proposed rule, if any, should be incorporated in a part 53 final rule and why?"

The NRC will continue to assess the adequacy of decommissioning regulations for advanced reactors.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 16-10: A commenter asserted that the proposed rulemaking needs to address decommissioning's critical role in addressing numerous identified "technical knowledge gaps" in the scientific understanding of the age-related degradation of reactor systems, structures, and components. Specifically, the commenter identified a need for the rule to require the harvesting and evaluation of materials from decommissioned reactors to support the technical basis for subsequent license renewal (i.e., operation from 60–80 years). In addition, the commenter described the background associated with the identified knowledge gaps and provided citations and examples in which a Federal laboratory under NRC contract recommended such a requirement in a draft of its report on harvesting (NRC-2015-0070-0336-0001).

NRC Response: The NRC disagrees with this comment. The comment does not introduce any new information that was not previously considered in the NRC's assessment of the technical basis for considering nuclear power reactor operation for 60–80 years.

Prior to the receipt of the first subsequent license renewal applications, the NRC developed staff guidance for the review of the adequacy of an applicant's technical analyses and proposed inspection, monitoring, and testing activities. This effort included an assessment of the state of technical knowledge from a wide variety of sources, including industry operating experience, the latest scientific research, expert-panel reports that assessed degradation scenarios for 60–80 years, and over 300 pages of comments from interested stakeholders.

The degradation phenomena described in the comment (e.g., reactor pressure vessel neutron embrittlement, concrete degradation) were specifically considered. The NRC found the technical basis for operation to 80 years to be adequate, and the guidance in NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report" (July 2017) (ML17187A031 and ML17187A204) and NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants" (July 2017) (ML17188A158) was issued to support reviews of subsequent license renewal applications.

The NRC evaluates new operating experience and research findings on an ongoing basis to reassess the technical basis for safe long-term reactor operation and to enhance guidance, as appropriate. This includes NRC support of research at Federal laboratories and other institutions that provide their own scientific perspectives. Material harvesting from decommissioned reactors has been, and likely will be in the future, one source of technical information to inform the understanding of aging-related degradation; however, the NRC does not find this activity to be a singularly necessary component to support the technical basis for reactor operation to 80 years.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 16-11: A commenter maintained that the NRC's proposed rule is based on several faulty assumptions, including that the shutdown of nuclear reactors poses less risk of offsite radiological release than the operation of reactors and that, for shutdown reactors, the risks of accidents such as SFP fires are significantly lower. The commenter offered several rebuttals to these positions, including several citations and a 2016 Princeton study which found that an SFP fire could contaminate 38,610 square miles of land and force millions to evacuate. The commenter also added that, in a multi-unit site, an SNF pool adjacent to an operating reactor could take more than 10 hours to access and that NRC did not recognize that there are many potential causes of a significant draw-down of the SFP—such as an earthquake or other catastrophe which might increase decommissioning risks (NRC-2015-0070-0293-0026).

NRC Response: The NRC disagrees with this comment. The NRC performed a robust technical study of the public consequences for the various stages of decommissioning a nuclear power reactor, which were informed by other NRC and external agency (e.g., the PNNL and the Electric Power Research Institute) studies on topics such as the risks related to SFP accidents and the various methods for potential drain down of a SFP, including during seismic and other catastrophic events. These studies all support the NRC assumptions related to the reduction of risk at a decommissioning power reactor when compared to an operating reactor.

Accordingly, the NRC did not revise the rule language in response to this comment.

17 REQUESTS FOR EXTENSION OF THE COMMENT PERIOD

Comment 17-01: Several commenters requested an extension of the deadline for public comments for the proposed rule. (NRC-2015-0070-0252-0001)

A commenter requested an extension of the deadline for public comments to provide adequate time for impacted stakeholders to meaningfully review and respond to the voluminous rulemaking record—a task which the commenter asserted cannot be done in 75 days. The commenter stated that given the complex economic and environmental impacts of this rule on nuclear facility workforces and their host communities, stakeholders should have more time to respond (NRC-2015-0070-0260-0001). Another commenter submitted a request to extend the comment period for these same reasons (NRC-2015-0070-0400-0001). Another commenter also requested a comment extension because of the effect of decommissioning on communities near reactors and in light of COVID-19's impacts. The commenter stated that NRC has previously instructed that commenters raise concerns regarding the impacts of COVID-19 during specific rulemakings rather than as a general rule (NRC-2015-0070-0261-0001).

A commenter requested an appropriate extension of the comment period to give his constituents—whom the commenter stated would be impacted by the decommissioning of Diablo Canyon Power Plant Units 1 and 2—more time to provide feedback to the NRC (NRC-2015-0070-0399-0001).

Many commenters jointly submitted a request for an extension of the comment period. The organizations requested an extension until August 31, 2022, to provide comments and help garner comments from other impacted entities. The commenters reasoned that the proposal is complex, lengthy, part of a voluminous record, impactful to many entities, important to the EJ and public health. Additionally, the commenters stated that NRC provided a longer comment period when the record was smaller, referencing the 2015 ANPR (NRC-2015-0070-0253-0001, NRC-2015-0070-0261-0002).

NRC Response: The NRC agrees, in part, with these comments. On May 17, 2022, the NRC extended the public comment period from 75 days to 180 days (87 FR 29840). The public comment period was originally scheduled to close on May 17, 2022, and the NRC extended the public comment period to August 30, 2022, in order to allow more time for members of the public to develop and submit their comments. This addressed the commenters' requests. However, as explained in the NRC Response to Comment 11-01, the NRC disagrees that the rule will have complex environmental impacts on nuclear facility workforces and their host communities.

Accordingly, the NRC did not revise the rule language in response to these comments.

18 OUT OF SCOPE

Comment 18-01: Several commenters discussed decommissioning plans for specific nuclear plants:

- Some commenters discussed the Pilgrim Nuclear Power Station, expressing general dismay at the way the plant is being handled and urging against the dumping of waste into Cape Cod Bay (NRC-2015-0070-0248-0001, NRC-2015-0070-0247-0001, NRC-2015-0070-0246-0001, NRC-2015-0070-0249-0001).
- A commenter critiqued Holtec International's mismanagement of the decommissioning process and its focus on profit over environmental concerns in the absence of meaningful oversight from the NRC and the EPA (NRC-2015-0070-0334-0001).
- Another commenter disagreed with Holtec's management of the Pilgrim Nuclear Power Station and its potential plan to dump one million gallons of radioactive water into Cape Cod Bay (NRC-2015-0070-0293-0017).
- Several commenters expressed opposition to the decommissioning of Indian Point Energy Center (NRC-2015-0070-0288-0001, NRC-2015-0070-0284-0001, NRC-2015-0070-0283-0001, NRC-2015-0070-0262-0001, NRC-2015-0070-0273-0001, NRC-2015-0070-0290-0001, NRC-2015-0070-0277-0001, NRC-2015-0070-0321-0001, NRC-2015-0070-0296-0001, NRC-2015-0070-0268-0001, NRC-2015-0070-0258-0001, NRC-2015-0070-0264-0001).
- A commenter discussed the shutdown of the Palisades Nuclear Plant, expressing support for the shutdown but warning that there is contamination at the site that must be removed and stored safely (NRC-2015-0070-0252-0003).
- A commenter discussed the agreement that was recently reached to address leakage at Washington State's Hanford Site in 2013. The commenter urged for a timelier response to environmental dangers such as leaks of radiological waste (NRC-2015-0070-0391-0001).

- A commenter stated that the Humboldt Bay Nuclear Power Plant has no post-decommissioning monitoring, nor requirements for mitigation of sea level rise and extreme weather events (NRC-2015-0070-0374-0001).
- Without making reference to the proposed rule or any specific nuclear plant, some commenters urged that dumping nuclear waste should not be allowed into the Hudson River (NRC-2015-0070-0263-0001, NRC-2015-0070-0265-0001, NRC-2015-0070-0269-0001, NRC-2015-0070-0267-0001, NRC-2015-0070-0271-0001).

NRC Response: The NRC disagrees with these comments. Comments on specific decommissioning activities and facilities are outside the scope of this rulemaking. For information about the decommissioning of Indian Point, see https://www.nrc.gov/info-finder/reactors/ip2.html and https://www.nrc.gov/info-finder/reactors/ip3.html. For information about the decommissioning of Pilgrim, see https://www.nrc.gov/info-finder/reactors/pilg.html.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 18-02: Without referring to the proposed rule, a commenter encouraged the NRC to follow the guidelines established in its mission statement and always work in the best interest of the taxpayer (NRC-2015-0070-0245-0001).

NRC Response: The NRC agrees, in part, with this comment. The NRC agrees that it should follow its mission. However, the comment about always working in the best interest of the taxpayer does not fully align with the NRC's mission. As stated in the NUREG-1614, Volume 8 "Strategic Plan Fiscal Years 2022-2026" (April 2022) (ML22067A170), the NRC's mission is to license and regulate the Nation's civilian use of radioactive materials, to provide reasonable assurance of adequate protection of public health and safety, to promote the common defense and security, and to protect the environment. However the "taxpayer" comment is similar to one of the NRC's Principles of Good Regulation, which are described at https://www.nrc.gov/about-nrc/values.html#principles. According to the NRC's vision, "In performing the agency mission, the NRC demonstrates the Principles of Good Regulation through effective, responsive, and timely regulatory actions, consistent with our organizational values and our open, collaborative work environment." One of the NRC's Principles of Good Regulation is the Efficiency Principle, which states, in part, the following: "The American taxpayer, the rate-paying consumer, and licensees are all entitled to the best possible management and administration of regulatory activities." The NRC followed its mission and Principles of Good Regulation in developing this final rule.

The comment does not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 18-03: A commenter submitted three articles discussing the State of California plan to close the Diablo Canyon Power Plant. The commenter urged that the plan is not in the public interest (NRC-2015-0070-0254-0001).

NRC Response: This comment is outside of the scope of this rulemaking.

The comment does not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 18-04: Without making reference to a specific section of the proposed rule, a commenter stated that all nuclear power plants should be decommissioned given their health and environmental impacts on host communities. The commenter also expressed dismay with

the NRC's lack of public engagement, the granting of exemptions, and the seeming disregard for the concerns of frontline responders and host communities. However, the commenter approved of the NRC's actions requiring Zion Solutions to complete their clean-up work following the discovery of "hot particles" in an ostensibly cleared area. The commenter stated they hope the NRC will hold Holtec International and NorthStar to this same level of accountability (NRC-2015-0070-0337-0001). Finally, the commenter urged the NRC to prioritize public welfare over corporate profit (NRC-2015-0070-0337-0003).

NRC Response: The NRC disagrees, in part, with this comment. The NRC regulations ensure that all nuclear power reactor activities, including decommissioning, are conducted safely, securely, and within the scope of the evaluated environmental impacts. The requirements also ensure that all former reactor facilities released for unrestricted use meet the NRC's radiological cleanup criteria. However, the NRC disagrees that all currently operating nuclear power plants should be decommissioned given their health and environmental impacts on host communities. The fleet of operating power reactors has demonstrated the ability to operate safely, and in accordance with the NRC's public health and safety standards, which is confirmed by the NRC's Reactor Oversight Process (ROP) for operating reactors. Any further analysis of the potential impacts of operating nuclear power reactors is outside of the scope of this rulemaking.

The comments do not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 18-05: Without making specific reference to the proposed rule, a commenter noted their support for the continued operation of nuclear power reactors wherever feasible. The commenter noted that the nuclear power industry generates half a million jobs, and that the median hourly wage of nuclear workers is 104.8% greater than the national median wage. The commenter expressed hope that policy solutions can be devised to protect nuclear power plants from closure (NRC-2015-0070-0331-0001).

NRC Response: The comment does not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 18-06: Several commenters submitted messages of frustration with the relaxing of regulatory requirements during the decommissioning process and related safety concerns (NRC-2015-0070-0375-0001, NRC-2015-0070-0362-0001, NRC-2015-0070-0381-0001, NRC-2015-0070-0384-0001, NRC-2015-0070-0390-0001, NRC-2015-0070-0387-0001).

NRC Response: The NRC disagrees with these comments. The final rule amends the NRC's regulations to maintain a safe, effective, and efficient decommissioning process and to reduce the need for LARs and exemptions from existing regulations.

Accordingly, the NRC did not revise the rule language in response to these comments.

Comment 18-07: A commenter asserted that shrinking the PA to just the area around the ISFSI will result in many employees involved in the decommissioning process not being subject to background checks and drug or alcohol testing. The commenter claimed that this would make it easier for terrorists to gain cover employment at a nuclear plant and engage in efforts to damage the ISFSI casks. The commenter urged that no background checks means no protection (NRC-2015-0070-0293-0025).

NRC Response: The NRC disagrees with this comment. The NRC did not propose changes to, nor request comment on, the applicability of requirements for background checks or drug and

alcohol testing to workers conducting dismantling activities at an ISFSI. The comment is outside the scope of this rulemaking.

The comment does not suggest any changes to the proposed rule. Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 18-08: A comment questioned why nuclear reactors are shutting down when the price of electricity is so high. The comment stated that shutting down nuclear reactors will lead to either a shortage of power or higher prices. Fossil fuels will be used to fill the gap which will lead to higher carbon dioxide emissions (NRC-2015-0070-0250-0001).

NRC Response: This comment is out of scope for the current rulemaking effort, which relates to the regulations surrounding the decommissioning process and not the specific decision to permanently shutdown a nuclear power reactor. In general, these decisions are outside the purview of the NRC's regulatory authority and are a business decision made by each licensee based on economic factors, license renewal deliberations, and other considerations.

Accordingly, the NRC did not revise the rule language in response to this comment.

Comment 18-09: A commenter asserted that the proposed rule would be strengthened by the inclusion of a new, comprehensive Decommissioning ROP, to ensure the safe, prompt, and thorough decommissioning of reactor sites and to restore public confidence in NRC oversight. The commenter recommended that NRC's process for regulating decommissioning reactors should more closely resemble its process for regulating operating reactors and storage pools. Additionally, the commenter urged the NRC to prohibit the payment of any fines or civil financial penalties for noncompliance from a site's decommissioning trust funds. The commenter explained that the trust funds are put in place to protect the public interest in a safe, thorough, and prompt decommissioning, and shouldn't be made available for licensee's noncompliant conduct. Additionally, the commenter stated that the NRC and State inspectors should not have to be concerned with how their work to promote regulatory compliance could impact the availability of trust funds (NRC-2015-0070-0414-0001).

NRC Response: This comment is out of scope for the current rulemaking effort, which relates to the regulations surrounding the decommissioning process and not the specific inspection format or procedures that are used for NRC oversight of decommissioning facilities. The NRC Response to Comment 1.2-01 discusses the NRC's oversight of decommissioning power reactors under the inspection program contained in IMC 2561, and this program has proven to be effective in monitoring and assessing the performance of licensees in all phases of decommissioning. Elements of the IMC 2561 program include the ability to track and trend violations, nonconformances, and other issues that may arise at a decommissioning site in order to determine whether a licensee's performance is declining over time. While not as formalized as the ROP, this information is shared between inspectors and noted in the associated NRC inspection reports to ensure that any negative trends are evaluated and addressed before leading to potentially more safety significant issues. In addition, the inspection procedures contained in IMC 2651 give the NRC flexibility in implementing an inspection program that is informed by the ongoing activities at a particular site, as well as the reduced radiological risks during decommissioning. This flexibility includes the ability to schedule inspections for periods of increased licensee activity or during risk significant evolutions, as well as to perform a sampling approach when evaluating specific tasks or processes undertaken by the licensee during decommissioning.

The use of an inspection program based on the same principles as the operating ROP would remove much of this flexibility from the current decommissioning program, and the more prescriptive ROP approach, which is often based on select sample sizes to determine the adequacy of a licensee program (e.g., witnessing 5 radiation protection step off surveys within a year to verify the adequacy of the licensee's personnel survey programs), would be difficult to implement at sites in SAFSTOR where the inventory of available activities to inspect may be very low from year to year. An ROP approach would also remove the ability of the NRC inspectors to conduct unannounced inspections of decommissioning facilities, which can be a useful tool in evaluating licensee work practices during decommissioning. Based on the continued effectiveness of the IMC 2561 program and procedures, the NRC currently has no plans to transition the decommissioning reactor inspection program to one structured on the principles of the ROP.

With regard to the use of the decommissioning trust funds for the payment of any fines or civil financial penalties for noncompliance, the NRC notes that part of the purpose of imposing a civil penalty is to encourage licensees to remain in compliance with the regulations applicable to their facility. In practice, the small number of decommissioning licensees who have had civil penalties imposed for failure to comply with NRC regulations have paid that penalty from a corporate account not connected to the decommissioning trust fund. However, there are no specific prohibitions to a licensee using the decommissioning trust funds to pay for inspection related activities, including penalties, as inspection activities are considered a legitimate part of decommissioning expenses. If the imposition of a civil penalty had the potential to impact the ability of the licensee to meet the minimum decommissioning funding requirements in 10 CFR 50.75, the NRC has discretion to determine the penalty amount, or direct in the enforcement action that the funds for the penalty be paid from a separate account than the decommissioning trust fund, in order to ensure that adequate funding is available to complete the radiological decommissioning of the facility in a timely manner. Therefore, there is no direct connection between the imposition of a civil penalty and the ability of a licensee to successfully complete decommissioning in a safe and thorough manner.

Accordingly, the NRC did not revise the rule language in response to this comment.