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U.S. Nuclear Regulatory Commission
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Dresden Nuclear Power Station, Units 1, 2, and 3
Amended Facility Operating License No. DPR-2
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-010, 50-237, 50-249, and 72-037

Subject: Request for Exemptions from Portions of 10 CFR 50.47 and 10 CFR 50, Appendix E

- References:
1. Letter from J. Bradley Fewell (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Certification of Permanent Cessation of Power Operations for Dresden Nuclear Power Station, Units 2 and 3," dated September 2, 2020 (ADAMS Accession No. ML20246G627)
 2. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "License Amendment Request – Proposed Changes to Dresden Emergency Plan for Post-Shutdown and Permanently Defueled Condition," dated November 2, 2020 (ADAMS Accession No. ML20307A434)

In accordance with 10 CFR 50.12, "Specific exemptions," Exelon Generation Company, LLC (Exelon) requests exemptions from portions of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and 10 CFR 50, Appendix E, for Dresden Nuclear Power Station, Units 1, 2, and 3 (Dresden). The requested exemptions would allow Dresden to reduce emergency planning requirements and subsequently revise the Dresden Emergency Plan consistent with the anticipated permanently defueled condition of the station.

By letter dated September 2, 2020 (Reference 1), Exelon provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of the intention to permanently cease operations at Dresden, Units 2 and 3, on or before November 30, 2021.

Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessels for Dresden, Units 2 and 3 are submitted to the NRC in accordance with 10 CFR 50.82(a)(1)(i) and (ii), then pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50

licenses will no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels.

By letter November 2, 2020 (Reference 2), Exelon submitted changes to the Dresden emergency plan on-shift and emergency response organization (ERO) staffing to support the planned permanent cessation of operations and permanent defueling of the Dresden reactors. The proposed changes in staffing are commensurate with the reduced spectrum of credible accidents for a permanently shutdown and defueled nuclear power reactor facility.

Dresden, Unit 1, has an NRC possession-only license and is currently maintained in a SAFSTOR condition (i.e., a method in which a nuclear facility is placed and maintained in a condition that allows it to be safely stored and subsequently decontaminated). All fuel assemblies have been removed from the Dresden, Unit 1, reactor and transferred either to the onsite Independent Spent Fuel Storage Installation (ISFSI) or to the GE Morris facility in Illinois.

The requested exemptions are permissible under 10 CFR 50.12 because they are authorized by law, will not present an undue risk to the public health and safety, are consistent with the common defense and security, and present special circumstances.

Specifically, application of the portions of the regulations from which exemptions are sought is not necessary to ensure adequate emergency response capability for Dresden and to achieve the underlying purpose of the rules. Furthermore, continued application of these portions of the regulations from which exemptions are sought would impose a burden on Exelon and the decommissioning trust fund by requiring implementation of unnecessary emergency response capability. Finally, granting the requested exemptions would result in benefit to the public health and safety and would not result in a decrease in safety, because they would enhance the ability of the emergency response organization to respond to credible scenarios.

The exemption requests are contained in Attachment 1 to this letter. Exelon has performed an analysis to determine the decay time required post-permanent shutdown such that the hottest assembly in the spent fuel pools will not reach the temperature at which zirconium cladding fails within 10 hours. The analysis shows that 348 days (i.e., the Zirc-Fire Window) after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, the spent fuel stored in the spent fuel pools will have decayed to the extent that the requested exemptions may be implemented at Dresden. Following the shutdown of Unit 2 (i.e., the most limiting unit), which is expected on or before the end of November 2021 (Reference 1), expiration of the Zirc-Fire Window for Unit 2 is expected to be approximately October 22, 2022. This analysis is contained in Attachment 2.

Exelon will submit a permanently defueled emergency plan (PDEP) license amendment request (LAR), containing a permanently defueled emergency action level (EAL) scheme, for NRC review and approval pursuant to 10 CFR 50.54(q)(4) and 10 CFR 50, Appendix E, Section IV.B.2. The PDEP LAR and corresponding EALs will be based on the exemptions requested in Attachment 1.

Exelon requests approval of these exemptions by October 7, 2022. Exelon requests that the approved exemptions become effective 348 days following permanent shutdown of Dresden, Unit 2. Exelon will provide the dates once fuel has been permanently removed from the Unit 2 and Unit 3 reactor vessels in the certification required by 10 CFR 50.82(a)(1)(ii). Approval of these exemptions by the requested date will allow Exelon adequate time to implement changes to the emergency plan and emergency response organization by the requested effective date.

There are no regulatory commitments contained within this submittal. Should you have any questions concerning this submittal, please contact Ms. Lisa A. Simpson at (630) 657-2815.

Respectfully,



Patrick R. Simpson
Sr. Manager – Licensing
Exelon Generation Company, LLC

Attachments:

1. Requests for Exemptions from Portions of 10 CFR 50.47(b), 10 CFR 50.47(c)(2) and 10 CFR 50, Appendix E
2. Dresden Calculation DRE20-0008, Revision 0, "Zirconium Fire Analysis for Drained Spent Fuel Pool"

cc: w/ Attachment

NRC Regional Administrator, Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station
NRC Project Manager, NRR – Dresden Nuclear Power Station Units 2 and 3
NRC Project Manager, NMSS – Dresden Nuclear Power Station Unit 1
Illinois Emergency Management Agency – Division of Nuclear Safety

TABLE OF CONTENTS	PAGE
1.0 SPECIFIC EXEMPTION REQUEST	2
2.0 BACKGROUND	2
3.0 BASIS FOR EXEMPTION REQUEST	3
4.0 EXEMPTIONS TO EMERGENCY RESPONSE PLAN REQUIREMENTS DEFINED BY 10 CFR 50.47 AND 10 CFR 50, APPENDIX E	4
5.0 TECHNICAL EVALUATION	47
5.1 Accident Analysis Overview	47
5.2 Consequences of Design Basis Events	53
5.3 Hottest Fuel Assembly Adiabatic Heat-up (Zirconium Fire)	53
5.4 Consequences of Beyond Design Basis Events	54
5.5 Comparison to NUREG-1738 Industry Decommissioning Commitments and Staff Decommissioning Assumptions	54
5.6 Consequences of a Beyond-Design Basis Earthquake	55
6.0 CONCLUSION	57
7.0 JUSTIFICATION FOR EXEMPTIONS AND SPECIAL CIRCUMSTANCES	69
7.1 Exemptions	69
7.2 Special Circumstances	70
8.0 PRECEDENT	72
9.0 ENVIRONMENTAL ASSESSMENT	72
10.0 REFERENCES	74

1.0 SPECIFIC EXEMPTION REQUEST

In accordance with 10 CFR 50.12, "Specific exemptions," Exelon Generation Company, LLC (Exelon) requests the following regulatory exemptions for Dresden Nuclear Power Station (Dresden):

- Certain standards in 10 CFR 50.47(b) regarding onsite and offsite emergency response plans for nuclear power reactors;
- Certain requirements of 10 CFR 50.47(c)(2) to establish plume exposure and ingestion pathway emergency planning zones for nuclear power plants; and
- Certain requirements of 10 CFR 50, Appendix E, which establish the elements that make up the content of emergency response plans.

The Emergency Response Plan encompasses Dresden, Units 1, 2, and 3. The requested exemptions would allow Exelon to reduce emergency planning requirements and subsequently revise the Dresden Emergency Response Plan to reflect the permanently defueled condition of the station. The current 10 CFR 50 regulatory requirements for emergency planning (developed for operating reactors) ensure safety at Dresden. However, once the station is permanently shutdown and defueled, and a sufficient decay of the spent fuel has occurred, some of these requirements exceed what is necessary to protect the health and safety of the public.

The requested exemptions and justification for each are based on and consistent with Interim Staff Guidance NSIR/DPR-ISG-02, "Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants," issued May 11, 2015 (Reference 1).

2.0 BACKGROUND

The Dresden site consists of approximately 953 acres located in the northeast quarter of the Morris 15' quadrangle (as designated by the U.S. Geological Survey), Goose Lake Township, Grundy County, Illinois. The site boundaries generally follow the Illinois River to the north, the Kankakee River to the east, and the Elgin, Joliet and Eastern Railway right-of-way on the west. Unit 1 is located in the northeast quadrant of the site. Unit 1 was shutdown for modification to meet new regulations on October 31, 1978 and has since been placed into SAFSTOR, but its major structures are still present and intact. Unit 2 and Unit 3 are located on the site directly west of and adjacent to Unit 1. The exclusion area boundary (EAB), which is common for all three Dresden units, has a radius of 0.5 miles, and for the purposes of Emergency Planning, the exclusion area and the site boundary are considered the same. No public highways or railroads transverse the EAB.

Section 15.0, "Accident and Transient Analysis," of the Dresden Updated Final Safety Analysis Report (UFSAR) describes the design basis accident (DBA) scenarios that are applicable to Dresden Units 2 and 3. After the Dresden Unit 2 and 3 reactors are defueled, the irradiated fuel will be stored in the spent fuel pools (SFPs) located in the Reactor Building. While spent fuel is stored in the SFPs, the UFSAR Chapter 15 accidents that remain applicable to Dresden in the permanently shutdown and defueled condition are: (1) a postulated liquid release due to liquid tank failure, and (2) a Fuel Handling Accident (FHA) in the SFP (which is a new analysis, since the existing FHA in Chapter 15 addresses an FHA in the reactor core) (Reference 2).

The analyses of the potential radiological impact of accidents while Dresden is in a permanently defueled condition indicate that no design basis accident or reasonably conceivable beyond design basis accident are expected to result in radioactive releases that exceed U.S. Environmental Protection Agency (EPA) Protective Action Guidelines (PAGs) (Reference 3) beyond the site boundary.

Dresden, Unit 1, was permanently shutdown October 31, 1978, and in July 1986, the U.S. Nuclear Regulatory Commission (NRC) issued a license amendment to alter the Dresden, Unit 1, operating license to possession-only status. Dresden, Unit 1, is being maintained in a SAFSTOR condition (i.e., a method in which a nuclear facility is placed and maintained in a condition that allows it to be safely stored and subsequently decontaminated). All fuel assemblies have been removed from the Dresden, Unit 1, reactor and SFP and transferred either to the onsite Independent Spent Fuel Storage Installation (ISFSI) or to the GE Morris facility in Illinois.

By letter dated September 2, 2020 (Reference 4), Exelon provided formal notification to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8) of its determination to permanently cease operations at Dresden, Units 2 and 3, on or before November 30, 2021. Once fuel has been permanently removed from the reactor vessels, Exelon will submit a written certification to the NRC, in accordance with 10 CFR 50.82(a)(1)(ii) that meets the requirements of 10 CFR 50.4(b)(9). Upon submitting the certifications of permanent removal of fuel from the reactor vessels, the 10 CFR 50 licenses for Dresden, Units 2 and 3, will no longer authorize operation of the reactors or emplacement or retention of fuel into the reactor vessels, as specified in 10 CFR 50.82(a)(2).

With the reactors permanently defueled, the reactor vessels and supporting structures and systems will no longer be in operation and will have no function related to the safe storage and management of irradiated fuel in the SFPs. The irradiated fuel will initially be stored in the SFPs and later stored in the ISFSI until it is shipped offsite in accordance with the schedules that will be described in the PSDAR and Spent Fuel Management Plan.

3.0 BASIS FOR EXEMPTION REQUEST

In order to allow a reduction in emergency response planning requirements commensurate with the hazards associated with Dresden's permanently defueled condition, exemptions from portions of 10 CFR 50.47(b), 50.47(c)(2), and 10 CFR 50, Appendix E, are needed. Exelon has performed an analysis to determine the decay time required post-permanent shutdown such that the hottest assembly in the SFPs will not reach the temperature at which zirconium cladding fails within 10 hours (Reference 5). The analysis shows that 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, a minimum of 10 hours is available before fuel cladding temperature reaches 900°C with a complete loss of SFP water inventory with no heat loss (adiabatic heat-up). Based on the current planned shutdown dates, after the 348-day period for Dresden, Unit 2 (i.e., the most limiting unit, herein referred to as the Zirc-Fire Window), there is sufficient time within the 10 hours described in the supporting analysis to mitigate events that could lead to a zirconium cladding fire. The analysis is contained in Attachment 2.

Exelon plans to submit a Permanently Defueled Emergency Plan (PDEP) License Amendment Request (LAR), including a Permanently Defueled Emergency Action Level (EAL) scheme, for NRC review and approval pursuant to 10 CFR 50.54(q)(4) and 10 CFR 50, Appendix E, Section IV.B.2. The PDEP and corresponding EALs will be based on the exemptions requested herein.

Based on the analyses detailed in Section 5.0 below, Exelon has concluded that the portions of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and 10 CFR 50, Appendix E, identified in Table 1 (Exemptions Requested from 10 CFR 50.47(b) and (c)(2)) and Table 2 (Exemptions Requested from 10 CFR 50, Appendix E) will not be necessary to protect the health and safety of the public when Dresden, Units 1, 2 and 3, are in the permanently defueled condition and would be unduly burdensome. Approval of the exemptions requested in Table 1 and Table 2 would not present an undue risk to the public or prevent an appropriate response in the event of an emergency at Dresden.

4.0 EXEMPTIONS TO EMERGENCY RESPONSE PLAN REQUIREMENTS DEFINED BY 10 CFR 50.47 AND 10 CFR 50, APPENDIX E

Exelon requests exemptions from portions of 10 CFR 50.47(b) and (c)(2) and Appendix E of 10 CFR 50 to the extent that these regulations apply to specific provisions of onsite and offsite emergency planning that will no longer be applicable once the certifications required by 10 CFR 50.82(a)(1)(i) and (ii) have been submitted, and sufficient decay of the spent fuel has occurred for Dresden, Units 2 and 3. Dresden, Unit 1, is a possession-only license and no Dresden, Unit 1, spent fuel is stored in an SFP. The Unit 1 reactor vessel contains no irradiated fuel and has been placed into SAFSTOR. The Unit 1 SFP is drained. All fuel assemblies have been removed from the Dresden, Unit 1, reactor and SFP and transferred either to the onsite ISFSI or to the GE Morris facility in Illinois. Therefore, these specific provisions of the requested exemptions are also no longer applicable to Dresden, Unit 1, and are also requested for Dresden, Unit 1.

Once the certifications described in 10 CFR 50.82(a)(1) have been submitted and the conditions of 10 CFR 50.155(a)(2)(ii) are met, the mitigation strategies (e.g., equipment, procedures) called out in this submittal that are solely needed to support the mitigation strategies for beyond-design basis external event (i.e., FLEX) for the SFPs will be discontinued as allowed in accordance with 10 CFR 50.155(a)(2)(ii). Dresden will continue to maintain the required extensive damage mitigation guidelines (EDMGs) for the SFPs until the conditions of 10 CFR 50.155(a)(2)(iv) are met.

The specific portions of 10 CFR 50.47 and 10 CFR 50, Appendix E from which exemptions are being requested are identified using **bold strikethrough** text in Table 1 and Table 2 below. The portions of regulations that are not identified using **bold strikethrough** text (i.e., those portions for which an exemption is not being requested), will remain applicable to Dresden. Details related to specific exemption requests are provided in the Basis for Exemption column.

The requested exemptions and justification for each are based on and are consistent with NSIR/DPR-ISG-02 (Reference 1).

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
1	10 CFR 50.47(b): The onsite and, except as provided in paragraph (d) of this section, offsite emergency response plans for nuclear power reactors must meet the following standards:	<p>In the Statement of Considerations (SOCs) for the final rule for EP requirements for independent spent fuel storage installations (ISFSIs) and for monitored retrievable storage (MRS) facilities (60 FR 32430; June 22, 1995) (Reference 6), the Commission responded to comments concerning offsite emergency planning for ISFSIs or MRS and concluded: "the offsite consequences of potential accidents at an ISFSI or a MRS would not warrant establishing Emergency Planning Zones (EPZs)."</p> <p>As discussed in NSIR/DPR-ISG-02 (Reference 1), in a nuclear power reactor's permanently defueled state, the accident risks are more similar to an ISFSI or MRS than an operating nuclear power plant. The EP program would be similar to that required for an ISFSI under 10 CFR 72.32(a) when fuel stored in the SFP has more than five years of decay time and would not change substantially when all the fuel is transferred from the SFP to an onsite ISFSI. Exemptions from offsite EP requirements have previously been approved when the site-specific analyses show that in a partial drain-down event, at least 10 hours is available from the time when cooling of the spent fuel is not effective until the hottest fuel assembly reaches the zirconium ignition temperature of 900°C. The technical basis that underlies the approval of the exemption request is based partly on the analysis of a time period that spent fuel stored in the SFP is unlikely to reach the zirconium ignition temperature in less than 10 hours. This time period is based on a heat-up calculation which uses several simplifying assumptions. Some of these assumptions are conservative (adiabatic conditions), while others are non-conservative (no oxidation below 900°C). Weighing the conservatisms and non-conservatisms, the NRC judges that this calculation reasonably represents conditions which may occur in the event of an SFP accident.</p> <p>The NRC concluded that if 10 hours were available to initiate mitigative actions, or if needed, offsite protective actions using Comprehensive Emergency Management Plan (CEMP), formal offsite radiological emergency response plans would not be necessary for a permanently defueled nuclear power reactor licensee. As supported by the licensee's SFP analysis, the NRC considers an</p>

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
		<p>exemption from the requirements for formal offsite radiological emergency response plans is justified for a zirconium fire scenario considering the low likelihood of this event together with time available to take mitigative or protective actions between the initiating event and before the onset of a postulated fire.</p> <p>Dresden has an analysis (Reference 2) that demonstrates that 365 days after permanent shutdown of Dresden, Units 2 and 3, the radiological consequences of the analyzed design basis accident (DBA) will not exceed the limits of the U.S. Environmental Protection Agency (EPA) Protective Action Guides (PAGs) at the exclusion area boundary (EAB). An additional analysis (Reference 5) shows that 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, where the hottest fuel assembly adiabatic heat-up occurs, 10 hours are available to initiate mitigative actions, or if needed, offsite protective actions, using a CEMP from the time the fuel is uncovered until it reaches the auto-ignition temperature of 900°C.</p> <p>Dresden maintains several strategies implemented by procedures for mitigating the loss of SFP water inventory. These mitigative strategies are maintained in accordance with License Conditions 2.C.(18) and 3.AA of the Renewed Facility Operating Licenses for Dresden, Units 2 and 3, respectively. Mitigation strategies are also required to be maintained in accordance with the requirement provided in 10 CFR 50.155. These diverse strategies provide defense-in-depth and can be implemented in ample time to provide makeup water or spray to an SFP prior to the onset of zirconium cladding ignition should a very low probability beyond design basis event affect an SFP. However, in the Statement of Considerations (SOCs) for the final rule for Mitigation of Beyond-Design-Basis Events (80 FR 70610; November 13, 2015) (Reference 7) and in the associated Final Rule (84 FR 39684; August 9, 2019) (Reference 8), once the certifications of permanent removal of fuel from the reactor vessels have been submitted in accordance with 10 CFR 50.82(a)(1), the licensee does not need to comply with</p>

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
		<p>the requirement in 10 CFR 50.155(e) to provide reliable means to remotely monitor wide-range SFP levels.</p> <p>Several means will be available to provide makeup water to the SFPs, such as the Fire Protection (FP) System and the portable equipment maintained in accordance with Extensive Damage Mitigating Guidelines (EDMGs) (in support of License Conditions 2.C.(18) and 3.AA). There are diverse means to provide makeup water to an SFP via the FP system. The FP system provides 500 gpm, and a EDMG portable (B.5.b) pump provides 500 gpm. Water sources are from the Kankakee River and alternate fire service sources.</p> <p>The on-shift staff has the capability (i.e., training and qualifications) and capacity (i.e., available personnel) to execute the required actions to mitigate a loss of SFP level and can complete those actions in a timely manner. In accordance with 10 CFR 50.155, Dresden will maintain strategies to provide makeup to the SFPs until such a time that it is determined that the site can support the ability to sustain the SFPs indefinitely without EDMG equipment. Time validation was completed for EDMG strategies demonstrating ability for the station personnel to cope with various losses. Dresden EDMG Validation Plan with integrated review, dated November 9, 2017, demonstrated that a team of three operators is capable of aligning makeup from the ultimate heat sink and aligning hoses to makeup to the SFPs in 6.5 hours. Two operators should complete the task in 8.5 hours. Additional methods to makeup to the SFPs are bounded by this time. Direction and selection of these tasks will be accomplished by the Certified Fuel Handler and Non-Certified Operator.</p> <p>Training of the on-shift staff will be maintained, and they will implement such strategies and plans to mitigate the consequences of an event involving a catastrophic loss-of-water inventory concurrently from an SFP.</p>
2	10 CFR 50.47(b)(1): Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency	Refer to the basis for 10 CFR 50.47(b).

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
	<p>Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.</p>	
3	10 CFR 50.47(b)(2)	No exemption requested.
4	<p>10 CFR 50.47(b)(3): Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.</p>	<p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p> <p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an emergency operations facility (EOF) would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
5	<p>10 CFR 50.47(b)(4): A standard emergency classification and action level scheme, the bases of which includes facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.</p>	<p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, formal offsite radiological emergency response plans are not required.</p> <p>Dresden will adopt the Permanently Defueled Emergency Action Levels (EALs) consistent with those detailed in Appendix C of Nuclear Energy Institute (NEI) 99-01, "Development of Emergency Action Levels for Non-Passive</p>

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
		<p>Reactors," Revision 6 (Reference 9), endorsed by the NRC in a letter dated March 28, 2013 (Reference 10). A site-specific Dresden analysis (Reference 5) shows that after the spent fuel has decayed for 348 days for Dresden, Unit 2, and 299 days for Dresden, Unit 3, for beyond design basis events where an SFP is drained, and air cooling is not possible, 10 hours is available to take mitigative or, if needed, offsite protective actions using a comprehensive approach to emergency planning from the time spent fuel cooling is lost until the hottest fuel assembly reaches a temperature of 900°C. No offsite protective actions are anticipated to be necessary. Therefore, classification above the Alert level (e.g., Site Area Emergency or General Emergency) will no longer be required. Also refer to the basis for 10 CFR 50.47(b).</p>
6	<p>10 CFR 50.47(b)(5): Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.</p>	<p>Per SECY-00-0145 (Reference 11), after approximately 1 year of spent fuel decay time (and as supported by the SFP analysis), the NRC considers an exception to the offsite EPA PAG standard is justified for a zirconium fire scenario considering the low likelihood of this event together with time available to take mitigative or protective actions between the initiating event and before the onset of a postulated fire. If 10 CFR 50.155(b)(2)-type mitigation measures are successful, releases could only occur during the first several days after the fuel was removed from the reactor. As previously indicated, a Dresden analysis (Reference 5) shows that after the spent fuel has decayed for 348 days for Dresden, Unit 2, and 299 days for Dresden, Unit 3, for beyond design basis events where an SFP is drained, and air cooling is not possible, 10 hours is available to take mitigative or, if needed, offsite protective actions using a comprehensive approach to emergency planning from the time spent fuel cooling is lost until the hottest fuel assembly reaches a temperature of 900°C. Therefore, offsite emergency response plans for the populace within the plume exposure pathway Emergency Planning Zone are not necessary for permanently defueled nuclear power plants. Also refer to the basis for 10 CFR 50.47(b).</p>

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
7	10 CFR 50.47(b)(6): Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	Refer to the basis for 10 CFR 50.47(b).
8	10 CFR 50.47(b)(7): Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), [T]he principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.	Refer to the basis for 10 CFR 50.47(b).
9	10 CFR 50.47(b)(8)	No exemption requested.
10	10 CFR 50.47(b)(9): Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.	Refer to the basis for 10 CFR 50.47(b).

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
11	10 CFR 50.47(b)(10): A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.	Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels. In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so potassium iodide (KI) distribution offsite would no longer serve as an effective or necessary supplemental protective action. Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b). Also refer to the basis for 10 CFR 50.47(b).
12	10 CFR 50.47(b)(11) through (b)(16)	No exemption requested.
13	10 CFR 50.47(c)(1)	No exemption requested.
14	10 CFR 50.47(c)(2): Generally, the plume exposure pathway EPZ for nuclear power plants shall consist of an area about 10 miles (16 km) in radius and the ingestion pathway EPZ shall consist of an area about 50 miles (80 km) in radius. The exact size and configuration of the EPZs surrounding a particular	Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a

TABLE 1
EXEMPTIONS REQUESTED FROM 10 CFR 50.47(b) AND (c)(2)

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50.47	Basis for Exemption
	<p>nuclear power reactor shall be determined in relation to local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries. The size of the EPZs also may be determined on a case-by-case basis for gas-cooled nuclear reactors and for reactors with an authorized power level less than 250 MW thermal. The plans for the ingestion pathway shall focus on such actions as are appropriate to protect the food ingestion pathway.</p>	<p>permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
1	<p>IV Content of Emergency Plans</p> <p>IV.1. The applicant's emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth below, i.e., organization for coping with radiological emergencies, assessment actions, activation of emergency organization, notification procedures, emergency facilities and equipment, training, maintaining emergency preparedness, [and] recovery, and onsite protective actions during hostile action. In addition, the emergency response plans submitted by an applicant for a nuclear power reactor operating license under this Part, or for an early site permit (as applicable) or combined license under 10 CFR Part 52, shall contain information needed to demonstrate compliance with the standards described in § 50.47(b), and they will be evaluated against those standards.</p>	<p>Following submittal of the "Certification of Permanent Removal of Fuel from the Reactor Vessel," in accordance with 10 CFR 50.82(a)(1)(i) and (ii), Dresden, Units 2 and 3, will be permanently shutdown units with irradiated fuel stored in the SFPs and ISFSI. In the EP Final Rule (76 FR 72560, November 23, 2011) (Reference 12), the NRC defined "hostile action" as, in part, an act directed toward a nuclear power plant or its personnel. This definition is based on the definition of "hostile action" provided in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (Reference 13). NRC Bulletin 2005-02 was not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessels.</p> <p>The NRC excluded non-power reactors from the definition of "hostile action" at the time of the rulemaking because, as defined in 10 CFR 50.2, a non-power reactor is not considered a nuclear power reactor and a regulatory basis had not been developed to support the inclusion of non-power reactors (NPR) in the definition of "hostile action." Similarly, a decommissioning power reactor or ISFSI is not a "nuclear reactor" as defined in the NRC's regulations. A decommissioning power reactor also has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For all of these reasons, the NRC has concluded that a decommissioning power reactor is not a facility that falls within the definition of "hostile action."</p> <p>Similarly, for security, risk insights can be used to determine which targets are important to protect against sabotage. A level of security commensurate with the consequences of a sabotage event is required and is evaluated on a site-specific basis. The severity of the consequences declines as fuel ages and, thereby, removes over time the underlying concern that a sabotage attack, under the current definition, could cause offsite radiological consequences.</p> <p>Although, this analysis provides a justification for an exemption to include the definition for a "hostile action" and its related requirements, elements for security-based events would be maintained. The classification of security-based events, notification of offsite authorities and coordination with offsite agencies under a</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
		<p>CEMP would still be required. Other security-related requirements in the EP Final Rule would be exempted such as, on-shift staffing analysis, emergency response organization (ERO) augmentation and alternative facilities, protection of onsite personnel, and challenging drills and exercises due to the reduced radiological risk for a decommissioning power reactor.</p> <p>The following similarities between Dresden and NPRs show that the Dresden facility should be treated in a similar fashion as an NPR. Similar to NPRs, Dresden will pose lower radiological risks to the public from accidents than do power reactors because: 1) Dresden will be a permanently shutdown facility (with fuel stored in the SFPs and ISFSI) and will no longer generate fission products; 2) fuel stored in the Dresden, Units 2 and 3, SFPs will have lower decay heat resulting in lower risk of fission product release in the event of a beyond design basis boil off or drain down event; and 3) no credible or beyond design basis accident at Dresden will result in radiological releases requiring offsite protective actions.</p>
2	<p>IV.2. This nuclear power reactor license applicant shall also provide an analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations, using the most recent U.S. Census Bureau data as of the date the applicant submits its application to the NRC.</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
		from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b). Also refer to the basis for 10 CFR 50.47(b).
3	IV.3. Nuclear power reactor licensees shall use NRC approved evacuation time estimates (ETEs) and updates to the ETEs in the formulation of protective action recommendations and shall provide the ETEs and ETE updates to State and local governmental authorities for use in developing offsite protective action strategies.	Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels. In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action. Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b). Also refer to the basis for 10 CFR 50.47(b).
4	IV.4. Within 365 days of the later of the date of the availability of the most recent decennial census data from the U.S. Census Bureau or December 23, 2011, nuclear power reactor licensees shall develop an ETE analysis using this decennial data and submit it under § 50.4 to the NRC. These licensees shall submit this ETE analysis to the NRC at least 180 days before using it to form protective action recommendations and providing it to State and local governmental	Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
	<p>authorities for use in developing offsite protective action strategies.</p>	<p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
5	<p>IV.5. During the years between decennial censuses, nuclear power reactor licensees shall estimate EPZ permanent resident population changes once a year, but no later than 365 days from the date of the previous estimate, using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. These licensees shall maintain these estimates so that they are available for NRC inspection during the period between decennial censuses and shall submit these estimates to the NRC with any updated ETE analysis.</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
6	<p>IV.6. If at any time during the decennial period, the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the nuclear power reactor licensee's currently NRC approved or updated ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase. The licensee shall submit the updated ETE analysis to the NRC under § 50.4 no later than 365 days after the licensee's determination that the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to State and local governmental authorities for use in developing offsite protective action strategies.</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning, including evacuation time estimates, is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
7	<p>IV.7. After an applicant for a combined license <...></p>	<p>No exemption requested.</p>
8	<p>A. Organization The organization for coping <...></p>	<p>No exemption requested.</p>
9	<p>A.1. A description of the normal plant operating organization.</p>	<p>Once Dresden, Units 2 and 3, are permanently shutdown and defueled, and the certifications submitted in accordance with 10 CFR 50.82(a)(1)(i) and (ii) per 10 CFR 50.82(a)(2), they will no longer be authorized to operate. Because Dresden cannot operate the reactors, a plant "operating" organization will no longer be required. Rather, the facility will be maintained by a defueled on-shift staff.</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
10	A.2.	No exemption requested.
11	A.3. A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.	The number of staff at Dresden during decommissioning will be small but commensurate with the need to safely store spent fuel at the facility in a manner that is protective of public health and safety. Dresden will have a level of emergency response that does not require response by headquarters personnel. The on-shift and emergency response positions will be defined in the Permanently Defueled Emergency Plan (PDEP).
12	A.4. Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections, and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, and other appropriate governmental entities.	Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. Dresden will maintain the capability to determine if a radiological release is occurring. If a release is occurring, Dresden will promptly communicate that information to offsite authorities for their consideration. The offsite organizations are responsible for deciding what, if any, protective actions should be taken based on a CEMP.
13	A.5. Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.	As indicated by the Dresden, Units 2 and 3, adiabatic heat-up analysis (Reference 5), the time available to initiate compensatory actions in the event of a loss of SFP cooling or inventory precludes the need to identify and describe the special qualifications of these individuals in the emergency response plan. The number of staff at Dresden during decommissioning will be small but commensurate with the need to maintain the facility in a manner that is protective of public health and safety. Also refer to the basis for 10 CFR 50.47(b).
14	A.6.	No exemption requested.
15	A.7. By June 23, 2014, [] identification of, and a description of the assistance expected from, appropriate State, local, and Federal agencies with responsibilities for	A decommissioning power reactor has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For this reason and those described in the basis for 10 CFR 50, Appendix E, Section IV.1,

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Bold strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
	<p>coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.</p>	<p>a decommissioning power reactor is not a facility that falls within the definitions of "hostile action."</p> <p>Similarly, for security, risk insights can be used to determine which targets are important to protect against sabotage. A level of security commensurate with the consequences of a sabotage event is required and is evaluated on a site-specific basis. The severity of the consequences declines as fuel ages, and over time, the underlying concern that a sabotage attack could cause offsite radiological consequences is removed.</p> <p>Although the analysis described above and in the basis for 10 CFR 50, Appendix E, Section IV.1 provides a justification for exempting Dresden from "hostile action" related requirements, some EP requirements for security-based events will be maintained. Protective actions are maintained for onsite personnel through the classification of security-based events, notification of offsite authorities, and coordination of offsite response organizations (i.e., local law enforcement, firefighting, medical assistance) onsite under a CEMP concept.</p> <p>Following submittal of the "Certification of Permanent Removal of Fuel from the Reactor Vessel," in accordance with 10 CFR 50.82(a)(1)(i) and (ii), Dresden, Units 2 and 3, will be permanently shutdown units with irradiated fuel stored in the SFPs and ISFSI. In the EP Final Rule (76 FR 72560, November 23, 2011) (Reference 12), the NRC defined "hostile action" as, in part, an act directed toward a nuclear power plant or its personnel. This definition is based on the definition of "hostile action" provided in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (Reference 13). NRC Bulletin 2005-02 was not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessels.</p> <p>The NRC excluded non-power reactors from the definition of "hostile action" at the time of the rulemaking because, as defined in 10 CFR 50.2, a non-power reactor is not considered a nuclear power reactor and a regulatory basis had not been developed to support the inclusion of NPR in the definition of "hostile action." Similarly, a decommissioning power reactor or ISFSI is not a "nuclear reactor" as</p>

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EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

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Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
		<p>defined in the NRC's regulations. A decommissioning power reactor also has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For all of these reasons, the NRC has concluded that a decommissioning power reactor is not a facility that falls within the definition of "hostile action."</p> <p>Similarly, for security, risk insights can be used to determine which targets are important to protect against sabotage. A level of security commensurate with the consequences of a sabotage event is required and is evaluated on a site-specific basis. The severity of the consequences declines as fuel ages and, thereby, removes over time the underlying concern that a sabotage attack, under the current definition, could cause offsite radiological consequences.</p> <p>Although, this analysis provides a justification for an exemption to include the definition for a "hostile action" and its related requirements, elements for security-based events would be maintained. The classification of security-based events, notification of offsite authorities and coordination with offsite agencies under a CEMP would still be required. Other security-related requirements in the EP Final Rule would be exempted such as, on-shift staffing analysis, ERO augmentation and alternative facilities, protection of onsite personnel, and challenging drills and exercises due to the reduced radiological risk for a decommissioning power reactor.</p> <p>The following similarities between Dresden and NPRs show that the Dresden facility should be treated in a similar fashion as an NPR. Similar to NPRs, Dresden will pose lower radiological risks to the public from accidents than do power reactors because: 1) Dresden will be a permanently shutdown facility (with fuel stored in the SFPs and ISFSI) and will no longer generate fission products; 2) fuel stored in the Dresden, Units 2 and 3, SFPs will have lower decay heat resulting in lower risk of fission product release in the event of a beyond design basis boil off or drain down event; and 3) no credible or beyond design basis accident at Dresden will result in radiological releases requiring offsite protective actions.</p>

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Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
16	<p>A.8. Identification of the State and/or local officials responsible for planning for, ordering and controlling appropriate protective actions, including evacuations when necessary.</p>	<p>Offsite emergency measures are limited to support provided by local police, fire departments, and ambulance and hospital services, as appropriate. Because an analysis has been developed (Reference 5) indicating that 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, and due to the low probability of design basis accidents or other credible events to exceed the EPA PAGs, protective actions such as evacuation should not be required, but could be implemented at the discretion of offsite authorities using a CEMP.</p> <p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
17	<p>A.9. By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely</p>	<p>Responsibilities of the on-shift and emergency response personnel will be detailed in the Permanently Defueled Emergency Plan and implementing procedures, regularly tested through drills and exercises, and audited and inspected by Exelon and the NRC. The duties of the on-shift personnel at a decommissioning reactor</p>

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	<p>performance of their assigned functions as specified in the emergency plan.</p>	<p>facility are not as complicated and diverse as those for an operating power reactor.</p> <p>In the EP Final Rule (Reference 12), the NRC acknowledged that the staffing analysis requirement was not necessary for non-power reactor licensees because staffing at non-power reactors is generally small, which is commensurate with operating the facility in a manner that is protective of the public health and safety. The minimal systems and equipment needed to maintain the spent nuclear fuel in the SFP or in a dry cask storage system in a safe condition requires minimal personnel and is governed by Technical Specifications. Because of the slow rate of the event scenarios postulated in the design basis accident and postulated beyond design basis accident analyses and because the duties of the on-shift personnel at a decommissioning reactor facility are not as complicated and diverse as those for an operating reactor, significant time is available to complete actions necessary to mitigate an emergency without impeding timely performance of emergency response plan functions. For all these reasons, it can be concluded that a decommissioning nuclear power plant is exempt from the requirement of 10 CFR 50, Appendix E, Section IV.A.9.</p>
18	<p><i>B. Assessment Actions</i></p> <p>B.1. The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. By June 20, 2012, for nuclear power</p>	<p>Dresden EALs will be developed consistent with the Permanently Defueled EALs detailed in Appendix C of NEI 99-01, Revision 6 (Reference 9), which the NRC found to be an acceptable method for development of EALs. Dresden will continue to review EALs with the State of Illinois on an annual basis. However, based upon the reduced scope of EALs for the permanently defueled facility, the scope of the annual review of EALs is expected to be limited (i.e., informal mailings, etc.).</p> <p>Following submittal of the "Certification of Permanent Removal of Fuel from the Reactor Vessel," in accordance with 10 CFR 50.82(a)(1)(i) and (ii), Dresden, Units 2 and 3, will be permanently shutdown units with irradiated fuel stored in the SFPs and ISFSI. In the EP Final Rule (76 FR 72560, November 23, 2011) (Reference 12), the NRC defined "hostile action" as, in part, an act directed toward a nuclear power plant or its personnel. This definition is based on the</p>

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	<p>reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant. The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and State and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis.</p>	<p>definition of "hostile action" provided in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (Reference 13). NRC Bulletin 2005-02 was not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessels.</p> <p>The NRC excluded non-power reactors from the definition of "hostile action" at the time of the rulemaking because, as defined in 10 CFR 50.2, a non-power reactor is not considered a nuclear power reactor and a regulatory basis had not been developed to support the inclusion of NPR in the definition of "hostile action." Similarly, a decommissioning power reactor or ISFSI is not a "nuclear reactor" as defined in the NRC's regulations. A decommissioning power reactor also has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For all of these reasons, the NRC has concluded that a decommissioning power reactor is not a facility that falls within the definition of "hostile action."</p> <p>Although, this analysis provides a justification for an exemption to include the definition for a "hostile action" and its related requirements, elements for security-based events would be maintained. The classification of security-based events, notification of offsite authorities and coordination with offsite agencies under a CEMP would still be required. Other security-related requirements in the EP Final Rule would be exempted such as, on-shift staffing analysis, ERO augmentation and alternative facilities, protection of onsite personnel, and challenging drills and exercises due to the reduced radiological risk for a decommissioning power reactor.</p>
19	B.2.	No exemption requested.
20	<p><i>C. Activation of Emergency Organization</i></p> <p>C.1. The entire spectrum of emergency conditions that involve the alerting or activating of progressively larger segments of the total emergency organization shall be described. The communication steps to be taken to alert</p>	<p>The Permanently Defueled EALs, developed consistent with Appendix C of NEI 99-01, Revision 6 (Reference 9), will be adopted, as previously described. This scheme eliminates the Site Area Emergency and General Emergency event classifications.</p>

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	<p>or activate emergency personnel under each class of emergency shall be described. Emergency action levels (based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency, such as the pressure in containment and the response of the Emergency Core-Cooling System) for notification of offsite agencies shall be described. The existence, but not the details, of a message authentication scheme shall be noted for such agencies. The emergency classes defined shall include: (1) notification of unusual events, (2) alert, (3) site area emergency, and (4) general emergency. These classes are further discussed in NUREG-0654/FEMA-REP-1.</p>	<p>Additionally, the need to base EALs on containment parameters is no longer appropriate since these parameters do not provide indication of the conditions at a defueled facility and emergency core cooling systems are no longer required. Other indications, such as SFP level or temperature, can be used at sites where there is spent fuel in the SFPs. The EAL scheme presented in NEI 99-01, Revision 6, was endorsed by the NRC in a letter dated March 28, 2013 (Reference 10). No offsite protective actions are anticipated to be necessary, since classification above the Alert (e.g., Site Area Emergency or General Emergency) level is no longer required. In the event of an accident at a defueled facility that meets the conditions for relaxation of emergency planning requirements, there will be available time for event mitigation, and if necessary, implementation of offsite protective actions using a comprehensive approach to emergency planning. See the basis for 10 CFR 50.47(b) detailing the low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures.</p> <p>In the Statement of Considerations for the Final Rule for EP requirements for ISFSIs and for MRS facilities (60 FR 32430; June 22, 1995) (Reference 6), the Commission responded to comments concerning a general emergency at an ISFSI and MRS, and concluded that, "...an essential element of a General Emergency is that a release can be reasonably expected to exceed EPA Protective Action Guidelines exposure levels off site for more than the immediate site area."</p> <p>The probability of a condition reaching the level above an emergency classification of Alert is very low. In the event of an accident at Dresden that meets the criteria for an exemption from the NRC's offsite EP requirements, there will be time available to initiate mitigative actions consistent with plant conditions, and if necessary, for offsite authorities to employ their CEMP to take protective actions.</p> <p>As stated in NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants" (February 2001) (Reference 14) for instances of small SFP leaks or loss of cooling scenarios, these events evolve very slowly and generally leave many days for recovery efforts. Offsite radiation</p>

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		<p>monitoring will be performed as the need arises. Due to the decreased risks associated with defueled plants, offsite radiation monitoring systems are not required.</p> <p>Dresden EALs will be developed consistent with the Permanently Defueled EALs detailed in Appendix C of NEI 99-01, Revision 6 (Reference 9), which the NRC found to be an acceptable method for development of EALs. Dresden will continue to review EALs with the State of Illinois on an annual basis. However, based upon the reduced scope of EALs for the permanently defueled facility, the scope of the annual review of EALs is expected to be limited (i.e., informal mailings, etc.).</p>
21	<p>C.2. By June 20, 2012, nuclear power reactor Licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall 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. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.</p>	<p>In the Statement of Consideration for the EP Final Rule published in the Federal Register (76 FR 72560) (Reference 12), non-power reactor licensees were not required to assess, classify, and declare an emergency condition within 15 minutes. An SFP and an ISFSI are also not nuclear power reactors as defined in the NRC's regulations. A decommissioning power reactor has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For these reasons, the staff concludes that a decommissioning power reactor should not be required to assess, classify, and declare an emergency condition within 15 minutes.</p> <p>Dresden will maintain the capability to assess, classify, and declare an emergency condition. Emergency declaration is required to be made as soon as conditions warranting classification are present and recognizable, but within 30 minutes after the availability of indications to operators that an EAL threshold has been reached. In the permanently defueled condition, the rapidly developing scenarios associated with events initiated during reactor power operation are no longer credible. The consequences resulting from the only remaining events (e.g., fuel handling accident) develop over a significantly longer period. As such, the 15-minute requirement to assess, classify and declare an emergency is unnecessarily restrictive.</p>

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		Also refer to the basis provided for 10 CFR 50.47(b) detailing the low likelihood of any credible accident resulting in radiological releases requiring offsite protective measures.
22	<p><i>D. Notification Procedures</i></p> <p>D.1. Administrative and physical means for notifying local, State, and Federal officials and agencies and agreements reached with these officials and agencies for the prompt notification of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the appropriate officials, by title and agency, of the State and local government agencies within the EPZs.</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
23	<p>D.2. Provisions shall be described for yearly dissemination to the public within the plume exposure pathway EPZ of basic emergency planning information, such as the methods and times required for public notification and the protective actions planned if an accident occurs, general information as to the nature and effects of radiation, and a listing of local broadcast stations that will be used for dissemination of information during an emergency.</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p>

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	<p>Signs or other measures shall also be used to disseminate to any transient population within the plume exposure pathway EPZ appropriate information that would be helpful if an accident occurs.</p>	<p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
24	<p>D.3. A licensee shall have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency. The licensee shall demonstrate that the appropriate governmental authorities have the capability to make a public alerting and notification decision promptly on being informed by the licensee of an emergency condition. Prior to initial operation greater than 5 percent of rated thermal power of the first reactor at a site, each nuclear power reactor licensee shall demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway EPZ. The design objective of the prompt public alert and notification system shall be to have the capability to essentially complete the initial alerting and initiate notification of the public within the plume exposure pathway EPZ within about 15 minutes. The use of this alerting and notification capability will range from immediate alerting and notification of the public (within 15 minutes of the time that State and local officials are notified that a situation exists</p>	<p>Dresden proposes to complete emergency notifications within 30 minutes after the event classification has been made. This timeframe is consistent with the 10 CFR 50.72(a)(3) notification to the NRC and is appropriate because in the permanently defueled condition, the rapidly developing scenarios associated with events initiated during reactor power operation are no longer credible and there is no need for State or local response organizations to implement any protective actions.</p> <p>Because of the geographic location of Dresden, emergency planning and responsibilities have historically involved coordination with the State of Illinois. Decommissioning-related emergency plan submittals for Dresden have been discussed with offsite response organizations since Exelon provided notification that it would permanently cease power operations at Dresden, Units 2 and 3. These discussions have addressed changes to onsite and offsite emergency preparedness throughout the decommissioning process, including the proposed time of 30 minutes to notify the state after the event classification has been made. Illinois Emergency Management officials have been able to review and concur with this proposal. The State's acknowledgement of their review will be provided within the Dresden PDEP.</p> <p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological</p>

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	<p>requiring urgent action) to the more likely events where there is substantial time available for the appropriate governmental authorities to make a judgment whether or not to activate the public alert and notification system. The alerting and notification capability shall additionally include administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15-minute design objective for the primary prompt public alert and notification system. When there is a decision to activate the alert and notification system, the appropriate governmental authorities will determine whether to activate the entire alert and notification system simultaneously or in a graduated or staged manner. The responsibility for activating such a public alert and notification system shall remain with the appropriate governmental authorities.</p>	<p>releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
25	<p>D.4. If FEMA has approved a nuclear power reactor site's alert and notification design report, including the backup alert and notification capability, as of December 23, 2011, then the backup alert and notification capability requirements in Section IV.D.3 must be implemented by December 24, 2012. If the alert and notification design report does not include a backup alert and notification capability or needs revision to ensure adequate backup alert and</p>	<p>Dresden proposes to complete emergency notifications within 30 minutes after the event classification has been made. This timeframe is consistent with the 10 CFR 50.72(a)(3) notification to the NRC and is appropriate because in the permanently defueled condition, the rapidly developing scenarios associated with events initiated during reactor power operation are no longer credible and there is no need for State or local response organizations to implement any protective actions.</p> <p>Because of the geographic location of Dresden, emergency planning and responsibilities have historically involved coordination with the State of Illinois.</p>

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	<p>notification capability, then a revision of the alert and notification design report must be submitted to FEMA for review by June 24, 2013, and the FEMA-approved backup alert and notification means must be implemented within 365 days after FEMA approval. However, the total time period to implement a FEMA-approved backup alert and notification means must not exceed June 22, 2015.</p>	<p>Decommissioning-related emergency plan submittals for Dresden have been discussed with offsite response organizations since Exelon provided notification that it would permanently cease power operations at Dresden, Units 2 and 3. These discussions have addressed changes to onsite and offsite emergency preparedness throughout the decommissioning process, including the proposed time of 30 minutes to notify the state after the event classification has been made. Illinois Emergency Management officials have been able to review and concur with this proposal. The State's acknowledgement of their review will be provided within the PDEP.</p>
26	<p><i>E. Emergency Facilities and Equipment</i> E.1 thru E.7</p>	<p>No exemption requested.</p>
27	<p>E.8.a.(i) A licensee onsite technical support center and an emergency operations facility from which effective direction can be given and effective control can be exercised during an emergency;</p>	<p>The Dresden, Units 2 and 3, analysis (Reference 5) indicates that within 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, no design basis accidents or other credible event at Dresden, Units 2 and 3, will exceed the EPA PAGs. Due to the low probability of design basis accidents or other credible events to exceed the EPA PAGs at the site boundary, the available time for event mitigation at a decommissioning power reactor and, if needed, to implement offsite protective actions using a CEMP, an EOF would not be required to support offsite agency response. Onsite actions may be directed from the Control Room or other location, without the requirements imposed on a technical support center (TSC).</p> <p>An onsite facility will continue to be maintained, from which effective direction can be given and effective control may be exercised during an emergency. The Dresden emergency response plan will continue to maintain arrangements for requesting assistance and using resources from appropriate offsite support organizations.</p> <p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The</p>

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		<p>Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p> <p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an EOF would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
28	<p>E.8.a.(ii) For nuclear power reactor licensees, a licensee onsite operational support center;</p>	<p>NUREG-0696, "Functional Criteria for Emergency Response Facilities," (Reference 15) provides that the operational support center (OSC) is an onsite area separate from the Control Room and the TSC where licensee operations support personnel will assemble in an emergency. For a permanently shutdown and defueled power plant, an OSC is no longer required to meet its original purpose of an assembly area for plant logistical support during an emergency. The Control Room is the single onsite facility that provides support, emergency mitigation, radiation monitoring, and effective control that will be exercised during an emergency.</p>
29	<p>E.8.b. For a nuclear power reactor licensee's emergency operations facility required by paragraph 8.a of this section, either a facility located between 10 miles and 25 miles of the nuclear power reactor site(s), or a primary facility located less than 10 miles from the nuclear power reactor site(s) and a backup facility located between 10 miles and 25 miles of the nuclear power reactor site(s). An emergency operations facility may serve more than one nuclear power reactor site. A licensee desiring to locate an emergency operations facility more than 25 miles from a nuclear power reactor site shall</p>	<p>In accordance with paragraph E.8.e., the requirements of paragraph 8.b do not apply to the Dresden EOF because it was an approved facility prior to December 23, 2011. However, the exemption is requested to clearly reflect that the requirement no longer applies to Dresden in a permanently shutdown and defueled condition.</p> <p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p> <p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative</p>

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	<p>request prior Commission approval by submitting an application for an amendment to its license.</p> <p>For an emergency operations facility located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site. Provisions for locating NRC and offsite responders closer to a nuclear power reactor site that is more than 25 miles from the emergency operations facility must include the following:</p> <p>(1) Space for members of an NRC site team and Federal, State, and local responders;</p> <p>(2) Additional space for conducting briefings with emergency response personnel;</p> <p>(3) Communication with other licensee and offsite emergency response facilities;</p> <p>(4) Access to plant data and radiological information; and</p> <p>(5) Access to copying equipment and office supplies;</p>	<p>or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an EOF would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
30	<p>E.8.c. By June 20, 2012, for a nuclear power reactor licensee's emergency operations facility required by paragraph 8.a of this section, a facility having the following capabilities:</p> <p>(1) The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear</p>	<p>The Dresden, Units 2 and 3, analysis (Reference 5) indicates that within 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, no design basis accidents or other credible event at Dresden, Units 2 and 3, will exceed the EPA PAGs. Due to the low probability of design basis accidents or other credible events to exceed the EPA PAGs at the site boundary, the available time for event mitigation at a decommissioning power reactor and, if needed, to implement offsite protective actions using a CEMP, an EOF would not be required to support</p>

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	<p>power reactor site that the facility serves; (2) The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves; and (3) The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site; and</p>	<p>offsite agency response. Onsite actions may be directed from the Control Room or other location, without the requirements imposed on a TSC.</p> <p>An onsite facility will continue to be maintained, from which effective direction can be given and effective control may be exercised during an emergency. The Dresden emergency response plan will continue to maintain arrangements for requesting assistance and using resources from appropriate offsite support organizations.</p> <p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p> <p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an EOF would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
31	<p>E.8.d. For nuclear power reactor licensees, an alternative facility (or facilities) that would be accessible even if the site is under threat of or experiencing hostile action, to function as a staging area for augmentation of emergency response staff and collectively having the following characteristics: the capability for communication with the emergency operations facility, control room, and plant security; the capability to perform offsite notifications; and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities</p>	<p>Following submittal of the "Certification of Permanent Removal of Fuel from the Reactor Vessel," in accordance with 10 CFR 50.82(a)(1)(i) and (ii), Dresden, Units 2 and 3, will be permanently shutdown units with irradiated fuel stored in the SFPs and ISFSI. In the EP Final Rule (76 FR 72560, November 23, 2011) (Reference 12), the NRC defined "hostile action" as, in part, an act directed toward a nuclear power plant or its personnel. This definition is based on the definition of "hostile action" provided in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (Reference 13). NRC Bulletin 2005-02 was not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessels.</p>

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	<p>cannot be safely accessed during hostile action. The requirements in this paragraph 8.d must be implemented no later than December 23, 2014, with the exception of the capability for staging emergency response organization personnel at the alternative facility (or facilities) and the capability for communications with the emergency operations facility, control room, and plant security, which must be implemented no later than June 20, 2012.</p>	<p>The NRC excluded non-power reactors from the definition of "hostile action" at the time of the rulemaking because, as defined in 10 CFR 50.2, a non-power reactor is not considered a nuclear power reactor and a regulatory basis had not been developed to support the inclusion of NPR in the definition of "hostile action." Similarly, a decommissioning power reactor or ISFSI is not a "nuclear reactor" as defined in the NRC's regulations. A decommissioning power reactor also has a low likelihood of a credible accident resulting in radiological releases requiring offsite protective measures. For all of these reasons, the NRC has concluded that a decommissioning power reactor is not a facility that falls within the definition of "hostile action."</p> <p>Although, this analysis provides a justification for an exemption to include the definition for a "hostile action" and its related requirements, elements for security-based events would be maintained. The classification of security-based events, notification of offsite authorities and coordination with offsite agencies under a CEMP would still be required. Other security-related requirements in the EP Final Rule would be exempted such as, on-shift staffing analysis, ERO augmentation and alternative facilities, protection of onsite personnel, and challenging drills and exercises due to the reduced radiological risk for a decommissioning power reactor.</p>
32	<p>E.8.e. A licensee shall not be subject to the requirements of paragraph 8.b of this section for an existing emergency operations facility approved as of December 23, 2011;</p>	<p>In accordance with paragraph E.8.e., the requirements of paragraph 8.b do not apply to the Dresden EOF because it was an approved facility prior to December 23, 2011. However, the exemption is requested to clearly reflect that the requirement no longer applies to Dresden in a permanently shutdown and defueled condition.</p> <p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p> <p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative</p>

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		<p>or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an EOF would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
33	<p>E.9.a. Provisions for communications with contiguous State/local governments within the plume exposure pathway EPZ. Such communications shall be tested monthly.</p>	<p>Dresden will maintain communications with the State of Illinois. Existing commercial phone lines will to be used to communicate EP notifications to the State of Illinois and will continue to be functionally tested monthly.</p> <p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations for Dresden, Unit 2, and 299 days after permanent cessation of power operations for Dresden, Unit 3, no credible or beyond design basis accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions. The analysis of the potential radiological impact of the postulated accident for Dresden, Units 2 and 3, in a permanently defueled condition indicates that any releases beyond the site boundary are limited to small fractions of the EPA PAG exposure levels.</p> <p>In the unlikely event of an SFP accident, the iodine isotopes which contribute to an offsite dose from an operating reactor accident are not present, so KI distribution offsite would no longer serve as an effective or necessary supplemental protective action.</p> <p>Because it is not possible for PAGs to be exceeded at Dresden, Units 2 and 3, following the Zirc-Fire Window, evacuation planning is not needed since Dresden will meet the criteria for an exemption from offsite emergency preparedness requirements as discussed in the exemption from 10 CFR 50.47(b).</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
34	E.9.b	No exemption requested
35	<p>E.9.c. Provision for communications among the nuclear power reactor control room, the onsite technical support center, and the emergency</p>	<p>Dresden has developed an analysis (Reference 5) indicating that 348 days after permanent cessation of power operations, no credible accident at Dresden, Units 2 and 3, will result in radiological releases requiring offsite protective actions; or in</p>

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Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
	<p>operations facility; and among the nuclear facility, the principal State and local emergency operations centers, and the field assessment teams. Such communications systems shall be tested annually.</p>	<p>the event of beyond design basis accidents, 10 hours is available to take mitigative actions, and if needed, implement offsite protective actions using CEMP concept.</p> <p>Therefore, there is no need for the TSC, EOF, or field assessment teams. Additionally, there is no need to maintain and test committed provisions for communications with State and local emergency operations centers (EOCs) with these facilities.</p> <p>An onsite facility will continue to be maintained, from which effective command and control can be maintained during an emergency. Communication with State and local EOCs is maintained to coordinate assistance on site if required. Testing will be as described in justification for 10 CFR 50, Appendix E, Section IV.E.9.a</p> <p>The Dresden, Units 2 and 3, analysis (Reference 5) indicates that within 348 days after permanent cessation of power operations of Dresden, Unit 2, and 299 days after permanent cessation of power operations of Dresden, Unit 3, no design basis accidents or other credible event at Dresden, Units 2 and 3, will exceed the EPA PAGs. Due to the low probability of design basis accidents or other credible events to exceed the EPA PAGs at the site boundary, the available time for event mitigation at a decommissioning power reactor and, if needed, to implement offsite protective actions using a CEMP, an EOF would not be required to support offsite agency response. Onsite actions may be directed from the Control Room or other location, without the requirements imposed on a TSC.</p> <p>An onsite facility will continue to be maintained, from which effective direction can be given and effective control may be exercised during an emergency. The Dresden emergency response plan will continue to maintain arrangements for requesting assistance and using resources from appropriate offsite support organizations.</p> <p>Discontinuing offsite emergency planning activities and reducing the scope of onsite emergency planning is acceptable given the significantly reduced offsite consequences when Dresden is in the permanently defueled condition. The Dresden emergency response plan will continue to maintain arrangements for requesting and using assistance resources from offsite support organizations.</p>

TABLE 2
EXEMPTIONS REQUESTED FROM 10 CFR 50, APPENDIX E

Strikethrough text identifies the proposed exemption with respect to the regulation. The basis for the exemption explains the scope of the exception.

Item	Regulation in 10 CFR 50, APPENDIX E, SECTION IV	Basis for Exemption
		<p>Decommissioning power reactors present a low likelihood of any credible accident resulting in a radiological release together with the time available to take mitigative or, if needed, offsite protective actions using a CEMP between the initiating event and before the onset of a postulated fire. As such, an EOF would not be required. The Control Room or other onsite location can provide for the communication and coordination with offsite organizations for the level of support required.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
36	<p>E.9.d. Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the onsite technical support center, and the emergency operations facility. Such communications shall be tested monthly.</p>	<p>The functions of the Control Room, EOF, TSC and OSC are intended to be combined into an onsite facility due to the smaller facility staff and the greatly reduced required interaction with State and local emergency response facilities. An onsite facility will continue to be maintained, from which effective direction can be given and effective control can be exercised during an emergency. Dresden will maintain communication with the NRC.</p> <p>Also refer to the basis for 10 CFR 50.47(b).</p>
37	<p><i>F. Training</i></p> <p>F.1. The program to provide for: (a) The training of employees and exercising, by periodic drills, of emergency plans to ensure that employees of the licensee are familiar with their specific emergency response duties, and (b) The participation in the training and drills by other persons whose assistance may be needed in the event of a radiological emergency shall be described. This shall include a description of specialized initial training and periodic retraining programs to be provided to each of the following categories of emergency personnel:</p> <ul style="list-style-type: none"> i. Directors and/or coordinators of the plant emergency organization; ii. Personnel responsible for accident assessment, including control room shift personnel; 	