

# EP Decommissioning Framework and FAQs

Emergency Preparedness

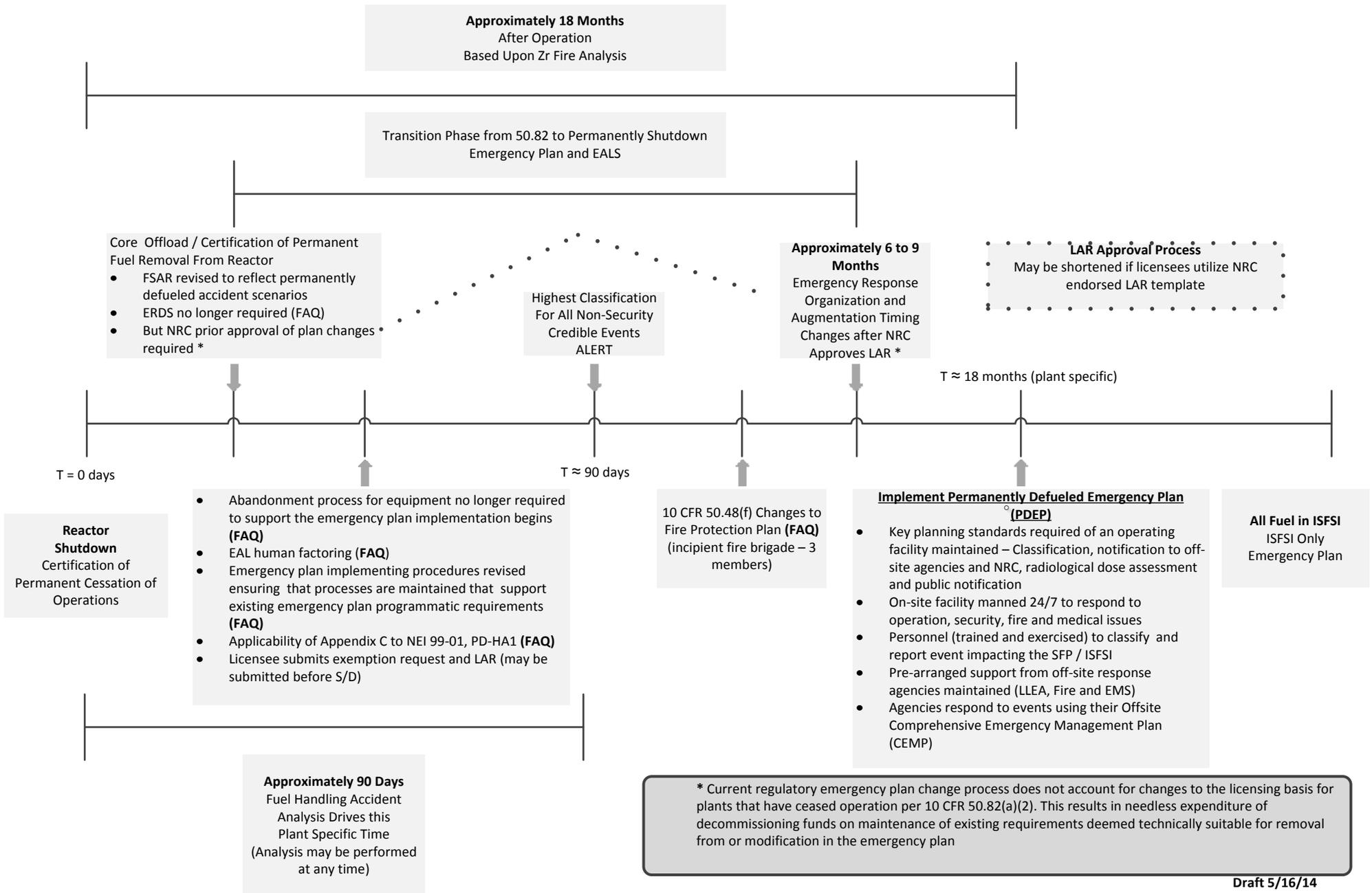
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# EP Decommissioning Framework



# Emergency Plan Change Process

- Alignment of the Emergency Plan to Changing Plant Condition
  - 50.54(q)(3) Process
  - License Amendment Request (LAR) Process

Relevant guidance: (Required for clarification of guidance.)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

Question

Does ERDS need to be maintained by a licensee that has submitted certification confirming cessation of operation and removal of fuel from the reactor vessel (Ref 10 C.F.R. 50.82)?

Background

Relevant language on activation of Emergency Response Data System (ERD) in the 10 CFR 50.72(a)(4) states:

"The licensee shall activate the Emergency Response Data System (ERDS) as soon as possible but not later than one hour after declaring an Emergency Class of alert, site area emergency, or general emergency. The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the exercise data."

10 CFR 50 Appendix E section VI, Emergency Response Data System, states:

"2. Except for Big Rock Point and all nuclear power facilities that are shut down permanently or indefinitely, onsite hardware shall be provided at each unit by the licensee to interface with the NRC receiving system. Software, which will be made available by the NRC, will assemble the data to be transmitted and transmit data from each unit via an output port on the appropriate data system."

Proposed solution: (Optional)

Since 10CFR50 Appendix E Section VI exempts permanently shut down facilities from maintaining the hardware and software for transmitting ERDS, once a licensee submits certification confirming cessation of operation and removal of fuel from the reactor vessel (Ref 10 C.F.R. 50.82), ERDS activation requirements no longer apply.

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## NRC FAQ #2 Abandonment of Equipment Important to Emergency Preparedness

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Relevant guidance: (Required for clarification of guidance.)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

Question:

Is it permissible for a licensee that has submitted certification confirming cessation of operation and removal of fuel from the reactor vessel to use its equipment abandonment procedures and processes to permanently remove from service the emergency preparedness equipment which is not required to support permanently defueled accident scenarios? The licensee is no longer authorized to operate the reactor or place fuel into the reactor vessel (Ref. 10 C.F.R. 50.82).

Background:

NRC staff provided verbal guidance that, until a station receives approval of the Permanently Defuel Emergency Plan (PDEP), the only vehicle available to licensees is to use the station configuration control processes (equipment out-of-service programs, equipment checklist, etc.) to temporarily remove from service the emergency preparedness equipment which is not required to support permanently defueled accident scenarios.

This situation causes the station to defer workload and retain personnel to complete, after approval of the PDEP, the equipment abandonment process.

Proposed solution: (Optional)

Once the licensee has submitted certification confirming cessation of operation and removal of fuel from the reactor vessel and an analysis is performed to determine the permanently defueled accident scenarios, the equipment abandonment procedures and processes may be employed to permanently remove from service the emergency preparedness equipment which is not required to support permanently defueled accident scenarios.

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## NRC FAQ #3 Elimination of EAL Statements

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Relevant guidance: (Required for clarification of guidance.)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

Question:

A nuclear power reactor licensee that certifies cessation of operation and removal of fuel from the reactor vessel (Ref 10 C.F.R. 50.82), submits a Permanently Defueled EALs scheme for NRC preapproval. In the period between when the scheme is submitted and approval of the EAL scheme is received from the NRC, may the licensee eliminate from its scheme EAL statements and fission product barrier status thresholds that are no longer applicable to the station?

Background:

Federal regulations require that a nuclear power plant operator develop a scheme for the classification of emergency events and conditions. This scheme provides the defined thresholds that will allow site personnel to rapidly implement a range of pre-planned emergency response measures. This scheme contains a set of generic Initiating Conditions (ICs), Emergency Action Levels (EALs) and fission product barrier status thresholds.

Proposed solution: (Optional)

NRC provided verbal guidance that the licensee may not eliminate from its scheme the EALs statements and fission product barrier status thresholds, despite the fact that these are no longer applicable to a permanently defueled station. NRC did state, however, the licensee may indicate certain EALs statements and fission product barrier status thresholds that are no longer applicable. It is acceptable to shade (or otherwise highlight) EALs and fission product barrier thresholds that are no longer applicable.

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## NRC FAQ #4 Elimination of EPIP Statements

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Relevant guidance: (Required for clarification of guidance.)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

Question:

May a licensee that has submitted certification confirming cessation of operation and removal of fuel from the reactor vessel (Ref. 10 C.F.R. 50.82) remove certain emergency plan implementing procedure (EPIP) statements/process/steps/actions that do not implement programmatic elements described in the emergency plan?

Background:

The emergency plan identifies and describes programmatic methods necessary for maintaining emergency preparedness and responding to emergencies. These methods are known as program elements and they characterize implementation aspects of the planning standards in 10 CFR 50.47(b). They also relate to requirements in Appendix E to 10 CFR Part 50 and generally correspond to the evaluation criteria of NUREG-0654 or approved alternatives that provide specific acceptable methods for complying with the planning standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50. Such programmatic documents are subject to the 10 CFR 50.54(q) change process.

EIPs may describe processes:

- That implement programmatic elements described in the emergency plan,
- That do not implement programmatic elements described in the emergency plan.

For example, the emergency plan may specify the minimum staffing requirements of an emergency response facility. The EPIP describes the positions that comprise minimum staffing and how their duties are carried out. The EPIP may also include other staff positions and respective duties that are not described in the emergency plan. Once the NRC docket the licensee's certifications confirming cessation of operation and removal of fuel from the reactor vessel, the licensee is no longer authorized to operate the reactor or place fuel into the reactor vessel (Ref 10 C.F.R. 50.82). The emergency planning demands of defueled plants are logically and should be substantially different from the operating plants. In such cases, the station may determine the staff not listed in the emergency plan may no longer be needed and the requirement for the staff removed from the EPIP.

Proposed solution: (Optional)

Licensee may remove statements/processes/steps/actions in EIPs that do not implement programmatic elements of the emergency plan. This change can be made outside the 50.54(q)(3) process.

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## NRC FAQ #5 Hostile Action Based EALs

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Relevant guidance: (Required for clarification of guidance.)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

Question:

NEI 99-01, Development of Emergency Action Levels for Non-Passive Reactors, Revision 6 presents generic Initiating Conditions (ICs) and EALs in Appendix C, Permanently Defueled Station ICs/EALs. The NRC has concluded in previous exemption requests for facilities submitting certifications confirming cessation of operation and removal of fuel from the reactor vessel (Ref 10 C.F.R. 50.82) that they are not facilities that fall within the definition of "hostile action." Therefore, should facilities submitting certifications confirming cessation of operation and removal of fuel from the reactor vessel include the PD-HA1 EAL in the EAL scheme for an ISFSI only emergency plan and an emergency plan used during the period of time transitioning to an ISFSI?

Background:

The Emergency Preparedness Final Rule, which was published in the Federal Register (76 FR 72560; November 23, 2011), amended certain requirements in 10 CFR Part 50. Among the changes, the definition of "hostile action" was 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.

This definition was based on the definition of "hostile action" provided in NRC Bulletin 2005-02. That particular bulletin was not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessel. Per NSIR/DRP-ISG-01, Emergency Planning for Nuclear Power Plants:

"The final rule requires nuclear power reactor licensees to ensure that adequate resources are identified to respond to the site during hostile action. Because "hostile action" is defined as "an act directed toward a nuclear power plant or its personnel," the NRC has excluded non-power reactors from the definition of "hostile action" at this time until a regulatory basis is developed to support inclusion of non-power reactors in that definition. However, non-power reactor licensees are still required to identify ORO resources that would respond to the facility in an emergency and the assistance licensees expect from them."

Proposed solution: (Optional)

A nuclear power reactor that has permanently ceased operations and has certified that fuel has been removed from the reactor vessel is not a facility that falls within the definition of "hostile action" and therefore need not include PD-HA1 in the decommissioned EAL scheme.

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## NRC FAQ #6 Fire Protection

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Relevant guidance: (Required for clarification of guidance.)

10 CFR 50.48(f), 10 CFR 50.82(a)(1), 10 CFR 50.54(q)

Revision Number:

Applicable Sections:

Questions or Comments: (including relevant background information) (Required)

### Question

Since the emergency preparedness function associated with the fire brigade will be maintained by meeting 10 CFR 50.48 objectives for a decommissioned site, can the changes to the fire protection plan associated with brigade staffing and offsite fire protection support also be reflected in the emergency plan without NRC preapproval using the 10CFR 50.54(q) process?

### Background

Language in 10 CFR 50.48(f) allows changes to a Fire Protection Plan for licensees that have submitted the certification required under 10 CFR 50.82(a)(1). Specifically, 10 CFR 50.48(f)(3) states:

“The licensee may make changes to the fire protection program without NRC approval if these changes do not reduce the effectiveness of fire protection for facilities, systems, and equipment that could result in a radiological hazard, taking into account the decommissioning plant conditions and activities.”

Within the 10 CFR 50.48 regulation, decommissioning plants are allowed to re-evaluate the fire protection plan and when justified by the remaining potential fire induced radiological hazards change the fire brigade from a five member advanced exterior or interior structural brigade to a three member incipient fire brigade. Based upon the evaluation, offsite fire protection support maybe modified to ensure the three 10 CFR 50.48(f) objectives, listed below, continue to be met.

1. Reasonably prevent fires
2. Rapidly detect, control, and extinguish fires that could result in a radiological hazard
3. Minimize the risk of fire-induced radiological hazards to the public

Since the firefighting function is maintained, the brigade changes in question would conform to 10 CFR 50.48 and not challenge safety for decommissioned plants that have received Cessation of Operation Letters.

Proposed solution: (Optional)

As long as the emergency preparedness firefighting functional task is retained and all other emergency plan functions that had been performed by the two eliminated positions are retained without a reduction in effectiveness (evaluated against on-shift staffing study), the 10CFR50.54(q)

process should enable conforming changes to the emergency plan based on fire protection plan changes to be administratively made using, without NRC prior approval.

Examples of these specific changes if contained in the emergency plan include:

Onsite Staffing Levels

Off-site response

Fire brigade composition

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# IFSI Only

- Roadmap to ISFSI Only Emergency Plan Requirements
  - NUREG-0654 Criteria
  - Emergency Action Levels
    - EU-1, Damage to Loaded Cast Confinement Boundary
    - Hostile Action
  - Mitigating Strategies
  - Staffing
  - Equipment



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