Rulemaking1CEm Resource

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Subject:	Comment on ANPR-26, 50, 52, 73, and 140 - Regulatory Improvements for Decommissioning
Attachments:	Comment from Alsop on behalf of San Luis Obispo Office of Emergency Services.pdf

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Comment On: NRC-2015-0070-0007
Regulatory Improvements for Decommissioning Power Reactors; Extension of Comment Period

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General Comment

Please see the attached document "san-luis-obispo-county-oes-input-nrc-2015-0070-march-2016-pdf" for comments from the San Luis Obispo County (California) Office of Emergency Services related to Regulatory Improvements for Decommissioning Power Reactors (NRC Docket ID: NRC-2015-0070).

The comments are being submitted on behalf of the San Luis Obispo County Office of Emergency Services (OES) as written by County Emergency Services Manager Ron Alsop and other members of San Luis Obispo County OES. San Luis Obispo County OES is the lead Offsite Response Organization for the Diablo Canyon Power Plant located near Avila Beach, California.

Our comments are related primarily to EP-1, EP-2 and EP-3. However, comments also touch upon EP-4, EP-5 and EP-6.

Attachments

san-luis-obispo-county-oes-input-nrc-2015-0070-march-2016

NRC Docket ID: NRC-2015-0070

Input by the San Luis Obispo County Office of Emergency Services
Contact: Ron Alsop, Emergency Services Manager

Subject: Regulatory Improvements for Power Reactors Transitioning to Decommissioning

NRC Docket ID: NRC-2015-0070

Input by the San Luis Obispo County Office of Emergency Services
Contact: Ron Alsop, Emergency Services Manager

March 18, 2016

The following response and comments are in response to the NRC considering several changes to the EP requirements in 10 CFR part 50, “Domestic Licensing of Production and Utilization Facilities,” including § 50.47, “Emergency Plans;” appendix E to 10 CFR part 50, “Emergency Planning and Preparedness for Production and Utilization Facilities”; § 50.54(s), (q), and (t), and § 50.72(a) and (b).

These comments are submitted on behalf of the San Luis Obispo County Office of Emergency Services as written by County Emergency Services Manager Ron Alsop. San Luis Obispo County OES is the lead Offsite Response Organization for the Diablo Canyon Power Plant located near Avila Beach, California.

Our comments are related primarily to EP-1, EP-2 and EP-3. However, comments also touch upon EP-4, EP-5 and EP-6.

The below format contains information as stated by the NRC for each EP, then our comments follow, beginning with the term “Comments by Ron Alsop, San Luis Obispo County OES.”

EP-1: The NRC has previously approved exemptions from the emergency planning regulations in § 50.47 and appendix E to 10 CFR part 50 at permanently shut down and defueled power reactor sites based on the determination that there are no possible design-basis events at a decommissioning licensee's facility that could result in an offsite radiological release exceeding the limits established by the EPA's early-phase protective action guidelines of 1 rem at the exclusion area boundary. In addition, the possibility of the spent fuel in the SFP reaching the point of a beyond-design-basis zirconium fire is highly unlikely based on an analysis of the amount of time before spent fuel could reach the zirconium ignition temperature during a SFP partial drain-down event, assuming a reasonably conservative adiabatic heat-up calculation. A minimum of 10 hours is the time that was used in previously approved exemptions, which allows for onsite mitigation actions to be taken by the licensee or actions to be taken by offsite authorities in accordance with the comprehensive emergency management plans (*i.e.,* all hazards plans). For licensees that have been granted exemptions, the EP regulations, as exempted, continue to require the licensees to, among other things,

maintain an onsite emergency plan addressing the classification of an emergency, notification of emergencies to licensee personnel and offsite authorities, and coordination with designated offsite government officials following an event declaration so that, if needed, offsite authorities may implement protective actions using a comprehensive emergency management (all-hazard) approach to protect public health and safety. The EP exemptions relieve the licensee from the requirement to maintain formal offsite radiological emergency preparedness, including the 10-mile emergency planning zone.

a. What specific EP requirements in § 50.47 and appendix E to 10 CFR part 50 should evaluated for modification, including any EP requirements not addressed in previously approved exemption requests for licensees with decommissioning reactors?

b. What existing NRC EP-related guidance and other documents should be revised to address implementation of changes to the EP requirements?

c. What new guidance would be necessary to support implementation of changes to the EP requirements?

Comments by Ron Alsop, San Luis Obispo County OES: The statement "… the possibility of the spent fuel in the spent fuel pool reaching the point of a beyond design-basis zirconium fire is highly unlikely …" is wording directly from the NRC in EP-1. As a professional emergency manager the term "highly unlikely" infers that there is the possibility however remote the odds. A spent fuel pool fire could be a significant risk to public health and safety.

In addition, NRC wording in EP-1 noting "… coordination with designated offsite government officials following an event declaration so that, if needed, offsite authorities may implement protective actions using a comprehensive emergency management (all-hazard) approach to protect public health and safety. The EP exemptions relieve the licensee from the requirement to maintain formal offsite radiological emergency preparedness, including the 10-mile emergency planning zone" seems contradictory – it infers there may indeed be a need to protect the public health and safety after a plant ceases to operate, yet also states that the licensee is relieved from the requirement to maintain formal offsite radiological emergency preparedness.

For more reasons that the unlikely - yet possible - event of a beyond design basis spent fuel accident, licensees should be required to continue to maintain formal offsite radiological emergency preparedness. Perhaps the emergency planning zone could be modified from the existing required 10 miles (although for Diablo Canyon the EPZ is about 18 by 22 miles, or approximately 2 ½ times larger than current federal requirements). Other reasons to maintain formal offsite preparedness relates to the NRC's referenced coordination and potential offsite assistance from local public agencies that would occur following an event declaration.

NRC Docket ID: NRC-2015-0070

Input by the San Luis Obispo County Office of Emergency Services
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The NRC references “offsite comprehensive emergency management plans” (i.e., all hazards plans) and infers that they can be used by offsite jurisdictions to address the public health and safety if an event were to occur at a nuclear power plant. However, all hazards plans are general emergency plans that are not specific to nuclear power plant preparedness. Offsite NPP preparedness is very unique and requires actions distinct from general all hazards plans. Offsite Response Organizations would still have to maintain a separate emergency planning process and program to meet the NRC requirements imposed on the licensees/plants with spent fuel pools and even those with only dry cask storage. In other words, after a plant ceases operation due to spent fuel pools NRC emergency planning regulations continue to require the utilities to maintain an onsite emergency plan addressing the classification of an emergency, notification of emergency to utility personnel and to offsite authorities, and coordination with designated offsite government officials following an event declaration so that, offsite authorities may implement protective actions.

Due to the above actions and for other reasons to be noted, offsite jurisdictions would have to maintain a specific response plan for nuclear power plant or spent fuel specific emergencies. Whether or not there is a threat to offsite health and safety, the public will want to be assured that emergency plans are in place even if the threat is small. The public is going to expect offsite response agencies to not only interact with the utility and to provide onsite assistance, but they also will expect to be assured that their local offsite response jurisdictions are taking action to verify the public is safe. As such, in order to accomplish these needs, actions by those public agencies would include staffing Emergency Operations Centers and Joint Information Centers to provide coordination with the utility, local government and State agencies, and FEMA, to provide the public with ongoing information – including significant rumor control issues that arise in such situations both locally and the national attention such an event would cause. Local and State Public Health staff will need to be involved to confirm that there is or is not a threat to public health and safety. This will include having to maintain a dose assessment capabilities, continuing ongoing NPP specific training, and continuing open communications channels between offsite organizations and the utility. This is turn will require ongoing emergency planning to prepare for potential events.

Thus, not only will offsite emergency planning still be needed, but the required costs associated will continue to be incurred by local public agencies as a direct result of the utility’s storage of spent fuel on the plant site, creating a fiscal burden at a time when the economic impacts of plant closure will most likely cause a significant negative local economic impact. More information on the fiscal impact is commented on in EP-3, below.

EP-2: Rulemaking may involve a tiered approach for modifying EP requirements based on several factors, including, but not limited to, the source term after cessation of power operations, removal of fuel from the reactor vessel, elapsed time after permanent defueling, and type of long-term onsite fuel storage.

Input by the San Luis Obispo County Office of Emergency Services
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a. What tiers and associated EP requirements would be appropriate to consider for this approach?

b. What factors should be considered in establishing each tier?

c. What type of basis could be established to support each tier or factor?

d. Should the NRC consider an alternative to a tiered approach for modifying EP requirements? If so, provide a description of a proposed alternative.

Comments by Ron Alsop, San Luis Obispo County OES: An answer to a tiered approach for such modifications is an action that will require more formal study than a simple answer to this question. However, a concept may be to require a tiered response similar to actions taken with an operating reactor such as Emergency Action Levels and Emergency Classification Levels. One immediate thought is to add the level of Site Area Emergency in addition to UE and Alert related to spent fuel storage. Arguably, even General Emergency should be retained per our comments in EP-1 that the use of the wording "… beyond design-basis zirconium fire is highly unlikely …" infers that it is possible however remote the odds. Such a spent fuel pool fire could be a significant health and public safety risk beyond the site boundary.

EP-3: Several aspects of offsite EP, such as formal offsite radiological emergency plans, emergency planning zones, and alert and notification systems, may not be necessary at a decommissioning site when beyond-design-basis which could result in the need for offsite protective actions—are few in number and highly unlikely to occur.

a. Presently, licensees at decommissioning sites must maintain the following capabilities to initiate and implement emergency response actions: Classify and declare an emergency, assess releases of radioactive materials, notify licensee personnel and offsite authorities, take mitigation actions, and request offsite assistance if needed. What other aspects of onsite EP and response capabilities may be appropriate for licensees at decommissioning sites to maintain once the requirements to maintain formal offsite EP are discontinued?

b. To what extent would it be appropriate for licensees at decommissioning sites to arrange for offsite assistance to supplement onsite response capabilities? For example, licensees at decommissioning sites would maintain agreements with offsite authorities for fire, medical, and law enforcement support.

c. What corresponding changes to § 50.54(s)(2)(ii) and 50.54(s)(3) (about U.S. Federal Emergency Management Agency (FEMA)-identified offsite EP deficiencies and FEMA offsite EP findings, respectively) may be appropriate when offsite radiological emergency plans would no longer be required?

NRC Docket ID: NRC-2015-0070

Input by the San Luis Obispo County Office of Emergency Services
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Comments by Ron Alsop, San Luis Obispo County OES: The sentence that ends with the words "… are few in number and highly unlikely to occur" infers that it is recognized by regulators that events can occur. We strongly disagree that formal offsite radiological emergency plans, emergency planning zones, and alert and notification systems may not be necessary at a decommissioning site. Per our comments on EP-1 and EP-3, offsite radiological response plans would absolutely still be needed.

Not only would offsite plans be needed but in the case of California, local jurisdictions would be receiving an additional fiscal burden at the exact time they are being adversely impacted by economic losses and fiscal challenges due to an operating plant closure. In California, through State law the costs of nuclear power plant emergency planning and preparedness for local offsite jurisdictions and two State agencies is borne by the utilities operating the plants (California Emergency Services Act, Chapter 7 of Division 1 of Title 2 of the Government Code, Article 10, 8610.5). Once a plant ceases operating, the funding is no longer mandated. Diablo Canyon remains the only operating power plant in California.

Regardless, the unique NPP offsite emergency planning and preparedness will need to continue due to spent fuel storage on site.

EP-4: Under § 50.54(q), nuclear power reactor licensees are required to follow and maintain the effectiveness of emergency plans that meet the standards in § 50.47 and the requirements in appendix E to 10 CFR part 50. These licensees must submit to the NRC, for prior approval, changes that would reduce the effectiveness of their emergency plans.

a. Should § 50.54(q) be modified to recognize that nuclear power reactor licensees, once they certify under § 50.82, "Termination of License," to have permanently ceased operation and permanently removed fuel from the reactor vessel, would no longer be required to meet all standards in § 50.47 and all requirements in appendix E? If so, describe how.

b. Should nuclear power reactor licensees, once they certify under § 50.82 to have permanently ceased operation and permanently removed fuel from the reactor vessel, be allowed to make emergency plan changes based on § 50.59, "Changes, Tests, and Experiments," impacting EP related equipment directly associated with power operations? If so, describe how this might be addressed under § 50.54(q).

Comments by Ron Alsop, San Luis Obispo County OES: Continuing the requirement to have licensees submit to the NRC, for prior approval, changes that would reduce the effectiveness of their emergency plans seems to be a reasonable and prudent requirement related to spent fuel storage.

As for overall changes to emergency planning related to after plant closure, an in-depth study is needed to determine what changes should be made and what "after plant

closure" emergency planning requirements should be in place when operations have permanently ceased and fuel permanently removed from the reactor vessel.

EP-5: Under § 50.54(t), nuclear power reactor licensees are required to review all EP program elements every 12 months. Some EP program elements may not apply to permanently shut down and defueled sites; for example, the adequacy of interfaces with State and local government officials when offsite radiological emergency plans may no longer be required. Should § 50.54(t) be clarified to distinguish between EP program review requirements for operating versus permanently shut down and defueled sites? If so, describe how.

Comments by Ron Alsop, San Luis Obispo County OES: Licensees should continue to be required to maintain the effectiveness of emergency plans, although such modifications are details that will need study beyond the scope of a basic answer in the context of responding to this docket. However, as noted in earlier comments, interfaces with State and local officials are needed and must continue – they will have to continue. As noted earlier, offsite jurisdictions will need and be required to maintain unique, stand-alone NPP response emergency plans. The response effort cannot simply be rolled into an all hazard plan.

EP-6: The Emergency Response Data System (ERDS) transmits key operating plant data to the NRC during an emergency. Under § 50.72(a)(4), nuclear power reactor licensees are required to activate ERDS within 1 hour after declaring an emergency at an "Alert" or higher emergency classification level. Much of the plant data, and associated instrumentation for obtaining the data, would no longer be available or needed after a reactor is permanently shut down and defueled. Section VI.2 to appendix E of 10 CFR part 50 does not require a nuclear power facility that is shut down permanently or indefinitely to have ERDS. At what point(s) in the decommissioning process should ERDS activation, ERDS equipment, and the instrumentation for obtaining ERDS data, no longer be necessary?

Comments by Ron Alsop, San Luis Obispo County OES: Our only comment on EP-6 is that we would surmise spent fuel pool level instrumentation would be in place as long as fuel is in the pools.

EP-7: Under § 50.72(a)(1)(i), nuclear power reactor licensees are required to make an immediate notification to the NRC for the declaration of any of the emergency classes specified in the licensee's NRC-approved emergency plan. Notification of the lowest level of a declared emergency at a permanently shut down and defueled reactor facility may no longer need to be an immediate notification (*e.g.,* consider changing the immediate notification category for a Notification of Unusual Event emergency declaration to a 1-hour notification). What changes to § 50.72(a)(1)(i) should be considered for decommissioning sites?

Comments by Ron Alsop, San Luis Obispo County OES: No comment on EP-7.

NRC Docket ID: NRC-2015-0070

Input by the San Luis Obispo County Office of Emergency Services
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EP-8: Under § 50.72(b)(3)(xiii), nuclear power reactor licensees are required to make an 8-hour report of any event that results in a major loss of emergency assessment capability, offsite response capability, or offsite communications capability (*e.g.,* significant portion of control room indication, emergency notification system, or offsite notification system). Certain parts of this section may not apply to a permanently shut down and defueled site (*e.g.,* a major loss of offsite response capability once offsite radiological emergency plans would no longer be required). What changes to § 50.72(b)(3)(xiii) should be considered for decommissioning sites?

Comments by Ron Alsop, San Luis Obispo County OES: No comment on EP-8.

General comments by Ron Alsop, San Luis Obispo County OES: In addition to the above comments related to the context of spent fuel pool storage, a concern relating to dry cask storage is the increasing efforts of terrorists to obtain dangerous weapons. Another concern in our case is a beyond design basis earthquake damage to the dry cask storage area itself. We strongly request the need for onsite and offsite emergency planning needs for dry cask storage be included in updated emergency planning requirements.

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