



SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 2, 2015

COMMISSION VOTING RECORD

DECISION ITEM: SECY-14-0144

TITLE: REQUEST BY SOUTHERN CALIFORNIA EDISON FOR
EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING
REQUIREMENTS

The Commission acted on the subject paper as recorded in the Staff Requirements Memorandum (SRM) of March 2, 2015.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in black ink, appearing to read "Annette Vietti-Cook".

Annette L. Vietti-Cook
Secretary of the Commission

Enclosures:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Burns
Commissioner Svinicki
Commissioner Ostendorff
Commissioner Baran
OGC
EDO
PDR

VOTING SUMMARY - SECY-14-0144

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. BURNS	X				X	2/20/15
COMR. SVINICKI	X				X	2/13/15
COMR. OSTENDORFF	X				X	1/16/15
COMR. BARAN	X	X			X	2/10/15

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: Chairman Burns
SUBJECT: SECY-14-0144: Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements

Approved Disapproved Abstain
Not Participating

COMMENTS: Below Attached None



SIGNATURE

20 February 2015

DATE

Entered on "STARS" Yes No

**Chairman Burns' Comments on SECY-14-0144
Request by Southern California Edison for Exemptions
from Certain Emergency Planning Requirements**

I approve the staff's proposal to grant the exemptions from certain emergency planning requirements requested by Southern California Edison (SCE) for the San Onofre Nuclear Generating Station, Units 2 and 3. As with past exemption requests, the NRC staff has verified SCE's analyses and calculations supporting its assertion that granting the exemptions will be protective of public health and safety. The requested exemptions are consistent with previously granted exemptions and are commensurate with the risk associated with power reactors that have been permanently shut down.

I appreciate Commissioner Baran's suggestion of implementing a graded approach, as proposed by the staff but not approved by the Commission in 2000, to the relaxation of emergency preparedness requirements for decommissioning reactors. However, I do not want to get ahead of the staff's efforts on a generic decommissioning rulemaking. There is much to be learned from what has transpired since the staff's proposal in 2000, and we should allow the staff time to perform an up-to-date evaluation of the available information to inform a decision on appropriate generic requirements for plants that are under decommissioning. In the meantime, our current practice of approving exemptions based on site-specific evaluations, such as those performed by the staff in reviewing the SCE exemption request, is sound. As I have stated before, I am strongly supportive of a generic rulemaking. I am pleased that the staff is proceeding with such a rulemaking while maintaining its focus on licensing actions for the current plants transitioning to decommissioning.



Stephen G. Burns
20 February 2015

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER SVINICKI
SUBJECT: SECY-14-0144: Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached XX None ___



SIGNATURE

02/13/15


DATE

Entered on "STARS" Yes No _____

**Commissioner Svinicki's Comments on SECY-14-0144
Request by Southern California Edison for Exemptions from
Certain Emergency Planning Requirements**

I approve the staff's recommendation to grant Southern California Edison's (SCE's) request for exemptions from certain requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50, as stipulated by the staff in the paper. The staff has determined that these exemptions, if granted, will result in a level of emergency planning and preparedness at the San Onofre Nuclear Generating Station (SONGS) that is commensurate with the risk associated with the facility's hazards. The NRC has determined that pursuant to 10 CFR 50.12, "Specific Exemptions," the exemptions are authorized by law, will not present an undue risk to the public health and safety, will be consistent with the common defense and security, and special circumstances are present. The NRC staff concludes that granting the exemption request, as provided in the enclosure to the paper, will provide: (1) an adequate basis for an acceptable state of emergency preparedness and (2) in conjunction with arrangements made with offsite response agencies, reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at SONGS.

I concur in the staff's view that the requested exemptions are consistent with exemptions recently granted for Kewaunee Power Station and commensurate with the risk associated with the facility. I do not view events or conditions at Crystal River Unit 3 as providing an apt comparison for regulatory purposes, as the protracted licensee review of the delamination event and analysis of its potential repair resulted in a multiyear period of shutdown prior to the licensee decision to proceed to a final decision on a permanent cessation of operations. This prolonged cooling period was an outgrowth of business decision making at Crystal River and has no bearing on the staff's risk analysis here. Finally, I observe that the staff's draft tiered approach to emergency planning for decommissioning plants -- abandoned when the decommissioning rulemaking itself was aborted over ten years ago -- was never promulgated through the rulemaking process nor adopted as Commission or agency policy and is, therefore, not an operative basis for denying the pending exemption request, in whole or in part.



Kristine L. Svinicki 02/13/15

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER OSTENDORFF
SUBJECT: SECY-14-0144: Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below XX Attached ___ None ___

I commend the staff for its thorough technical analysis of the Emergency Planning (EP) exemptions requested by Southern California Edison. As stated in the SECY paper, with the significant reduction in radiological risk for a power reactor undergoing decommissioning, the NRC has historically approved exemptions to EP and security requirements based on site-specific evaluations and the objectives of the regulations. The Commission recently approved Duke Energy Florida's EP exemption request for Crystal River in SRM-SECY-14-0118. For the same reasons, and based on the staff's thorough analysis of EP at San Onofre units 2 and 3, I approve the staff's recommendation to grant SCE's request for exemptions from certain EP requirements in 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50.

While I continue to support issuance of appropriately justified plant-specific exemptions for plants transitioning to decommissioning, I look forward to the staff's upcoming paper with a plan to address these matters in a more generic and holistic fashion.



SIGNATURE

1/16/15

DATE

Entered on "STARS" Yes ___ No ___

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: Commissioner Baran
SUBJECT: SECY-14-0144: Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements

Approved XX Disapproved XX Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached XX None ___

Jeff Baran
SIGNATURE

2/10/15
DATE

Entered on "STARS" Yes No ___

Commissioner Baran's Comments on SECY-14-0144, "Request by Southern California Edison for Exemptions from Certain Emergency Planning Requirements"

Introduction

As I discussed in my vote on the exemption requests for Crystal River Unit 3 (SECY-14-0118), the risk profile of a permanently shut down reactor entering decommissioning is very different than that of an operating reactor. However, NRC currently does not have regulations specifically tailored for permanently shut down reactors. Because of this gap in NRC's regulatory framework, licensees with reactors transitioning to decommissioning routinely have sought exemptions to many of the regulations applicable to operating reactors. In the Staff Requirements Memorandum (SRM) for SECY-14-0118, the Commission directed the NRC staff to proceed with rulemaking on decommissioning. Until this rulemaking is completed, the Commission is reviewing exemption requests from certain emergency planning requirements for permanently shut down reactors on a case-by-case basis.

San Onofre Nuclear Generating Station (SONGS) Exemption Request

Southern California Edison seeks exemptions from a range of NRC emergency preparedness requirements at SONGS Units 2 and 3, which permanently shut down in January 2012.¹ The NRC staff reviewed Southern California Edison's request and recommended that the exemptions be granted because, consistent with prior exemption requests:

the radiological consequences of design-basis accidents (DBAs) would not exceed the limits of the U.S. Environmental Protection Agency's (EPA) Protective Action Guides (PAGs) at the exclusion area boundary and that the spent fuel stored in the spent fuel pool (SFP) would not reach the zirconium ignition temperature in fewer than 10 hours based on analysis that assumes no water or air cooling of the fuel. The staff concluded that if 10 hours were available to initiate mitigative actions or, if needed, to implement offsite protective actions using a comprehensive emergency management plan (CEMP), formal offsite radiological emergency plans are not necessary for permanently defueled nuclear power reactor licensees.

According to the staff paper, the main risks at a decommissioning power reactor are a large earthquake and cask-drop events. These events potentially could initiate a zirconium fire in the spent fuel pool if they result in a substantial loss of water in the pool. The staff explains that this is "the only postulated scenario at a decommissioning power reactor that, while highly unlikely, might result in a significant offsite release."

Whether to grant the exemption requests as the NRC staff recommends is a significant decision. After careful review of the specific circumstances of the two units at SONGS, I approve the staff recommendation in part and disapprove it in part.

A major difference between the exemption requests for the SONGS facility and those for Crystal River Unit 3 is the time that has passed from the permanent shutdown of the reactor and the resulting time for spent fuel decay. In the case of Crystal River, the licensee requested and was granted exemptions from the operating reactor requirements more than five years after shutdown. In contrast, Southern California Edison is seeking similar exemptions for SONGS

¹ SONGS Unit 2 shut down on January 9, 2012, and SONGS Unit 3 shut down on January 31, 2012.

that would take effect only three years after shutdown. Another difference is in the seismic characteristics of the sites, which affects the likelihood of a seismic event occurring. While the SONGS facility, including the spent fuel pool, was designed and built to withstand the maximum credible earthquake for its location, the facility is located in a more seismically active region and thus more likely to experience large earthquakes. In my view, while some of the requested exemptions for SONGS are appropriate once the spent fuel has decayed for three years, others are not. In evaluating when certain exemptions from emergency planning regulatory requirements are appropriate, the prior work of the NRC staff is instructive.

In the late 1990's, the Commission directed the staff to develop a single, integrated decommissioning rulemaking. This effort was halted in the wake of the September 11, 2001, attacks when other rulemaking initiatives became a higher priority. Before the effort was suspended, the NRC staff presented a rulemaking plan to the Commission that recommended a tiered approach to emergency planning for decommissioning plants.² The staff's recommendation in 2000, which was a change in approach from prior exemption requests, was "[b]ased on the desire to maintain safety, reduce unnecessary regulatory burden, increase public confidence (by establishing regulatory uniformity and predictability), and improve efficiency and effectiveness in the regulatory process for decommissioning nuclear plants."³

This tiered approach defined four periods of operation after a reactor permanently shuts down and described the appropriate emergency planning requirements for each period. For the first year after shutdown, the plant would be required to meet the emergency planning requirements for operating plants and no emergency planning exemptions would be issued.⁴ Between one year after shutdown and five years of post-shutdown spent fuel decay, emergency planning requirements would be similar to those for a monitored retrievable storage installation except that licensees would still be required to classify events up to a General Emergency level and make protective action recommendations to offsite officials. In this phase, detailed offsite radiological emergency response plans applicable to operating reactors would no longer be required, but Federal Emergency Management Agency (FEMA) approved all-hazards emergency plans would remain in effect. After five years of spent fuel decay, all fuel is removed from the pool, or a licensee has demonstrated through conservative adiabatic analysis that the decay heat level of spent fuel in the pool is low enough that the fuel would not be susceptible to a zirconium fire, emergency planning requirements would be reduced and similar to those for an independent spent fuel storage installation. Finally, once all spent fuel was removed from the site, no emergency planning would be required.

This thoughtful approach recommended by the NRC staff was risk-informed and performance-based. In the absence of a completed decommissioning rulemaking, I believe it provides a useful framework for evaluating pending emergency planning exemption requests.

Applying this framework to the SONGS exemption request provides for a gradual reduction in emergency planning requirements as the spent fuel cools and the risks diminish over time. SONGS Units 2 and 3 were permanently shutdown in January 2012. Currently, after three years of natural decay, the likelihood of a zirconium fire and subsequent offsite release is greatly reduced. According to the NRC staff's analysis, in the worst case scenario of no water

² SECY-00-145, "Integrated Rulemaking Plan For Nuclear Power Plant Decommissioning," June 2000.

³ SECY-97-120, SECY-98-075, SECY-98-258, SECY-99-168, and SECY-00-145.

⁴ The one-year timeframe was the approximate amount of time that would need to pass to ensure that, in the worst case scenario of no water or air cooling of the spent fuel, it would take ten hours for the temperature of the fuel rods to increase enough for a zirconium fire to start.

or air cooling of the spent fuel, it would take approximately twenty hours for the temperature of the fuel rods to increase enough for a zirconium fire to start. Of course, it likely would have taken several additional hours or even days for the spent fuel pool to drain enough to trigger this scenario in which there was no water cooling of the spent fuel. This would provide a significant amount of time for the licensee to take actions using the post-9/11 spent fuel pool mitigating strategies, such as using fire hoses and portable pumps to inject water into the spent fuel pool to restore cooling.⁵ There would also be a significant amount of time for offsite response agencies to take protective actions pursuant to their FEMA-approved comprehensive emergency management plan.

For the period beginning in February 2015 and continuing until January 2017 (or until all spent fuel has been removed from the spent fuel pool, whichever is earlier), I disapprove those requested emergency planning exemptions that are inconsistent with the tiered approach described in the June 2000 SECY paper. During this period, the licensee would not be required to maintain a detailed offsite radiological emergency response plan, but would continue to be subject to the requirements to classify events up to a General Emergency level, to make protective action recommendations to offsite officials, and to maintain the post-9/11 spent fuel pool mitigating strategies. In addition, I would require Southern California Edison to continue to maintain an emergency public notification system and the capability to notify responsible state and local officials within 15 minutes of declaring an emergency.

After five years of spent fuel decay in the pool, a zirconium fire should no longer be reasonably conceivable. Beginning in January 2017 (or the date on which all spent fuel has been removed from the spent fuel pool, whichever is earlier), I approve the requested emergency planning exemptions. This would result in emergency planning requirements similar to those for an independent spent fuel storage installation. The license will continue to require the post-9/11 spent fuel pool mitigating strategies as long as fuel remains in the pool.

Consistent with the tiered approach, I also approve the requested exemptions for SONGS Units 2 and 3 in the event that Southern California Edison demonstrates to the NRC staff's satisfaction through a conservative analysis that the decay heat level of the spent fuel is so low that the fuel is no longer susceptible to a zirconium fire.

I look forward to the staff's work on a fresh assessment of decommissioning issues through the comprehensive rulemaking directed by the Commission in SRM-SECY-14-0118.

⁵ These post-9/11 measures require that the licensee have the equipment and staff available to take appropriate mitigating actions in the event of a beyond design basis occurrence. The measures are already required by the license as long as spent fuel remains in the pool.