## Rulemaking1CEm Resource

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**Sent:** Friday, November 15, 2013 11:19 AM
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**Subject:** PR-51 Waste Confidence
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**DOCKETED BY USNRC—OFFICE OF THE SECRETARY**
**SECY-067**

**PR#:** PR-51
**FRN#:** 78FR56775
**NRC DOCKET#:** NRC-2012-0246
**SECY DOCKET DATE: 11/15/13**
**TITLE:** Waste Confidence—Continued Storage of Spent Nuclear Fuel
**COMMENT#: 00199**

**Hearing Identifier:** Secy_RuleMaking_comments_Public
**Email Number:** 211

**Mail Envelope Properties** (377CB97DD54F0F4FAAC7E9FD88BCA6D00127B39A0675)

**Subject:** PR-51 Waste Confidence
**Sent Date:** 11/15/2013 11:19:26 AM
**Received Date:** 11/15/2013 11:19:29 AM
**From:** RulemakingComments Resource

**Created By:** RulemakingComments.Resource@nrc.gov

**Recipients:**
"RulemakingComments Resource" <RulemakingComments.Resource@nrc.gov>
Tracking Status: None
"Rulemaking1CEm Resource" <Rulemaking1CEm.Resource@nrc.gov>
Tracking Status: None

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**Options**
**Priority:** Standard
**Return Notification:** No
**Reply Requested:** No
**Sensitivity:** Normal
**Expiration Date:**
**Recipients Received:**

# PUBLIC SUBMISSION

**As of:** November 15, 2013
**Received:** November 15, 2013
**Status:** Pending_Post
**Tracking No.** 1jx-88qt-c9uq
**Comments Due:** December 20, 2013
**Submission Type:** Web

**Docket:** NRC-2012-0246
Consideration of Environmental Impacts on Temporary Storage of Spent Fuel After Cessation of Reactor Operation

**Comment On:** NRC-2012-0246-0361
Waste Confidence - Continued Storage of Spent Nuclear Fuel

**Document:** NRC-2012-0246-DRAFT-0703
Comment on FR Doc # 2013-21708

## Submitter Information

**Name:** Anonymous Anonymous

## General Comment

Docket ID NRC-2012-0246 Comment

In the 1984 Decision, the Commission made five findings. However, significant changes have been made to the findings but the Commission failed to provide convincing explanations. For instance, "[t]he Commission finds reasonable assurance that one or more mined geologic repositories for commercial high-level radioactive waste and spent nuclear fuel will be available by the years 2007-2009 …" was changed into "[t]he Commission finds reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century…," and, again, was revised as "[t]he Commission finds reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent nuclear fuel generated by any reactor when necessary." However, the Commission admitted in the discussion section that a national consensus for the site of a repository will not likely to be reached. The reality is there will not be one in the foreseeable future. Moreover, the time length of continued spent nuclear fuel storage was revised many times without sufficient support. Originally, the Commission stated, "… spent nuclear fuel generated in any reactor can be safely stored at least 30 years beyond the expiration of that reactor's operating license." Later it was changed into "…at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor;" the added brackets indicate another 20 or 40 years. Finally it was replaced by "… at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor;" the added brackets indicate an additional 30 or 60 years for Generation III reactors. In summary, the time scale has been changed from about 30 years to up to 300 years. The Commission should provide sufficient evidence to support why we can extend the continued storage period up to 300 years, given that the nuclear waste disposal procedure has not changed much.

The DGEIS only analyzed reasonably-foreseeable events, such as design-basis and severe accident, and did not

include worst-case scenarios. However, as the development of nuclear technology, the safety standards of nuclear power plants have been upgraded. As we can see from the IAEA Specific Safety Requirements [1], Design Extension Conditions have been required to be considered. Therefore, it is necessary to include certain ensemble of worst-case scenarios.

In addition, by asserting that the environment around spent nuclear fuel storage facilities is well understood and can be reasonably predicted, the Waste Confidence only provides generic determination on continued storage of spent nuclear fuel, instead of complex site-specific evaluations. The argument is merely based on excessive confidence in the U.S. operation experience of nuclear power plants and that the environment impacts are sufficiently understood. When it comes to safety, we should take a more skeptic attitude. In order to refine the determination of continued storage, the Commission should adopt site-specific methods as a supplement to the generic evaluation. At least some sites, such as research reactors, MOX fueled reactors, and high-temperature gas-cooled reactor (HTGR) should be evaluated using site-specific method.

References

[1] Specific Safety Requirements. No. SSR-2/1 & SSR-2/2, IAEA Safety Standards, 2012.

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## Attachments

Docket ID NRC-2012-0246_comment

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References

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