



NUCLEAR ENERGY INSTITUTE

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March 17, 2005

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington DC 20555

Mr. Jesse L. Funches
Chief Financial Officer
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: Submittal and Request for Waiver of NRC Review Fees for Topical Report, "Licensing Criteria for Fuel Burnup Extension Beyond 62 GWd/tU – Industry Guide" – EPRI 1008108 (October 2004)

Dear Sirs:

This letter is being submitted to the U.S. Nuclear Regulatory Commission (NRC) to accomplish two purposes:

1. Provide for NRC review a topical report of high importance to U.S. nuclear utilities per 10CFR50.4 that will improve fuel safety and regulatory effectiveness.
2. Request waiver of NRC review fees for this document per 10CFR170.11.

The attached report has been developed to provide a consistent approach to the preparation of licensing applications for extending the burnup of LWR fuel on an industry-wide basis. This "Industry Guide" will facilitate NRC review and licensing of individual vendor-specific fuel burnup extension applications by identifying and pre-addressing criteria that are generic to all applications. It will streamline both the industry application process and the NRC staff review of these licensing applications. The report has been developed by the industry's Fuel Reliability Program (FRP), with direct participation of both licensees and fuel vendors. The proprietary nature of the attached report is supported by the signed affidavit in Enclosure 2. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity, the consideration listed in paragraph 1 of CFR 2.790 (a)(4) of the Commission's

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regulations. Accordingly, we respectfully request that the report be withheld from public disclosure.

We request the report be reviewed and approved on a priority basis, given the value of this report to licensees, NRC staff reviewers, and fuel manufacturers. We believe it clearly provides an acceptable means of satisfying the fuel-related criteria in Section 4.2 of NUREG-0800, Standard Review Plan (SRP), and complying with the General Design Criteria specified in 10CFR50 Appendix A. As discussed during our February 9, 2005, pre-submittal meeting, NRC may choose, in addition to review and approval actions taken on the Industry Guide, to update portions of the SRP based on its review.

Background

In the past, different approaches have been used by light water reactor fuel vendors to license burnup limits for their fuel. This has presented a considerable challenge for regulatory agencies and for confirmatory research and development programs needed to demonstrate that the various fuel designs will perform adequately out to the targeted burnup limits. In response to reducing budgets, as well as in response to difficulties associated with reviewing applications that use completely different approaches by each fuel vendor to licensing extended burnup limits, the NRC announced in 1997 that it would no longer approve individual requests on a case-by-case basis but that they will hold back further approvals of requests for extended burnup limits until the industry develops a common approach to licensing burnup extensions.

Specifically, during a meeting with industry on these issues held on November 20, 1997, Mr. Timothy Collins stated that the industry needed to provide a generic guide for NRC review and endorsement for use in burnup extension licensing applications. This report was produced in direct response to that request. The guidance received at that and subsequent meetings in 1998 and 1999 was that the industry should come up with a consistent basis that could be reviewed and approved by the NRC once, and that could subsequently be used by individual fuel vendors as a principal reference. This would simplify the NRC reviewers' task considerably since, once the Industry Guide is approved, subsequent vendor and/or licensee applications would only need to address any departures (if any) beyond the areas covered in the "Industry Guide".

Industry made a formal presentation to NRC on January 13, 1999, on progress toward a consistent licensing approach. A preliminary draft version of this document was presented to NRR for staff review by NEI and EPRI at a meeting on March 30, 2000, (see NRC meeting summary dated April 6, 2000). NRR comments on that meeting, including general comments on the approach taken in the draft, were provided in a May 3, 2000, letter from Mr. Jared S. Wermiel. These comments were addressed in a subsequent version (Rev. 5), which was forwarded by letter dated October 10, 2000, to NRC (Mr. Gary M. Holahan) from NEI (Mr. David J. Modeen), and presented to NRR at a meeting later that month. (This NEI letter to NRC requested a waiver of review fees, with rationale that remains relevant to this submittal, as discussed below.) At each of these meetings, the NRC staff continued to emphasize the need for industry to develop a consistent and systematic approach (criteria and justification) for licensing fuel burnup extensions. NRC staff also continued to express its general agreement with the industry approach to addressing this staff request.

The industry proceeded throughout 2001-2004 to fully develop this guide, including technical bases, criteria, etc., and to obtain industry review and consensus support for the overall approach. Original plans to include detailed guidance on Loss of Coolant Accident (LOCA) and Reactivity Insertion Accident (RIA) criteria needed to be deferred because of data needs, so these two areas in the Industry Guide are referred to two separate EPRI topical reports (one currently under development, the other currently undergoing staff review) which provide the details in these two areas.

The final Industry Guide parallels NRC's Standard Review Plan Section 4.2 for ease of use and review by industry and NRC staff respectively. It identifies fuel design limits that will be impacted by burnup and the data that will need to be contained in future license amendment requests for burnup extension.

Fee Waiver Justification

This guide should qualify for a fee waiver because it fundamentally simplifies NRC reviews by providing a common (pre-approved) basis for industry-wide use, and because NRC specifically requested industry to undertake its development. This document has been prepared in response to NRC's repeated requests, starting in November 1997, that the industry develop a common approach to the licensing burnup extensions.

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In a letter dated January 3, 2005, the NRC approved a fee waiver for TR-1002865, "Topical Report on Reactivity Initiated Accidents: Bases for RIA Fuel Rod Failures and Core Coolability Criteria." This report is closely coupled to the Industry Guide attached here for staff review, with identical historical foundations in terms of NRC staff requests and similar benefits to NRC staff in terms of simplifying the review process. The NRC basis for the fee waiver, which applies directly to this request, is noted below:

"The specific criteria were developed by EPRI as part of an effort to extend fuel rod average burnup levels beyond the current limit of 62 gigawatt days per metric ton of uranium (GWD/MTU). The NRC's Office of Nuclear Reactor Regulation (NRR) plans to use this report to develop improved RIA criteria for current fuel burnup levels in addition to burnup levels beyond 62 GWD/MTU. Therefore, review of the reports supports the NRC's generic regulatory improvement efforts and may result in modification of the "NUREG-0800 – Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants." This is consistent with the fee waiver exemption requirements noted in 10CFR 170.11(a)(1)(iii)."

The Background section above discusses a meeting held on March 30, 2000, and a meeting summary prepared by NRC staff of that meeting, dated April 6, 2000. That meeting summary presented the results of a discussion of the appropriateness of a waiver of review fees for this Industry Guide. The NRC position, as stated in the 30 March 2000 meeting, is quoted below:

"On the basis of information provided by NEI, the staff indicated that the review of these documents would be exempt from NRC fees because the NEI effort involves the development of generic guidance for industry-wide use"

In addition to responding to a specific NRC request and supporting NRC's generic regulatory improvements (two of the exemption criteria in 10CFR170.11(a), we further believe that NRC review of this industry guide is responsive to the following NRC goals:

Safety: Ensure protection of public health and safety and the environment. Safety is maintained through the establishment of a clear, technically based tie between licensing criteria and the applicable regulatory requirements to be met by fuel licensed for operation beyond 62 GWd/tU.

Openness: Ensure openness in our regulatory process. Openness will be maintained through the development, review and subsequent use of a more scrutable process that clearly identifies the manner and basis for demonstration that reactor fuel can be operated at higher fuel burnup levels.

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Effectiveness: Ensure that NRC actions are effective, efficient, realistic, and timely.

Effectiveness of regulation will be improved. The establishment of single comprehensive set of licensing criteria that can be used by licensees, fuel vendors and NRC will serve to promote increased review timeliness and efficiency, as well as reduced NRC resources required for reviews of vendor and plant-specific applications. Further, these criteria embody the Commission's desire for increased realism with appropriate conservatism. They will enable a reduction in overall costs to industry through an upfront identification of the criteria against which new fuel applications will be reviewed. This will enable licensees and fuel vendors to more easily factor licensing and regulatory interactions into planning efforts and avoid costly surprises during the review process.

We appreciate your attention to this request. Please see attached affidavit for proprietary treatment of this report. If you have any questions regarding this request, please contact me at 202.739.8080 or email am@nei.org.

Sincerely,



Alexander Marion

Enclosure

c: Mr. Thomas Alexion, NRC-NRR

February 8, 2005

Document Control Desk
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Topical Report: EPRI 1008108 "Licensing Criteria for Fuel Burnup Extension Beyond 62 GWd/tU – Industry Guide"

Gentlemen:

This is a request under 10CFR2.790(a)(4) that the NRC withhold from public disclosure the information identified in the enclosed affidavit consisting of EPRI owned Proprietary Information identified above (the "Topical Report"). Copies Topical Report and the affidavit in support of this request are enclosed.

EPRI desires to disclose, in confidence, the Topical Report for informational purposes to assist the NRC. The Topical Report is not to be divulged to anyone outside of the NRC or to any of its contractors, nor shall any copies be made of the Topical Report provided herein. EPRI welcomes any discussions and/or questions relating to the Information enclosed by the NRC.

If you have any questions about the legal aspects of this request for withholding, please do not hesitate to contact me at (704) 547-6173. Questions on the content of the Topical Report should be directed to Odelli Ozer of EPRI at (650) 855-2089.

Sincerely,



David J. Modeen
Vice President & Chief Nuclear Officer

cc: Rosa Yang
Odelli Ozer

AFFIDAVIT

RE: EPRI Topical Report: EPRI 1008108 "Licensing Criteria for Fuel Burnup Extension Beyond 62 GWd/tU – Industry Guide"

I, DAVID J. MODEEN, being duly sworn, depose and state as follows:

I am a Vice President at the Electric Power Research Institute ("EPRI") and I have been specifically delegated responsibility for the topical report listed above that is sought under this affidavit to be withheld (the "Topical Report") and authorized to apply for its withholding on behalf of EPRI. This affidavit is submitted to the Nuclear Regulatory Commission ("NRC") pursuant to 10 CFR 2.790 (a)(4) based on the fact that the Topical Report consists of trade secrets of EPRI and that the NRC will receive the Topical Report from EPRI under privilege and in confidence.

The basis for which the Topical Report should be withheld from the public is set forth below:

- (i) The Topical Report has been held in confidence by EPRI, its owner. All those accepting copies of the Topical Report must agree to preserve the confidentiality of Topical Report.
- (ii) Topical Report is of a type customarily held in confidence by EPRI and there is a rational basis therefore. The Topical Report is of a type that EPRI considers to be trade secret and is held in confidence by EPRI because to disclose it would prevent EPRI from licensing the Topical Report at fees, which would allow EPRI to recover its investment. If consultants and other businesses providing services in the electric/nuclear power industry were able to publicly obtain the Topical Report, they would be able to use it commercially for profit and avoid spending the large amount of money that EPRI was required to spend in preparation of the Topical Report. The rational basis that EPRI has for classifying Topical Report as a trade secret is the Uniform Trade Secrets Act which California adopted in 1984 and which has been adopted by over twenty states. The Uniform Trade Secrets Act defines a "trade secret" as follows:

"Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that:

- (1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and
- (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

- (iii) The Topical Report will be transmitted to the NRC in confidence.
- (iv) The Topical Report is not available in public sources. EPRI developed the Topical Report only after making a determination that the Topical Report was not available from public sources. It required a large expenditure of dollars for EPRI to develop the Topical Report. In addition, EPRI was required to use a large amount of time of EPRI employees. The money spent, plus the value of EPRI's staff time in preparing the Topical Report, show that the Topical Report is highly valuable to EPRI. Finally, the Topical Report was developed only after a long period of effort of several years.
- (v) A public disclosure of the Topical Report would be highly likely to cause substantial harm to EPRI's competitive position and the ability of EPRI to license the Topical Report both domestically and internationally. The Topical Report can be properly acquired or duplicated by others only with an equivalent investment of time and effort.

I have read the foregoing and the matters stated therein are true and correct to the best of my knowledge, information and belief. I make this affidavit under penalty of perjury under the laws of the United States of America and under the laws of the State of California.

Executed at 3412 Hillview Avenue, Palo Alto, being the premises and place of business of the Electric Power Research Institute:

February 7, 2005



David J. Modeen

Subscribed and sworn before me this day:

February ⁷/₇, 2005



_____, Notary Public

