

February 7, 2011

MEMORANDUM TO: Chairman Jaczko  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff

FROM: J. E. Dyer */RA/*  
Chief Financial Officer

SUBJECT: RESOLUTION OF ISSUE REGARDING VARIABLE ANNUAL  
FEE STRUCTURE FOR SMALL AND MEDIUM-SIZED NUCLEAR  
POWER REACTORS

The purpose of this memorandum is to inform the Commission of the staff's planned approach for developing a variable annual fee structure for small and medium sized reactors (SMRs) in response to the Staff Requirements Memorandum (SRM) to SECY-09-0137, "Next Steps for Advance Notice of Proposed Rulemaking on Variable Annual Fee Structure for Power Reactors," dated October 13, 2009. In SRM SECY-09-0137, the Commission approved the staff's proposal to form a working group to analyze the various methodologies identified in the responses to an Advanced Notice of Proposed Rulemaking (ANPR) for a variable annual fee structure for power reactors published on March 25, 2009, (74 FR 12735).

The staff initiated this ANPR to review whether the existing single annual fee structure for power reactors was appropriate in light of the potential for future licensing of SMRs. The Omnibus Budget Reconciliation Act of 1990 (OBRA-90), as amended, requires that the NRC recover approximately 90 percent of its budget authority in the year appropriated by charging fees to its licensees. The NRC assesses two types of fees to meet these requirements. First, 10 CFR 170 user fees under the authority of the Independent Offices Appropriation Act of 1952 (IOAA) (31 U.S.C. 9701) recover the budget for providing services to identifiable applicants and licensees. Second, annual fees, in accordance to 10 CFR Part 171 and under the authority of OBRA-90, recover the necessary NRC regulatory budget not otherwise collected under 10 CFR 170. Budgeted costs covered by reactor annual fees include NRC research, infrastructure development, deferred work and fee-exempt review activities for the power reactor program. The single annual fee for all power reactors was identified by some in the industry as a barrier for SMR commercialization in the United States.

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The staff's planned approach for creating a variable annual fee structure for power reactors is consistent with the Agency decisions made when it established an exemption for small reactors at the time annual fees were first introduced. The Agency stated "... it is not the intent of the Commission to promulgate a fee schedule that would have the effect of imposing fees at such a level that owners of the handful of small, older reactors would find it in their best economic interest to shut their reactors down." See 51 Fed. Reg. 33227 (September 18, 1986). The Commission subsequently removed the guidance for annual fee exemptions in 1995 after all the older small reactors had ceased to operate. In the decisions leading up to issuance of the ANPR, the staff concluded that revising NRC regulations to allow exemptions for SMRs would not provide a reasonable degree of predictability for their operating costs.

A working group comprised of staff from the NRC Office of New Reactors (NRO) and Office of the Chief Financial Officer (OCFO) was formed to address SMR annual fees issues. The staff reviewed the comments (ML092660166 and ML09260382) received in response to the ANPR as well as information developed during four public meetings conducted in 2010. Additionally, the American Nuclear Society (ANS) Task Force on Small and Medium-Sized Reactors prepared a position paper on NRC Annual Fees for Licensees (ML110040946) and the Nuclear Energy Institute (NEI) Small Modular Reactor Licensing Task Force submitted a position paper on NRC Annual Fee Assessment for Small Reactors (ML103070100).

The working group distilled the suggested methodologies and comments into four alternatives to be considered for future rulemaking. These alternatives were then considered in light of their impact on the reactor licensees, alignment with the NRC Principles of Good Regulation (Independence, Openness, Efficiency, Clarity and Reliability) and compliance with OBRA-90 requirements. Ultimately, the NRC must meet the statutory standards for annual fees set out in Section 6101, "NRC User Fees and Annual Charges," of OBRA-90, as amended. That section states, in pertinent, part:

(3) AMOUNT PER LICENSEE—The Commission shall establish, by rule, a schedule of charges fairly and equitably allocating the aggregate amount of charges described in paragraph (2) among licensees. To the maximum extent practicable, the charges shall have a reasonable relationship to the cost of providing regulatory services and may be based on the allocation of the Commission's resources among licensees or classes of licensees.

The following is a description of the alternatives and a summary of the working group's assessment of their suitability for adjusting 10 CFR 171 Annual Fees for SMRs:

1. Continue the existing annual fee structure, but define a modular site of up to 12 reactors or 4000 MWT licensed power for annual fee purposes.

This approach was found to be consistent with the Price-Anderson Act treatment of modular sites for nuclear liability insurance and provides the same reasonable relationship to regulatory costs as the existing annual fee methodology. The staff determined that this approach would also be efficient to implement and provide a clear

and reliable method of distributing NRC power reactor generic costs to the licensees. Although this alternative would provide some annual fee relief to a multi-reactor modular site, it would still present a barrier to the initial SMRs at a planned modular site or a single SMR site.

2. Create fee classes for groups of reactor licensees and distribute the annual fee costs attributed to each fee class equally among the licensees in that class.

In principle this approach provides the best alignment with the requirements of OBRA-90 to have a reasonable relationship with the cost of providing regulatory services. Unfortunately, the generic costs recovered through annual fees do not always align with a particular class of licensees or can be appropriately distributed among licensees. As NRC determined in 1995, when it previously allocated annual fees to different licensee classes, this approach can result in complex and inefficient analyses that do not provide a clear or reliable determination of licensee annual fees. Additionally, the staff could not determine whether this approach would address the issue of NRC annual fees as a barrier to SMR commercial use.

3. Calculate the annual fee for each license power reactor as a function of the potential risk to public health and safety using a risk matrix.

This approach would appear to promote safety through assigning lower annual fees to the safer reactor licensees. It would also distribute regulatory costs of generic activities in a reasonable relationship based on safety of the site. However, the approach introduces a new level of complexity with the use of a risk matrix to establish the annual fees. The risk matrix could consider factors such as source term, baseline core damage frequency and large early release frequency as components of the matrix. The staff concluded that this approach would be costly to implement and maintain as PRA technology evolves. Additionally, the uncertainty of existing PRA modeling capabilities might not produce adequate differentiation between specific licensees or provide appropriate consideration of SMRs.

4. Calculate the annual fee for each licensed power reactor as a function of its licensed thermal power rating (MWt).

The staff initially considered applying this approach to all reactor licenses by establishing a simple annual fee rate of dollars per licensed MWt. However, ANPR comments from the industry identified significant concerns with this approach. Subsequently, modifying this initial concept became a focus of the public meeting discussions and position papers from NEI and ANS. As currently planned, this approach would apply only to new reactors and would determine annual fees differently for three ranges of licensed reactor size (MWt). There would be a minimum reactor fee for all reactors with less than or equal to 250 MWt licensed power; a variable scale region where the annual fee would be based linearly on licensed thermal power greater than 250 MWt, but less than or equal to 2000 MWt, and a maximum reactor annual fee for reactors licensed above 2000 MWt.

The approach would also define a multi-module nuclear plant that would receive single site treatment for licensed reactor modules up to 4000 MWt. This approach was conveyed by the NEI position paper (Enclosure 1) which uses FY 2010 annual fees to demonstrate its applicability. The staff would adjust the minimum, variable scale and maximum fee region amounts to be recovered each year, but keep the relative distribution as suggested by the industry through a normalization process. The staff concluded that this approach provided a clear, reliable and efficient method of allocating NRC generic expenses to its reactor licensees. By linking the annual fees to the licensed thermal power level, the costs would be allocated based on a benefit received from the NRC license. The staff concluded that this met the OBRA-90 requirement for a reasonable relationship to the cost of providing the regulatory services.

Based on the assessment of the alternatives, the staff intends to proceed with rulemaking to implement Alternative 4 as described in this memo. Commission approval for this approach will be requested during the process for developing the proposed rule. Because this proposed approach would not impact the annual fee methodology for existing reactors, the staff plans to proceed with developing the proposed rule separate from the routine annual fee rulemaking updates of 10 CFR 170 and 10 CFR 171. Since the annual fees for the new SMRs would not go into effect until an operating license is issued under the 10 CFR 50 licensing process or until fuel load is authorized under the 10 CFR 52 licensing process, the staff believes that there is considerable time to develop the final 10 CFR 171 rule change for annual fees. As such, the staff will schedule the rulemaking and resources through the FY 2013 budget development process.

Enclosure:

NEI Paper - *NRC Annual Fee Assessment for Small Reactors*

cc: SECY  
EDO  
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OCA  
OPA

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Enclosure:  
 NEI Paper - *NRC Annual Fee Assessment for Small Reactors*

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 EDO  
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 OCA  
 OPA

\*Previous concurrence  
 ADAMS yes – public in ten days  
 DOCUMENT NAME: C:\Documents and Settings\SMH\Desktop\JED Resolution of Issue.docx

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