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[NRC–2008–0664]

RIN 3150–AI54

Variable Annual Fee Structure for Small Modular Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its licensing, inspection, and annual fee regulations to establish a variable annual fee structure for light-water small modular reactors (SMR). Under the variable annual fee structure, an SMR's annual fee would be calculated as a function of its licensed thermal power rating. This fee methodology complies with the Omnibus Budget Reconciliation Act of 1990, as amended (OBRA–90).

DATES: This final rule is effective June 23, 2016.

ADDRESSES: Please refer to Docket ID NRC–2008–0664 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

• *Federal Rulemaking Web site:* Go to *http://www.regulations.gov* and search for Docket ID NRC–2008–0664. Address questions about NRC dockets to Carol Gallagher; telephone: 301–415–3463; email: *Carol.Gallagher@nrc.gov.*

• *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Documents collection at *http://www.nrc.gov/reading-rm/adams.html.* To begin the search, select ''ADAMS Public Documents'' and then select ''Begin Web-based ADAMS Search.'' For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to *pdr.resource@nrc.gov.* For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in Section XIV, ''Availability of Documents,'' of this document.

• *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1–F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Michele Kaplan, Office of the Chief Financial Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: 301–415–5256, email: *Michele.Kaplan@nrc.gov*.

SUPPLEMENTARY INFORMATION:

Executive Summary

The U.S. Nuclear Regulatory Commission (NRC) anticipates that it will soon receive license applications for light-water small modular reactors (SMR). In fiscal year 2008, the NRC staff determined that the annual fee structure for part 171 of title 10 of the *Code of Federal Regulations* fees, which was established in 1995, should be reevaluated to address potential inequities for future SMRs, due to their anticipated design characteristics. These characteristics include modular design, factory component fabrication, and thermal power capacities of 1,000 megawatts thermal or less per module. These SMRs may also include safety and security design features that could ultimately result in a lower regulatory oversight burden for this type of reactor. Despite these significant differences, an SMR would be required to pay the same annual fee as a current operating reactor under the NRC's current fee structure. The Omnibus Budget Reconciliation Act of 1990, as amended (OBRA–90) instructs the NRC to ''establish, by rule, a schedule of charges fairly and equitably allocating'' various generic agency regulatory costs ''among licensees'' and, ''[t]o 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.'' Because of the significant anticipated differences between SMRs and the existing reactor fleet, applying the current fee structure to SMRs could be contrary to OBRA–90's requirement that the NRC's fees be ''fairly and equitably'' allocated among its licensees. Therefore, the NRC is implementing a variable annual fee structure for SMR licensees that would include a minimum fee, a variable fee, and a maximum fee based on an SMR site's cumulative licensed thermal power rating.

The NRC prepared a regulatory analysis for this final rule (see Section XIV, ''Availability of Documents'').

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I. Background

A. Operating Reactor Annual Fee Structure

Over the past 40 years, the U.S. Nuclear Regulatory Commission (NRC) has assessed, and continues to assess, fees to applicants and licensees to recover the cost of its regulatory program. The NRC's fee regulations are governed by two laws: (1) The Independent Offices Appropriations Act of 1952 (IOAA) (31 U.S.C. 9701); and (2) the Omnibus Budget Reconciliation Act of 1990, as amended (OBRA–90) (42 U.S.C. 2214). Under the OBRA–90 framework, the NRC must recover approximately 90 percent of its annual budget authority through fees, not including amounts appropriated for waste incidental to reprocessing activities, amounts appropriated for generic homeland security activities, amounts appropriated from the Nuclear Waste Fund, and amounts appropriated for Inspector General services for the Defense Nuclear Facilities Safety Board.

The NRC assesses two types of fees to meet OBRA–90's requirements. First, the NRC assesses licensing and inspection fees under the IOAA to

recover the NRC's cost of providing specific benefits to identifiable applicants and licensees—these fees are in part 170 of Title 10 of the *Code of Federal Regulations* (10 CFR). The NRC also assesses annual fees to recover any generic regulatory costs that are not otherwise recovered through 10 CFR part 170 fees during the fiscal year—these annual fees are in 10 CFR part 171.

The current annual fee structure in 10 CFR part 171 would require SMRs to pay the same annual fee as those paid by the operating reactor fee class. For the operating reactor fee class, the NRC allocates 10 CFR part 171 annual fees equally among the operating power reactor licensees to recover those budgetary resources expended for rulemaking and other generic activities that benefit the entire fee class. If 10 CFR part 171, in its current form, is applied to SMRs, then each SMR reactor would pay the same flat annual fee as an existing operating reactor, even though SMRs are expected to be considerably smaller in size and may utilize designs that could reduce the NRC's regulatory costs per reactor.

Additionally, the current annual fee structure would assess multimodule nuclear plant annual fees on a per-licensed-module basis (rather than a site basis). For example, an SMR site with 12 licensed SMR modules (each with low thermal power ratings) would have to pay 12 times the annual fee paid by a single large operating reactor, even if that single reactor had higher thermal power rating than the cumulative power rating of the 12 SMR modules. This disparity raises fairness and equity concerns under OBRA–90. The SMR licensees could apply for fee exemptions to lower their annual fees. However, fee exemption are appropriate only for unanticipated or rare situations. The OBRA–90 statute requires the NRC to establish, by rule, a schedule of charges fairly and equitably allocating annual fees among its licensees. If the NRC anticipates up front that its annual fee schedule will not be fair and equitable as applied to a particular class of licensees, then amending the fee schedule, rather than planning to rely on the exemption process, is the better course of action for complying with OBRA–90.

B. Advance Notice of Proposed Rulemaking Regarding an Annual Fee Structure for SMRs

To address potential inequities, the NRC re-evaluated its annual fee structure as it relates to SMRs. In March 2009, the NRC published an Advance Notice of Proposed Rulemaking (ANPR) (74 FR 12735) for a variable annual fee structure for power reactors in the **Federal Register**. Although the ANPR nominally addressed the fee methodology used for all power reactors, its principal focus was on how to best adapt the existing fee methodology for future SMRs.

The NRC received 16 public comments on the ANPR from licensees, industry groups, and private individuals. These comments provided a wide range of input for agency consideration. Nine commenters supported adjusting the current power reactor annual fee methodology for small and medium-sized power reactors by some means. These commenters suggested basing the annual fee on either: (1) A risk matrix, (2) the thermal power ratings (in megawatts thermal, MWt), (3) the cost of providing regulatory service, or (4) an amount proportional to the size of the system based on megawatt (MW) ratings compared to a fixed baseline. Three commenters, representing small reactor design vendors, supported a variable fee rate structure as a means to mitigate the impacts of the existing fee structure on potential customers of their small reactor designs.

Commenters who did not support a variable annual fee structure recommended the following changes to the fee methodology: (1) Reinstatement of reactor size as a factor in evaluating fee exemption requests under 10 CFR 171.11(c), (2) establishment of power reactor subclasses, or (3) performance of additional analysis before making any changes to the current fee structure. Two commenters expressed an unwillingness to subsidize operating SMRs at the expense of their own businesses and believed that the flat-rate methodology provided regulatory certainty and assisted the ability to make ongoing financial plans.

In September 2009, the NRC staff submitted SECY–09–0137, ''Next Steps for Advance Notice of Proposed Rulemaking on Variable Annual Fee Structure for Power Reactors,'' (ML092660166) to the Commission for a notation vote. The paper summarized the comments that the NRC received in response to the ANPR, and it requested Commission approval to form a working group to analyze the commenters' suggested methodologies. The Commission approved the NRC staff's recommendation in the October 13, 2009, Staff Requirements Memorandum (SRM) for SECY–09–0137. (ML092861070)

C. Evaluation of Four Alternative Annual Fee Structures for SMRs

The NRC subsequently formed a working group to analyze the ANPR comments (ML14307A812), as well as position papers submitted to the NRC from the Nuclear Energy Institute (NEI), ''NRC Annual Fee Assessment for Small Reactors,'' (ML103070148) dated October 2010; and from the American Nuclear Society (ANS), ''Interim Report of the American Nuclear Society President's Special Committee on Small and Medium Sized Reactor (SMR) Generic Licensing Issues,'' (ML110040946) dated July 2010.

Four possible alternatives emerged from the working group's analysis of the public comments and the two position papers:

1. Continue the existing annual fee structure, but define a modular site of up to 12 reactors or 4,000 megawatts thermal (MWt) licensed power rating as a single unit for annual fee purposes.

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.

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

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

The NRC staff further concluded that Alternative 3, which calculated the annual fee for each SMR as a function of its potential risk to public health and safety using a risk matrix, did not warrant further consideration and analysis because of the technical complexities and potential costs of developing the probalistic risk assessments necessary to implement this alternative.

D. Preferred Approach for an Annual Fee Structure for SMRs

The working group examined the alternatives and informed the NRC's Chief Financial Officer (CFO) that Alternative 4 was the working group's preferred recommendation because it allows SMRs to be assessed specific fee amounts based on their licensed thermal power ratings (measured in MWt) on a variable scale with a minimum fee and a maximum fee. Additionally, the variable portion of the fee allows for multiple licensed SMR reactors on a single site up to 4,000 MWt to be treated as a single reactor for fee purposes. The working group determined that these attributes best aligned with OBRA–90's fairness and equity requirements.

The CFO submitted the final recommendations to the Commission in an informational memorandum dated February 7, 2011, ''Resolution of Issue Regarding Variable Annual Fee Structure for Small and Medium-Sized Nuclear Power Reactors.'' (ML110380251) The memorandum described the results of the working group's efforts and its recommendation that the annual fee structure for SMRs be calculated for each newly licensed power reactor as a function of its licensed thermal power rating. The memorandum indicated that the NRC staff intended to obtain Commission approval for the planned approach during the process for developing the proposed rule.

In fiscal year (FY) 2014, the NRC staff reviewed the analysis and recommendations in the 2011 memorandum and determined that they remained sound. However, the working group identified one additional area for consideration related to the maximum thermal power rating eligible for a single annual fee.

In the FY 2011 memorandum, the CFO proposed an upper threshold of 4,000 MWt for multi-module power plants to be allocated a single annual fee. This value was comparable to the largest operating reactor units at the time (Palo Verde Nuclear Generating Station, Units 1, 2, and 3 at 3,990 MWt each). A subsequent power uprate was approved by the NRC for Grand Gulf Nuclear Station, Unit 1, which raised the maximum licensed thermal power rating to 4,408 MWt. Therefore, the 2014 working group recommended setting the single-fee threshold for a multi-module nuclear plant at 4,500 MWt on the SMR variable annual fee structure scale so that the maximum fee remains aligned with the largest licensed power reactor.

With this change, the NRC staff submitted final recommendations to the Commission and requested approval to proceed with a proposed rulemaking for an SMR annual fee structure in SECY–15–0044, dated March 27, 2015, ''Proposed Variable Annual Fee Structure for Small Modular Reactors.'' (ML15051A092) The Commission approved the NRC staff's request to proceed with a proposed rulemaking on May 15, 2015, Staff Requirements Memorandum—SECY–15–0044, ''Proposed Variable Annual Fee Structure for Small Modular Reactors.'' (ML15135A427)

Separately, under Project Aim, the agency is working to improve the transparency of its fees development and invoicing processes and to improve the timeliness of NRC communications on fee changes. More information about this effort can be found in the **Federal Register** (81 FR 15352; March 22, 2016).

II. Discussion

The NRC is creating a variable annual fee structure for SMRs. As detailed in the regulatory analysis, the NRC determined the current annual fee structure may not be fair and equitable for assessing fees to SMRs based on the unique size and characteristics of SMRs. The NRC published, for a 30-day public comment period, a proposed rule on November 4, 2015, to address these issues. The NRC developed this final rule based on the comments received on the proposed rule. The comments are discussed in Section IV, ''Public Comment Analysis,'' of this document. Because the annual regulatory cost associated with an SMR is inherently uncertain before such a licensed facility is operational, the NRC intends to reevaluate the variable annual fee structure at the appropriate time to ensure the continuing satisfaction of OBRA–90 requirements. This reevalulation will occur once one or more SMR facilities becomes operational and sufficient regulatory cost data becomes available.

As explained in Section I, ''Background,'' of this document, the NRC staff previously solicited public input regarding an annual fee structure for SMRs via an ANPR, and the NRC staff submitted two papers to the Commission discussing alternative annual fee structures, which resulted in the recommendation of the variable annual fee structure as the preferred approach for SMRs. For this final rule and regulatory analysis, the NRC staff examined the following four refined alternatives including a ''no action alternative'' which served as a baseline to compare all other alternatives:

1. No action.

2. Continue the existing annual fee structure for all reactors but allow for ''bundling'' of SMR reactor modules up to a total of 4,500 MWt as a single SMR ''bundled unit.''

3. Continue the existing annual fee structure for the current fleet of operating power reactors but establish a third fee class for SMRs with fees commensurate with the budgetary resources allocated to SMRs.

4. Continue the existing annual fee structure for the current fleet of operating power reactors but calculate the annual fee for each SMR site as a multi-part fee which includes minimum fee, variable fee and maximum fee.

As explained in the regulatory analysis for this final rule, the NRC staff analyzed Alternative 1 (the no action alternative) and concluded that this alternative continues to be a fair, equitable and stable approach for the existing fleet of reactors. This is because previous agency efforts to manage cost and fee allocations at a more granular level were labor intensive and resulted in minimal additional benefits to licensees when compared to the flat-fee approach (60 FR 32230; June 20, 1995). For SMRs, however, the current fee structure could produce such a large disparity between the annual fees paid by a licensee and the economic benefits that the licensee could gain from using the license that it would be contrary to OBRA–90's requirement to establish a fair and equitable fee schedule. For example, a hypothetical SMR site with 12 SMR reactor modules would have to pay 12 times the annual fee paid by a single current operating reactor—almost $54 million per year based on FY 2015 fee rule data. By comparison, Fort Calhoun, the smallest reactor in the current operating fleet, would pay approximately $4.5 million in annual fees. Such a result would be contrary to OBRA–90's requirement to establish a fair fee schedule, and therefore the no action alternative is unacceptable.

Small modular reactor licensees could apply for annual fee exemptions under 10 CFR 171.11(c). The fee exemption criteria consider the age of the reactor, number of customers in the licensee's rate base, how much the annual fee would add to the per kilowatt-hour (kWh) cost of electricity, and other relevant issues. But, as described in SECY–15–0044, there are no guarantees that an exemption request would be approved, decreasing regulatory certainty. The OBRA–90 statute also requires the NRC to establish, by rule, a schedule of charges fairly and equitably allocating annual fees among its licensees. Therefore, if the NRC anticipates up-front that its annual fee schedule will not be fair and equitable as applied to a particular class of licensees, then amending the fee schedule, rather than planning to rely on the exemption process, is the far better course for complying with OBRA–90.

The NRC staff also evaluated Alternative 2, which continues the existing annual fee structure for all reactors and allows for the bundling of the thermal ratings of SMRs on a single site up to total licensed thermal power rating of up to 4,500 MWt, which is roughly equivalent to the licensed thermal power rating of the largest reactor in the current fleet. Alternative 2 provides more fairness to SMRs than Alternative 1 because it allows SMR licensees to bundle their SMRs on a single site. However, for smaller SMR

facilities, Alternative 2 would still create great disparities among SMR facilities in terms of the annual fees they would pay relative to the economic benefits they stand to gain from their NRC licenses. Consider, for illustrative purposes, an SMR site with only one NuScale reactor module. The licensee for this site would be required to pay the full annual fee, but could only spread the fee over 160 MWt—about $31,123 per MWt. In contrast, the licensee for an SMR site featuring 12 NuScale reactor modules would pay only $2,594 per MWt in annual fees. Alternative 2, therefore, only goes part of the way toward addressing the fairness and equity concerns that prompted this rulemaking. As with Alternative 1, smaller SMR licensees could apply for annual fee exemptions under 10 CFR 171.11(c). There are no guarantees that an exemption would be approved, decreasing regulatory certainty. For these reasons, and as further explained in the regulatory analysis, the NRC staff finds Alternative 2 to be an unacceptable approach.

Alternative 3 entails creating a separate fee class for SMRs, with fees commensurate with the budgetary resources allocated to SMRs, similar to the operating reactor and research and test reactor fee classes. This alternative would establish a flat annual fee assessed equally among SMR licensees. Although this approach is fair and equitable for the current operating reactor fee class, applying a flat fee approach to SMRs poses fairness problems due to the potential various sizes and types of SMR designs. In particular, a single per-reactor fee could prove unduly burdensome to SMRs with low thermal power ratings (such as 160 MWt for a single NuScale SMR) when compared to SMRs with higher-rated capacities (such as 800 MWt for a single Westinghouse SMR). Additionally, Alternative 3 is similar to the ''no action'' alternative in the sense that fees are based per licensed reactor or module rather than on the cumulative licensed thermal power rating. This alternative, therefore, fails to address the fee disparity created for SMRs using multiple small modules rather than fewer, larger reactors with a similar cumulative licensed thermal power rating. It is the NRC's intent to select an SMR fee alternative that is fair and equitable for the broadest possible range of SMR designs. Flat-rate alternatives such as this one are inconsistent with the ''fair and equitable'' requirements of OBRA–90 when applied to a fee class with the wide range of SMR thermal power capacities as described by reactor designers to date. As with the previous alternatives, SMR licensees could apply for annual fee exemptions under 10 CFR 171.11(c); however, there are no guarantees that an exemption would be approved, decreasing regulatory certainty. For these reasons, and as further explained in the regulatory analysis, Alternative 3 is an unacceptable approach.

Ultimately, the NRC staff analyzed the mechanics of the variable annual fee structure under Alternative 4 and determined that it is the best approach for assessing fees to SMRs in a fair and equitable manner under OBRA–90. Unlike the current fee structure, this approach recognizes the anticipated unique characteristics of SMRs in relation to the existing fleet. Unlike Alternative 2, this approach ensures that all SMRs are treated fairly, including those SMRs whose licensed thermal power rating are outside the 2,000 MWt–4,500 MWt range. Unlike Alternative 3, the variable annual fee structure assesses a range of annual fees to SMRs based on licensed thermal power rating, rather than assessing a single flat fee that could potentially apply to a very wide range of SMRs.

The SMR variable annual fee structure under Alternative 4 computes SMR annual fees on a site basis, considering all SMRs on the site—up to a total licensed thermal power rating of up to 4,500 MWt—to be a single ''bundled unit'' that would pay the same annual fee as the current operating reactor fleet. The SMR fee structure has three parts: A minimum fee (the average of the research and test reactor fee class and the spent fuel storage/reactor decommissioning fee class), a variable fee charged on a per-MWt basis for bundled units in a particular size range, and a maximum fee equivalent to the flat annual fee charged to current operating fleet reactors.

Bundled units with a total licensed thermal power rating at or below 250 MWt would only pay a minimum fee; for example, based on FY 2015 fee rule data, that minimum fee would be $153,250. This minimum fee is consistent with the principle that reactor-related licensees in existing low-fee classes may not generate substantial revenue, yet still derive benefits from NRC activities performed on generic work. Therefore, they must pay more than a *de minimis* part of the NRC's generic costs. By calculating the minimum fee for SMRs within the range of annual fees paid by other low-fee reactor classes, this methodology satisfies the OBRA–90 fairness and equity requirements because it ensures consistent NRC treatment for low-power and low-revenue reactors.

Fees for bundled units with a total licensed thermal power rating greater than 250 MWt and less than or equal to 2,000 MWt would be computed as the minimum fee plus a variable fee based on the bundled unit's cumulative licensed thermal power rating. The variable fee should generally correlate with the economic benefits the licensee is able to derive from its NRC license and will ensure that similarly rated SMRs pay comparable fees.

For a bundled unit with a licensed thermal power rating comparable to a typical large light-water reactor—*i.e.,* greater than 2,000 MWt and less than or equal to 4,500 MWt—the annual fee assessed to that bundled unit would be the same annual flat fee that is paid by a power reactor licensee in the current operating fleet. This approach ensures comparable fee treatment of facilities that stand to derive comparable economic benefits from their NRC-licensed activities.

For SMR sites with a licensed thermal power rating that exceeds 4,500 MWt, the licensee would be assessed the maximum fee for the first bundled unit, plus a variable annual fee for the portion of the thermal rating above the 4,500 MWt level and less than or equal to 6,500 MWt for the second bundled unit (the licensee would not incur a second minimum fee for the same SMR site, because minimum fees are only assessed on a per-site basis). If a site rating exceeds the 6,500 MWt level, and also is less than or equal to 9,000 MWt, then a second maximum fee would be assessed for the second bundled unit. The NRC considered eliminating the second variable portion of the fee structure and simply doubling the maximum fee for the second bundled unit, but this would produce an unfair result if the site's second bundled unit had a small licensed thermal power rating. Similar to the other three alternative fee structures, this method—doubling the maximum fee for the second bundled unit—would not have addressed the inequities that arise when a very small bundled unit pays a very large annual fee.

Therefore, as demonstrated in the regulatory analysis, the NRC staff concludes that the variable annual fee structure allows SMRs to pay an annual fee that is commensurate with the economic benefit received from its license and that appropriately accounts for the design characteristics and current expectations regarding regulatory costs. This complies with OBRA–90's requirement to establish a

fee schedule that fairly and equitably allocates NRC's fees.

III. Opportunities for Public Participation

Section I B., ''Background'' of this document discusses the ANPR and the public comments that helped to shape the proposed rule, ''Variable Annual Fee Structure for Small Modular Reactors,'' that NRC published in the **Federal Register** on November 4, 2015 (80 FR 68268), for a 30-day public comment period. The rule proposed to implement a variable annual fee structure for small modular reactors given their unique design features that would meet the requirements of OBRA–90 as it relates to the fairness and equity of fees. The public comment period for the proposed rule closed on December 4, 2015. The NRC received nine public comment submissions that are discussed in Section IV, ''Public Comment Analysis,'' of this document.

The NRC held a category 3 public meeting on the proposed rule and draft regulatory analysis (ML15226A588) during the comment period, specifically, on November 16, 2015, to promote transparency and obtain feedback from industry representatives, licensees and other external stakeholders. During the meeting, NRC staff addressed questions pertaining to the 10 CFR parts 170 and 171 definitions, the fee methodology for the bundled unit and out-of-scope comments such as life-cycle costs of SMRs, the charging of fees to future licensees for the monitoring of both air and water emitted around nuclear facilities, and the nuclear waste fee.

IV. Public Comment Analysis

The NRC received nine comment submissions on the proposed rule. The comments are posted on *www.regulations.gov* under Docket ID NRC–2008–0664. The majority of commenters support a variable annual fee structure for small modular reactors based on the total cumulative licensed thermal power rating. Some commenters suggested that the proposed rulemaking be expanded to non-light water SMRs and that the proposed definitions and regulations be modified as applicable under 10 CFR parts 170 and 171. Another commenter believed the proposed rule could be more fair to the existing fleet. The commenters are listed and classified in the following table:

Commenter	Affiliation	ADAMS Accession No.
Nancy Foust	Private Citizen	ML15320A546 (#1).
Per Peterson	University of California, Berkeley	ML15320A547 (#2).
Tyler Ellis	Massachusetts Institute of Technology (MIT)	ML15327A219 (#3).
Caroline Cochran	UPower Technologies, Inc	ML15341A349 (#4).
Christopher Bergan	Private Citizen	ML15341A350 (#5).
Douglas Weaver	Westinghouse Electrical Company (WEC)	ML15341A351 (#6).
Edward C. Rampton	Utah Associated Municipal Power Systems (UAMPS)	ML15341A352 (#7).
Zackary J. Rad	NuScale Power LLC	ML15341A353 (#8).
Russell J. Bell	Nuclear Energy Institute	ML15343A512 (#9).

A. Specific 10 CFR Part 170 Issues

Comment: One commenter was unclear as to why the definitions ''small modular reactor,'' ''small modular reactor site,'' and ''bundled unit'' being proposed to 10 CFR part 170 were necessary, because these definitions did not appear to be related to the fees charged in this section. The commenter further stated that the NRC should delete the definition for bundled unit, small modular reactor, and small modular reactor site, but keep the definition for small modular reactor under 10 CFR part 170 if necessary. (NEI, UAMPS and UPower Technologies)

Response: The NRC agrees with the commenter that the bundled unit definition should be removed from 10 CFR part 170 because the term is used solely for the purpose of calculating annual fees for SMRs. However, the NRC will retain the definitions of SMR and SMR site under 10 CFR part 170 to make transparent that SMRs and SMR sites can be charged hourly fees under 10 CFR part 170 for specific services performed by the NRC for these licensees. A change was made to the final rule in response to this comment.

B. Specific 10 CFR Part 171 Issues

Comment: One commenter stated, ''. . . the rule language is not entirely clear on the relationship between SMR licenses, SMR modules, SMR plants, the SMR site (which may include several SMR modules, plants, and licenses), and bundled units (which serve as the basis for the calculation of the annual fee).'' The commenter suggested that the NRC modify the definition of ''bundled unit'' to mean, ''A measure of the cumulative licensed thermal power rating for one or more SMRs located on a single site. One bundled unit is less than or equal to 4,500 MWt. An additional bundled unit is not established until the preceding bundled unit reaches the cumulative 4,500 MWt rating. The thermal rating of a module can be split between two bundled units for the purposes of assessing annual fees under § 171.15(e).'' (NEI).

Response: The NRC agrees with the commenter that the definitions as identified by the commenter and their relationships under the SMR fee structure methodology could be made more clear. The language in § 171.3, Scope, identifies the licensees and others subject to annual fees. For the purposes of this rule, any SMR module, reactor, plant, or site licensed for operation by the NRC is subject to annual fees under 10 CFR part 171. For the purposes of this rule, the SMR module is a reactor. As noted in the regulatory analysis, the NRC defines the building that houses co-located SMR reactor modules sharing common systems as a ''plant,'' and the geographically bounded area that houses single or multiple plants as a ''site.'' Finally, the definition of a ''bundled unit'' has been reworded to provide more clarity while addressing the commenter's concerns. A change was made to the final rule in response to this comment.

Comment: The same commenter stated that the § 171.15(e)(1) proposed language regarding the annual fee paid for each license held could be misinterpreted to mean that the determination of a bundled unit is limited to the SMR modules covered by a single license, regardless of the number of licenses that comprise a single SMR plant or the number of SMR plants on a single SMR site. The commenter suggested that the NRC should modify § 171.15(e)(1), Annual Fees, by stating, ''Each person holding an operating license for a small modular

reactor issued under part 50 of this chapter or that holds a combined license issued under part 52 of this chapter, after the Commission has made the finding under 10 CFR 52.103(g) shall pay the annual fee for all licenses held for an SMR site during the fiscal year in which the fee is due.'' (NEI)

Response: The NRC agrees with the commenter that the rule language could be more clear regarding the relationship between the NRC's assessment of annual fees to SMRs and SMR licenses. The final language in this section has been clarified to indicate that the bundled unit concept—which is used to compute annual fees—applies on a site-wide basis and is independent of the number of actual SMR licenses or the sequencing of the SMR licenses issued for that site. A change was made to § 171.15(e)(1) and to § 171.5 in the final rule as a result of this comment.

Comment: The same commenter stated that the current rule language in § 171.15(e)(1) and the definition of ''bundled unit'' does not make clear that a bundled unit can be comprised of modules from more than one SMR plant, and that an additional bundled unit is not established before the preceding bundled unit reaches the cumulative 4,500 MWt rating. (NEI)

Response: The NRC agrees with the commenter that the proposed bundled unit definition and proposed language for § 171.15(e)(1) could be more clear regarding the transition from the first bundled unit to additional bundled units. As explained in the previous comment, a change was made to § 171.15(e)(1) and to § 171.5 in the final rule as a result of this comment.

Comment: One commenter stated that the proposed rule does not explicitly state that the annual fee assessed for SMRs, a type of power reactor, is in lieu of annual fees assessed for power reactors under § 171.15(b). This could lead to the misinterpretation that SMRs are assessed both sets of annual fees. The commenter stated the NRC should revise § 171.15(e)(3) to read, ''(3) The annual fee for an SMR collected under paragraph (e) of this section is in lieu of any fee otherwise required under paragraph (b) of this section. The annual fee under paragraph (e) of this section covers the same activities listed for the power reactor base annual fee and spent fuel storage/reactor decommissioning reactor fee.'' (NEI)

Response: The NRC agrees with the commenter that the proposed language could imply that an SMR licensee would be charged a base annual fee and spent fuel storage/reactor decommissioning annual fee in addition to an SMR annual fee. A change was made to the final rule in response to this comment. Specifically, the language in § 171.15(e)(3) has been revised to read, ''(3) The annual fee for an SMR collected under paragraph (e) of this section is in lieu of any fee otherwise required under paragraph (b) of this section. The annual fee under paragraph (e) of this section covers the same activities listed for the power reactor base annual fee and spent fuel storage/reactor decommissioning reactor fee.''

Comment: One commenter stated that the definition of ''variable rate'' could be simplified because it is difficult to determine how the variable rate applies to additional bundled units, and it appears inconsistent with the proposed definition of a bundled unit. The commenter suggested that NRC redefine the variable rate definition by stating, ''Variable rate means a per-MWt fee factor applied to all bundled units on a site. For the first bundled unit with a licensed thermal power rating greater than 250 MWt and less than or equal to 2,000 MWt, the factor is based on the difference between the maximum fee and the minimum fee, divided by 1,750 MWt (the variable fee licensed thermal rating range). For additional bundled units with a licensed thermal power rating greater than 0 and less than or equal to 2,000 MWt, the factor is based on the maximum fee divided by 2,000 MWt.'' (NEI)

Response: The NRC agrees with the commenter that the proposed variable rate definition is inconsistent with the proposed definition of bundled unit. The NRC has redefined the variable rate based on the commenter's suggestion and revised the bundled unit definition for clarity. A change was made to the final rule in response to this comment.

Comment: One commenter believes the description of additional bundled units in the table § 171.15(e)(2) is confusing and unnecessary. The same commenter believes it is inconsistent with the proposed definition of ''bundled unit,'' which states that a ''bundled unit is less than or equal to 4,500 MWt.'' The table can be interpreted to mean that the range of thermal capacity is describing the SMR site thermal power rating totals, and not an additional bundled unit. Additionally, including SMR site thermal power rating totals in the table unnecessarily complicates the bundled approach. The table can also be interpreted to mean the first 4,500 MWt of additional bundled units (*e.g.,* the second bundled unit) is not assessed an annual fee. The description could also be interpreted to unnecessarily limit the SMR site total thermal rating to 9,000 MWt. The same commenter is not aware of any other fee-based requirement that would limit a site's total thermal output, but notes there is at least one nuclear facility in the U.S. with almost a 12,000 MWt total thermal rating. The rule should clarify the following: (1) If any bundled unit would exceed 4,500 MWt, an additional bundle would exist for the portion of the thermal rating above 4,500 MWt; and (2) the same bundled fee schedule should apply to any successive bundle. The commenter suggested the NRC revise the description of addition bundled units in the thermal rating power rating scale by replacing ''>4,500 MWt ≤ 6,500 MWt'' with ''>0 MWt ≤ 2,000 MWt'' and replacing ''>6,500 ≤9,000 MWt'' with ''>2,000 MWt.'' (NEI)

Response: The NRC agrees with the commenter that the proposed table and the bundled unit definition could be interpreted to read that licensees are limited to bundled units less than 9,000 MWt, yet the proposed definition of bundled unit allows for bundled units to exceed 9,000 MWt. Therefore, the NRC has revised the table for § 171.15(e)(2) and bundled unit definition for clarity based on the commenter's concerns. A change was made to the final rule in response to this comment. The bundled unit definition has been revised as mentioned in our previous response and the table for § 171.15(e)(2) has been revised to read as follows: (2) The annual fees for a small modular reactor(s) located on a single site to be collected by September 30 of each year, are as follows:

Bundled unit thermal power rating	Minimum fee	Variable fee	Maximum fee
First Bundled Unit			
0 MWt ≤ 250 MWt	TBD	N/A	N/A.
> 250 MWt ≤ 2,000 MWt	TBD	TBD	N/A.
> 2,000 MWt ≤ 4,500 MWt	N/A	N/A	TBD.
Additional Bundled Units			
0 MWt ≤ 2,000 MWt	N/A	TBD	N/A.

Bundled unit thermal power rating	Minimum fee	Variable fee	Maximum fee
>2,000 MWt ≤ 4,500 MWt	N/A	N/A	TBD.

Comment: One commenter stated that the new fee structure must be fair to both SMRs and the current operating fleet. The current operating fleet should not subsidize SMR's regulatory costs and that the proposed rule could be made fairer in this regard. (Westinghouse)

Response: The NRC agrees in part and disagrees in part with this comment. The NRC agrees that the new structure must be fair to both SMRs and to the current operating fleet. As discussed, OBRA–90 requires this fairness, and the NRC has worked through a variety of competing interests to attain the most balanced approach possible.

With respect to the degree of fairness achieved by the rule, the NRC disagrees with the comment. The OBRA–90 statutes require the NRC to collect annual fees from licensees, including licensees from the operating reactor fee class. Therefore, adding a new SMR to the reactor fleet would result in a greater base of operating reactors over which to spread the required 10 CFR part 171 annual fee collection; this, in turn, leads to a lower 10 CFR part 171 fee amount per reactor. Under the variable annual fee structure, SMRs with a bundled unit rating below 2,000 MWt will pay less in 10 CFR part 171 fees than a current operating reactor. Therefore, the addition of an SMR would result in a slightly smaller fee reduction than would have been realized for the addition of a large light-water reactor. Using FY15 data, this difference in fee reduction is, at most, about one percent of the 10 CFR part 171 annual fee for each current operating reactor. The NRC believes this is a fair result because SMRs should pay annual fees that are commensurate with the economic benefit received from their license, and this rule achieves that objective without altering the existing fee structure for operating reactors. As previously explained, this rule also achieves this objective with minimal impacts to the existing fleet. No change was made to the final rule in response to this comment.

Comment: One commenter believes that linking the fees paid by research and test reactors (RTRs) to fees paid by smaller SMRs under the Alternative 4 appears to violate the fairness test required by OBRA–90. The commenter further states RTRs are used for training and research which provides benefits to the entire industry. The commenter points out that RTRs do not sell power nor do they compete with the current fleet of reactors. The same commenter, therefore, suggests that the NRC not link the minimum SMR fee to RTR fees, but instead develop an estimate of the minimum costs of the regulatory services that it expects to provide to an SMR. This method would reduce the likelihood that the fees would have to be substantially altered after an SMR has been operating and is in alignment with OBRA–90 as it pertains to assessed charges having a reasonable relationship to the cost of providing regulatory services. (Westinghouse)

Response: The NRC disagrees with the comment. At this time, the NRC is unable to develop an estimate of the minimum costs of regulatory services that it expects to provide to an SMR due to lack of cost data and operating experience. Therefore, the minimum fee is calculated by averaging annual fees for both the research and test reactor fee class and the spent fuel storage/reactor decommissioning fee class. The minimum fee ensures that even the smallest SMRs bear some of the annual 10 CFR part 171 fee burden. Although a size and purpose disparity exists between the smallest currently proposed SMRs and RTRs, the minimum fee calculation was not intended to equate the regulatory support requirements of SMRs and RTRs. Rather, the calculation was intended to identify current fees for low power reactor fee classes to set an initial minimum fee value. The NRC believes the lower power reactor fee classes serving as the threshold for the minimum fee satisfies the requirements of OBRA–90 as it relates to the fairness and equitable distribution of fees because it establishes consistency between low-power SMRs and other low-power reactor fee classes; once quantifiable data for SMRs becomes available, the NRC will then reevaluate its minimum fee methodology to ensure that it remains sound. No change was made to the rule in response to this comment.

Comment: One commenter states that it appears the NRC has concluded that some SMRs may not be economically viable if they pay for the regulatory services they consume; and this is not a compelling reason for the NRC to seek to subsidize the regulatory cost of SMRs with increased fees on another fee class. The commenter encourages the NRC staff to consider alternatives that more clearly align the proposed annual fee for SMRs with the regulatory services they use. The commenter suggests that the NRC create a fee class combining alternatives 3 and 4 from the draft regulatory analysis or create a separate fee class as described in Alternative 3, but with the sliding fee scale described in Alternative 4. The latter alternative would address the NRC staff's primary concern that all SMRs pay the same fee regardless of output. (Westinghouse)

Response: The NRC disagrees with the comment. First, the NRC did not state that SMRs may not be economically viable if they pay for the regulatory services they consume. Rather, the NRC's proposed rule and proposed regulatory analysis explained that charging large and flat annual fees to very small SMRs may not satisfy OBRA–90's requirement to establish a fair and equitable fee schedule. The variable fee methodology selected in this final rule offers the best means of satisfying those OBRA–90 requirement for all operating reactors, including future SMRs. Further, the commenter's proposal to combine features of Alternatives 3 (a separate fee class) and 4 (a sliding fee scale) by creating a new fee class is not a viable option at this time. As mentioned elsewhere in this document and in the regulatory analysis, the NRC lacks quanititative data that shows the estimated costs of providing generic regulatory services to SMRs. Right now, the NRC must establish the variable sliding fee scale within the operating reactor fee class—thereby linking SMR fees to the existing fleet's fees—because the absence of this data means that the NRC cannot anchor SMR fees in any other way. As cost data and operating experience for SMRs are accumulated, the NRC will propose adjustments to fees as needed to make sure that the fees charged to SMRs (and to all operating reactors) are commensurate with the regulatory support services provided by the NRC to meet the requirements of OBRA–90. At that time, it may be be necessary to ''de-link'' SMR fees from the existing fleet's fees and establish a brand new variable fee class similar to what the commenter proposed. No change was made to the rule in response to this comment.

C. Regulatory Analysis

Comment: One commenter stated that, in the draft regulatory analysis, an equation on page 16 of the calculation

is not clear and could be interpreted to be inconsistent with the detailed process for calculating the maximum fee, which is described in more detail in Attachment A. The commenter suggested that the NRC revise the numerator of the equation to calculate the ''maximum fee'' to read, ''Total Part 171 Annual Fee (less all minimum and variable SMR fees).'' (NEI)

Response: The NRC agrees with commenter that the equations on page 16 of the RA were not clearly aligned with the Attachment A description of the step-by-step 10 CFR part 171 annual fee process. As further described in the regulatory analysis, calculating the maximum fee to be paid by the operating fleet reactors and SMR bundled units rated > 2,000 MWt is an iterative, dynamic process. Because the equations on page 16 of the RA did not accurately reflect the dynamic nature of these calculations, the NRC removed those equations to eliminate potential confusion between the original simplified equations and the iterative calculation process referenced in Attachment A. Further, the NRC refined the step-by-step calculation process in Attachment A to achieve greater clarity. These changes bring the descriptive text and calculation process into closer alignment with the conceptual fee representation in Figure 3 of the regulatory analysis. A change was made to the regulatory analysis in response to this comment.

Comment: The commenter believes that the regulatory analysis should explain in more detail NRC's assumption that SMRs, through a combination of simplicity, advanced safety features, and modular construction methods, will require less oversight and regulatory services than the current fleet of reactors. (Westinghouse)

Response. The NRC disagrees that the regulatory analysis should provide more detail on NRC's assumptions for SMRs and believes that the commenter has overstated the NRC's basis for promulgating the proposed rulemaking. The Executive Summary of the proposed rule discussed potential SMR characteristics, and stated, ''These characteristics include modular design, factory component fabrication, and thermal power capacities of 1,000 megawatts thermal (MWt) or less per module. These SMRs also may include safety and security design in a lower regulatory oversight burden for this type of reactor.'' In fact, the lack of operational data on costs for these future reactor plants was the main reason for using a qualitative approach in the regulatory analysis. The NRC staff agrees with the commenter that the SMR variable annual fee rule should be re-assessed once operational cost data is accumulated. To this end, the NRC staff proposed periodic assessments of the actual costs associated with licensed SMRs so that the NRC could make adjustments to the SMR fee structure, if necessary. As the industry and the NRC gathers operating experience with SMRs, a better understanding of ''. . . how design features may be translated into annual fee reductions,'' as mentioned by the commenter, should become more apparent. SMR operating experience data should provide insights that could confirm correlations between design features and the level of NRC oversight typically needed for these new types of power plants; and provide indications of whether further fee adjustments for SMRs are required. No change was made to the regulatory analysis in response to this comment.

D. Other

Issuance of Final Rule

Comment: Several commenters encouraged prompt finalization of the proposed rule. (UPower Technologies, NuScale, NEI, UAMPS)

Response: The NRC agrees with the commenters. No change was made to the final rule in response to this comment.

Support of Proposed Rule

Comment: Most commenters support the NRC's proposal to assess annual fees for SMRs licensees based on the total thermal power output of the facility because it is a reasonable approach for providing a fair and equitable fee structure for SMRs in absence of data on regulatory costs on oversight for SMRs. (University of California—Berkeley, MIT, UPower Technologies, UAMPS, Nuscale, NEI)

Response: No response required. No change was made to the final rule in response to this comment.

Comment: One commenter stated that the proposed use of cumulative thermal power rating provides the most appropriate basis for establishing the fee because the rate of the production of fission product which creates the most important hazard associated with fission power is directly proportional to cumulative reactor thermal power, and therefore to the total source term that might be mobilized in a reactor accident. The SMRs provide higher intrinisic safety because this source term is divided into smaller quantities, reducing the maximum release possible if an accident occurs in a reactor unit. The same commenter stated SMR designs also can be expected to make more extensive use of intrinsic feedback and passive safety features, significantly reducing the complexity and inspection requirements for reactor safety systems compared to existing large light water reactors. (University of California—Berkeley)

Response: The NRC agrees that SMRs could have some or all of the design and operational advantages identified by the commenter. However, the NRC has not yet received any SMR application for review. Therefore, we have no basis on which to correlate or assess the SMR attributes and potential advantages cited in the comment with a specific SMR design. No change was made to the final rule in response to this comment.

Comment: Some commenters stated that the proposed rule provides a more equitable basis for assessing 10 CFR part 171 fees for SMRs that incorporate enhanced and design safety features which are expected to lower generic regulatory and oversight costs. (NEI, NuScale, UAMPS)

Response: No response required. No change was made to the final rule in response to this comment.

Comment: One commenter stated that the current disparity in annual fees between current light water reactors and small modular reactors is a key business consideration affecting the overall economics of the Carbon Free Power Project. (UAMPS)

Response: No response required. No change was made to the final rule in response to this comment.

Comment: One commenter believes the rulemaking provides clarity on 10 CFR part 171 fees that support near-term business decisions regarding submittal of combined license applications for NuScale's customers, the first of which is anticipated in late 2017 or early 2018. (Nuscale)

Response: No response required. No change was made to the final rule in response to this comment.

Reevaluation of Variable Annual Fee Structure for SMRs

Comment: Several commenters stated the NRC should state in the final rulemaking package (*e.g.,* in the statements of consideration or in a separately issued Commission paper) its commitment to reviewing data on costs of oversight for SMRs as it becomes available and adjusting the SMR variable fee structure to ensure the annual fees equitably align with the cost of oversight of this class of reactors. One commenter stated that the appropriate timeframe for revisiting 10 CFR part 171 fees may be approximately three years after commercial operation date for the

first reactor. The commenter believes this timeframe, with the deployment of a NuScale design with 12 reactors, would provide the operational experience of having undertaken 12 refuelings and would better inform the level of regulatory oversight required by the NRC for this type of design. Another commenter stated that the NRC should, in the ''Final Regulatory Basis for Proposed Changes to 10 CFR part 171,'' clearly and explicitly identify assumptions important to forming the basis for the final variable fee rule for SMRs. Another commenter suggested reevaluation of the fee structure for advanced reactors may be warranted as cost of oversight information becomes available. (NEI, NuScale, UAMPS, UPower Technologies)

Response: The NRC agrees that it will be necessary to reevaluate the variable annual fee structure for SMRs as an SMR becomes operational and regulatory cost data becomes available to ensure the continuing satisfaction of OBRA–90 requirements. Because the NRC cannot anticipate with certainty when sufficient information will be available, the NRC is unable to estimate the precise time period when this reevaulation will occur. The type of information that the NRC will likely need to reevaluate the variable fee structure may include data on the initial licensing of an SMR facility, performance of refueling outages, performance of onsite inspections, and licensing actions and other regulatory services provided to an operational SMR. No change was made to the final rule or regulatory analysis in response to this comment.

Small Modular Reactor Definition

Comment: Two commenters suggested the the NRC expand the small modular reactor definition of light water reactor to include all types of new fission reactor (*e.g.* sodium cooled, molten salt, etc.) One of the commenters suggested that if the NRC were to include non-light water reactors in the definition, the NRC should look to the Gen IV International Forum for a better one as the United States, International Atomic Energy Agency and the Organisation for Economic Co-operation and Development's Nuclear Energy Agency are all members of the Gen IV International Forum. (MIT, University of CA, Berkeley)

Response: The NRC disagrees with the comment. The NRC has chosen to limit the scope of this proposed rule to light-water SMRs. This is because the light-water SMR designs that have been discussed with the NRC in pre-application discussions to date are similar to the current U.S. operating fleet of reactors in terms of physical configuration, operational characteristics, and applicability to the NRC's existing regulatory framework. The NRC may consider the inclusion of non-light water SMRs in a future rulemaking once the agency has increased understanding of these factors with respect to non-light water designs. No change was made to the final rule in response to this comment.

E. Out-of-Scope Comments

Comment: The NRC should consider seeking limited legislative relief from OBRA–90. SMRs are not anticipated to be licensed for another decade, and the NRC would have to time find other legislative solutions. (Westinghouse)

Response: The NRC considers this comment to be outside the scope of this rulemaking amending the current annual fee structure for SMRs. Additionally, the NRC considers this technical rulemaking to be an inappropriate vehicle for seeking legislative relief for SMRs under the requirements of OBRA–90. Apart from this rulemaking, the NRC annually promulgates a rulemaking to adjust its fees without changing the underlying principles of its fee policy to comply with the statutory requirements for cost recovery in OBRA–90 and the AEA. Small modular reactors may require lower regulatory oversight burden compared to the existing fleet due to potentially unique design features and safety attributes. Because the NRC is implementing a variable annual fee structure for SMRs which would comply with the fairness and equitable distribution of fees' requirement under OBRA–90, a request for legislative relief by the NRC is unnecessary. Finally, as discussed in SECY–15–0044, the staff's recommended alternative for establishing an SMR variable annual fee rule supports the agency's goals of transparency and providing regulatory certainty to potential SMR applicants. The commenter's recommendation of finding other legislative solutuions would likely take considerable additional time and decrease regulatory certainty for these potential applicants. Therefore, no change was made to the final rule in response to this comment.

Comment: One commenter stated because of the ongoing decommissioning of a large number of U.S. power reactors and the uncertain production of SMR units, the NRC should ask Congress to change their funding system. Instead of relying heavily on fees from power plant operators, a significant portion of the funding should be allocated by Congress. The same commenter believes collecting operating reactor fees creates a conflict of interest. As more aging reactors shut down, there is a potential for budget shortfall, yet the NRC's workload will increase for supervising decommissioning and defunct nuclear sites that fall under its authority. (Private Citizen)

Response: The NRC considers this comment to be outside the scope because this final rule does not seek to change the fee collection requirements under OBRA–90. Instead, this final rule is implementing a variable annual fee structure that is fair and equitable to SMRs, unlike the current annual fee structure. The requirements in OBRA–90 authorize the NRC to collect approximately 90 percent of its budget authority through fees assessed to licensees and applicants for services provided by the NRC. Additonally, OBRA–90 instructs the NRC to ''establish, by rule, a schedule of charges fairly and equitably allocating'' various generic agency regulatory costs ''among licensees'' and, ''[t]o 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 hourly fees assessed to an operating reactor licensee which could include a decommissioning reactor recoup the NRC's cost for services such as licensing and inspection activities which benefit the licensee. The annual fees assessed to the operating reactor fleet recoup the NRC's cost for services such as research and other generic activities which benefit the entire fee class. Regarding a potential budget shortfall, the NRC requests from Congress only those resources necessary to conduct programs and activities which are efficient and effective to comply with the agency's mission. No change was made to the final rule in response to this comment.

Comment: One commenter mentioned that ThorCon signed a memorandum of understanding with Indonesia to build their Gen-4 molten salt reactor prototype in that nation, and it would be shameful if a trend began where several SMRs were initially developed within the USA, but tested and built in other countries. Importing our own technology is not what made the USA a great nation. (Private Citizen)

Response: The NRC considers this comment to be outside the scope of this rulemaking amending the current annual fee structure for SMRs. This final rule addresses the assessment of annual

fees for future SMRs (defined as light-water reactors for the purposes of this rulemaking) using the implementation of a variable annual fee structure for SMRs Therefore, this comment, which is based on the fee treatment of future non-LWRs, is not applicable in this context. No change was made to the final rule in response to this comment.

Comment: One commenter believes NRC's Project Aim is the best near-term option to reduce fees for classes of NRC licensees and encourage NRC's timely completion of this initiative. (Westinghouse)

Response: The NRC considers this comment to be outside the scope of this rulemaking because this final rule is limited to the assessment of annual fees to SMRs only as it relates to OBRA–90. Therefore, the NRC's efforts under Project Aim such as improving transparency and simplification of how the NRC computes fees are not being considered under this final rule. No change was made to the final rule in response to this comment.

V. Discussion of Amendments by Section

The following paragraphs describe the specific changes made by this rulemaking.

Section 170.3 Definitions

The NRC is adding definitions for ''small modular reactor (SMR),'' and ''small modular reactor site (SMR site).''

Section 171.5 Definitions

The NRC is adding definitions for ''bundled unit,'' ''maximum fee,'' ''minimum fee,'' ''small modular reactor (SMR),'' ''small modular reactor site (SMR site),'' ''variable fee,'' and ''variable rate.''

Section 171.15 Annual Fees: Reactor Licenses and Independent Spent Fuel Storage Licenses

The NRC is redesignating current paragraph (e) as new paragraph (f) and adding new paragraphs (e)(1), (e)(2), and (e)(3) to define activities that comprise SMR annual fees and the time period in which the NRC must collect annual fees from SMR licensees.

VI. Regulatory Flexibility Certification

Under the Regulatory Flexibility Act (5 U.S.C. 605(b)), the NRC certifies that this rule does not have a significant economic impact on a substantial number of small entities. This final rule affects only the licensing and operation of nuclear power plants. The companies that own these plants do not fall within the scope of the definition of ''small entities'' set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

VII. Regulatory Analysis

The NRC has prepared a regulatory analysis for this final rule. The analysis examines the costs and benefits of the alternatives considered by the NRC. The regulatory analysis is available as indicated in the ''Availability of Documents'' section of this document.

VIII. Backfitting and Issue Finality

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule and that a backfit analysis is not required. A backfit analysis is not required because these amendments do not require the modification of, or addition to, systems, structures, components, or the design of a facility, or the design approval or manufacturing license for a facility, or the procedures or organization required to design, construct, or operate a facility.

IX. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111–274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, ''Plain Language in Government Writing,'' published June 10, 1998 (63 FR 31883).

X. National Environmental Policy Act

The NRC has determined that this final rule is the type of action described in 10 CFR 51.22(c)(1). Therefore, neither an environmental impact statement nor environmental assessment has been prepared for this final rule.

XI. Paperwork Reduction Act

This final rule does not contain a collection of information as defined in the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995.

XII. Congressional Review Act

This final rule is a rule as defined in the Congressional Review Act (5 U.S.C. 801–808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

XIII. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Public Law 104–113, requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this final rule, the NRC will revise its licensing, inspection, and annual fee regulations to establish a variable annual fee structure for SMRs. This action does not constitute the establishment of a standard that contains generally applicable requirements.

XIV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Document	ADAMS Accession No./**Federal Register** citation
Notice of Proposed Rulemaking for a Variable Annual Fee Structure for Small Modular Reactors, dated November 4, 2015.	80 FR 68268
Advanced Notice of Proposed Rulemaking (ANPR) for a Variable Annual Fee Structure for Power Reactors, dated March 25, 2009.	74 FR 12735
Summary of ANPR Comments	ML14307A812
SECY–09–0137, ''Next Steps for Advance Notice of Proposed Rulemaking on Variable Annual Fee Structure for Power Reactors,'' dated September 23, 2009.	ML092660166
ANS Position Paper, ''Interim Report of the American Nuclear Society President's Special Committee on Small and Medium Sized Reactor (SMR) Generic Licensing Issues,'' dated July 2010.	ML110040946
SRM for SECY-09-0137, ''Staff Requirements—SECY–09–0137—Next Steps for Advance Notice of Proposed Rulemaking on Variable Annual Fee Structure for Power Reactors,'' dated October 13, 2009.	ML092861070
NEI Position Paper, ''NRC Annual Fee Assessment for Small Reactors,'' dated October 2010	ML103070148
Informational Memorandum to the Commission, ''Resolution of Issue Regarding Variable Annual Fee Structure for Small and Medium-Sized Nuclear Power Reactors,'' dated February 7, 2011.	ML110380251

Document	ADAMS Accession No./**Federal Register** citation
SECY–15–0044, ''Proposed Variable Annual Fee Structure for Small Modular Reactors,'' dated March 27, 2015	ML15051A092
SRM for SECY–15–0044, ''Proposed Variable Annual Fee Structure for Small Modular Reactors'' dated May 15, 2015 ...	ML15135A427
Draft Regulatory Analysis for Proposed Changes to 10 CFR Part 171 ''Annual Fees for Reactor Licenses and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC,'' dated October 6, 2015.	ML15226A588
SECY–11–0079, ''License Structure for Multi-Module Facilities Related to Small Modular Nuclear Power Reactors'', dated June 12, 2011.	ML110620459
Regulatory Analysis for Changes to the Final Rule Amending 10 CFR Part 171, ''Annual Fees for Reactor Licenses and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC''.	ML16054A285

List of Subjects

10 CFR Part 170

Byproduct material, Import and export licenses, Intergovernmental relations, Non-payment penalties, Nuclear energy, Nuclear materials, Nuclear power plants and reactors, Source material, Special nuclear material.

10 CFR Part 171

Annual charges, Byproduct material, Holders of certificates, registrations, approvals, Intergovernmental relations, Nonpayment penalties, Nuclear materials, Nuclear power plants and reactors, Source material, Special nuclear material.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR parts 170 and 171:

PART 170—FEES FOR FACILITIES, MATERIALS, IMPORT AND EXPORT LICENSES, AND OTHER REGULATORY SERVICES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

■ 1. The authority citation for part 170 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 11, 161(w) (42 U.S.C. 2014, 2201(w)); Energy Reorganization Act of 1974, sec. 201 (42 U.S.C. 5841); 42 U.S.C. 2214; 31 U.S.C. 901, 902, 9701; 44 U.S.C. 3504 note.

■ 2. In § 170.3, add in alphabetical order the definitions for *small modular reactor (SMR)* and *small modular reactor site (SMR site)* to read as follows:

§ 170.3 Definitions.

* * * * *

Small modular reactor (SMR) for the purposes of calculating fees, means the class of light-water power reactors having a licensed thermal power rating less than or equal to 1,000 MWt per module. This rating is based on the thermal power equivalent of a light-water SMR with an electrical power generating capacity of 300 MWe or less per module.

Small modular reactor site (SMR site) is the geographically bounded location of one or more SMRs and a basis on which SMR fees are calculated.

* * * * *

PART 171—ANNUAL FEES FOR REACTOR LICENSES AND FUEL CYCLE LICENSES AND MATERIALS LICENSES, INCLUDING HOLDERS OF CERTIFICATES OF COMPLIANCE, REGISTRATIONS, AND QUALITY ASSURANCE PROGRAM APPROVALS AND GOVERNMENT AGENCIES LICENSED BY THE NRC

■ 3. The authority citation for part 171 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 11, 161(w), 223, 234 (42 U.S.C. 2014, 2201(w), 2273, 2282); Energy Reorganization Act of 1974, sec. 201 (42 U.S.C. 5841); 42 U.S.C. 2214; 44 U.S.C. 3504 note.

■ 4. In § 171.5, add in alphabetical order the definitions for *bundled unit, maximum fee, minimum fee, small modular reactor (SMR), small modular reactor site (SMR site), variable fee* and *variable rate* to read as follows:

§ 171.5 Definitions.

* * * * *

Bundled unit means the cumulative licensed thermal power rating of a number of SMR reactors on the same site that, for 10 CFR part 171 purposes only, is considered a single fee unit. The maximum capacity of a bundled unit is 4,500 MWt. A single SMR reactor can be part of two bundled units if it completes the capacity of one unit and begins the capacity of an additional unit. For a given site, the use of the bundled unit concept is independent of the number of SMR plants, the number of SMR licenses issued, or the sequencing of the SMR licenses that have been issued. The first bundled unit on a site is assessed a minimum fee for capacity less than or equal to 250 MWt, plus a variable fee for capacity greater than 250 MWt and less than or equal to 2,000 MWt. Bundled units with capacities greater than 2,000 MWt and less than or equal to 4,500 MWt are assessed a maximum fee that is equivalent to the annual fee paid by the current reactor fleet. The maximum fee replaces the minimum and variable fee for the first bundled unit. Each additional increment of 4,500 MWt of SMR capacity on the same site constitutes an additional bundled unit. No minimum fee is assessed to additional bundled units. For any additional bundled unit, a variable fee applies to capacities less than or equal to 2,000 MWt and the maximum fee applies to capacities greater than 2,000 MWt and less than or equal to 4,500 MWT. For additional bundled units, the maximum fee replaces the variable fee.

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Maximum fee is the highest fee paid by a single bundled unit. It is applied to all bundled units on an SMR site with a licensed thermal power rating greater than 2,000 MWt and less than or equal to 4,500 MWt and is equal to the flat annual fee paid by existing fleet power reactors.

Minimum fee means one annual fee component paid by the first bundled unit on a site with a cumulative licensed thermal power rating of 2,000 MWt or less. For the first bundled unit on a site with a licensed thermal power rating of 250 MWt or less, it is the only annual fee that a licensee pays.

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Small modular reactor (SMR) for the purposes of calculating fees, means the class of light-water power reactors having a licensed thermal power rating less than or equal to 1,000 MWt per module. This rating is based on the thermal power equivalent of a light-water SMR with an electrical power generating capacity of 300 MWe or less per module.

Small modular reactor site (SMR site) is the geographically bounded location

of one or more SMRs and a basis on which SMR fees are calculated.

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Variable fee means the annual fee component paid by the first bundled unit on a site with a licensed thermal power rating greater than 250 MWt and less than or equal to 2,000 MWt; or the annual fee component paid by additional bundled units on a site that have a licensed thermal power rating of less than or equal to 2,000 MWt. The variable fee is the product of the bundled unit thermal power capacity (in the applicable range) and the variable rate.

Variable rate means a per-MWt fee factor applied to all bundled units on site with a licensed thermal power rating less than or equal to 2,000 MWt. For the first bundled unit on a site with a licensed thermal power rating greater than 250 MWt and or less than or equal to 2,000 MWt, the variable rate is based on the difference between the maximum fee and the minimum fee, divided by 1,750 MWt (the variable fee licensed thermal rating range). For additional bundled units with a licensed thermal power rating less than or equal to 2,000 MWt, the variable rate is based on the maximum fee divided by 2,000 MWt.

■ 5. In § 171.15, redesignate paragraph (e) as paragraph (f) and add new paragraph (e) to read as follows:

§ 171.15 Annual fees: Reactor licenses and independent spent fuel storage licenses.

* * * * *

(e)(1) Each person holding an operating license for an SMR issued under 10 CFR part 50 of this chapter or a combined license issued under 10 CFR part 52 after the Commission has made the finding under 10 CFR 52.103(g), shall pay the annual fee for all licenses held for an SMR site. The annual fee will be determined using the cumulative licensed thermal power rating of all SMR units and the bundled unit concept, during the fiscal year in which the fee is due. For a given site, the use of the bundled unit concept is independent of the number of SMR plants, the number of SMR licenses issued, or the sequencing of the SMR licenses that have been issued.

(2) The annual fees for a small modular reactor(s) located on a single site to be collected by September 30 of each year, are as follows:

Bundled unit thermal power rating	Minimum fee	Variable fee	Maximum fee
First Bundled Unit			
0 MWt ≤250 MWt	TBD	N/A	N/A
>250 MWt ≤2,000 MWt	TBD	TBD	N/A
>2,000 MWt ≤4,500 MWt	N/A	N/A	TBD
Additional Bundled Units			
0 MWt ≤2,000 MWt	N/A	TBD	N/A
>2,000 MWt ≤4,500 MWt	N/A	N/A	TBD

(3) The annual fee for an SMR collected under paragraph (e) of this section is in lieu of any fee otherwise required under paragraph (b) of this section. The annual fee under paragraph (e) of this section covers the same activities listed for power reactor base annual fee and spent fuel storage/reactor decommissioning reactor fee.

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Dated at Rockville, Maryland, this 6th day of May.

For the Nuclear Regulatory Commission.

Maureen E. Wylie,

Chief Financial Officer.

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DEPARTMENT OF ENERGY

10 CFR Part 431

[Docket Number EERE–2013–BT–STD–0007 and EERE–2013–BT–STD–0021]

RIN 1904–AC95 and 1904–AD11

Energy Conservation Program for Certain Industrial Equipment: Energy Conservation Standards for Small, Large, and Very Large Air-Cooled Commercial Package Air Conditioning and Heating Equipment and Commercial Warm Air Furnaces

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Confirmation of effective date and compliance dates for direct final rule.

SUMMARY: The U.S. Department of Energy (''DOE'') published a direct final rule to establish amended energy conservation standards for small, large, and very large air-cooled commercial package air conditioning and heating equipment and commercial warm air furnaces in the **Federal Register** on January 15, 2016. DOE has determined that the comments received in response to the direct final rule do not provide a reasonable basis for withdrawing the direct final rule. Therefore, DOE provides this notice confirming adoption of the energy conservation standards established in the direct final rule and announcing the effective date of those standards.

DATES: The direct final rule published on January 15, 2016 (81 FR 2420) became effective on May 16, 2016. Compliance with the amended standards in this final rule will be required for small, large, and very large air-cooled commercial package air conditioning and heating equipment listed in this final rule starting on January 1, 2018, for the first set of standards and January 1, 2023, for the second set of standards. Compliance with the amended standards established for commercial warm air furnaces in this final rule is required starting on January 1, 2023.

ADDRESSES: The dockets, which include **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at *www.regulations.gov.* All documents in the dockets are listed in the *www.regulations.gov* index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

A link to the docket Web page for small, large, and very large air-cooled commercial package air conditioning