From: Glenda Jackson
To: Charlotte Turner
Date: 9/24/01 4:31PM
Subject: My comments on the PBMR draft paper

Charlotte,

Pls see attached WP file for my comments on the draft Pete sent over. Diane has not yet reviewed it. As soon as I hear from Trip, I will provide the additional input for the remaining questions (page 3)

CC: dbd

B/32

Annual Fees

Issue

How should annual fees be assessed for a set of modular reactors that constitute a PBMR facility? When should annual fees commence for a facility that has been issued a combined operating license?

Current Statutory Provisions and Regulations

The Omnibus Budget Reconciliation Act of 1990, as amended, (OBRA) requires that the NRC assess annual fees, and that the fees be established through rulemaking. The statute establishes two standards for the annual charges: Fees charged must be "fair and equitable" in allocating the "aggregate amount of charges" among licensees, and, "to the maximum extent practicable," fees charged must 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 NRC's annual fee regulations, 10 CFR Part 171, cover annual fees associated with Part 50 licenses, but do not specifically cover annual fees associated with combined licenses issued under Part 52. Additionally, neither Part 52 nor Part 171 addresses when NRC would begin to charge annual fees to a person holding a Part 52 combined license. Prior to the issuance of any Part 52 combined license, Part 171 should be modified to specifically establish the annual fee requirements for these licensees.

Currently, 10 CFR 171.15(a) states that, "Each person licensed to operate a power, test, or research reactor . . . shall pay the annual fee for each unit for each license held." Prior to the final FY 1999 fee rule, 10 CFR 171.15(a) stated that, "Each person licensed to operate a power, test, or research reactor shall pay the annual fee for each unit for which the person holds an operating license." Currently, a separate license is issued for each unit and accordingly an annual fee is assessed per license. A modification to Part 171 is needed to clarify that the annual fee for operating power reactors is charged per license, not per unit.

Preapplicant's Position

The current provision of 10 CFR 171.15(a) that each person licensed to operate a power reactor shall pay an annual fee for each unit for each license, means that the NRC could impose a separate fee for each PBMR module. Therefore, the annual fee for a 10-module PBMR facility would be greatly disproportionate to the annual fee for an equivalent sized boiling water reactor (BWR) or pressurized water reactor (PWR). This could place a modular reactor design at a competitive disadvantage with other designs and act as a deterrent to the development of modular reactors. The NRC has commented that "the Commission has determined that the bulk of its licensee-related activities have and will continue to be directly related to the regulation of large power reactors" 51 *Fed. Reg.* 24084. Exelon presumes that this statement explains the apparent decision to require fees for each reactor instead of the entire facility or site. In 1986, when the rule was originally considered, almost all commercial nuclear power facilities were large reactors, and a multiple modular facility had not yet been developed or approved.

Exelon believes it is not reasonable to treat multiple PBMR modules at a site in the same manner as multiple PWRs or BWRs at a site. For several reasons, Exelon contends that the regulatory effort for a 10-module facility will be comparable to or less than the effort required for a large BWR or PWR. For example, Exelon assumes that the modules at a site will have a single licensing basis. Additionally, Exelon maintains that the design is simpler and safer than the design of the PWR or BWR, thereby simplifying NRC's oversight responsibilities. Furthermore, Exelon claims that because the NRC assesses annual fees in part to recover costs that cannot be assigned to any particular facility, this would penalize Exelon for selecting a modular design rather than a large light water reactor design and would discourage the development of a newer and safer technology.

Exelon proposes that rulemaking for 10 CFR 171.15 be initiated and completed prior to the first PBMR application to specify that only one annual fee will be required for each set of PBMR modules. According to Exelon, in this rulemaking, the NRC should define the term modular facility and limit the total size for a modular reactor facility to a maximum of 1500 MWe.

Discussion

It is clear from the language of OBRA that the NRC has flexibility in determining policies and practices in recovering the statutorily-directed amount. The Commission is within its statutory bounds as long as the rule results in a fair and equitable allocation of costs to all licensees, and as long as there is a reasonable relationship between the services rendered by staff and the costs charged for those services.

The establishment of annual fees for a facility licensed under Part 52 will require revisions to Part 171 and a decision whether or not a new fee category for modular reactors should be created. Revisions to Part 171 will be required to specifically authorize annual fees to be charged to facilities licensed under Part 52, to clarify that an annual fee is charged per license, not per unit, and to establish when NRC would begin to charge an annual fee to a person holding a Part 52 combined license. With respect to the latter revision, under section 6101(c)(1) of OBRA, the NRC may impose annual fees on licensees. Although a construction permit is a license, the NRC has not and currently does not impose annual fees on those persons holding a power reactor construction permit. Consistent with this approach, for a Part 52 combined license, the staff contemplates assessing the annual fee only after construction is complete, all regulatory requirements have been met, and the Commission has authorized operation of the facility.

The annual fee for each operating power reactor is currently determined by dividing the total annual fee amount for the power reactor class by the number of operating power reactor licenses. The staff currently anticipates that up to ten Pebble Bed modules could be allowed under a single license. Therefore, with the above revisions to Part 171, a license authorizing operation of a PBMR would be subject to an annual fee comparable to the annual fee being charged for a Part 50 operating license, regardless of the number of modules at the site, unless a revision to Part 171 is made to establish a specific annual fee schedule for a PBMR license.

However, if the agency decides to issue a separate license for each PBMR module or if the agency's regulatory oversight necessary for the PBMR is significantly different than other operating power reactors the Commission could initiate a Part 171 rulemaking to create a separate fee class for small modular design reactors. With respect to the agency's regulatory

oversight, annual fees for a given class of licenses are based on NRC's budgeted costs allocated to the class for generic activities and other costs not recovered under 10 CFR Part 170. At this time, it is not entirely clear whether the agency's generic and other efforts to regulate a PBMR will be significantly different from its regulation of other types of operating power reactors. NRR has provided some indication that it is unlikely that the generic regulatory oversight of PBMRs will be significantly different from that of existing reactors. Depending on how the regulatory efforts differ and the magnitude of the NRC resources, a separate class of licensees could be established.

While a PBMR license potentially having up to 10 modules might have the largest megawatt output capacity compared to all existing reactors, historically, the limits of that capacity have not been a consideration in determining the annual fee amount. This is because the NRC has found no necessary relationship or predictive trend between the thermal megawatt rating of a power reactor and NRC regulatory costs. In addition, the NRC does not consider the economic advantages or disadvantages of possessing a license when assessing annual fees.

In summary, costs must be assessed in a "fair and equitable" manner and, "to the maximum extent practicable", reflect a "reasonable relationship" between the fees charged and the services rendered. Thus, if the NRC's regulatory costs for PBMR's are approximately the same as existing power reactors and the license includes multiple modules, the PBMR annual fee would be of the same magnitude as existing power reactors. However, if the NRC's regulatory costs are significantly lower or higher than those for other types of operating reactors or if a separate license is issued for each module, the Commission could establish a separate license fee class.

Recommendation

The CFO plans to include in the FY 2002 fee rulemaking revisions to Part 171 to specifically authorize annual fees to be charged to facilities licensed under Part 52, to clarify that our annual fee is charged per license, not per unit, and to establish when NRC would begin to charge an annual fee to a person holding a Part 52 combined license. Until a final decision is made on the number of modules that will be allowed under a single license, and NRC receives more data from Exelon and is in a better position to make the appropriate preliminary

determinations about what kind of regulatory oversight the proposed design will likely require, no recommendations on establishing a new license fee category for modular reactors are offered.

Annual Fees

Issue

How should annual fees be assessed for a set of modular reactors that constitute a PBMR facility? When should annual fees commence for a facility that has been issued a combined operating license?

Current Statutory Provisions and Regulations

The Omnibus Budget Reconciliation Act of 1990, as amended, (OBRA) ~~gives the NRC rulemaking authority to assess annual charges~~ requires that the NRC assess annual fees, and that the fees be established through rulemaking. The statute establishes two standards for ~~assessing~~ the annual charges: Fees charged must be "fair and equitable" in allocating the "aggregate amount of charges" among licensees, and, "to the maximum extent practicable," fees charged must 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 ~~NRC exercises its~~ NRC's annual fee ~~assessment authority under~~ regulations, 10 CFR Part 171~~. Part 171~~, covers annual fees associated with Part 50 licenses, but does not specifically cover annual fees associated with combined licenses issued under Part 52. Additionally, neither Part 52 nor Part 171 addresses when NRC would begin to charge annual fees to a person holding a Part 52 combined license. ~~A modification to Part 171 will be necessary p~~Prior to the issuance of any Part 52 combined license, Part 171 should be modified to specifically establish the annual fee requirements for these licenses.

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Preapplicant's Position

The current provision of 10 CFR 171.15(a) that each person licensed to operate a power reactor shall pay an annual fee for each unit for each license, means that the NRC could impose a separate fee for each PBMR module. Therefore, the annual fee for a 10-module PBMR facility would be greatly disproportionate to the annual fee for an equivalent sized boiling water reactor (BWR) or pressurized water reactor (PWR). This could place a modular reactor design at a competitive disadvantage with other designs and act as a deterrent to the development of modular reactors. The NRC has commented that "the Commission has determined that the bulk of its licensee-related activities have and will continue to be directly related to the regulation of large power reactors." 51 *Fed. Reg.* 24084. Exelon presumes that this statement explains the apparent decision to require fees for each reactor instead of the entire facility or site. In 1986, when the rule was originally considered, almost all commercial nuclear power facilities were large reactors, and a multiple modular facility had not yet been developed or approved.

Exelon believes it is not reasonable to treat multiple PBMR modules at a site in the same manner as multiple PWRs or BWRs at a site. For several reasons, Exelon contends that the regulatory effort for a 10-module facility will be comparable to or less than the effort required for a large BWR or PWR. For example, Exelon assumes that the modules at a site will have a single licensing basis. Additionally, Exelon maintains that the design is simpler and safer than the design of the PWR or BWR, thereby simplifying NRC's oversight responsibilities. Furthermore, Exelon claims that because the NRC assesses annual fees in part to recover costs that cannot be assigned to any particular facility, this would penalize Exelon for selecting a

Insert A:

Currently, a separate license is issued for each unit and accordingly an annual fee is assessed per license. Prior to the issuance of any license that covers multiple units, Part 171 would need to be modified to indicate whether the annual fees for such a license would be on a per unit basis or on a per license basis.

NOTE: Jim Holloway said that it was intentional to assess annual fees per unit because the generic costs were per unit, not per site. But, of couse, each unit has always been licensed separately. However, he did not know of any written documentation on this (but I will continue to look)

modular design rather than a large light water reactor design and would discourage the development of a newer and safer technology.

Exelon proposes that rulemaking for 10 CFR 171.15 be initiated and completed prior to the first PBMR application to specify that only one annual fee will be required for each set of PBMR modules. According to Exelon, in this rulemaking, the NRC should define the term modular facility and limit the total size for a modular reactor facility to a maximum of 1500 MWe.

Discussion

It is clear from the language of OBRA that the NRC has ~~great~~ flexibility in determining policies and practices in recovering the statutorily-directed amount. The Commission is within its statutory bounds as long as the rule results in a fair and equitable allocation of costs to all licensees, and as long as there is a reasonable relationship between the services rendered by staff and the costs charged for those services.

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one option

Consistent with this approach, ~~it is OGC's understanding that with respect to a holder of a combined construction permit and operating license under 10 CFR Part 52, the CFR contemplates~~ would be to assessing the annual fee only after construction is complete, all regulatory requirements have been met, and the Commission has authorized operation of the facility. ~~[OGC basis?] (I RECOMMEND THAT THIS PARAGRAPH BE DELETED-Glenda)~~ CFO (per OGC)

The annual fee for each operating power reactor is currently determined by dividing the total annual fee amount for the power reactor class by the number of operating power reactor licenses The staff currently anticipates that up to ten Pebble Bed modules could be allowed under a single license. Therefore, with the above revisions to Part 171, a license authorizing operation of a PBMR would be subject to an annual fee comparable to the annual fee being charged for a Part 50 operating license, regardless of the number of modules at the site, unless a revision to Part 171 is made to establish a specific annual fee schedule for a PBMR license.

However, if the agency decides to issue a separate license for each PBMR module or if the agency's regulatory oversight necessary for the PBMR is significantly different than other operating power reactors, the Commission could initiate a Part 171 rulemaking to create a separate fee class for small modular design reactors. With respect to the agency's regulatory oversight, annual fees for a given class of licenses are based on NRC's budgeted costs allocated to the class for generic activities and other costs not recovered under 10 CFR Part 170. At this time, it is not entirely clear whether the agency's generic and other efforts to regulate a PBMR will be significantly different from its regulation of other types of operating power reactors. NRR has provided some indication that it is unlikely that the generic regulatory oversight of PBMRs will be significantly different from that of existing reactors. Depending on how the regulatory efforts differ and the magnitude of the NRC resources, a separate class of licensees could be established.

While a PBMR license potentially having up to 10 modules might have the largest megawatt output capacity compared to all existing reactors, historically, the limits of that capacity have not been a consideration in determining the annual fee amount. This is because the ~~agency~~NRC has found no necessary relationship or predictive trend between the thermal megawatt rating of a reactor and NRC regulatory costs [FROM 1986 FINAL FEE RULE RESPONSE TO

COMMENTS]. In addition, the NRC does not consider the economic advantages or disadvantages of possessing a license when assessing annual fees.

In summary, costs must be assessed in a "fair and equitable" manner and, "to the maximum extent practicable", reflect a "reasonable relationship" between the fees charged and the services rendered. Thus, if the NRC's regulatory costs for PBMR's are approximately the same as existing power reactors and the license includes multiple modules, the PBMR annual fee would be of the same magnitude as existing power reactors. However, if the NRC's regulatory costs are significantly lower or higher than those for other types of operating reactors or if a separate license is issued for each module, the Commission could establish a separate license fee class.

Recommendation

The CFO ~~recommends that the above referenced revisions to Part 171 be included in the rulemaking for FY 2002 license fees. However, until~~plans to include in the FY 2002 fee rulemaking the clarification to 10 CFR 171.15(a) that the annual fees are assessed per license, not per unit. {OTHER THAN THE CLARIFICATION TO 171.15(a), I'M NOT SURE WE WANT TO COMMIT TO ANY PART 52 FEE RULEMAKING PRIOR TO KNOWING WHETHER WE WILL HAVE A SEPARATE FEE CLASS OR NOT. IF WE INCLUDE PART 52 IN THE FY2002 FEE RULE, WHAT FEE WOULD APPLY TO THEM?- Glenda}. Until a final decision is made on the number of modules that will be allowed under a single license, and NRR receives more data from Exelon and is in a better position to make the appropriate preliminary determinations about what kind of regulatory oversight the proposed design will likely require, no recommendations on establishing a new license fee category for modular reactors are offered.

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modular design rather than a large light water reactor design and would discourage the development of a newer and safer technology.

Exelon proposes that rulemaking for 10 CFR 171.15 be initiated and completed prior to the first PBMR application to specify that only one annual fee will be required for each set of PBMR modules. According to Exelon, in this rulemaking, the NRC should define the term modular facility and limit the total size for a modular reactor facility to a maximum of 1500 MWe.

Discussion

It is clear from the language of OBRA that the NRC has ~~great~~ flexibility in determining policies and practices in recovering the statutorily-directed amount. The Commission is within its statutory bounds as long as the rule results in a fair and equitable allocation of costs to all licensees, and as long as there is a reasonable relationship between the services rendered by staff and the costs charged for those services.

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Discussion

It is clear from the language of OBRA that the NRC has ~~great~~ flexibility in determining policies and practices in recovering the statutorily-directed amount. The Commission is within its statutory bounds as long as the rule results in a fair and equitable allocation of costs to all licensees, and as long as there is a reasonable relationship between the services rendered by staff and the costs charged for those services.

~~The establishment of annual fees for a facility licensed under Part 52 will require revisions to Part 171 and a decision whether or not a new fee category for modular reactors should be created. The r~~Revisions to Part 171 ~~would~~will be required to specifically ~~authorize~~establish annual fees to be charged to facilities licensed under Part 52, ~~correctly reflect agency policy~~to clarify that an annual fee is charged ~~to each person holding an operating reactor~~per license, not per unit, and ~~clarify~~to establish when NRC would begin to charge an annual fee to a person holding a Part 52 combined license. With respect to the latter revision, under section 6101(c)(1) of OBRA, the NRC may impose annual fees on licensees. ~~The Commission's practice has been only to assess annual fees on facilities that possess an operating license (e.g., power reactors) or a certificate holder (e.g., USEC). Thus, a~~Although a construction permit is a license, the NRC ~~has~~does not currently imposed annual fees on those persons holding a power reactor construction permit~~–~~, based on the premise that [DAF need sentence explaining why] {HAVE NOT BEEN ABLE TO FIND SPECIFIC LANGUAGE ON THIS ISSUE, TRIP IS LOOKING TO SEE IF HE CAN FIND ANYTHING-Glenda}

Consistent with this approach, it is OGC's understanding that with respect to a holder of a combined construction permit and operating license under 10 CFR Part 52, the CFR contemplates assessing the annual fee only after construction is complete, all regulatory requirements have been met, and the Commission has authorized operation of the facility. [OGC basis?]**{I RECOMMEND THAT THIS PARAGRAPH BE DELETED-Glenda}**

The annual fee for each operating power reactor is currently determined by dividing the total annual fee amount for the power reactor class by the number of operating power reactor licenses. The staff currently anticipates that up to ten Pebble Bed modules could be allowed under a single license. Therefore, with the above revisions to Part 171, a license authorizing operation of a PBMR would be subject to an annual fee comparable to the annual fee being charged for a Part 50 operating license, regardless of the number of modules at the site.

However, if the agency decides to issue a separate license for each PBMR module or if the agency's regulatory oversight necessary for the PBMR is significantly different than other operating power reactors, the Commission could initiate a Part 171 rulemaking to create a separate fee class for small modular design reactors. With respect to the agency's regulatory oversight, annual fees for a given class of licenses are based on NRC's budgeted costs allocated to the class for generic activities and other costs not recovered under 10 CFR Part 170. At this time, it is not entirely clear whether the agency's generic and other efforts to regulate a PBMR will be significantly different from its regulation of other types of operating power reactors. NRR has provided some indication that it is unlikely that the generic regulatory oversight of PBMRs will be significantly different from that of existing reactors. Depending on how the regulatory efforts differ and the magnitude of the NRC resources, a separate class of licensees could be established.

While a PBMR license potentially having up to 10 modules might have the largest megawatt output capacity compared to all existing reactors, historically, the limits of that capacity have not been a consideration in determining the annual fee amount. This is because the ~~agency~~NRC has found no necessary relationship or predictive trend between the thermal megawatt rating of a reactor and NRC regulatory costs [FROM 1986 FINAL FEE RULE RESPONSE TO

COMMENTS]. In addition, the NRC does not consider the economic advantages or disadvantages of possessing a license when assessing annual fees.

In summary, costs must be assessed in a "fair and equitable" manner and, "to the maximum extent practicable", reflect a "reasonable relationship" between the fees charged and the services rendered. Thus, if the NRC's regulatory costs for PBMR's are approximately the same as existing power reactors and the license includes multiple modules, the PBMR annual fee would be of the same magnitude as existing power reactors. However, if the NRC's regulatory costs are significantly lower or higher than those for other types of operating reactors or if a separate license is issued for each module, the Commission could establish a separate license fee class.

Recommendation

The CFO ~~recommends that the above referenced revisions to Part 171 be included in the rulemaking for FY 2002 license fees. However, until~~plans to include in the FY 2002 fee rulemaking the clarification to 10 CFR 171.15(a) that the annual fees are assessed per license, not per unit. {OTHER THAN THE CLARIFICATION TO 171.15(a), I'M NOT SURE WE WANT TO COMMIT TO ANY PART 52 FEE RULEMAKING PRIOR TO KNOWING WHETHER WE WILL HAVE A SEPARATE FEE CLASS OR NOT. IF WE INCLUDE PART 52 IN THE FY2002 FEE RULE, WHAT FEE WOULD APPLY TO THEM?- Glenda}. Until a final decision is made on the number of modules that will be allowed under a single license, and NRR receives more data from Exelon and is in a better position to make the appropriate preliminary determinations about what kind of regulatory oversight the proposed design will likely require, no recommendations on establishing a new license fee category for modular reactors are offered.