



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

June 4, 1981

The Honorable Bruce F. Vento  
Committee on Interior and Insular Affairs  
United States House of Representatives  
Washington, D. C. 20515

Dear Congressman Vento:

The Nuclear Regulatory Commission staff has prepared the enclosed response to your March 16, 1981 letter concerning the requirements of Section 303 of Public Law 96-295 for reporting the direct and indirect costs of issuing licenses and permits for, and inspections of, nuclear power plants.

On April 6, 1981, we wrote you on this matter and indicated that we would provide you with explicit answers to your questions by mid-May 1981. Standard definitions of direct cost, indirect cost and other terms germane to the calculation of licensing costs are included as Attachment 1 to our response. Each NRC office, board and panel performing activities related to the process of licensing reactors contributed information which is reflected in the cost figures you requested. The costs which we have provided in response to your questions are best estimates based upon the most recent budget and cost information available. They have not been subject to the analysis and review which was done in developing the existing 1978 license fee schedule. The Commission has tasked the Executive Director to reassess the costs of licensing and inspection by August 31, 1981 and provide the Commission with a proposed adjustment of the fee schedule using current rates to cover more completely the agency cost of licensing and inspection.

Subsequent discussions with your staff have indicated the desire for additional information on how the NRC develops fees charged for licensing purposes. This information is enclosed as Attachment 2.

We hope these answers are responsive to your needs. Please let us know if you have any further questions on this matter.

Sincerely,

Joseph M. Hendrie

Enclosures:  
As Stated

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QUESTION 1. During FY 1980, what has been the total cost to the NRC for reviewing reactor construction permit applications? What is the current estimated cost of an NRC construction permit review, including all costs incurred prior to construction permit issuance?

ANSWER

During FY 1980 the total cost to the NRC of reviewing reactor construction permit applications was approximately \$3.4 million. Of this amount, about \$1.5 million was direct cost and about \$1.9 million was indirect cost. Definitions for direct cost, indirect cost, and other terms germane to cost calculations are provided in Attachment 1.

According to current estimates, the cost of an NRC construction permit review for a single custom plant ranges from approximately \$2.4 million to \$3.4 million. Estimates for direct cost range from about \$1.3 million to \$1.7 million and estimates for indirect cost range from about \$1.2 million to \$1.7 million.

QUESTION 2. During FY 1980, what has been the total cost to the NRC for reviewing reactor operating license applications? What is the current estimated cost of an NRC operating license review, including all costs incurred prior to operating license issuance?

ANSWER

During FY 1980 the total cost to the NRC for reviewing reactor operating license applications was approximately \$36.1 million. Of this amount, about \$20.4 million was direct cost and about \$15.7 million was indirect cost. Definitions for direct cost, indirect cost, and other terms germane to cost calculations are provided in Attachment 1.

According to current estimates, the cost of an NRC operating license review for a single custom plant ranges from approximately \$2.8 million to \$3.3 million. Estimates for direct cost range from about \$1.5 million to \$1.7 million and estimates for indirect cost range from about \$1.4 million to \$1.6 million.

QUESTION 3

During FY 1980, what was the total cost to the NRC for inspections of nuclear power plants under construction?

ANSWER

During FY 1980, the total cost to the NRC for inspections of Nuclear Power Plants under construction (i.e., those under CP review and OL review) was approximately \$14.8 million. Of this amount, about \$6.0 million was direct cost and about \$8.8 million was indirect cost. All of these costs (apportioned) are included in the answers to Questions 1 and 2. See Attachment 1 for definitions of terms.

QUESTION 4 During FY 1980, what was the total cost to the NRC for inspections of operating nuclear plants?

ANSWER

During FY 1980 the total costs to the NRC for inspections of operating nuclear plants was approximately \$28.4 million. Of this amount, about \$12.9 million was direct cost and about \$15.5 million was indirect cost. See Attachment 1 for definitions of terms.

QUESTION 5

During FY 1980, what was the total cost to the NRC for inspections of vendors and contractors (including Nuclear Steam Supply System manufacturers, Architect & Engineering firms, Fuel Suppliers, Component Suppliers, and ASME Vendors)?

ANSWER

During FY 1980, the total cost to the NRC for inspections of vendors and contractors including Nuclear Steam Supply System manufacturers, Architect and Engineering firms, Fuel Suppliers, Component Suppliers and ASME Vendors was approximately \$2.2 million.

Of this amount, about \$0.9 million was direct cost and about \$1.3 million was indirect cost. See Attachment 1 for definitions of terms.

QUESTION 6: For each expenditure of NRC funds enumerated in Questions 1-5 above, how much revenue has been recovered by the Federal Government?

ANSWER: During FY 1980, collections from the assessment of license fees are as follows:

1. No collections were made by the Commission for the review of construction permit applications. There were costs incurred during the fiscal year; however, Commission regulations provide that construction permit fees are to be collected when NRC completes its review. Since there were no construction permits issued during FY 1980, no construction permit fees were collected.
2. \$1.6 million was collected in FY 1980 for the issuance of operating licenses. As with construction permits, fees for licenses are collected when NRC completes its review. The Commission's FY 1980 costs in this particular area represent not only costs for the licenses issued but also work in progress on licenses which are expected to be issued in subsequent years.
3. About \$900,000 was collected for inspections performed at nuclear power plant construction sites. This \$900,000 is included in the \$1.6 million shown in the operating license fees shown in 2 above. For fee purposes, we consider inspection costs incurred from the date the construction permit application is tendered to the date the permit is issued to be a part of the construction permit review costs. Likewise, inspection costs incurred from the date the construction permit is issued to the issuance of the operating license are a part of the operating license review costs. Thus, the \$900,000 represents the inspection portion of the three operating license fees collected in FY 1980.
4. \$5.8 million was collected for routine inspections of operating nuclear power plants. Part 10 CFR 170 of the Commission's regulations limit cost recovery to routine type inspections. Non-routine inspections such as investigations, incident/accident response or enforcement inspections are not subject to fees. The costs of the non-routine type inspections, however, have been included in the total FY 1980 costs shown for inspections of operating nuclear power plants.
5. No charges were made by the Commission for quality assurance/quality control inspections of vendors. Commission guidelines provide that fees will be imposed for NRC services rendered at the request of an organization where special benefits will be accrued from that NRC service. NRC does not consider vendors and architect engineers to have received any special benefits from an NRC inspection.

Direct Costs

The direct costs consist of the salaries and benefits of the professional staff, program (contractual) support and travel directly related to the activity.

Indirect Costs

The indirect costs consist of: (a) the salaries and benefits of the professional support staff for each activity, (b) organizational support (housekeeping) costs applicable to each NRC Office involved in the activity which were allocated to that Office's direct and indirect labor associated with the activity; (c) general and administrative costs, which were allocated to all direct and indirect labor associated with each activity.

Manpower

Professional Direct - is defined as effort by those professionals whose activities are directly related to the individual office mission. This would encompass such activities as reviewing license applications, inspecting reactors, writing standards, technically monitoring and directing research, conducting hearings, etc. This category is normally used to include all personnel at or below branch level except for branch chief and secretarial/clerical personnel.

Professional Support - Effort by those clerical and supervisory positions at the branch level designed to provide direct support-type services to the professional. Professional support positions are relatively sensitive (variable) to fluctuations in the size of an office. The need for secretarial support, for example, is generally more directly influenced by the size of an office than the functions performed. Hence, this need should normally vary with the number of professionals to be supported. Other positions which are primarily influenced by the number of professionals will include branch chiefs.

Organizational Support - Includes those positions that provide general support to professional direct personnel and to professional support personnel. Positions in this category perform work that is primarily dependent upon the scope of the functions assigned rather than the number of professionals assigned. Organizational support positions are normally considered to be all positions at the Assistant Director (AD) level and above. In addition, all positions on the Program Support staff are considered as organizational support positions.

Activities

CP Review - For reporting purposes, a CP review is defined as the review conducted from the date the application is tendered with the NRC to the date of issuance of the construction permit.

OL Review - For reporting purposes, an OL review is defined as the review conducted by the NRC from the date of CP issuance to the date of OL issuance authorizing 100% power operation.



Development of NRC License Fees

The schedule of fees in 10 CFR 170 of the Commission's regulations which became effective on March 23, 1978 are based on 31 U.S.C. 483a, which was construed in Supreme Court decisions of March 4, 1974, and decisions of the U.S. Court of Appeals for the District of Columbia on December 16, 1976. As a result of these court decisions, the Commission developed internal guidelines for the setting of license fees. Using these guidelines and estimates in the Commission's FY 1977 budget, the existing fee schedule was developed. Subsequently, this schedule was challenged in the U.S. Court of Appeals for the Fifth Circuit which issued an opinion in August 1979 upholding in all respects the NRC's existing 1978 schedule and guidelines for fees.

In summary, Commission guidelines for fee assessment provide that fees may be assessed to persons who are identifiable recipients of special benefits conferred by specifically identified activities of the NRC. Such special benefits include all services necessary for the issuance of a required permit, license, approval or amendment and all services necessary to assist a recipient in complying with statutory obligations or obligations under the Commission's regulations. The fees established by regulation include the direct and indirect costs of providing the service. The Commission has stipulated that where the identification of the ultimate beneficiary of the NRC activity is obscure, the cost of the activity should not be included in the cost basis for fees.

Following Commission guidelines, the 1978 schedule of fees was developed as follows:

1. The activities performed and the services provided by all NRC offices were reviewed and analyzed. Only those services which provided special benefits to identifiable recipients were included for fee computation.
2. Specific offices were identified as those directly involved in the review of applications/requests, and issuing licenses, approvals, or performing inspections: Office of Nuclear Reactor Regulation (NRR), Office of Inspection and Enforcement (IE), Office of Nuclear Material Safety and Safeguards (NMSS), ACRS, ASLBP, and ASLAP. Since professional employees in each of these offices are involved in the processing of applications and performing inspections, an average cost/man-year to maintain a professional employee (professional rate) was developed for each office.
3. In addition to the offices described in item 2 above which are directly involved in the licensing or inspection process, other offices such as Controller, Executive Legal Director, etc., which provide indirect support to the licensing and inspection process and which were included, after a detailed analysis of their activities.

4. Program support services (contractual line items) were individually reviewed to determine whether they supported the review of applications, permits, licenses, approvals or inspections. Those contractual services which were found to support the review, licensing, inspection or hearing process were considered to be providing a special benefit and were included in the fee computation.
5. Each operating office responsible for the processing of applications and conducting inspections and hearings, determined the average professional manpower (expressed in man-years or man-hours) required to process each category or type of application, license, amendment, or inspection.
6. The proposed fee for a specific category of license application was computed by multiplying the average professional manpower required to perform the service times the professional man-year or man-hour rate, and adding a proportionate share of the costs of contractual services.

Once the proposed fees were computed, they were published in the Federal Register for public comment. All comments were then carefully considered and the final rule was published in the Federal Register.

The fee schedule provides that fees in certain instances; e.g., those assessed for power reactor construction permits and operating licenses are to be based on the actual costs (manpower and contractual) expended to complete the review, not to exceed certain upper limits established by the Commission. For example, as shown in the attached schedule the fee established by regulation for the custom review of an operating license for a single unit at a site is slightly more than \$1 million. When the Commission's review costs exceed \$1 million, no additional fees are assessed. If the review costs are less than \$1 million, then the Commission would refund the difference between the actual cost of the review and the \$1 million which was paid by the licensee upon issuance of the license. Fees were also established for other types of facility reviews; e.g., review of duplicate plants, replicate plants, etc.

License fees have not been readjusted since 1978, because the existing fee schedule was challenged unsuccessfully in court by several utilities. In the meantime, the NRC has been attempting to collect costs incurred in the review of facility applications subsequently withdrawn by utilities. These applicants have all refused to pay where the NRC has billed. A notice explaining the Commission's position was published in the Federal Register. It is expected that this matter will be litigated.

PART 170 • FEES FOR FACILITIES AND MATERIALS LICENSES---

(8) A license authorizing the use of source material as shielding only in devices and containers, provided, however, that all other licensed byproduct material, source material, or special nuclear material in the device or container will be subject to the fees prescribed in § 170.31.

(9) A license for possession and use of byproduct material, source material, or special nuclear material applied (3r by, or issued to, an agency of a State or any political subdivision thereof, except for licenses which authorize distribution of byproduct material, source material, or special nuclear material, or products containing byproduct material, source material, or special nuclear material, or licenses authorizing services to any person other than an agency or political subdivision of the State.

(b) (1) The Commission may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of this part as it determines are authorized by law and are otherwise in the public interest. (2) Applications for exemption under this paragraph may include activities such as, but not limited to, the use of licensed materials for educational or noncommercial public displays or scientific collections. (3) [Deleted 43 FR 7210.]

§ 170.12 Payment of fees.

(a) **Application Fees.** Each application for which a fee is prescribed shall be accompanied by a remittance in the full amount of the fee. No application will be accepted for filing or processed prior to payment of the full amount required. Applications for which no remittance is received may be returned to the applicant. All application fees will be charged irrespective of the Commission's disposition of the application or a withdrawal of the application.

(b) **License Fees.** Fees for construction permits, operating licenses, manufacturing licenses, and materials licenses, are payable upon notification by the Commission when the review of the project is completed.

(c) **Amendment Fees.** The appropriate amendment fee shall accompany the application for amendment when filed with the Commission. Where applicable, the applicant shall provide a proposed determination of the amendment class and state the basis therefor as part of the amendment request and shall remit the fee corresponding to the determination with the application for amendment. The Commission will examine the amendment fee and where applicable, refund any overcharges or bill the applicant for the additional amendment fee.

(d) **Renewal Fees.** The appropriate renewal fee shall accompany the re-

newal application when filed with the Commission.

(e) **Approval Fees.** Fees for spent fuel cask and shipping container approvals, standardized spent fuel facility design approvals, and construction approvals are payable upon notification by the Commission when the review of the project is completed. Fees for facility reference standardized design approvals will be paid in five (5) installments based on payment of 20 percent of the approval fee (see footnote 3 § 170.21) as each of the first five (5) units of the approved design are referenced in an application(s) filed by a utility or utilities.

(f) **Special Project Fees.** Fees for special projects are payable upon notification by the Commission when the review of the project is completed.

(g) **Inspection Fees.** Inspection fees are payable upon notification by the Commission.

(h) **Method of Payment.** Fee payments shall be by check, draft or money order made payable to the U.S. Nuclear Regulatory Commission.

MATERIALS

§ 170.21 Schedule of fees for production and utilization facilities, review of reference standardized designs, and special projects.

(a) Applicants for construction permits, manufacturing licenses, operating licenses, and approvals of reference standardized facilities designs, shall pay the fees set forth in the table below.

(b) Applicants for special project reviews shall pay fees as separately determined by the Commission.

SCHEDULE OF FACILITY FEES

| Facility categories   | Types of fees  | Fee        |
|---|--|------------|
| <b>A. Power reactors:</b>   |  |            |
| <b>1. Custom:</b>   |  |            |
|   | Application—Construction permit                            | \$ 123,000 |
|   | Construction permit—First unit                             | 944,000    |
|   | Construction permit—Concurrent unit*                       | 174,000    |
|   | Operating license—First unit                               | 1,024,500  |
|   | Operating license—Concurrent unit*                         | 302,500    |
| <b>2. Standardized design—outillage unit:</b>   |  |            |
|   | Application—Construction permit                            | 125,000    |
|   | Construction permit—First unit                             | 944,000    |
|   | Construction permit—Concurrent unit*                       | 174,000    |
|   | Construction permit—First identical unit additional sites) | 737,100    |
|   | Operating license—First unit                               | 1,024,500  |
|   | Operating license—Concurrent unit*                         | 300,200    |
|   | Operating license—First identical unit additional sites)   | 712,000    |
| <b>3. Standardized design—reference unit:</b>   |  |            |
|   | Application—Construction permit                            | 125,000    |
|   | Construction permit—First unit                             | 811,800    |
|   | Construction permit—Concurrent unit*                       | 164,200    |
|   | Construction permit—First identical unit additional sites) | 723,900    |
|   | Operating license—First unit                               | 914,400    |
|   | Operating license—Concurrent unit*                         | 263,900    |
|   | Operating license—First identical unit additional sites)   | 691,500    |
| <b>C. Standardized design—Reference systems concept:</b>  |  |            |
| <b>1. Utility referencing a standardized nuclear steam supply system and custom balance of plant for both CP and OL stages.</b>           |  |            |
|   | Application—Construction permit                            | 123,000    |
|   | Construction permit—First unit                             | 883,800    |
|   | Construction permit—Concurrent unit*                       | 162,500    |
|   | Construction permit—First identical unit additional sites) | 723,900    |
|   | Operating license—First unit                               | 934,100    |
|   | Operating license—Concurrent unit*                         | 292,100    |
|   | Operating license—First identical unit additional sites)   | 689,200    |
| <b>2. Utility referencing a standardized nuclear steam supply system and standardized balance of plant for both the CP and OL stages.</b> |  |            |
|   | Application—Construction permit                            | 123,000    |
|   | Construction permit—First unit                             | 721,800    |
|   | Construction permit—Concurrent unit*                       | 182,500    |
|   | Construction permit—First identical unit additional sites) | 723,900    |
|   | Operating license—First unit                               | 879,100    |
|   | Operating license—Concurrent unit*                         | 281,100    |
|   | Operating license—First identical unit additional sites)   | 689,200    |
| <b>3. Manufacturing license concept:</b>  |  |            |
| <b>a. Vendor—review of preliminary design.</b>  |  |            |
|   | Application  | 123,000    |
| <b>b. Vendor—review of final design.</b>  |  |            |
|   | Manufacturing license                                      | 1,477,500  |
|   | Final design amendment                                     | 648,100    |
| <b>c. Utility referencing a manufacturing license.</b>  |  |            |
|   | Application—Construction permit                            | 123,000    |
|   | Construction permit—First unit                             | 126,000    |
|   | Construction permit—Concurrent unit*                       | 61,500     |
|   | Operating license—First unit                               | 1,001,200  |
|   | Operating license—Concurrent unit*                         | 221,000    |
| <b>4. Advanced reactors:</b>  |  |            |
|   | Application—Construction permit                            | 221,000    |
|   | Construction permit  | 179,000    |
|   | Operating license  | 1,781,000  |
|   | Operating license  | 1,794,000  |
| <b>B. Standard reference design review:</b>   |  |            |
| <b>1. Vendor—Standardized nuclear steam supply system.</b>  |  |            |
| <b>a. Review of preliminary reference design.</b>   |  |            |
|   | Application  | 30,000     |
| <b>b. Review of final reference design.</b>   |  |            |
|   | Application  | 412,100    |
|   | Approval   | 30,000     |
| <b>2. Architect-engineer—Standardized balance of plant.</b>   |  |            |
|   | Application  | 642,400    |

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(Continued)

PART 170 • FEES FOR FACILITIES AND MATERIALS LICENSES...

(Continued)

SCHEDULE OF FACILITY FEES

| Facility categories                       | Types of fees                   | Fee       |
|---|---------------------------------|-----------|
| A. Review of preliminary reference design | Application                     | \$0.000   |
|   | Approval                        | \$12,100  |
| B. Review of final reference design       | Application                     | \$0.000   |
|   | Approval                        | \$41,200  |
| C. Test facility                          | Application—Construction permit | \$1,000   |
|   | Construction permit             | \$7,200   |
|   | Operating license               | \$100,200 |
| D. Research reactor                       | Application—Construction permit | \$1,000   |
|   | Construction permit             | \$4,800   |
|   | Operating license               | \$28,000  |
| E. Uranium enrichment plants              | Application—Construction permit | \$28,000  |
|   | Construction permit             | \$88,400  |
|   | Operating license               | \$87,200  |
| F. Special projects and reviews:          |                                 |           |

Where a partial fee for a power reactor operating license has been paid prior to the effective date of this amendment, the amount paid shall be deducted from the fee prescribed by this amendment and the difference will be due when the operating license for 100 per cent power is issued.

Concurrent unit. A concurrent unit is defined as a power reactor of the same design as a single power reactor that was subject to concurrent licensing review.

When review of the permit, license, approval, or amendment is complete, the expenditures for professional manpower and appropriate support services will be determined and the resultant fee assessed, but in no event will the fee exceed that shown in the schedule of facility fees. When one application for a preliminary design approval or final design approval contains more than one design, the additional approvals are subject to a maximum fee which is the sum of the application fee and approval fee.

Charge will be separately determined by the Commission taking into account the professional manpower required to conduct the review multiplied by the applicable cost per man-year, plus any appropriate support services costs incurred. Where a fee has been paid for a facility early site review, the charge will be deducted from the fee for a construction permit issued for that site. A separate charge will not be assessed for a site review where the person requesting the review has an application for a construction permit on file for the same site, except where the application is withdrawn by the applicant or denied by the Commission. The maximum fee for review of a logical report shall not exceed \$20,000.

170.22 Schedule of fees for facility license amendments.

SCHEDULE OF AMENDMENT FEES FOR REACTOR FACILITY PERMITS, LICENSES, AND OTHER APPROVALS REQUIRED BY THE LICENSE OR COMMISSION REGULATIONS

| Class of Amendment  | Fee            |                            |
|---|----------------|----------------------------|
|   | Power reactors | Test and research reactors |
| CLASS I: Amendments that are a duplicate of an amendment for a second essentially identical unit at the same site, where both proposed amendments are received, processed, and issued at the same time.   | 1400           |                            |
| CLASS II: Amendments that are pre-forma, administrative in nature, or have no safety or environmental significance.   | 1,300          | 1400                       |
| CLASS III: Amendments, exemptions, or required approvals that involve a single environmental, safety, or other issue, have acceptability for the issue clearly identified by an NRC position, or are deemed not to involve a significant hazards consideration.   | 1,000          | 1,000                      |
| CLASS IV: Amendments, exemptions, or required approvals that involve a complex issue or more than one environmental, safety, or other issue, or several changes of the class III type incorporated into the proposed amendment, or involve a significant hazards consideration, or require an extensive environmental impact appraisal or result from dismantling or license termination. | 12,300         | 1,000                      |
| CLASS V: Amendments, exemptions, or required approvals that require evaluation of several complex issues or involve review by the ACRS, or require an environmental impact statement.   | 25,800         | 12,000                     |
| CLASS VI: Amendments, exemptions, or required approvals that require evaluation of a new Safety Analysis Report and rewrite of the facility license (including technical specifications), such as may be required for a license renewal.  | 48,900         | 26,000                     |

At the time the application is filed, the licensee or applicant shall provide a proposed determination of amendment class and state the basis therefor as part of the amendment or modification request and shall remit the fee corresponding to that determination. The Commission will evaluate the proposed amendment class determination and inform the licensee or applicant if reclassification is required. Reclassification that changes the class of amendment will result in the refund of over-charges to the licensee or applicant or billing the licensee or applicant for additional fees.

License amendments or approvals resulting from Commission Orders issued pursuant to 10 CFR 2.204, and amendments resulting in an initial increase in power to 100 percent of the initial design power level are not subject to these fees except as provided in footnote 1 to 170.21. Class I, II, or III amendments which result from a written Commission request for the application may be exempt from fees when the amendment is to simplify or clarify license or technical specifications; the amendment has only minor safety significance; and is issued for the convenience of the Commission.

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