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

copies to: C.J. Holloway (2)

August 2, 1983

MEMORANDUM FOR: William O. Miller, Chief
License Fee Management Branch, ADM

FROM: Charles J. Fitti
Executive Secretary, ASLBP

SUBJECT: REQUEST FOR PROFESSIONAL STAFF EFFORT - BLACK FOX 1 & 2

Judge Sheldon Wolfe, Chairman of Black Fox 1&2, says the case was contested (obviously until the applicant's withdrawal). As a contested case no actual manpower records were maintained.

cc: B. P. Cotter, Jr.
R. M. Lazo
E. W. Leins

NUCLEAR REGULATORY COMMISSION

[10 CFR Part 170]

FEES FOR FACILITIES AND MATERIALS LICENSES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

Proposed Revision of License Fee Schedules

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission is proposing to amend its regulations to revise its schedule of fees for facilities and materials applications and licenses. The revised schedule would take into account the approaches to standardization implemented by the Commission. It would establish fees for (1) requests filed by vendor and architect engineers for standardized reference design approvals; (2) license amendments and renewals; (3) routine inspections; (4) special projects; (5) requests for approval of spent fuel casks and shipping containers; and (6) requests for approval of sealed sources and devices containing or utilizing byproducts, source, or special nuclear material. The proposed amendments would implement recent licensing fee decisions of the U.S. Supreme Court and the Court of Appeals for the District of Columbia.

DATE: Comments must be received on or before June 1, 1977.

ADDRESSES: The Commission will hold a public meeting to discuss this notice at 10 a.m., May 12th. The public meeting will be held in Room P-110, 7920 Norfolk Avenue, Bethesda, Maryland. Written comments should be submitted to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch.

FOR FURTHER INFORMATION CONTACT: Mr. W. O. Miller, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, 301-492-7225.

SUPPLEMENTARY INFORMATION:

BACKGROUND

The Atomic Energy Commission (AEC), the Nuclear Regulatory Commission's (NRC) predecessor, adopted its first license fee schedule on October 1, 1968. This schedule was promulgated pursuant to Title V of the Independent Offices Appropriation Act ("IOAA"), 31 U.S.C. 483(a), a statute authorizing and encouraging Federal regulatory agencies to recover to the fullest extent possible costs attributable to services provided to identifiable recipients.

The relevant text of the IOAA is as follows:

> It is the sense of the Congress that any work, service, publication, report, document, benefit, privilege, authority, use, franchise, license, permit, certificate, registration, or similar thing of value or utility performed, furnished, provided, granted, prepared, or issued by any Federal agency (including wholly owned Government corporations as defined in the Government Corporation Control Act of 1945) to or for any person (including groups, associations, organizations, partnerships, corporations, or businesses), except those engaged in the transaction of official business of the Government, shall be self-sustaining to the full extent possible, and the head of each Federal agency is authorized by regulation (which, in the case of agencies in the executive branch, shall be as uniform as practicable and subject to such policies as the President may prescribe) to prescribe therefor such fee, charge, or price, if any, as he shall determine, in case none exists, or redetermine, in case of an existing one, to be fair and equitable taking into consideration direct and indirect cost to the Government, value to the recipient, public policy or interest served, and other pertinent facts, and any amount so determined or redetermined shall be collected and paid into the Treasury as miscellaneous receipts.

The schedule contained a construction permit application fee, a construction permit fee, an operating license fee, fees for three types of materials licenses, and annual fees for facilities licenses and certain materials licenses. These fees were designed to recover a small portion of the Commission's costs attributable to specific services (processing of applications) provided to identifiable recipients. Only those costs that were associated with the review of an application and related to an identifiable beneficiary were included in the cost base for the establishment of a fee schedule. Activities and services, such as inspection of licensed programs, compliance and enforcement, rule making, standards development, research, safeguards, administration of the Agreement State Program, the indemnity program, and export licenses, were excluded from fee schedule computation.

On February 5, 1971, the AEC revised its October 1, 1968 schedule to provide for expanding services and their associated costs. This revised schedule continued the AEC policy of limiting cost recovery to licensing services attributable to identifiable beneficiaries. This schedule was further revised on April 25, 1972 to include health and safety inspection services attributable to identifiable beneficiaries.

The current schedule was adopted by the AEC on August 10, 1973. This schedule was designed to incorporate costs arising from statutorily mandated environmental and antitrust reviews. It reflected a policy of recovering only those costs attributable to identifiable beneficiaries for the processing of applications, permits and licenses, amendments to existing licenses, and health and safety inspection which were part of the licensing process.

On March 4, 1974, the Supreme Court decided two cases challenging the validity of annual licensing fees issued by the Federal Communications Commission and Federal Power Commission under the IOAA. "National Cable Television Association, Inc. *v.* United States," 415 U.S. 336 (1974) ("NCTA") and "Federal Power Commission *v.* New England Power Company," 415 U.S. 345 (1971) ("New England Power"). The Court ruled that the IOAA allowed an agency to charge fees only for special benefits rendered to identifiable persons measured by the "value to the recipient" of the agency service. In "NCTA," it set aside the challenged portion of the FCC's fee schedule because the schedule had been constructed on factors more expansive than the value of the agency's service to the recipient company. Similarly, in the companion "New England Power" case, the Court invalidated the FPC's annual fee rules because its fee structure assessed an annual fee against the regulated industry at large without considering whether each company had received benefits from any Commission services during the year in question.

Responding to the Court's decisions, the AEC promptly eliminated annual license fees and announced procedures for requesting refunds of annual license fees previously assessed. The Commission left unchanged the remainder of the fee schedule.

On November 11, 1974, the AEC published proposed revisions to its schedule of license fees (39 FR 39734). Since that time the Commission has been reviewing public comments and considering a variety of approaches for proper evaluation of its expanding services and proper assessment based upon the cost of the increase in rising costs. A substantial effort has been devoted to re-evaluating the Supreme Court decisions, some aspects of which were notably complex, and devising an updated schedule. While this effort was underway, the Court of Appeals for the District of Columbia Circuit issued four opinions on September 15, 1976, invalidating licenses fee [illegible] promulgated by the Federal Communications Commission. "National Cable Tele-

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vision Association v. Federal Communications Commission," No. 75-1653, et al; "National Association of Broadcasters v. Federal Communications Commission," No. 75-1657 et al; "Electronic Industries Association v. Federal Communications Commission," No. 75-1129 et al; and "Capital Cities Communication, Inc. v. Federal Communications Commission," No. 75-1503 et al. These cases have provided the Commission with additional guidance for the prompt adopting and promulgation of an updated license fee schedule.

GUIDELINES FOR FEE DEVELOPMENT

Based on the Court decisions, the NRC has developed new guidelines for use in establishing a new proposed schedule of fees. In summary, the guidelines provide that:

1. Fees may be assessed to persons who are identifiable recipients of special benefits conferred by specifically identified activities of the NRC. The special benefits would include services rendered at the request of a recipient. This includes 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.

2. All direct and indirect costs incurred by the NRC in providing special benefits may be recovered by fees.

3. It is not necessary to allocate costs in proportion to the degree of public or private benefit resulting from conferring a special benefit on a recipient.

4. Where the identification of the ultimate beneficiary of NRC activity is obscure, the cost of the activity may not be included in the cost basis for fees.

5. A fee on the average should not exceed the sum of the direct and indirect costs which the NRC incurs in furnishing the service for a member of the class of recipients as to which the fee is assessed.

6. Calculation of agency costs shall be performed as accurately as is reasonable and practical, and shall be based on specific expenses identified to the smallest practical unit and associated with the rendering of the type of agency service to the particular class of recipients.

REGULATORY FUNCTIONS

NRC is reponsible under the Atomic Energy Act of 1954, as amended, for the regulation of facilities and materials as defined in the Act. These activities may be broadly categorized as follows:

1. The processing of applications for permits licenses, amendments, and approvals.

2. Health, safety, environmental and special nuclear material safeguards inspections of licensed activities and their environs.

3. Facility quality assurance inspections and evaluations of facilities licensed under 10 CFR Part 50.

4. The processing of topical reports covering special projects and reactor components.

5. The conduct of section 189 hearings for construction permit applications and such other hearings as are necessary.

6. Antitrust reviews of Part 50 applications.

7. Development of standards including regulations, regulatory guides, codes, and criteria for applications of nuclear energy and materials.

8. Safety and confirmatory research for facilities and materials applications.

9. Generic licensing studies.

10. Enforcement of applicable regulations, orders, and license conditions.

11. Early review of prospective reactor sites.

12. Inspection of major reactor components and systems.

13. Export licensing.

14. Indemnification program for Part 50 production and utilization facilities.

15. Agreement State Program.

16. Cooperation and participation in international programs.

The "Office of Nuclear Reactor Regulation" has responsibility within NRC for processing Part 50 applications for licensing and regulation of nuclear power plants. Before a company can build a power plant at a particular site, it must file an application and obtain a construction permit from the NRC. In support of the application, the applicant files a Preliminary Safety Analysis Report (PSAR) which presents the design criteria and preluminary design information for the facility structures, systems and components, as well as comprehensive data on the site for the plant. The report also discusses various hypothetical accident situations and the safety features which will be provided to prevent accidents or, if they should occur, to mitigate their effects on both the public and the facility's employees. In addition, the applicant must submit a comprehensive Environmental Report (ER) providing a basis for the NRC to evaluate the environmental impact of the proposed plant. Information must also be submitted for use by the Attorney General and the NRC in the reviews of the antitrust aspects of the proposed facility.

When an application is submitted to the NRC, it is subjected to a preliminary review to determine whether it contains sufficient information to satisfy NRC requirements for a detailed review. If an application is not sufficiently complete, the applicant is requested to submit specific additional information. An application is formally docketed only if it meets certain minimum acceptance criteria. In addition, when the PSAR is submitted, a substantive review and inspection of the applicant's quality assurance program covering design and procurement is conducted.

The NRR staff reviews an application for a construction permit to determine whether the public health and safety and the environment will be fully protected. If any portion of the application is considered to be inadequate, the applicant is requested to modify the plant so that it will be acceptable. If the appropriate modifications are not made, authorization to begin construction will not be issued.

The review is to determine whether the plant design is consistent with NRC rules and regulations, regulatory guides, and other regulatory requirements. Design methods and procedures of calculations are examined to establish their validity. Checks of actual calculations and other procedures of design and analysis are made to establish the validity of the applicant's design and to determine that the applicant has conducted his analysis and evaluation in sufficient depth and breadth to support required findings with respect to safety.

During the staff's review, an applicant is required by regulation to provide such additional information as is needed to complete its evaluation. The principal features of the evaluation include:

1. A review of the population density and use characteristics of the site and environs, and the physical characteristics of the site of the proposed power plant, including seismology, meteorology, geology, and hydrology to determine that these characteristics have been properly evaluated and have been given appropriate consideration in plant design, and that the characteristics of the site are in accordance with the siting criteria set forth in 10 CFR Part 100, taking into consideration the design of the facility including the engineered safety features provided.

2. A review of the facility design and of the programs for fabrication, construction, and testing of the plant structures, systems, and components important to safety to determine that they are in accord with the regulations, regulatory guides, and other regulatory requirements, and that any departures from these requirements have been fully identified and justified.

3. Evaluation of the response of the facility to various anticipated operating transients and to a broad spectrum of hypothetical accidents. The potential consequences of these hypothetical accidents are then evaluated conservatively to determine that the calculated potential offsite radiation doses that might result, in the very unlikely event of an accident occurrence, would not exceed the guidelines for site acceptability given in 10 CFR Part 100.

4. A review of the applicant's plans for th conduct of plant operations, including the organizational structure, the technical qualifications of operating and technical support personnel, the measures taken for industrial security, and the planning for emergency actions to be taken in the unlikely event of an accident that might affect the general public. An important aspect of this review includes review and assessment of the applicant's programs for quality assurance and quality control to assure compliance with NRC's requirements. This review forms the basis for determining whether the applicant is technically qualified to operate the plant and whether he has established effective organizations and plans for continuing safe operation.

5. Evaluation of the design of systems provided for control of the radiological effluents from the plant to determine that the proposed systems can control the release of radioactive wastes from the nuclear power station to the limits specified by appropriate regulations and that the applicant will operate the facility in such a manner as to reduce radioactive releases to levels that are as low as practicable.

The review and evaluation of an application for a construction permit is performed by the NRC staff and its consultants over an average period of 24 months. To the extent feasible and appropriate, the staff makes use of previous evaluations of other reactors approved for construction or operation, standardized designs, and previous evaluations of various aspects of reactor design described in topical reports.

The licensing process includes the consideration of programs proposed by an applicant for a construction permit to verify plant design and to confirm design margins. The licensing process includes consideration of programs of basic research and development necessary to assure the resolution of questions associated with safety features or facility components and must identify any research and development work that will be conducted to confirm the adequacy or to resolve any safety questions associated with the design of a particular facility along with a schedule for completion of the research and development work showing that such safety questions will be resolved prior to operation of the facility.

When the staff review and evaluation of the application has progressed to the point that acceptable criteria, preliminary design information and financial information are documented in the application, a Safety Evaluation Report (SER) will be prepared. This report represents a summary of the staff review and evaluation of the application.

The "Advisory Committee on Reactor Safeguards" (ACRS), an independent statutory committee established to provide advice to the NRC on reactor safety is required to review each application for a construction permit or an operating license for a commercial nuclear power plant. At the time an application for a construction permit is docketed, copies of the PSAR are provided to the ACRS. Each application is assigned to a project subcommittee. During the course of the review by the NRC staff, the ACRS is kept informed of the staff's request for additional information from the applicant and of meetings held with the applicant so that the ACRS subcommittee chairman is aware of any developments that may warrant a change in the plant.

Normally, the full ACRS considers a project upon receipt of the staff SER and the report of the ACRS subcommittee. The ACRS gives special attention to those items which have particular safety significance for the reactor involved and of any new or advanced features proposed by the applicant. The full committee meets at least once with the NRC staff and with the applicant to discuss the application. These full committee meetings are open to the public. When the committee has completed its review, its report is submitted to the NRC in the form of a letter to the Chairman.

The NRC staff prepares a supplemental SER to address the ACRS report and to include any other information made available since issuance of the original SER.

Either concurrent with or separately from the radiological safety review, an environmental review is performed by the staff and its consultants. This review is to evaluate the potential environmental impact of the proposed plant and to provide comparisons between the benefits to be derived from the plant and the possible risk to the environment. After completion of this review, a Draft Environmental Statement (DES) containing conclusions on environmental matters is issued. The DES is circulated to interested Federal and State agencies for review and comment. It is also available for comment by individuals and by organizations representing the public. After receipt of all comments and resolution of any outstanding issues, a Final Environmental Statement (FES) is published and made available to the public.

A mandatory public hearing is held before a construction permit is issued for a nuclear power plant. Upon docketing an application, the NRC issues a notice of hearing. The evidentiary public hearings will be held after completion of the safety and environmental reviews. Opportunity is afforded to members of the public to intervene as participants or make limited appearances at the hearing. At an early stage in the review process, potential intervenors are invited to meet informally with the NRC staff to discuss their concerns respecting the proposed nuclear power plant.

The public hearing for an application for a construction permit is conducted by a three-member "Atomic Safety and Licensing Board" (ASLB) appointed from the NRC's "Atomic Safety and Licensing Board Panel." The board is composed of one lawyer, who acts as chairman for the proceeding, and two other technically qualified persons. The safety evaluation, supplements to the SER and the FES are offered to the board as evidence by the NRC staff at the public hearing. The hearing(s) may be a combined safety and environmental hearing or in the case of a split application, separate hearings. The board considers all the evidence which has been presented by the Commission, applicant and intervenors together with findings of fact and conclusions of law filed by the parties, and issues an initial decision. If the initial decision regarding the requirements of the National Environmental Policy Act and safety matters is favorable, a construction permit is issued to the applicant. The board's initial decision is subject to review by an Atomic Safety and Licensing Appeal Board (ASLAB) on the motion of such exceptions filed by any party to the proceeding. Under certain circumstances, the ASLAB decision may be reviewed by the Nuclear Regulatory Commissioners.

Prior to a decision on an application for a construction permit, Commission regulations provide that the Director of Nuclear Reactor Regulation may authorize limited amounts of work to be performed by the applicant prior to the issuance of the construction permit. This authorization is known as a Limited Work Authorization (LWA). An LWA may be granted only after the ASLB has made all of the National Environmental Policy Act (NEPA) findings required by the Commission's regulations in 10 CFR Part 51 for the issuance of a Limited Work Authorization and has determined that there is reasonable assurance that the proposed site is suitable with the site suitability regulations of the Commission.

Statutes require that antitrust aspects of a nuclear power plant license application be considered in the licensing process. The antitrust information required in the application for a construction permit is sent to the Attorney General of the United States for his advice on whether activities under the proposed license would create or maintain a situation inconsistent with antitrust laws. The Attorney General's advice is promptly published and opportunity is provided for interested parties to raise antitrust issues. An antitrust hearing may be held upon the recommendation of the Attorney General or on the petition of an interested party. The NRC is required to make a finding on antitrust matters in each case where the issue is raised. Antitrust hearings are held separately from hearings on environmental and safety matters.

At such time as the construction of the nuclear power plant has progressed to the stage where most of the final design information and plans for operation are ready, the applicant submits the Final Safety Analysis Report (FSAR) in support of an application for an operating license. The FSAR sets forth the pertinent details on the final design of the facility. The FSAR also supplies plans for operation and procedures for coping with emergencies. The staff makes a detailed review of the FSAR. Amendments to the application and reports may be submitted from time to time. The staff again prepares a SER and, as during the construction permit stage, the ACRS again makes an independent evaluation and presents its advice to the Commission by letter.

A public hearing is not mandatory prior to the issuance of an operating license; however, after acceptance of the operating license application, the Commission publishes notice that it is considering issuance of the license. The notice provides that any person whose interest may be affected by the proceeding may petition the NRC to hold a hearing.

Each License issued by the NRC for operation of a nuclear reactor contains Technical Specifications which set forth the particular safety and environmental protection measures to be imposed upon

the facility and the conditions of its operation.

The Office of Nuclear Reactor Regulation also has responsibility within NRC for the processing of Part 50 applications for licensing of test facilities and research reactors. This office also reviews standardized reference designs for nuclear power plants, conducts generic licensing studies, topical report reviews, and develops research proposals necessary to aid in evaluation of reactor safety.

The licensing process for test facilities and other production and utilization facilities follows the review and licensing pattern for nuclear power plants. Research reactors are not subject to mandatory hearings and antitrust review, however, they are subject to a safety review.

Sites for proposed production or utilization facilities under 10 CFR Part 50 may be reviewed and evaluated in conjunction with an application for a construction permit, as described above or prior to the filing of an application. Such early site reviews for nuclear power plants may be complete or partial. The procedure for Commission review of a site, which may later be a part of a construction permit application, is identical to the comprehensive review of a site included as part of the application for a construction permit.

The "Office of Nuclear Materials Safety and Safeguards" (NMSS), under statute and regulation, licenses and regulates all non-reactor facilities and materials associated with the processing, transport, use and handling of special nuclear, source, and byproduct materials. This office also reviews the safeguards of non-reactor facilities and special nuclear materials.

The NMSS fuel cycle safety and environment program involves the processing of license applications for uranium mills, conversion facilities, reprocessing centers, fuel fabrication plants, spent fuel storage, and waste disposal. Each applicant is required to describe the site(s) of proposed use, plant design, method of criticality control, radioactivity waste management, operating procedures, and impact on the plant environs. The NRC staff and its consultants review each application to determine the adequacy of the proposed facility, operation, and safety and environmental controls.

The NMSS safeguards licensing program has responsibility for the review of all applications to license non-reactor facilities and materials which involve the processing, transport, storage, and handling of quantities of special nuclear materials subject to [illegible] 10 CFR Parts 70 and 73. The staff reviews and evaluates the applicant's descriptions of his physical protection and material control programs to determine adequacy. NMSS is also responsible for developing contingency plans to deal with threats, thefts, and diversion and monitoring, testing and upgrading safeguards systems.

NMSS evaluates the design and testing of shipping casks, packages and containers to determine that they meet regulatory requirements.

The NMSS radioisotope licensing program reviews and processes license applications for the possession and use of byproduct, source, and small quantities of special nuclear material. These applications cover medical usage, basic and applied research, teaching, consumer products, and various industrial usages such as radiography, well-logging, irradiation facilities, nuclear laundries, etc. Such staff reviews cover safety and the environmental aspects of the proposed radioisotope program and cover factors, such as the training of user personnel, procedures for the use of licensed materials, contamination control, controlling exposure to personnel, adequacy of proposed facilities and instrumentation and waste management.

Activities of NMSS also encompass generic licensing studies and safeguards assessment studies. These generic activities cut across the fuel cycle and radioisotope licensing programs. The office also participates in standards development activities and recommends research requirements.

"The Office of Inspection and Enforcement (IE)" is responsible for NRC's inspection and enforcement program and the program is based on the precept that nuclear quality requirements are mandatory and enforceable under Federal law. The NRC's IE inspects the industry quality assurance process on a continuing basis and takes enforcement action where necessary. The program is designed to assure that applicants for NRC permits and licenses, as well as existing licensees, conduct their activities in a manner that adequately protects the health, safety, and security of the public and the environment in which they live.

The IE performs three essential functions:

1. Inspects facility and materials licensees and their contractors and suppliers to ascertain whether their quality assurance programs and activities are being conducted in accordance with NRC rules and regulations and conditions of their licenses.

2. Investigates incidents, accidents, allegations and other unusual circumstances involving matters subject to NRC jurisdiction to ascertain the facts and to recommend or take appropriate corrective action.

3. Enforces compliance through issuance of notices of violation, imposition of civil monetary penalties, and promulgation of orders to suspend, modify or revoke licenses, or to cease and desist licensed operations.

A key component in the construction and operation of nuclear power plants is quality assurance. This involves a planned management program of checks and controls designed to assure that plants are competently built and operated to permit a high degree of confidence in their safe performance. Each prospective reactor licensee is responsible for developing a detailed quality assurance plan which also includes the assurance of product quality from its contractors and vendors. The requirements against which licensee quality assurance plans and activities are measured are specified in NRC regulations, national codes and standards, conditions specified in permits and licenses and the applicant's or licensee's own approved operating procedures.

IE begins reviewing the organization and plans, six to nine months prior to the submission of an application for a construction permit for a nuclear power plant, to determine that the proposed quality assurance program is fully responsive to regulations.

IE inspections are of two general types, safety and environmental protection inspections; and materials and facility protection inspections (safeguards). The first type covers quality assurance activities related to health, safety and environmental concerns for power and other reactors; fuel cycle facilities; architect-engineers, vendors and suppliers; and materials licensees, including universities, hospitals, research organizations, and other firms or institutions using nuclear materials. The second type deals with quality assurance in physical protection and safeguarding of special nuclear materials and facilities held or owned by licensees. Through direct observation, interviews, independent testing and review of records, NRC inspectors gather facts to ascertain compliance with approved quality assurance programs and with other NRC requirements.

The IE inspection program for nuclear power plants begins with quality assurance planning and extends over the facility's entire lifetime.

Based on the premise that the applicant or licensee is responsible for the design, construction, and safe operation of its facility, NRC inspectors examine the licensee's efforts to obtain assurance that this responsibility is being met, and to prepare the way for corrective action if it is not.

IE inspections cover five phases of a nuclear power plant's life:

Preconstruction activities. Prior to docketing of an application for a construction permit, inspection focus on the prospective licensee's quality assurance program. An acceptable program must be in existence before the application will be accepted for formal NRC review. Subsequent to docketing and prior to issuance of a construction permit, inspections are carried out to confirm that an adequate program has, in fact, been implemented.

Construction activities. During construction, IE inspects to verify that the described quality assurance program for construction is being properly implemented. When components are received onsite, IE inspectors, on a selective sampling basis, verify conformance with specifications and ensure that quality assurance procedures for handling and storage are implemented. During plant erection and the installation of components, they selectively observe activities

such as welding, concrete installation and electrical and instrument cable installation, and review the results of tests to determine whether requirements are being met.

Preoperational testing and startup. The frequency of inspections is increased significantly during preoperational testing and startup. Inspectors observe selected preoperational and startup tests and check results to verify that components and safety systems do perform their intended functions. They also examine the operating organizational structure, training of personnel, performance of equipment and personnel, monitoring and sampling programs for radiation and effluent control, results of environmental monitoring, plans and training for emergencies, security provisions, and administrative controls for safety.

Operations activities. After routine operations of the plant begins, periodic inspections ascertain whether the licensee is operating in a safe and responsible manner in conformity with NRC requirements. Particular attention is devoted to evaluating corporate and plant management to determine whether its steps to prevent safety problems are effective, and whether it takes positive and timely corrective action in the event of abnormal occurrences.

During 1975, the NRC initiated the Licensee Contractor and Vendor Inspection Program (LCVIP). The purpose of LCVIP is to verify that industry has quality assurance programs which are consistent with NRC criteria established in 10 CFR Part 50, Appendix B. Under this program, selected vendors are inspected directly by IE inspectors rather than in association with licensee or utility inspectors, as previously done. This provides a more uniform application of the Commission's quality assurance requirements and, at the same time, reduces the need for repetitive audits and evaluations by licensees of their suppliers' generic quality assurance programs.

The routine inspection program has been structured so that certain elements of a licensee's authorized activities (involving personnel, procedures, operations, facilities, materials, and equipment) are inspected at a prescribed frequency. The inspection is made to assure that a licensee's activities are being conducted in accordance with regulatory requirements and that associated facilities and equipment are operated in a safe manner. To ensure that adequate inspection of each of the identified elements of a licensees' activities are being conducted in accordance with regulatory requirements and the associated facilities and equipment are operated in a safe manner, procedural requirements have been established and appropriately keyed to licensee activities. The scheduling and frequency for inspection against the various requirements for each license depends upon the scope and complexity of the licensed program. For the majority of the NRC licensed, i.e., nonpower reactors, source material and most byproduct and special nuclear material uses, the inspection program specifies that all requirements should be scheduled for inspection during one visit at the site and that, depending upon the nature of the licensed program, the inspection frequency would be once each year, once every two years, once every three years, once every five years or no more than approximately once every three years. Inspection of newly licensed activities would be within 1½ years after issuance of the license.

The inspection program for operating test and power reactors, some research reactors, which are rated at greater than one megawatt, fuel reprocessing facilities, licensed activities involving large quantities of special nuclear material for research and development, processing or fabrication and major processors of byproduct material, specifies that some of the regulatory and safety requirements should be scheduled on a staggered basis throughout a 12 month period (and in a few instances over a 36 month period). The scope and complexity of these licensed activities are such that it is not feasible or prudent to schedule and complete all inspection requirements during one site visit. The inspection requirements for these licensees are normally clustered into three 4-month periods or four 3-month periods which comprise an inspection year. Due to the nature of the inspection program which involves operational, environmental and radiological safety, as well as emergency planning and many different inspector skills, several inspections may be performed during a 3 or 4 month period in order to satisfy the inspection requirements. The frequency of inspections is set forth in the Notice of Proposed Rule Making.

IE conducts safety and environmental inspections of more than 3,500 materials and fuel facility licensees, including spent-fuel reprocessors, fuel fabricators, waste disposal licensees, major radiopharmaceutical firms, radiographers, and operators of medical facilities, educational institutions, exporters, Federal and State agencies, and various industrial organizations.

It should be noted that, for most nonpower reactors and the majority of the materials licenses, the frequency of inspections ranges from intervals of two per year to one every ten years. There is a group of materials licenses which authorize small quantities where no prescribed frequency is specified. Rather the policy is to select approximately five percent of these licenses each year. For licenses authorizing major byproduct uses, such as processing and manufacturing operations, fuel fabrication, fuel reprocessing and power reactors, the inspection program focuses a set of inspection requirements which must be completed during a 12-month period. Several of the inspection requirements might be completed at one time. A single fee would be collected for the total inspection.

Inspections of materials and fuel facility licenses are performed at frequencies determined by a classification system based on the relative weight given to safety considerations. Fuel facility inspections focus on the evaluation of management quality assurance programs and controls over operations. A typical inspection might include a review of processing and equipment, such as filtration systems, checks for releases of radioactive effluents, and monitoring personnel to determine if regulatory requirements are being followed. The IE gathers on a selective sampling basis detailed information to ascertain whether licensees are conducting their activities with due regard to nuclear criticality control and radiological health and safety.

The NRC's safeguards inspection program, covering physical protection of nuclear materials and reactor facilities, control and accountability of these materials, including direct measurements to verify licensees control and accountability, is conducted by IE. This program involves the inspection of licensees possessing given quantities of special nuclear material. The inspection staff conducts physical protection, nuclear material control and accounting, and inventory verification inspections of licensees which include fuel cycle facilities, reactors, research and development facilities, fuel reprocessing facilities, and universities having research reactors. Frequencies of inspections are determined by the quantity, quality, and accessibility of special nuclear materials which the licensees are authorized to possess and depend on the type of inspection conducted. The basic elements of an inspection include a review of material controls systems and procedures, physical inventory controls, measurement controls, and records and reporting controls. NRC inspectors use specially equipped vans to verify, through selective on-site sampling, the enriched uranium and/or plutonium content of inventory. (The mobile equipment also is used to analyze low-level radioactivity in air and water effluents as part of the inspection program of confirmatory measurements of environmental releases.)

Physical protection inspections involve the review of physical protection systems, procedures and personnel to determine if adequate protections have been implemented in compliance with the existing security plan, license conditions, rules and regulations. These reviews consist of direct observation of systems performance, examinations of records and documentations, interviews with licensee and local law enforcement personnel and selected testing of certain hardware and procedures.

IE conducts surveillance programs for nuclear materials in transit which require that the export and import of significant quantities of special nuclear material, and not less than 20 percent of all other shipments, be monitored by IE inspectors.

Shipments by all modes of transportation are subjected to unannounced inspections examination at points of origin,

transfer and destination, observation and other surveillance by NRC inspectors to determine compliance with appropriate regulations and to assess the adequacy of the protection.

The main objective of the NRC's environmental monitoring program is to determine if there is a buildup of radioactivity in the environment. Each nuclear facility licensee is required to monitor major and potentially significant paths for release of gaseous and liquid radioactive effluents during normal operation. IE inspectors check the licensee's radiological monitoring and waste systems to assure they are built as designed and operated to keep releases within regulatory limits. If a regulatory limit is exceeded, the licensee must so inform the NRC and take appropriate action. Each power plant licensee also is required to monitor major pathways in the environment. During NRC inspections, random samples of monitoring records, procedures, and reports are examined and confirmatory measurements are made to assess the accuracy and consistency of licensee measurements of radioactivity in effluent and environmental samples.

Enforcement action is taken to assure that persons who do not comply with regulatory requirements will act promptly to bring their programs into compliance. Notifications of deviations from approved codes, standards and guides, and from licensee commitments to the Commission, are forwarded to licensees and, if corrective measures are not properly implemented, appropriate enforcement actions are imposed.

A significant part of the NRC's inspection and enforcement effort is involved in responding to reports of radiation incidents, abnormal occurrences, equipment problems, and allegations of improper or unsafe operations.

Standards are basic to the NRC's comprehensive program for the control and safe use of nuclear energy. Developed by the NRC's "Office of Standards Development," (SD), they govern protection of the public and nuclear industry workers from radiation, safeguarding nuclear materials and plants, and protection of the quality of the environment.

In setting forth safety requirements, including quality assurance requirements for the design, construction, and operation of nuclear reactors, standards, provide the mechanism for codifying sound engineering practices and the lessons of experience.

The standards development function of NRC also provides a mechanism for resolving frequently recurring technical issues through generic rulemaking, provides a forum for all segments of the public to provide input to proposed standards, and clearly establishes NRC's bases for inspection.

NRC develops two kinds of standards: Regulations and regulatory guides. NRC regulations, established by the Commission and published in Title 10, Chapter I, of the Code of Federal Regulations, set forth both general and specific requirements that must be met. NRC regulatory guides describe and make available to the public methods acceptable to the NRC staff for implementing specific parts of the Commission regulations, delineate techniques used by the staff in evaluating specific problems or postulated accidents, or provide guidance to applicants. Public input to the development of NRC regulations and guides is encouraged.

The major responsibilities and activities of the SD are:

1. Developing siting safety and environmental impact standards for selection and evaluation of sites for nuclear facilities.

2. Developing nuclear power plant safety engineering standards for design, procurement, construction, testing, operations, and decommissioning of power reactors.

3. Developing fuel cycle facility safety engineering standards for fuel cycle plants including waste storage.

4. Developing safeguards standards for physical protection of nuclear materials and facilities and for control of nuclear materials.

5. Developing standards for safety in transportation of radioactive materials and standards for use of radioactive materials in medical, industrial and consumer product applications.

6. Developing radiation protection standards.

7. Providing and managing technical interaction with national and international standards-development groups.

The "Office of Nuclear Regulatory Research" has the responsibility to develop and analyze technical information on reactor safety, safeguards and environmental protection as a basis for licensing and other decisions in the regulatory process. The office performs research, characterized as "confirmatory assessment," which relates specifically to regulatory decisions for the safe and environmentally compatible operation and protection of nuclear facilities and materials.

The goal of the NRC's reactor safety research program is to develop an independent basis and means to reliably and credibly analyze the course of events in hypothetical nuclear reactor accidents and to estimate the consequences of such accidents. The program proceeds on two interlocking approaches: experimental programs, and analytical model development. The experimental programs generate the independent data base for developing and validating the analytical models. The models, in turn, are used to extrapolate between laboratory scales or conditions and full-scale reactors, and the validity of the extrapolation is tested through further integral experiments.

This program attempts to develop methods of analysis by which the safety of reactors can be independently assessed by NRC, and to provide information and methods needed to achieve safe operation.

The overall objective of the reactor safety research program is to develop analytical methods that can confidently be used by NRC to assess the safety of nuclear power reactors on an independent basis. This includes:

1. Establishing and testing, on a sound engineering base and improved analytical methods of safety analysis;

2. Improving the engineering data base concerning the conditions that might trigger a reactor accident;

3. Extending and improving of independently-derived technical information against which to compare applicant or licensee safety justifications in licensing actions, and

4. Reducing present margins of uncertainty in the data and models so that the degree of conservatism applied to safety assessment may be further quantified.

Water reactor safety research is directed at providing a capability for independent confirmatory assessment of the safety of the current generation of nuclear plants under postulated accident conditions. The research data and analytic methods applied to the assessment of hypothetical nuclear plant accidents is intended to result in a greater measure of confidence that the margins of safety identified in the licensing review are well defined and quantified.

Safety research in systems engineering is addressed primarily to the study of postulated loss-of-coolant accidents in reactors and the effectiveness of emergency core cooling systems. In general, the research is conducted through two types of tests: (1) "Separate effects" tests to obtain data on those portions of a postulated accident where transient heat transfer and fluid flow phenomena are isolated, thus reducing the number of test variables and simplifying understanding of those complex phenomena, and (2) "integral systems" tests to study combined phenomena representing an entire postulated accident sequence, both to assess the significance of knowledge gained from separate effects.

In conjunction with the safety review of nuclear power plant applications, the NRC technical staff conducts evaluations of potential safety problems that may apply to many reactors of a given design type. The detailed reviews and independent analyses of emergency core cooling system performance, the reliability of automatic shutdown (scram) systems, and containment pressure during accidents, are examples of this type of study. The staff also conducts engineering audits of reactor vendors' and architect-engineers' design calculations and procedures to assure conformance with safety design practice.

Data obtained from research and development programs on particular facilities and from the Commission's confirmatory research program are factored into the licensing reviews performed by the NRC staff.

Program Direction and Administration Offices" provide overall policy direction, resource management effectiveness, administrative and logistic support to the NRC, and includes the staff offices of the Commissioners and the Executive Director for Operations. They are: Office of Commissioner, Office of the Secretary, Office of the General Counsel, Office of Policy Evaluation, Office of Inspector and

Auditor, Office of Congressional Affairs, Office of Public Affairs, Office of the Executive Director for Operations, Office of Administration, Office of the Controller, Office of Planning and Analysis, Office of Management Information and Program Control, and Office of Equal Employment Opportunity.

The "Commissioners" are the governing body of NRC who exercise the overall responsibilities of the Energy Reorganization Act of 1974 and the Atomic Energy Acts of 1946 and 1954, as amended. They provide the fundamental policy guidance and administration and management direction necessary to assure that the civilian use of nuclear energy is developed in a manner consistent with the public health and safety, environmental quality, national security, and antitrust laws.

The "Office of the Secretary" develops policies and procedures for complete secretariat services for the conduct of Commission business and implementation of Commission decisions; advises and assists the Commission and all NRC staff offices on the scheduling and conduct of Commission business; records Commission meetings; plans, directs and operates the NRC staff paper system; operates the Commission Correspondence & Records Facility and a consolidated mail facility for the NRC Washington, D.C. office; maintains the Commission's official docket; coordinates the protocol activities at Commission level; provides logistic assistance to the Atomic Safety and Licensing Board Panel, Atomic Safety and Licensing Appeal Board Panel and the Advisory Committee on Reactor Safeguards; performs services of the Federal Advisory Committee Management Officer; operates a reproduction facility; directs a historical program; operates the classified document control system for the Commissioners; provides personnel, administrative and logistical support services to the Commission and other NRC offices located in Washington, D.C.; and supervises and administers the NRC Public Document Room.

The "Office of the General Counsel" is the chief legal advisor to the Commission and provides legal opinion, advice, and consultations to the Commission in connection with the quasi-judicial responsibilities of the Commission and in the development of substantive policy matters. It represents the Commission in matters relating to litigation, and, in cooperation with the Department of Justice, represents the Commission in court proceedings affecting the NRC program. The office also provides legal advice with respect to legislative matters of concern to NRC, including drafting of legislation, preparation and review of testimony, and preparation and transmission of statements of views requested on proposed legislation.

The "Office of Policy Evaluation" advises the Commission on a broad range of substantive policy matters to enhance the information base on which Commission decisions are made.

The "Office of the Inspector & Auditor" is responsible for development of uniform and standards that govern the financial and management audit program including planning and directing the long-range comprehensive audit program as well as conducting day-to-day internal audit activity; conducting investigations and inspections, as necessary, to ascertain and verify the facts with regard to the integrity of all operations, employees, organizations, programs and activities; referring suspected or alleged criminal violations to the Department of Justice; and serving as the point of contact with the General Accounting Office and maintaining liaison with the Department of Justice and other law enforcement agencies.

The "Office of Congressional Affairs" assists and advises the Commission and senior staff on Congressional matters, coordinates interagency Congressional relations activities, and is the principal liaison for the Commission with Congressional committees and members of Congress.

The "Office of Public Affairs" plans and administers NRC coordinated and comprehensive programs to inform the public of Commission policies, programs and activities, as appropriate, and for informing NRC management of public affairs activities of interest to the Commission.

The "Executive Director for Operations" coordinates and directs the Commission's operational and administrative activities and is responsible for coordinating and developing policy and program options generated by the directors of the program offices.

The "Office of Administration" is responsible for personnel administration; security and classification; document control; facilities and materials license fees; contracting and procurement; rules, administration of Freedom of Information requests, proceedings and document services; telecommunications; automatic data processing; building management; printing and reproduction; records management; and a variety of other housekeeping functions. Additionally, the office is responsible for directing the activities of management and administrative support programs, and for developing policy options for Commission consideration.

The "Office of the Controller" provides the budgetary and fiscal management organization for the NRC, including the development and maintenance of a financial control system and a system of accounting which conforms to the standards prescribed by the Comptroller General.

The "Office of Management Information and Program Control" provides a comprehensive management information and control system for program planning, scheduling, reporting and analysis of program performance for the NRC.

The "Office of Planning and Analysis" assists the Executive Director for Operations in program assessment and policy analysis and development. The office's major objectives are to define and estimate the economic parameters of the licensed nuclear industry; complete cost-benefit guidelines for NRC; direct and support efforts to improve regulatory effectiveness; and continue to implement and refine management systems.

The "Office of Equal Employment Opportunity" is responsible for defining the procedures and practices necessary to attain and maintain equal employment opportunities within the NRC. The office develops and prepares the agency's Affirmative Action Plan, advises and assists on recruitment plans, and provides prompt investigation of discrimination complaints when necessary.

Offices supplying direct Program Technical Support to the NRC are the Office of the Executive Legal Director, the Advisory Committee on Reactor Safeguards, the Office of State Programs, and the Office of International Programs, with the Atomic Safety and Licensing Board Panel and the Atomic Safety and Licensing Appeal Panel performing adjudicatory functions. The services provided for the Advisory Committee on Reactor Safeguards, the Atomic Safety and Licensing Board Panel and the Atomic Safety and Licensing Appeal Panel were discussed earlier in this notice.

The "Office of the Executive Legal Director" is responsible for providing legal advice and services to the Executive Director for Operations and the programmatic and support offices reporting to him. These responsibilities include representation of the NRC Staff in administrative proceedings involving the licensing of nuclear facilities and materials, and the enforcement of license conditions and NRC regulations, dealing with respect to safeguards matters, contracts, security, patents, administration, research, personnel, and the development of regulations to implement applicable Federal statutes.

The "Office of State Programs" is responsible for developing and implementing plans, policies, and programs for the coordination and integration of Federal and State responsibilities in the regulation of nuclear materials and facilities; carrying out NRC's federally assigned "lead-agency" role in providing training and technical assistance to State and local governments to enhance their radiological emergency response planning and operations capabilities; developing NRC's national-level emergency preparedness program; administering the State Agreements program whereby qualified States assume certain NRC regulatory functions; and providing direct program support to NRC in all aspects of State-related activities, including the monitoring of all State legislation and activities impacting the NRC.

The "Office of International Programs" is responsible for the initiation and implementation of regulatory and safety information exchange agreements with other countries licensing the import and export of nuclear materials and nuclear facilities; NRC nonproliferation and international safeguards policy planning, analysis and coordination; and providing direct program support to NRC for all of its international activities.

SPECIAL BENEFITS

Services providing "special benefit" includes those rendered by an agency at the request of the recipient and services necessarily rendered to aid the recipient in complying with statutory and regulatory obligations. Respecting NRC services, this includes all services necessary for the issuance of a license or amendment to process and use material, to construct or operate a facility, export or import facilities or materials, to review a standardized design or special project or conduct an inspection. Services neither requested by the applicant nor strictly necessary to assist private recipients in complying with statutory or regulatory requirements may be considered as "independent public benefit".

Based on analysis of all NRC offices, their responsibilities and activities, and the Commission guidelines, which were formed around the decisions of the Supreme Court in the FCC and FPC cases and the Appeals Court decisions in the FCC cases, the services of these offices have been categorized as follows. Only those services which provide special benefits to identifiable recipients have been included for computation of fees; those for which the beneficiary is obscure, or which confer independent public benefit, have been excluded from fees. The services have been designated as included or excluded. The fact that a particular service is designated as excluded should not be taken to imply that the Commission does not view the service as a special benefit.

1. *Office of Nuclear Reactor Regulation.* (a) Processing of applications for facility construction permits and operating licenses by the NRC staff and consultants. This involves safety, environmental, and antitrust and special nuclear materials safeguards reviews (included).

(b) Processing of applications for facility license amendments and technical specification changes performed by the NRC staff and consultants (included).

(c) Review of topical reports filed by licensees and vendors of reactor components (included).

(d) Review of standardized reference designs for nuclear steam supply systems filed by vendors (included).

(e) Review of standardized reference designs for balance of nuclear plants filed by architect engineers (included).

(f) Examination and testing of the qualifications of prospective reactor operators (included).

(g) Staff assistance in development of standards, codes, criteria and licensing guides (excluded).

(h) Staff effort in facilities research projects (excluded).

(i) Licensing effort which is generic in nature, i.e., not specifically identified with applications on file (excluded).

2. *Advisory Committee on Reactor Safeguards.* The services of this office are concerned with facilities. Its safety review is included in the computation of fees. Generic licensing, research and standards development effort are all excluded.

3. *Atomic Safety and Licensing Board Panel.* Boards appointed from this panel in accordance with the provisions of section 191 of the Atomic Energy Act of 1954, as amended, conduct mandatory hearings for power reactors and test facilities and issue initial decisions with respect to granting, suspending, revoking, or amending licenses or authorizations. Effort in this office concerned with uncontested facility hearings is included in fee computation. All other effort was excluded.

4. *Atomic Safety and Licensing Appeal Board.* These boards review decisions affecting facility licensing. Effort concerned with uncontested cases is included in fee computation; the remainder concerning contested cases is excluded.

5. *Office of Nuclear Materials Safety and Safeguards.* (a) Processing of applications for non-reactor facility construction permits and operating licenses, fuel cycle licenses, and materials licenses by the NRC staff and consultants. This includes safety, environmental, and special nuclear material safeguards reviews (included). Antitrust reviews as required by 10 CFR Part 50 non-reactor facility applications (included).

(b) Processing of applications for license renewal and amendments by the NRC staff and consultants (included).

(c) Examination and testing of the qualifications of non-reactor facility operators (included).

(d) Staff assistance in development of standards and licensing guides (excluded).

(e) Staff effort to research projects (excluded).

(f) Licensing effort which is generic in nature, i.e., not specifically identified with applications on file (excluded).

(g) Staff assistance in development of safeguards contingency plans, and safeguards assessment activities (excluded).

6. *Office of Inspection and Enforcement.* (a) Routine health, safety, environmental and safeguards inspections of licensed activities (included).

(b) Quality assurance inspections during the preconstruction, construction, preoperational and operations phases of facility licensing (included).

(c) Staff assistance in development of standards and inspection criteria (excluded).

(d) Nonroutine inspections: Investigations, incident inspections, audit of licensee management and enforcement activities (excluded).

(e) Generic inspection activities, i.e., inspection activities which are not concerned with a specific licensee, facility or vendor (excluded).

7. *Office of Standards Development.* (a) All standards services would be excluded even though these activities provide substantial benefit to applicants, licensees and vendors by helping to define NRC requirements and practices and helping to establish predictability of the regulatory process. However, the identifiable recipient of the service is obscure.

8. *Office of Nuclear Regulatory Research.* (a) Research or confirmatory assessment which generally relates to regulatory decisions for the safe and environmentally compatible operation and protection of nuclear facilities and materials has been excluded from fee computation because the identifiable recipient of the benefit is obscure.

9. *The Office of the Commissioners.* (a) The Commissioners are the governing body of NRC who exercise the overall responsibility for policy guidance and administration and management of the Commission. Accordingly, it is not practical to isolate and allocate the services of this office to individual activities. The services provided by this office have been excluded from fee computation.

10. *The Office of the Secretary.* (a) The allocation of services as well as related costs to the various offices was determined by examination of the functional workload associated with each operating activity of the Office of the Secretary. Those activities supporting the licensing and inspection process were included in fee computation.

11. *Office of the General Counsel.* Effort in this office is devoted to contested hearings as well as providing legal opinion and advice in connection with quasi-judicial responsibilities of the Commission and in policy development, litigation and legislative matters. These services are not directly concerned with the licensing and inspection process, except for the effort in contested hearings. All services provided by this office were excluded from fee computation.

12. *Office of Policy Evaluation.* This office advises the Commissioners on a broad range of substantive policy matters and provides an independent review of positions developed by the NRC staff which require policy decisions by the Commission. Services provided by this office do not generally deal directly with licensing or inspection activities and are thus excluded from fee computation.

13. *Offices of the Inspector and Auditor, Congressional Affairs, Public Affairs and Equal Employment Opportunity.* The services provided by these offices provide an independent public benefit and were excluded from fee computation.

14. *The Executive Director for Operations.* This office coordinates and directs the Commission's operational and administrative activities. It is concerned directly with the licensing, inspection, standards and research activities of the Commission. The services and related costs of this office, with the exception of the Special Projects Branch, were allocated to the operation offices after analysis of the services provided. The services supporting the licensing and inspection process were included in fee computation. The Special Projects Branch is concerned with special projects which are not directly concerned with licensing, inspection, standards, or research activities and, therefore, the services of this branch were excluded from fee computations.

15. *The Office of Administration.* Analysis shows that this office, with the

exception of the Division of Rules and Records, provides service to the respective NRC offices essentially on a per capita basis, and this is the basis for distribution of its services for fee computation purposes. Those services supporting the licensing and inspections process were included in fee computation. The Division of Rules and Records is concerned primarily with requests under the Freedom of Information Act, Privacy Act, and the Federal Reports Act and provides support involving changes to rules and regulations. It services an independent public interest and it was excluded for fee computation purposes.

16. *The Office of the Controller.* Analysis shows that this office provides services to the respective NRC offices essentially on a per capita basis. Those services supporting the licensing and inspection process were included in fee computation.

17. *The Office of Management Information and Program Control.* This office provides management information and control systems dealing with project status and schedules for several of the NRC offices. Based on analysis, the services, as well as costs, were allocated to the offices receiving the services. Those services supporting the licensing and inspection process were included in fee computation.

18. *Office of Planning and Analysis.* This office assists the Executive Director for Operations in program assessment and policy analysis and development. It does not deal with licensing or inspection activities and the services were excluded from fee computation.

19. *Office of the Executive Legal Director.* Analysis of the services provided by this office shows that the effort goes to licensing, hearings, and providing legal advice to the Executive Director of Operations. Those services supporting the licensing and inspection process were included in fee computation.

20. *Offices of State Programs and International Programs.* These offices provide an independent public benefit and all of their services were excluded from fee computation.

Smallest Practical Unit

The smallest practical units for the various NRC services, which were used in the license fee determination relating to the licensing of facilities was the basic application or license. This includes applications for a construction permit, operating license, standard design approval, early review of a facility site, review of a topical report or of a special project. The applicant for a nuclear power plant permit or license may propose to use one of the standardization approaches implemented by the Commission or it may apply for an application for a unit that is considered reviewed. The several types of applications and requests filed by utilities and vendors became the basis for categories used for fee purposes.

The smallest practical units for allocating regulatory services and determining fees associated with special nuclear material are the different types of applications covering the various uses of byproduct material, e.g., industrial radiography, hospital, oil well logging, etc. In certain instances applications were further divided into sub-units based on the difference in professional time required to review the sub-units. An example of this is field radiography v. radiography at one location.

The smallest practical units for licensing special nuclear material are based on the type of material (plutonium, enriched uranium, etc.), use of material (reactor fuel fabrication, research, etc.), and the quantity of material. The amount of professional effort required to process a special nuclear material license or conduct an inspection is directly related to these factors. Using this approach applications and licenses were divided into 10 sub-units or fee categories.

The smallest practical units for source material licensing are based on the use of the source material, i.e., uranium mills, refining mill concentrates to uranium hexafluoride, recovery of uranium through in-situ leaching operations, etc. Using this approach source material applications and licenses were divided into four sub-units or fee categories.

Other fee categories which cover special applications or reviews are based on the type of application or request, e.g., evaluation of spent reactor fuel shipping casks; manufacture and distribution of power sources; evaluation of sealed sources containing byproduct, source, or special nuclear material; and evaluation of devices or products containing or utilizing byproduct, source, or special nuclear material.

In all cases the fee categories developed by the Commission represent the smallest practical units of NRC services.

The current schedule of fees for power reactor construction permits and operating licenses is partially on a sliding scale based on the capacity of the plant (megawattage). When fees were first adopted in 1968, proposed reactors were all custom units in design and increasing in size and capacity, and vendor designs still evolving based on limited experience.

When the current fee schedule was adopted some stabilization in design had occurred; however, the review process was still custom in nature because of growing safety and environmental concerns.

With implementation of the standardization program in vendor design and the licensing review and the leveling off in size and power level capacity, the manpower required to review an application for a construction permit and operating license is about the same for all new light water reactors of a particular class. The difference depends upon whether it is a standard design and whether the site has been previously reviewed. In view of this change, the sliding scale of fees for nuclear power reactors has been eliminated. Fees will be based on a fixed charge and remain so unless the pattern of reactor design and licensing requirements undergo a change.

When an application covers two or more electrical power plants at a single site or at additional sites, fee categories reflect the reduced licensing effort.

For certain categories of new services or special project reviews, it was not practical to develop a fee for the category because of the extremely wide variation in review requirements. Charges will be made at the time the review process is completed, and will be based on the professional manpower required to complete the review. Examples of services in this category are reviews of reactor component designs submitted by vendors or suppliers and early site reviews.

The NRC processes large numbers of applications to amend reactor operating licenses or to make changes in the technical specifications of a nuclear power plant. Fee categories have been developed to cover these services. Applications for amendments have been grouped into six classes which reflect differences in the effort required to complete these reviews.

The current fee category for a reactor manufacturing license has been separated into two categories which reflect current application review procedures. The new categories are (1) review of the preliminary design, and (2) review of the final design.

The current fee category, "Other production or utilization facility" has been separated into two categories, namely, (1) fuel reprocessing plant complex, and (2) uranium enrichment plant. This category has been split to provide greater equity because the licensing process for uranium enrichment plants requires less effort.

The fee categories for test reactors and research reactors have been continued.

The current categories for fuel cycle licenses and applications have been subdivided to reflect substantive changes which have occurred in licensing requirements and procedures since the current fee schedule was developed. The most significant changes have been increased safety, environmental, and natural phenomena considerations in the review of applications for licenses for uranium and plutonium fuel processing and fabrication plants. With respect to uranium, the complexity of the review from a safeguards point of view is also colored by whether the uranium containing uranium 235 is enriched to 20 percent or more. In the case of licensing a plutonium fuel processing and fabrication plant, an environmental review is required prior to the start of construction. An applicant must submit its environmental report and its safety analysis nine months prior to the expected start of construction so that NRC can complete the environmental review and issue a construction approval prior to the start of construction. A new fee category, "Application for construction approval" has been developed because of this licensing change.

Because of the expected increase in storage of spent reactor fuel and the extensive safety and environmental matters to be resolved in licensing such in-

stallations, a fee category has been established for this type of application and license.

Because of the substantial increase in licensing effort resulting from additional environmental considerations, a separate fee category has been developed for licenses authorizing uranium mills. In situ leaching operations or heap leaching operations are in a separate fee category, as are licenses for refining of uranium mill concentrates to uranium hexafluoride. Licenses for quantities of source material, except when used in milling or refining operations, have been combined into one fee category. This was done because the quantity of source material is not a significant consideration in licensing.

Each of the fee categories covering licenses for small quantities of byproduct, source, or special nuclear material was analyzed to determine whether it adequately describes the effort required by the Commission. As a result of this analysis several new license fee categories have been developed while others have been modified. New fee categories established cover licenses or reviews for (1) the processing or manufacturing and distribution of radiopharmaceuticals using byproduct material, (2) authorization to receive prepackaged waste byproduct material, source material, or special nuclear material from other persons and transfer to persons authorized to dispose of the material, (3) safety evaluations of devices or products containing byproduct material, or special nuclear material, (4) safety evaluations of sealed sources containing byproduct material, source material, or special nuclear material, (5) the manufacture and distribution of encapsulated byproduct material or special nuclear material for use in power generation sources, (6) evaluation of spent fuel casks and other shipping containers and packages, and (7) special projects. The fee category for licenses authorizing the possession of byproduct material for processing of items containing byproduct material for commercial distribution has been modified to remove the phrase, "that require safety evaluation." This modification will permit all processing or manufacturing of commercial items or products, except for power sources, to be covered by one license fee category and simplify the license fee program. The fee category for licenses issued to medical institutions authorizing the human use of byproduct material, source material, or special nuclear material, has been amended to include [illegible] covering two or more physicians on a single license.

Under the current schedule of fees no charges are made for routine health, safety, environmental or safeguards inspections of licensed activities; however, since these activities provide special benefit to identifiable recipients, a schedule of fees has been developed for these services. Likewise, there is currently no charge for license amendments, except those increasing the power level of an operating power reactor and those increasing the scope of a license. These amendments provide special benefit to identifiable recipients, and fees have been developed for amendments. This means that the Commission has been processing about 4,000 amendments and conducting about 1,400 routine inspections each year without any charge.

FEE DEVELOPMENT

After each of the services performed by the NRC staff were analyzed to determine the existence of special benefit, the program support services (contractual line items) were individually reviewed to determine whether they support the review of applications, permits, licenses, approvals or inspections. If a contractual service was found to be supportive of the review, licensing, or inspection process, it was considered as providing special benefit and included in the appropriate fee computation. For example, a contract laboratory completes most of the statutorily required environmental review for nuclear power plants. If the contractual service was in support of a specific license, approval, or inspection activity, the average cost per license was computed and used in developing the license for the specific fee category.

Each operating office responsible for processing of applications and conducting inspections developed the average professional manpower required to process each category or type of application, license, amendment, approval, and inspection. The categories are described in §§ 170.21, 170.22, 170.23, 170.24, 170.31, and 170.32 of this notice of proposed rulemaking. The professional manpower time is necessary to calculate the fee for each license and inspection fee category.

The NRC has a manpower system where employees conducting reviews and inspections submit weekly records identifying where their effort was expended. These records are periodically audited and entered into the NRC's automated data retrieval system. This information is retrievable as professional manpower expended against the several milestones involved in the review of facility applications. For materials it is retrievable for a class or type of application. This raw information was further analyzed after retrieval and used to develop the average manpower expended for each type of application, license, or inspection.

After each NRC service was properly categorized, contractual services analyzed, and the professional manpower figures obtained for each fee category, the cost per man-year to maintain a professional employee (professional man-year rate) was developed for the Offices of Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards and Inspection and Enforcement, and the Advisory Committee on Reactor Safeguards, Atomic Safety Licensing Board Panel and the Atomic Safety Licensing Appeal Panel. These rates were developed by using (1) each office's costs of personnel compensation (salaries), personnel benefits, administrative support and travel, (2) the number of professional employees who were identified as working on licensing, inspection, and other special projects (excluding administrative, supervisory and management direction employees), and (3) the overhead support provided to the Nuclear Reactor Regulation, Nuclear Materials Safety and Safeguards, Inspection and Enforcement, Advisory Committee on Reactor Safeguards, Atomic Safety Licensing Board Panel and Atomic Safety Licensing Appeal Board (operating offices) by the Program Direction and Administration and Program Technical Support offices. To determine overhead support these offices were analyzed to identify what service, if any, they provided to the operating offices.

After the analysis, the manpower and other costs of the offices of the Secretary, Controller, Management Information and Control, Administration, Executive Legal Director, and the Executive Director for Operations were allocated as overhead support to other NRC offices. Each of these offices, with the exception of the Offices of Controller and Administration, analyzed its operations in terms of the support it provides to the various operating offices. Based on this analysis, each office allocated its effort on a percentage basis. This overhead was applied to the total cost of the office receiving the support. The costs for the Offices of Administration and Controller were distributed to all of the NRC offices on a pro-rata basis based on distribution of manpower. This procedure was followed for the offices of the Controller and Administration because their support directly follows the needs of the staffing of the various NRC offices. PDA and PTS offices excluded from fees are the Offices of Commission, General Counsel, Policy Evaluation, Inspector and Auditor, Congressional Affairs, Public Affairs, Planning and Analysis, Equal Employment Opportunity, and International and State Programs.

The following shows how the professional man-year rate was developed for the Offices of Nuclear Reactor Regulation, Nuclear Materials and Safeguards, Inspection and Enforcement, Advisory Committee on Reactor Safeguards, Atomic Safety Licensing Board Panel, and Atomic Safety Licensing Appeal Panel.

Office of Nuclear Reactor Regulation (NRR)—Average cost per man-year computation (fiscal year 1977)

	Cost	Staff
Personnel compensation	$17,[illegible]	6[illegible]
Personnel benefits	1,[illegible]	
Administrative support	4,[illegible]	
Travel and transportation of persons	[illegible]	
Subtotal	24,5[illegible]	6[illegible]
Less consultants	[illegible]	
Total	24,4[illegible]	
NRR's proportionate share of PDA and PTS costs	5,[illegible]	
NRR's [illegible]	[illegible]	
A[illegible] 6[illegible] man-years × [illegible] man-year	1[illegible]	
Total	30,[illegible]	[illegible]

See footnotes at end of table.

	Costs	Staff
Average cost/man-year to maintain a professional employee	$30,6[illegible] ÷ ³438 = $70,012	

¹ PDA = program direction and administration, PTS = program technical support.
² The added factor represents interest and depreciation on plant and capital equipment.
³ Of the total 6[illegible] budgeted employees 438 were identified as professionals exclusive of administrative, clerical, supervisory, and management direction employees.

Office of Nuclear Material Safety and Safeguards (NMSS)—Average cost per man-year computation (fiscal year 1977)

	Costs	Staff
Personnel compensation costs	$6,700,000	276
Personnel benefits costs	600,000	
Administrative support costs	1,720,000	
Travel and transportation of persons costs	530,000	
Subtotal	9,550,000	276
Less consultants	85,624	
Total	9,464,376	
NMSS proportionate share of PDA and PTS ¹ costs	2,610,951	
Added factor,² 276 man-years × $295/man-years	81,420	
Total costs	12,156,747	³276
Average cost/man-year to maintain a professional employee	$12,156,747 ÷ ³176 = $69,243	

¹ PDA = program direction and administration, PTS = program technical support.
² Added factor represents interest and depreciation on plant and capital equipment.
³ Of the 276 total, 176 have been identified as professional man-years.

Office of Inspection and Enforcement (IE)—Average cost per man-year computation (fiscal year 1977)

	Costs	Staff
Personnel compensation costs	$15,150,000	502
Personnel benefits costs	1,370,000	
Administrative support costs	3,950,000	
Travel and transportation of persons costs	1,770,000	
Subtotal	22,240,000	502
IE's proportionate share of PDA and PTS ¹ costs	3,663,623	
IE training costs	56,000	
Added factor,² 502 man years × $295/man year = $174,840; IE special equipment only = 100,450	275,130	
Total costs	26,234,753	³502
Average cost/man-year to maintain a professional employee	$26,234,753 ÷ 406 ³ = $64,623	

¹ PDA = program direction and administration; PTS = program technical support.
² Added factor represents interest and depreciation on plant and capital equipment.
³ Of the 502 total, 406 have been identified as professional man-years.

Advisory Committee on Reactor Safeguards (ACRS)—Average cost per man-year computation (fiscal year 1977)

	Costs	Staff
Personnel compensation costs	$1,[illegible]	37
Personnel benefits costs	[illegible],413	
Subtotal	1,17[illegible]	
Administrative support costs	20[illegible],424	
Travel and transportation of persons cost	318,000	
Program support costs	537,000	
Subtotal	2,291,218	37
ACRS's proportionate share of PDA and PTS ¹ costs	236,926	
Added factor ², 37 man-years × $295/man-year	10,915	
Total costs	2,539,159	³37
Average cost/man-year to maintain a professional employee	$2,539,159 ÷ 28.5 ³ = $89,094	

¹ PDA = program direction and administration, PTS = program technical support.
² Added factor represents interest and depreciation on plant and capital equipment.
³ Of the 37 total, 28.5 have been identified as professional man-years.

Atomic Safety and Licensing Board Panel (ASLBP)—Average cost per man-year computation (fiscal year 1977)

	Costs	Staff
Personnel compensation costs	$1,175,445	42
Personnel benefits costs	116,253	
Subtotal	1,291,698	
Administrative support costs	304,678	
Travel and transportation of persons cost	127,000	
Program support costs	230,000	
Subtotal	1,953,376	42
ASLBP's proportionate share of PDA and PTS ¹ costs	458,685	
Added factor,² 42 man-years × $295/man-year	12,390	
Total costs	2,424,451	³42
Average cost/man-year to maintain a professional employee	$2,424,451 ÷ ³28.38 = $85,429	

¹ PDA—Program direction and administration; PTS—program technical support.
² Added factor represents interest and depreciation on plant and capital equipment.
³ Of the 42 total, 28.38 have been identified as professional man-years.

Atomic Safety and Licensing Appeal Panel (ASLAP)—Average cost per man-year computation (fiscal year 1977)

	Costs	Staff
Personnel compensation costs	$475,775	17
Personnel benefits costs	47,055	
Subtotal	522,830	
Administrative support costs	123,330	
Travel and transportation of persons cost	25,000	
Program support costs	15,000	
Subtotal	686,160	17
ASLAP's proportionate share of PDA and PTS ¹ costs	150,623	
Added factor ², 17 man-years × $295/man-year	5,015	
Total costs	841,798	³17
Average cost/man-year to maintain a professional	$841,798 ÷ ³9.56 = $88,054	

¹ PDA—program direction and administration. PTS—program technical support.
² Added factor represents interest and depreciation on plant and capital equipment.
³ Of the 17 total, 9.56 have been identified as professional man-years.

The costs of contested hearings were excluded in fee computation. The statutory hearing plays a significant role in the licensing of production and utilization facilities. Most of these hearings are contested proceedings and may consume several man-years of Commission time. The hearing is an adjudicatory process which gives the public an opportunity to intervene or participate in the licensing process. It also serves an educational purpose. The Commission has no way of estimating, in advance, the cost of a hearing. Accordingly, based on a policy decision, the costs of contested hearings were excluded in fee computation.

The actual fee for a specific category was computed by multiplying the average professional manpower required to perform the service by the professional man-year or man-hour rate, and adding the average share of the costs of the contractual support services. The following example illustrates how fees were calculated for nuclear power reactors. The example covers a duplicate design plant.

Nuclear power plant—Construction permit—1st unit on site

Organization providing service	Average professional processing time (man-year)	Professional man-year rate	Cost elements of proposed fee
NRR safety and environmental (manpower)	6.1	$70,012	$427,073
NRR safety and environmental (contractor support)			276,216
NRR antitrust (manpower)	.2	70,012	14,002
NRR safeguards (manpower)	.3	70,012	21,004
NRR consultants			528
IE safety and environmental (manpower)	1.86	64,623	120,199
IE safety and environmental (contractor support)			2,784
IE [illegible] program			36,[illegible]
ACRS review	1.5	89,094	133,641
ASLBP review	.4	85,429	34,172
ASLAB review	.027	88,054	2,377
Total			1,068,534

After an application fee of $125,000 was deducted from the $1,068,534 the construction permit fee became $944,000 (rounded to the nearest $100). The application fee is part of the construction permit fee moved up front so that when applications for nuclear power plants are withdrawn, cancelled or denied, the Commission will recover part of its review costs.

Nuclear power plant—Operating license—1st unit on site

Organization performing service	Average professional processing time (man-year)	Professional man-year rate	Cost elements of proposed fee
NRR safety and environmental (manpower)	5.8	$70,012	$406,070
NRR safety and environmental (contract support)			163,215
NRR antitrust (manpower)	.1	70,012	7,001
NRR safeguards (manpower)	.3	70,012	21,003
NRR e[illegible]			816
NRR operator examinations			30,248
IE safety and environmental (manpower)	4.13	64,623	266,893
IE safety and environmental (contract support)			15,625
IE safeguards (manpower)	.1	64,623	6,462
IE safeguards (contract support)			445
ACRS review	1.2	83,094	106,913
Total			1,024,472

The operating license fee (rounded) becomes $1,024,500 for the first reactor unit on site. The fees covering review of (1) concurrent units (second, third, etc., units of the same design at a single power station and reviewed at the same time) and (2) the first identical unit located at a different site, were computed using the method shown above. The fee for an identical unit located at a different site is substantially lower than the fee for a first unit of a kind. Information used to develop fees for nuclear power plants; facility manufacturing licenses; the Clinch River Breeder reactor; review of preliminary and final standardized designs filed by vendors and architect engineers; test facilities; research reactors; reprocessing facility complexes and uranium enrichment plants, is available for public review in the Public Document Room, 1717 H Street, Washington, D.C. Individual materials licenses have been separated into 41 fee categories based on the type of license and inspection performed. The 41 categories cover applications, licenses and inspections for special nuclear material, source material, byproduct material, sealed source and device evaluations and the review of packages designed to transport radioactive materials. The development of three materials license application fees are shown below for illustrative purposes.

Plutonium processing and fuel fabrication plant

	Average professional processing time (man-year)	Professional man-year rate	Cost elements of proposed fee
Request for construction approval:			
NMSS safety and environmental (manpower)	3.8	$69,243	$263,123
NMSS safety and environmental (contract support)			220,000
NMSS safeguards (manpower)	0.32	69,243	22,158
NMSS safeguards (contract support)			25,000
Total			530,281
New license application:			
NMSS safety and environmental (manpower)	2.1	69,243	145,410
NMSS safety and environmental (contract support)			65,000
NMSS safeguards (manpower)	0.45	69,243	31,159
Total			241,569
Uranium mills:			
NMSS safety and environmental (manpower)	0.4	69,243	27,697
NMSS safety and environmental (contract support)			80,000
Total			107,697
Private physicians for use of special nuclear material or byproduct material in humans, NMSS safety (manpower)	[1] 5	[1] 38	190

[1] Man-hour.

The computation of all the fees for the materials license categories followed the method illustrated above. The cost detail is available for public review in the Commission's Public Document Room, 1717 H Street, Washington, D.C.

The following illustrates how inspection fees were developed for facility and materials licenses.

	Average professional inspection time (man-year)	Professional man-year rate	Cost elements of proposed fee
Power reactor (1st unit):			
IE safety and environmental (manpower)	[1] 1.004	$64,623	$64,891
IE (contract support)			10,750
Total			[1] 75,670

See footnotes at end of table.

	Average professional processing time (man-year)	Professional man-year rate	Cost elements of proposed fee
Special nuclear material licenses with quantities of 5 kg or more of U-235 used for fuel processing and fabrication:			
(1) safety (manpower)	[1] 0.07	$64,823	$4,824
(2) (contract support)			748
Total			[2] $5,272

[1] Per year.
[2] Inspection.

The computation of all inspection fees (safety and safeguards) were developed using the method shown above. The cost detail is available for public inspection in the Commission's Public Document Room, 1717 H Street, Washington, D.C.

Inspection fees cover not only the time the inspector spends at the licensee's site but also takes into account the time the inspector or inspection team spends in reviewing the application and supporting documentation and records, the time required to prepare the inspection report, and travel costs.

It is the intent of the Nuclear Regulatory Commission to assess inspection fees as follows:

1. Upon completion of an inspection, where the frequency of the site visit is once per year or less.

2. Upon completion of 90 percent or more of the inspection requirements where the frequency of the site visit is more than once per year.

Routine inspections conducted by resident inspectors will be assessed a fee once per year for the inspection service.

No charge will be assessed for management audits, incident inspections, investigations, and enforcement activities. These activities fall outside the routine inspection program and they are considered to be an independent public benefit.

In special situations the following procedures will be used in the assessment of inspection fees.

1. When a person holds multiple materials licenses with use restricted to one location, and more than one of these licenses is inspected during a single inspection visit, the licensee will be assessed only the fee for the license for which the highest fee is due.

2. When a person holds one materials license which authorizes use of material at more than one location, an inspection fee will be assessed for each location when inspected.

3. When a single license authorizes materials which fall into more than one fee category, a single inspection fee will be assessed based on the highest fee category.

4. When more than one operating power reactor is inspected concurrently at a single site, one unit will be assessed the regular routine inspection fee and the additional unit(s) will be assessed a lower fee.

Each person holding a facility or materials license will be informed by letter of the frequency for which fees for routine inspections will be assessed. The schedule of fees in §§ 170.22, 170.24 and 170.32 contain inspection frequencies. Persons receiving licenses on or after the effective date of this amendment will be informed of the inspection frequency when the license is issued. It should be recognized that changes in individual programs or in the quantity of material authorized under a license may require a change in inspection frequency. When a change occurs, the licensee will be informed in writing.

"Special project", as used in the fee schedule, means those projects for which the review is not intended to result in a permit or license and for which the fee is not stated numerically in Part 170.

A separate schedule of fees has been established for uranium enrichment facilities. These charges are substantially less than those for reprocessing facilities, because the review is less complex.

Because of changing considerations in processing fuel cycle applications, fees for such applications are based on limited experience. Accordingly, the Commission plans to reassess the professional manpower required to process each fuel cycle application for a license or amendment when the review process is complete. No applicant will be charged more than that specified in this schedule of fees.

All new applications filed on or after the effective date of this amendment will be subject to the fees prescribed by this amendment to Part 170. Construction permits, operating licenses, manufacturing licenses, standardized design approvals, issued on or after the effective date of this amendment and special project reviews completed on or after the effective date of this amendment will be required to pay the fee prescribed by this amendment.

Fees for construction permits, operating licenses, facility manufacturing licenses, approvals of standardized reference designs, early site reviews, and special project reviews will be collected upon issuance of the permit, license, and approval, or upon completion of the review.

Collections under the revised schedule of fees are estimated to be approximately $18 million in FY 1977, or about seven percent of the NRC budget. This estimate assumes adoption of the revised schedule on August 1, 1977. In FY 1978, estimated collections would be approximately $40 million.

Following the Supreme Court decisions on March 4, 1974, in "National Cable Television Association, Inc. v. United States" 415 U.S. 336 (1974), and "Federal Power Commission v. New England Power Co." 415 U.S. 345 (1974), the Commission eliminated annual license fees and notified licensees that a request may be filed for refund of annual fees collected. We again advise licensees that a refund of annual fees is available. A request for refund should include the name and address of the licensee and the license number. Each specific annual fee refund claim should include the invoice number, the amount paid by year, the amount of the refund requested, and the amount of any previous refund. Requests for refunds should be mailed to the Office of the Controller, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

The Commission will hold a public meeting to discuss this Notice at 10 a.m., May 12, 1977, in Room P-110, 7920 Norfolk Avenue, Bethesda, Maryland. At that time, data used in developing the proposed schedule of fees will be made available and the Commission will explain how the proposed schedule of fees was developed.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, and section 553 of title 5 of the United States Code, notice is hereby given that adoption of the following amendments to Title 10, Chapter I, Code of Federal Regulations, Part 170, is contemplated. All interested parties who desire to submit written comments for consideration in connection with the proposed amendment should send them to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, by June 1, 1977.

1. Section 170.2 is amended to read as follows:

§ 170.2 Scope.

Except for persons who apply for or hold the licenses exempted in § 170.11, the regulations in this part apply to a person who is an applicant for, or holder of, a specific license for byproduct material license issued pursuant to Parts 30 and 32-35 of this chapter, a specific source material license issued pursuant to Part 40 of this chapter, a specific special nuclear material license issued pursuant to Part 70 of this chapter, or a production or utilization facility construction permit and operating license issued pursuant to Part 50 of this chapter, to routine safety and safeguards inspection of a license person, and to a person who applies for approval of a reference standardized design of a nuclear steam supply system or balance of plant, for review of a facility site prior to the submission of an application for a construction permit, or for a special project review when the Commission completes or makes whether or not in conjunction with a license application on file or which may be filed.

2. Section 170.3 is amended to add:

§ 170.3 Definitions.

* * * * *

(g) "Nuclear Steam Supply System" consists of the reactor core, reactor coolant system, and related auxiliary systems including the emergency core cooling system, decay heat removal system, and

coolant volume and chemical control system.

(r) "Balance of plant" consists of the remaining systems, components, and structures that comprise a complete nuclear power plant and are not included in the nuclear steam supply system.

(s) "Special Projects" means those projects for which the review is not intended to result in a permit or license and for which a fee is not stated numerically in this chapter.

(t) "Routine Inspection" means an inspection performed at frequencies or during a certain period of time prescribed by the Commission for purposes of reviewing a licensee's authorized activities to assure that they are being conducted in accordance with regulatory requirements and that associated facilities and equipment are being operated in a safe manner.

§ 170.11 [Amended]

3. The introductory langauge in paragraph (a) and paragraph (9) of § 170.11 is amended to read as follows:

(a) No application filing fees, license fee, amendment fees, renewal fees, or inspection fees shall be required for:

* * * * *

(9) A license for possession and use of byproduct material, source material, or special nuclear material applied for 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.

* * * * *

4. Paragraph (b)(3) of § 170.11 is deleted.

5. Paragraphs (b) and (c) of § 170.12 are amended to read as follows:

§ 170.12 Payment of fees.

* * * * *

(b) *Facility fees.* Construction permit fees, manufacturing license fees, operating license fees, reference standardized design approval fees, special project fees, amendment fees, and safety and safeguards inspection fees.

(1) Fees for construction permits, operating licenses, manufacturing licenses, and reference standardized design approvals are payable when the construction permit, operating license, manufacturing license, or standardized design approval is issued.

(2) Fees for special projects are payable upon notification by the Commission when the project is completed.

(3) Fees for amendments are payable upon notification by the Commission.

(4) Fees for inspections are payable upon notification by the Commission.

(c) *Materials fees.* Amendment, inspection, and special project fees.

(1) Fees for material license amendments shall accompany the application except for Categories 1A, 1B, 1C, 1H, 2A, 2C, 4A, 11A, 11B, and 11C, in § 170.31 where the fees are payable upon notification by the Commission.

(2) Fees for a special project involving byproduct, source, or special nuclear material are payable upon notification by the Commission.

(3) Fees for inspections are payable upon notification by the Commission.

* * * * *

6. Section 170.21 of Part 170 is amended to read as follows:

§ 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 approval of reference standardized facilities designs, shall pay the fees set forth in the table below.

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

Schedule of facility fees

Facility categories	Types of fees	Fee [1]
A. *Power reactors:*		
1. Custom	Application-construction permit	$125,000
	Construction permit-first unit	941,000
	Construction permit-concurrent unit [2]	174,000
	Operating license-first unit	1,024,500
	Operating license-concurrent unit [2]	372,400
2. Standardized design-duplicate unit [3]	Application-construction permit	125,000
	Construction permit-first unit	911,000
	Construction permit-concurrent unit [2]	174,000
	Construction permit-1st identical unit additional site(s)	737,100
	Operating license-first unit	1,024,500
	Operating license-concurrent unit [2]	300,200
	Operating license-1st identical unit additional site(s)	712,000
3. Standardized design-replicate unit [4]	Application-construction permit	125,000
	Construction permit-first unit	611,000
	Construction permit-concurrent unit [2]	161,200
	Construction permit-first identical unit additional site(s)	725,900
	Operating license-first unit	914,400
	Operating license-concurrent unit [2]	293,900
	Operating license-first identical unit additional site(s)	691,500
4. Standardized Design-Reference Systems Concept: [5]		
a. Utility referencing a nuclear steam supply system and custom balance of plant.	Application-construction permit	125,000
	Construction permit-first unit	653,[illegible]
	Construction permit-concurrent unit [2]	162,900
	Construction permit-first identical unit additional site(s).	725,900
	Operating license-first unit	954,100
	Operating license-concurrent unit [2]	292,100
	Operating license-first identical unit additional site(s).	6[illegible]
b. Utility referencing a nuclear steam supply system and standardized balance of plant.	Application-construction permit	125,000
	Construction permit-first unit	721,[illegible]
	Construction permit-concurrent unit [2]	[illegible]
	Construction permit-first identical unit additional site(s).	725,900
	Operating license-first unit	875,100
	Operating license-concurrent unit [2]	292,100
	Operating license-first identical unit additional site(s).	6[illegible]
5. Manufacturing license concept: [6]		
a. Vendor-review of preliminary design.	Application	125,000
	Manufacturing license	[7] 1,477,[illegible]
b. Vendor-review of final design	Final design amendment	[7] 4[illegible]
c. Utility referencing a manufacturing license.	Application-construction permit	125,000
	Construction permit-first unit	7[illegible]9,000
	Construction permit-concurrent unit [2]	61,[illegible]
	Operating license-first unit	1,0[illegible]
	Operating license-concurrent unit [2]	2[illegible]
6. Breeder reactors	Application-construction permit	125,[illegible]
	Construction permit	1,[illegible]
	Operating license	[7] 1,954,300
B. Standard reference design review: [8]		
1. Vendor standardized nuclear steam supply system:		
a. Review of preliminary reference design.	Application	50,000
	Approval	412,100
b. Review of final reference design	Application	50,000
	Approval	453,400
2. Architect-engineer-standardized balance of plant:		
a. Review of preliminary reference design.	Application	50,000
	[illegible]	412,[illegible]
b. Review of final reference design	[illegible]	[illegible]
	[illegible]	[illegible]
C. Test facility	Application-construction permit	5,[illegible]
	Construction permit	[illegible]
	Operating license	1[illegible]
D. Research reactor	Application-construction permit	5,000
	Construction permit	3[illegible]
	Operating license	[illegible]
E. Reprocessing plant complex [1]	Application-construction permit	[illegible]
	Construction permit	[illegible]
	Operating license	[illegible]
	Amendments: [9]	
	[illegible] safety and environment	71,[illegible]
	[illegible]	4[illegible]
	[illegible] and environment	[illegible]
	[illegible]	[illegible]

See footnotes at end of table.

Schedule of facility fees—Continued

Facility categories	Types of fees	Fee [1]
F. Uranium enrichment plants [9]	Application construction permit	125,000
	Construction permit	3[illegible],400
	Operating license	457,200
G. Special projects and reviews [10]		

[1] 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 full power is issued.

[2] Concurrent unit: A concurrent unit is defined as a power reactor of the same design at a single power station that was subject to concurrent licensing review.

[3] Duplicate unit: A duplicate unit involves a single review of a facility design when an applicant or group of applicants propose to construct several identical units at one or more sites. (See Appendix N, 10 CFR Part 50.)

[4] Replicate unit: The review of a replicate unit involves submission of an application by a utility for a permit or license for a nuclear power plant utilizing a plant design that was previously submitted by the same utility or by another utility. Its ultimate objective would be the duplication of plants through the detailed design and construction phases.

[5] Reference system: The application for a construction permit or operating license references an approved standardized design covering either the nuclear steam supply or the "balance of plant." (See Appendix O, 10 CFR Part 50.)

[6] Manufacturing license concept: This type of review encompasses a number of identical units to be manufactured at one location and moved to a different location for operation. (See Appendix M, 10 CFR Part 50.)

[7] When review of application is complete, the fees will be checked against professional manpower and related contractual services costs required to process the application and in no event will fees exceed those shown in the Schedule of Facility Fees.

[8] Standard reference design review: The standard reference design review involves the review of an entire facility design or major fraction of a facility design outside the context of a license application. The standard design would be referenced by utilities in license applications. (See Appendix O, 10 CFR Part 50.)

[9] A major amendment is defined as one requiring evaluation of many aspects of licensed activities where the proposed action could present a potential risk to public health and safety. A minor amendment is defined as one that is primarily administrative in nature, where safety and environmental or safeguards considerations may be easily resolved.

[10] 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 program support (contractual) costs incurred.

7. A new § 170.22 is added to read as follows:

§ 170.22 Schedule of fees for facility license amendments.

Schedule of amendment fees for facility permits, licenses, or design approvals

Class of Amendment [1]	Fee [2] (in dollars)	
	Power reactors [3]	Test and research reactors [3]
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	400	....
Class II. Amendments that are pro forma, administrative in nature, or do not have significant safety considerations	1,200	600
Class III. Amendments that involve a single [illegible] have acceptability for the consideration clearly identified by a regulatory position, or are deemed not to involve significant hazards consideration	4,000	2,000
Class IV: Amendments that involve a complex issue or more than one consideration, several changes of the Class III type incorporated into one amendment, or have been judged to involve significant hazards consideration	12,300	6,000
Class V: Amendments that require evaluation of [illegible] of facility operation and the associated safety analysis, are likely to involve review by the ACRS or involve [illegible]	25,500	12,000
Class VI: [illegible] ACRS and are known to involve a hearing	45,900	20,000

[1] At the time the amendment is filed, the Commission will determine the [illegible] and the applicant will [illegible].

[2] No fee will [illegible] which authorize [illegible] to be part of the initial [illegible].

[3] [illegible] Commission [illegible] to [illegible] an amendment to a [illegible].

8. A new § 170.23 is added to read as follows:

§ 170.23 Schedule of fees for routine inspections of facilities.

Schedule of facility routine inspection fees [1]

Category	Fee [1] (dollars)	Minimum frequency [2]
1. Power reactor:		
First unit	73,700/yr	Continuous.
Additional units at same site.[3]	60,400/yr	Do.
2. Test reactor	4,500 per inspection.	2/yr.
3. Research reactor	4,[illegible] per inspection.	([4]).
4. Other production or utilization facility [5] (operating).	42,1[illegible]/yr	Continuous.
5. Production or utilization facility licensed for possession but not operation.	650/yr	1/yr.

[1] Routine inspections are safety, environmental, and health physics inspections performed at specified frequencies for purposes of reviewing a licensed program to assure that the authorized activities are being conducted in accordance with the Atomic Energy Act of 1954, as amended, Commission regulations, and the terms and conditions of the license. These inspections involve, as necessary, direct observations of operations, personnel interviews, independent measurements and evaluations, and selective record and procedure examination. They do not include safeguards inspections of special nuclear material. Fees will be due upon receipt of notice from the Commission.

[2] The frequency of inspections depends upon the type of licensed activities and facilities, the quantities of material used or processed, and the inherent potential safety hazards. The frequency may change because of problems experienced by licensees or previous inspection findings.

[3] A reduced fee will be charged when the inspection of an additional unit at the same site is conducted concurrently with the first unit.

[4] The inspection frequency for research reactors and [illegible] varies from once every two years to once every three years, depending on the licensed power level.

[5] Fee is applicable for a fuel reprocessing facility and for a uranium enrichment facility.

9. A new § 170.21 is added to read as follows:

§ 170.21 Schedule of fees for routine safeguards inspections of facilities.

Schedule of facility routine safeguards inspection fees

Category	Fee [1] (dollars)	Minimum Frequency [2]
1. Power reactor:		
First unit	$11,500/yr.	2/yr.
Additional unit at same site [3]	9,500/yr.	2/yr.
2. Test reactor (fuel of high strategic importance).	6,500 per inspection.	1/yr.
3. Research reactor (fuel of moderate strategic importance).	1,300 per inspection.	1 every 2 yrs.
4. Other production or utilization facility. [4]	28,700/yr.	3/yr.

[1] Inspection fees are due upon receipt of notice from the Commission.

[2] The frequency of inspections depends upon the type of licensed activities and facilities, and upon the type of inspections conducted. The term "frequency" means the number of times per year that a specific inspection requirement is performed. Thus, a frequency of once per year may involve more than one trip to the facility to complete the requirement. The frequency may change because of problems, experience, or inspection findings.

[3] A reduced fee will be charged when the inspection of additional unit(s) at the same site is conducted concurrently with the first unit.

[4] Fee is applicable for a fuel reprocessing facility and for a uranium enrichment facility.

10. Section 170.31 is amended to read as follows:

§ 170.31 Schedule of fees for materials licenses and special projects.

Applicants for materials licenses and holders of materials licenses shall pay the following fees.

Schedule of materials license fees

Category of materials licenses	Type of fee [1]	Fee
1. Special nuclear material: [2]		
A. Licenses for possession and use of 5 kg or more of contained uranium 235 in uranium enriched to 20 pct or more, or more than 2 kg of uranium 233, for fuel processing and fabrication.	Application—new licenses	$136,600
	Renewal	76,800
	Amendment: [3]	
	Major—safety and environment.	34,600
	Major—safeguards	8,300
	Minor—safety and environment.	1,400
	Minor—safeguards	2,500
B. Licenses for possession and use of 5 kg or more of contained uranium 235 in uranium enriched to less than 20 pct, for fuel processing and fabrication.	Application, new license	124,500
	Renewal	71,900
	Amendment: [3]	
	Major—safety and environment.	34,600
	Major—safeguards	8,900
	Minor—safety and environment.	1,400
	Minor—safeguards	2,500
C. Licenses for possession and use of more than 2 kg of plutonium for fuel processing and fabrication. [4]	Application for construction approval	$50,300
	License fee	241,600
	Renewal	170,600
	Amendment: [3]	
	Major—safety and environment.	75,000
	Major—safeguards	17,500
	Minor—safety and environment.	1,400
	Minor—safeguards	6,200
D. Licenses for possession and use of more than 5 kg of contained uranium 235 or uranium 233 for activities other than fuel processing and fabrication.	Application, new license	34,600
	Renewal	18,000
	Amendment:	
	Safety and environment	1,400
	Safeguards	2,500
E. Licenses for possession and use of quantities of plutonium exceeding 2 kg for activities other than fuel processing and fabrication.	Application—new license	62,500
	Renewal	36,100
	Amendment:	
	Safety and environment	1,400
	Safeguards	6,200
F. Licenses for possession and use of 200 g to 2 kg of plutonium	Application, new license	47,100
	Renewal	29,800
	Amendment:	
	Safety and environment	1,400
	Safeguards	4,300
G. Licenses for possession and use of 350 g to 5 kg of contained uranium-235 or 200 g to 2 kg of uranium-233.	Application, new license	7,300
	Renewal	11,100
	Amendment:	
	Safety and environment	1,400
	Safeguards	2,500

Category of [illegible]	Type of fee	Fee
H. Licenses for receipt and storage of [illegible] fuel[4]	Application, new license	325,400
	Renewal	32,000
	Amendment:[3]	
	Major, safety and environment	88,500
	Major, safeguards	8,200
	Minor, safety and environment	3,500
	Minor, safeguards	3,500
I. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems.	Application, new license	190
	Renewal	150
	Amendment	40
J. All other special nuclear material licenses, except licenses authorizing special nuclear material in combination that would constitute a critical quantity as defined in § 150.11 of pt. 150 which shall pay the same rate as category 1G.	Application, new license	460
	Renewal	460
	Amendment	110
2. Source material:		
A. Licenses for possession and use of source material in milling operations, except in situ leaching and heap leaching operations.[4]	Application, new license	107,700
	Renewal	100,800
	Amendment:[3]	
	Major, safety and environment.	20,800
	Minor, safety and environment.	3,500
B. Licenses for processing and recovery of source material in in situ leaching operations or heap leaching operations.[4]	Application, new license (production scale activity).	60,500
	Application, new license (R. & D. Scale Activity)).	23,800
	Renewal	17,300
	Amendment	[illegible]
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.[4]	Application, new license	[illegible]
	Renewal	[illegible]
	Amendment:[3]	
	Major, safety and environment.	20,800
	Minor, safety and environment.	3,500
D. All other source material licenses	Application, new license	140
	Renewal	70
	Amendment	40
3. Byproduct material:		
A. Licenses for possession and use of byproduct material issued pursuant to pts. 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution.	Application, new license	460
	Renewal	460
	Amendment	110
B. Licenses issued pursuant to sec. 32.72 of this chapter authorizing the processing or manufacture and distribution of radiopharmaceuticals containing byproduct material.	Application, new license	190
	Renewal	150
	Amendment	40
C. Licenses for byproduct material issued pursuant to pt. 34 of this chapter for industrial radiography operations at one location.	Application, new license	190
	Renewal	150
	Amendment	40
D. Licenses for byproduct material issued pursuant to pt. 34 of this chapter for industrial radiography operations at more than one location.	Application, new license	460
	Renewal	460
	Amendment	110
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is not removed from its shield (self-shielded units).	Application, new license	190
	Renewal	150
	Amendment	40
F. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.	Application, new license	460
	Renewal	460
	Amendment	110
G. Licenses issued pursuant to subpt. B of pt. 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under pts. 31 or 35 of this chapter, except specific licenses authorizing redistribution of items which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons generally licensed under pts. 31 or 35 of this chapter.	Application, new license	930
	Renewal	570
	Amendment	230
H. Licenses issued pursuant to subpt. A of pt. 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of pt. 30 of this chapter, except (1) secs. 32.11 and 32.15 of this chapter, (2) specific licenses authorizing redistribution of items and quantities which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons exempt from the licensing requirements of pt. 30 of this chapter, and (3) specific licenses which authorize distribution of timepieces, hands, and dials.	Application, new license	930
	Renewal	570
	Amendment	230
I. Licenses issued pursuant to sec. 32.15 of this chapter to distribute quantities of byproduct material to persons exempt from the licensing requirements of pt. 30 of this chapter.	Application, new license	190
	Renewal	150
	Amendment	40
J. Licenses issued pursuant to sec. 32.14 of this chapter to distribute timepieces, hands and dials, containing hydrogen 3 or promethium 147 to persons exempt from the licensing requirements of pt. 30 of this chapter.	Application, new license	150
	Renewal	150
	Amendment	40
K. Licenses for possession and use of byproduct material for research and development, except those licenses covered by categories 3A or 3B, and licenses covered by categories 7B or 7C authorizing medical research.	Application, new license	190
	Renewal	150
	Amendment	40
L. All other specific byproduct material licenses, except those in categories 4A through [illegible].	Application, new license	110
	Renewal	110
	Amendment	40
4. Waste disposal:		
A. Waste disposal licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of commercial disposal by land or sea burial by the waste disposal licensee.[4]	Application, new license	[illegible]
	Renewal	[illegible]
	Amendment:[3]	
	Major, safety and environment.	197,700
	Minor, safety and environment.	600
B. Waste disposal licenses specifically authorizing the receipt of waste byproduct material, [illegible] from other persons [illegible]. The licensee would [illegible] transfer to another person authorized to [illegible].	Application, new license	1,100
	Renewal	570
	Amendment	570
C. Waste disposal [illegible] of prepackaged waste [illegible] nuclear material [illegible] the material by transfer to another person authorized to receive or dispose of the material.	Application, new license	190
	Renewal	150
	Amendment	40

Category of materials licenses	Type of fee [1]	Fee
5. Well logging and well surveys and tracer studies		
A. Licenses for possession and use of special nuclear material and/or byproduct material for well logging, well surveys, and tracer studies	Application, new license	460
	Renewal	460
	Amendment	110
6. Nuclear laundries		
A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material	Application, new license	460
	Renewal	460
	Amendment	110
7. Human use of byproduct material, source material, or special nuclear material		
A. Licenses issued pursuant to pts. 30, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices	Application, new license	300
	Renewal	270
	Amendment	40
B. Licenses issued pursuant to pts. 30, 40, and 70 of this chapter to medical institutions, or 2 or more physicians on a single license, for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A	Application, new license	190
	Renewal	150
	Amendment	40
C. Licenses issued pursuant to pts. 30, 40, and 70 of this chapter to an individual physician for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A	Application, new license	190
	Renewal	150
	Amendment	40
8. Civil defense: A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities	Application, new license	190
	Renewal	150
	Amendment	40
9. Device, product, or sealed source safety evaluation:		
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices and devices or products distributed to general licensees or persons exempt from the requirements for a license pursuant to pts. 30, 40, and 70 of this chapter	Application, evaluation	570
B. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material except reactor fuel and sealed sources distributed to general licensees or persons exempt from the requirements for a license pursuant to pts. 30, 40, and 70 of this chapter	Application, evaluation	110
10. Power source: A. Licenses for the manufacture and distribution of encapsulated byproduct material or special nuclear material for use in power generation, except reactor fuel	Application, new license	1,900
	Renewal	460
	Amendment	460
11. Transportation of licensed material		
A. Evaluation of spent fuel casks and air shipping packages for plutonium	Application, evaluation	43,100
	Amendment:	
	Major	6,900
	Minor	3,500
B. Evaluation of high level waste casks and large irradiator packages	Application, evaluation	70,200
	Amendment:	
	Major	6,900
	Minor	3,500
C. Evaluation of all other packages	Application, evaluation	6,900
	Amendment:	
	Major	3,500
	Minor	860
12. Special projects: [5]		

[1] Types of fees: Separate charges as shown in this schedule will be assessed for applications for new licenses, amendments, and renewals to existing licenses. The following guidelines apply to these charges:

a. Application fees: Applications for materials licenses covering more than one fee category shall be accompanied by the prescribed application fee for each category. Where a license has expired, the full application fee shall be due.

b. Renewal fees: Applications for renewal covering more than one fee category shall be accompanied by the prescribed fee for each category.

c. Amendment fees: Applications for amendments will not be accepted for filing unless accompanied by the prescribed amendment fee, except for categories 1A, 1B, 1C, 1H, 2A, 2C, 4A, 11A, 11B, and 11C, where the fee is due upon notification by the Commission. Applications for amendments covering more than one fee category shall be accompanied by the prescribed fee for each category. Applications for amendments increasing the scope of a program to a higher fee category will not be accepted for filing unless accompanied by the prescribed amendment fee for the higher fee category. Applications to terminate licenses shall not be subject to fees.

[2] Licensees paying fees under categories 1A through 1G are not subject to fees under categories 1H and 1I for sealed sources authorized in the same licenses.

[3] A major amendment is defined as one requiring evaluation of many aspects of licensed activities where the proposed action could present a potential risk to the public health and safety. A minor amendment is defined as one that is primarily administrative in nature, where safety and environmental or safeguards considerations may be easily resolved.

[4] When review of application is complete, all fees will be checked against professional manpower and related contractual services required to process the application and in no event will fees exceed those shown in the schedule of Materials License Fees.

[5] Special projects encompass those activities for which the review is not intended to result in a license and for which a fee is not stated numerically in this part. The charge will be assessed based on the professional manpower required to conduct the review, multiplied by the applicable cost per man-year, plus any program support (contractual) costs incurred.

11. Section 170.32 is added to read:

§ 170.32 Schedule of fees for health and safety, and safeguards inspections for materials licenses.

Schedule of materials license inspection fees

Category of materials licenses	Type of fee [1]	Fee [2]	Minimum frequency [3]
1. Special nuclear material			
A. Licenses for possession and use of 5 kg or more of contained uranium-235 in uranium enriched to 20 percent or more, or more than 2 kg of uranium-233 [illegible]	Health and safety	$5,300	3/yr.
	Safeguards	10,300	3/yr.
B. Licenses for possession and use of 5 kg or more of contained uranium [illegible] enriched to [illegible] for fuel processing and fabrication	Health and safety	5,300	3 yr.
	Safeguards	10,300	1/yr.
C. Licenses for possession and use of more than 2 kg of plutonium for fuel processing and fabrication	Health and safety	4,600	4 yr.
	Safeguards	11,700	3 yr.

Category of materials licenses	Type of fee[1]	Fee[1]	Minimum frequency[1]
D. Licenses for possession and use of more than 5 kg of contained uranium 235 or uranium 233 for activities other than fuel processing and fabrication.	Health and safety	4,000	1/yr.
	Safeguards	7,600	2/yr.
E. Licenses for possession and use of quantities of plutonium exceeding 2 kg for activities other than fuel processing and fabrication.	Health and safety	790	1/yr.
	Safeguards	8,400	2/yr.
F. Licenses for possession and use of 200 grams to 2 kg of plutonium.	Health and safety	780	1/yr.
	Safeguards	2,300	1/yr.
G. Licenses for possession and use of 350 grams to 5 kg of contained uranium 235 or 200 g to 2 kg of uranium 233.	Health and safety	780	1 every 2 yr.
	Safeguards	4,000	1/yr.
H. Licenses for receipt and storage of spent reactor fuel	Health and safety	780	1/yr.
	Safeguards	2,900	2/yr.
I. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems.	Health and safety	330	1 every 5 yr.
J. All other special nuclear material licenses	Health and safety	780	1/yr.
2. Source material:			
A. Licenses for possession and use of source material in milling operations, except in situ leaching and heap-leaching operations.	do	1,800	1/yr.
B. Licenses for processing and recovery of source material in in situ leaching operations or heap-leaching operations.	do	1,800	1/yr.
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.	do	1,800	1/yr.
D. All other source material licenses	do	460	1 every 2 yr.
3. Byproduct material:			
A. Licenses for possession and use of byproduct material issued pursuant to pts. 30 and 32 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution.	do		
	Large program	1,600	1/yr.
	Small program	780	1/yr.
B. Licenses issued pursuant to sec. 32.72 of this chapter authorizing the processing or manufacture and distribution of radiopharmaceuticals containing byproduct material.	Health and safety	650	1 every 3 yr.
C. Licenses for byproduct material issued pursuant to pt. 31 of this chapter for industrial radiography operations at one location.	do	720	1/yr.
D. Licenses for byproduct material issued pursuant to pt. 34 of this chapter for industrial radiography operations at more than one location.	do	980	1/yr.
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is not removed from its shield (self-shielded units).	do	390	1 every 5 yr.
F. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.	do	390	1 every 3 yr.
G. Licenses issued pursuant to subpt. B of pt. 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under pts. 31 or 35 of this chapter, except specific licenses authorizing redistribution of items which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons generally licensed under pts. 31 or 35 of this chapter.	do	390	Do.
H. Licenses issued pursuant to subpt. A of pt. 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of pt. 30 of this chapter, except (1) sec. 32.11 and 32.14 of this chapter, (2) specific licenses authorizing redistribution of items and quantities which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons exempt from the licensing requirements of pt. 30 of this chapter, and (3) specific licenses which authorize distribution of timepieces, hands, and dials.	do	390	Do.
I. Licenses issued pursuant to sec. 32.18 of this chapter to distribute quantities of byproduct material to persons exempt from the licensing requirements of pt. 30 of this chapter.	do	390	Do.
J. Licenses issued pursuant to sec. 32.14 of this chapter to distribute timepieces, hands and dials, containing hydrogen 3 or promethium 147 to persons exempt from the licensing requirements of pt. 30 of this chapter.	do	390	Do.
K. Licenses for possession and use of byproduct material for research and development, except those licenses covered by categories 3A or 3H, and licenses covered by categories 7B or 7C authorizing medical research.	do	390	Do.
L. All other specific byproduct material licenses, except those in categories 4A through 8D.	do	390	1 every 5 yr.
4. Waste disposal:			
A. Waste disposal licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of commercial disposal by land or sea burial by the waste disposal licensee.	do	950	1/yr.
B. Waste disposal licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of commercial disposal by storage in geologic repositories. These licenses will dispose of the material by transfer to another person authorized to receive or dispose of the material.	do	650	1 every 3 yr.
C. Waste disposal licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	do	650	Do.
5. Well logging and well surveys and tracer studies: A. Licenses for possession and use of special nuclear material and/or byproduct material for well logging, well surveys, and tracer studies.	do	530	Do.
6. Nuclear laundries: A. Licenses for commercial laundering and laundry of items contaminated with byproduct material, source material, or special nuclear material.	do	530	Do.

Category of materials licenses	Type of fee [1]	Fee [1]	Maximum frequency [2]
7. Human use of byproduct material, source material, or special nuclear material:			
A. Licenses issued pursuant to pts. 30, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices.	....do....	460	1 every 2 yr.
B. Licenses issued pursuant to pts. 30, 40, and 70 of this chapter to medical institutions, or two or more physicians under a single license, for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A.	....do....	460	1 every 3 yr.
C. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter to an individual physician for human use of byproduct material, source material, or special nuclear material, except licenses in Category 7A.	....do....	330	Do.
8. Civil defense: A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities.	....do....	200	1 every 10 yr.
9. Device, product, or sealed source safety evaluation:			
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices and devices or products distributed to general licensees or persons exempt from the requirements for a license pursuant to pts. 30, 40, and 70 of this chapter.	Not applicable....		No inspections conducted
B. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material except reactor fuel and sealed sources distributed to general licensees or persons exempt from the requirements for a license pursuant to pts. 30, 40, and 70 of this chapter.	....do....		Do.
10. Power source: A. Licenses for the manufacture and distribution of encapsulated byproduct material or special nuclear material for use in power generation, except reactor fuel.	Health and safety.	780	1/yr.
11. Transportation of licensed material:			
A. Evaluation of spent fuel casks and air shipping packages for plutonium.	Not applicable....		No inspections conducted.
B. Evaluation of high level waste casks and large irradiator packages.	....do....		Do.
C. Evaluation of all other packages.	....do....		Do.

[1] Types of fees: Separate charges as shown in this schedule will be assessed for each routine inspection which is performed at frequencies prescribed by the Office of Inspection and Enforcement. Routine inspections are health and safety, and safeguards inspections performed at specified frequencies for purposes of reviewing a licensed program to assure that the authorized activities are being conducted in accordance with the Atomic Energy Act of 1954, as amended, Commission regulations, and the terms and conditions of the license. These inspections involve, as necessary, direct observations of operations, personnel interviews, independent measurements and evaluations, and selective record and procedure examinations.

[2] Inspection fees are due upon receipt of notice from the Commission. The inspection fee for licenses covering more than one fee category will be charged only for the highest fee category assigned the license, if the inspection of the entire license is done at the same time. Where a licensee holds more than one materials license at a single location, a fee equal to the highest fee category covered by the licenses will be assessed, if the inspections are conducted at the same time.

[3] The frequency and scope of inspection depends upon the type of licensed activities, the quantities of material used or processed, the inherent potential safety hazards, and problems experienced by licensees and previous inspection findings.

[4] For inspection purposes, large and small programs in Category 3A are defined as follows:

a. Large programs. Those licensees handling or processing loose or unsealed material for the manufacture of tagged compounds or products, such as sealed sources and distribution of same to others.

b. Small programs. Those licensees who are processors of "finished products", such as previously tagged compounds and sealed sources for introduction into products or repackaging for sale to others.

12. Section 170.41 of Part 170 is amended to read as follows:

§ 170.41 Failure by applicant or licensee to pay prescribed fees.

In any case where the Commission finds that an applicant or a licensee has failed to pay a prescribed fee required in this part, the Commission will not process any application and may suspend or revoke any license involved or may issue an order with respect to licensed activities as the Commission determines to be appropriate or necessary in order to carry out the provisions of this part, Parts 30, 40, 50, and 70 of this chapter, and of the Act.

(Sec. 801, 65 Stat. 290, (31 U.S.C. 483a).)

For the U.S. Nuclear Regulatory Commission.

SAMUEL J. CHILK,
Secretary of the Commission.

[FR Doc 77-12447 Filed 4-27-77,11:30 am]

PART 170

FEES FOR FACILITIES AND MATERIALS LICENSES AND OTHER REGULATORY SERVICES UNDER THE ATOMIC ENERGY ACT OF 1954, AS AMENDED ★

GENERAL PROVISIONS

Sec.
170.1 Purpose.
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SCHEDULE OF FEES

170.21 Schedule of fees for production and utilization facilities, review of reference standardized designs, and special projects.
170.22 Schedule of fees for facility license amendments.
170.23 Schedule of fees for routine health, safety and environmental inspections of facilities.
170.24 Schedule of fees for routine safeguards inspections of facilities.
170.31 Schedule of fees for materials licenses and other regulatory services.
170.32 Schedule of fees for health and safety, and safeguards inspections for materials licenses.

ENFORCEMENT

170.41 Failure by applicant or licensee to pay prescribed fees.

Authority: Sec. 501, 65 Stat. 290 (31 U.S.C. 483a); Sec. 301, Pub. L. 92-314, 86 Stat. 222 (42 U.S.C. 2201w); Sec. 201(f), Pub. L. 93-438, 88 Stat. 1243 (42 U.S.C. 5841).

GENERAL PROVISIONS

§ 170.1 Purpose.

40 FR 8794

The regulations in this part set out fees charged for licensing services rendered by the Nuclear Regulatory Commission as authorized under Title V of the Independent Offices Appropriation Act of 1952 (65 Stat. 290; 31 U.S.C. 483a) and provisions regarding their payment.

§ 170.2 Scope.

46 FR 58281

Except for persons who apply for or hold the permits, licenses, or approvals exempted in § 170.11, the regulations in this part apply to a person who is an applicant for, or holder of, a specific byproduct material license issued pursuant to Parts 30 and 32-35 of this chapter, a specific source material license issued pursuant to Part 40 of this chapter, a specific special nuclear material license issued pursuant to Part 70 of this chapter, a specific license for the storage of spent fuel issued pursuant to Part 72 of this chapter, a specific approval of spent fuel casks and shipping containers issued pursuant to Part 71 of this chapter, a specific request for approval of sealed sources and devices containing byproduct material, source material, or special nuclear material, or a production or utilization facility construction permit and operating license issued pursuant to Part 50 of this chapter, to routine safety and safeguards inspections of a licensed person, to a person who applies for approval of a reference standardized design of a nuclear steam supply system or balance of plant, for review of a facility site prior to the submission of an application for a construction permit, for review of an independent spent fuel storage installation pursuant to Part 72 of this chapter, and for a special project review which the Commission completes or makes whether or not in conjunction with a license application on file or which may be filed.

46 FR 58281

§ 170.3 Definitions.

33 FR 10923

As used in this part:

(a) "Byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(b) "Government agency" means any executive department, commission, independent establishment, corporation, wholly or partly owned by the United States of America which is an instrumentality of the United States, or any board, bureau, division, service, office, officer, authority, administration, or other establishment in the executive branch of the Government.

46 FR 58281

(c) "Materials License" means a byproduct material license issued pursuant to Part 30 of this chapter, or a source material license issued pursuant to Part 40 of this chapter, or a special nuclear material license issued pursuant to Part 70 of this chapter, or a license for the storage of spent fuel issued pursuant to Part 72 of this chapter.

33 FR 10923

(d) "Nuclear reactor" means an apparatus, other than an atomic weapon, designed or used to sustain nuclear fission in a self-supporting chain reaction.

(e) "Other production or utilization facility" means a facility other than a nuclear reactor licensed by the Commission under the authority of section 103 or 104 of the Atomic Energy Act of 1954, as amended (the Act), and pursuant to the provisions of Part 50 of this chapter.

(f) "Power reactor" means a nuclear reactor designed to produce electrical or heat energy licensed by the Commission under the authority of section 103 or subsection 104b of the Act and pursuant to the provisions of § 50.21(b) or § 50.22 of this chapter.

(g) "Production facility" means:

(1) Any nuclear reactor designed or used primarily for the formation of plutonium or uranium-233; or

(2) Any facility designed or used for the separation of the isotopes of uranium or the isotopes of plutonium, except laboratory scale facilities designed or used for experimental or analytical purposes only; or

40 FR 8774

(3) Any facility designed or used for the processing of irradiated materials containing special nuclear material except:

(i) Laboratory scale facilities designed or used for experimental or analytical purposes;

(ii) Facilities in which the only special nuclear materials contained in the irradiated material to be processed are uranium enriched in the isotope U^{235} and plutonium produced by the irradiation, if the material processed contains not more than 10^{-6} grams of plutonium per gram of U^{235} and has fis-

[40 FR 8774] sion product activity not in excess of 0.25 millicurie of fission products per gram of U^{235}; and

(iii) Facilities in which processing is conducted pursuant to a license issued under Parts 30 and 70 of this chapter, or equivalent regulations of an Agreement State, for the receipt, possession, use, and transfer of irradiated special nuclear material, which authorizes the processing of the irradiated material on a batch basis for the separation of selected fission products and limits the process batch to not more than 100 grams of uranium enriched in the isotope 235 and not more than 15 grams of any other special nuclear material.

[33 FR 10923] (h) "Research reactor" means a nuclear reactor licensed by the Commission under the authority of subsection 104c of the Act and pursuant to the provisions of § 50.21(c) of this chapter for operation at a thermal power level of 10 megawatts or less, and which is not a testing facility as defined by paragraph (m) of this section.

(i) "Sealed source" means any byproduct material that is encased in a capsule designed to prevent leakage or escape of the byproduct material.

(j) "Source material" means:

(1) Uranium or thorium, or any combination thereof, in any physical or chemical form; or

(2) Ores which contain by weight one-twentieth of one percent (0.05%) or more of (i) uranium, (ii) thorium, or (iii) any combination thereof. Source material does not include special nuclear material.

(k) "Special nuclear material" means:

(1) Plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the Act, determines to be special nuclear material but does not include source material; or

(2) any material artificially enriched by any of the foregoing, but does not include source material.

[38 FR 30251] (l) "Manufacturing license" means a license pursuant to Appendix M of Part 50 of this chapter to manufacture a nuclear power reactor(s) to be operated at sites not identified in the license application.

[33 FR 11587] (m) "Testing facility" means a nuclear reactor licensed by the Commission under the authority of subsection 104c of the Act and pursuant to the provisions of § 50.21(c) of this chapter for operation at:

[33 FR 10923] (1) A thermal power level in excess of 10 megawatts; or

(2) A thermal power level in excess of 1 megawatt, if the reactor is to contain:

(i) A circulating loop through the core in which the applicant proposes to conduct fuel experiments; or

(ii) A liquid fuel loading; or

(iii) An experimental facility in the core in excess of 16 square inches in cross-section.

(n) "Utilization facility" means any nuclear reactor other than one designed or used primarily for the formation of plutonium or U^{233} and any other equipment or device determined by rule of the Commission to be a utilization facility within the purview of subsection 11cc of the Act.

(o) [Deleted 43 FR 7210.]

[36 FR 145] (p) "Human use" means the internal or external administration of byproduct, source, or special nuclear material, or the radiation therefrom, to human beings.

(q) "Nuclear Steam Supply System" consists of the reactor core, reactor coolant system, and related auxiliary systems including the emergency core cooling system; decay heat removal system; and chemical volume and control system.

(r) "Balance of plant" consists of the remaining systems, components, and structures that comprise a complete nuclear power plant and are not included in the nuclear steam supply system.

(s) "Special projects" means those projects submitted to the Commission for review and for which specific fees are not prescribed in this chapter. Examples of special projects include, but are not limited to, topical reports, early site reviews, waste solidification facilities, fuel reprocessing facilities, and amendment or renewal of standardized reference design approvals.

[43 FR 7210] (t) "Routine inspection" means an inspection performed at frequencies or during a certain period of time prescribed by the Commission for purposes of reviewing a licensee's authorized activities to assure that they are being conducted in accordance with regulatory or statutory requirements and that associated facilities and equipment are being operated in a safe manner.

(u) "Duplicate unit" means one of a limited number of the same kind of units which are to be constructed within a limited time span and subject to review at the same time by the staff.

(v) "Replicate unit" means a unit based on the reuse of a plant design, previously reviewed and approved for construction by the same utility or by another utility as part of another construction permit application.

[43 FR 7210] (w) "Reference systems concept" means a concept that involves the review of an entire facility design or major fraction of a facility design outside of the context of a license application. The standard design would be referenced in subsequent license applications.

(x) "Advanced reactor" means any nuclear reactor concept other than light water reactors and high temperature gas cooled reactors.

[33 FR 11587] **§ 170.4 Interpretations.**

Except as specifically authorized by the Commission in writing, no interpretation of the meaning of the regulations in this part by an officer or employee of the Commission other than a written interpretation by the General Counsel will be recognized to be binding upon the Commission.

[40 FR 8774] **§ 170.5 Communications.**

All communications concerning the regulations in this part should be addressed to the Executive Director for Operation, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Communications may be delivered in person at the Commission's offices at 1717 H Street NW., Washington, DC on or at 7920 Norfolk Ave., Bethesda, MD

[33 FR 11587] [43 FR 7210] **§ 170.11 Exemptions.**

(a) No application fees, license fees, amendment fees, renewal fees, approval fees, or inspection fees shall be required for:

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(1) A license authorizing the export only of a production or utilization facility.

(2) A license authorizing the export only or import only of byproduct material, source material or special nuclear material.

(3) A license authorizing the receipt, ownership, possession, use or production of byproduct material, source material, or special nuclear material incidental to the operation of a production or utilization facility licensed under Part 50 of this chapter, including a license under Part 70 of this chapter, authorizing possession and storage only of special nuclear material at the site of a nuclear reactor for use as fuel in operation of the nuclear reactor or at the site of a spent fuel processing plant for processing at the plant. 33 FR 11587

(4) A construction permit or license applied for by, or issued to, a nonprofit educational institution for a production facility or utilization facility, other than a power reactor, to be used for teaching, training, or medical purposes, or for byproduct material, source material, or special nuclear material to be used for teaching, training, or medical purposes, or in connection with a facility, other than a power reactor, used for teaching, training, or medical purposes.

(5) A construction permit or license applied for by, or issued to, a Government agency, except for a utilization facility designed to produce electrical or heat energy pursuant to section 103 or 104b of the Atomic Energy Act of 1954, as amended. 37 FR 24028

(6) [Deleted 38 FR 18443.]

(7) [Deleted 38 FR 18443.]

(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. 36 FR 145

(9) A license for possession and use of byproduct material, source material, or special nuclear material applied for 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. 43 FR 7210

(10) Activities of the Commission undertaken, pursuant to Part 75 of this chapter, solely for the purpose of implementation of the US/IAEA Safeguards Agreement. 45 FR 50705

(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. 36 FR 18173

(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. 43 FR 7210

(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 specified. 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 review of applications 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. For the purposes of this part the review of a project is completed when a permit or license is issued, or an application for a permit or license is denied, withdrawn, suspended, or action on the application is postponed. 46 FR 49573

(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 this determination with the application for amendment. The Commission will examine the amendment fee and will, where applicable, refund any overcharges or bill the applicant for the additional amendment fee. 43 FR 7210

(d) *Renewal Fees.* The appropriate renewal fee shall accompany the renewal application when filed with the Commission.

(e) *Approval Fees.* Fees for review of applications 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. For the purposes of this part the review of a project is completed when the approval is issued, or the application for an approval is denied, withdrawn, suspended, or action on the application is postponed. 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. In the event the standardized design approval application is denied, withdrawn, suspended, or action on the application is postponed, fees will be collected when the review is completed and the five (5) installment payment procedure will not apply. 46 FR 49573

(f) *Special Project Fees.* Fees for review of special projects are payable upon notification by the Commission when the review of the project is completed. For the purposes of this part the review of the project is completed upon notification by the staff that it has finished its review, upon withdrawal of the request, or suspension or postponement of further review.

(g) *Inspection Fees.* Inspection fees are payable upon notification by the Commission. 43 FR 7210

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

(i) This section applies to all applications for licenses, permits, approvals or requests for review of special projects on file with the Commission on or after March 23, 1978. 46 FR 49573

§ 170.21 Schedule of fees for production and utilization facilities, review of reference standsrdized 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.

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SCHEDULE OF FACILITY FEES

Facility categories	Types of fees	Fee[1]
A. Power reactors:		
1. Custom[2]	Application—Construction permit	$ 125,000
	Construction permit—First unit	944,000
	Construction permit—Concurrent unit[3]	174,000
	Operating license—First unit	1,024,500
	Operating license—Concurrent unit[3]	302,800
2. Standardized design—duplicate unit[4]	Application—Construction permit	125,000
	Construction permit—First unit	944,000
	Construction permit—Concurrent unit[3]	174,000
	Construction permit—First identical unit additional site(s)	757,100
	Operating license—First unit	1,024,500
	Operating license—Concurrent unit[3]	300,200
	Operating license—First identical unit additional site(s)	712,000
3. Standardized design—replicate unit[5]	Application—Construction permit	125,000
	Construction permit—First unit	811,600
	Construction permit—Concurrent unit[3]	164,200
	Construction permit—First identical unit additional site(s)	725,900
	Operating license—First unit	914,400
	Operating license—Concurrent unit[3]	293,900
	Operating license—First identical unit additional site(s)	691,500
4. Standardized design—Reference systems concept[6]		
a. Utility referencing a standarized nuclear steam supply system and custom balance of plant for both CP and OL stages	Application—Construction permit	125,000
	Construction permit—First unit	853,600
	Construction permit—Concurrent unit[3]	162,500
	Construction permit—First identical unit additional site(s)	725,900
	Operating license—First unit	934,100
	Operating license—Concurrent unit[3]	292,100
	Operating license—First identical unit additional site(s)	669,200
b. Utility referencing a standardized nuclear steam supply system and standardized balance of plant for both the CP and OL stages	Application—Construction permit	125,000
	Construction permit—First unit	721,800
	Construction permit—Concurrent unit[3]	162,500
	Construction permit—First identical unit additional site(s)	725,900
	Operating license—First unit	829,100
	Operating license—Concurrent unit[3]	292,100
	Operating license—First identical unit additional site(s)	669,200
5. Manufacturing license concept[7]		
a. Vendor—review of preliminary design	Application	125,000
	Manufacturing license	1,477,500
b. Vendor—review of final design	Final design amendment	448,100
c. Utility referencing a manufacturing license	Application—Construction permit	125,000
	Construction permit—First unit	730,000
	Construction permit—Concurrent unit[3]	61,500
	Operating license—First unit	1,001,200
	Operating license—Concurrent unit[3]	221,000
6. Advanced reactors[8]	Application—Construction permit	125,000
	Construction permit	1,781,000
	Operating license	1,954,900
B. Standard reference design review[9]		
1. Vendor—Standardized nuclear steam supply system		

(Continued) SCHEDULE OF FACILITY FEES

Facility categories	Types of fees	Fee
a. Review of preliminary reference design	Application	50,000
	Approval	412,100
b. Review of final reference design	Application	50,000
	Approval	413,400
2. Architect-engineer—Standardized balance of plant:		
a. Review of preliminary reference design	Application	50,000
	Approval	412,100
b. Review of final reference design	Application	50,000
	Approval	501,300
C. Test facility:[1]	Application—Construction permit	5,000
	Construction permit	67,200
	Operating license	100,300
D. Research reactor:[1]	Application—Construction permit	5,000
	Construction permit	24,900
	Operating license	56,000
E. Uranium enrichment plants:[1]	Application—Construction permit	125,000
	Construction permit	350,400
	Operating license	457,200
F. Special projects and reviews:[1]		

[1] 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 pct power is issued.

[2] *Concurrent unit.* A concurrent unit is defined as a power reactor of the same design at a single power station that was subject to concurrent licensing review.

[3] 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.

[4] 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. When 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 topical 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[1]	Fee[2]	
	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	$400	
CLASS II: Amendments that are pro forma, administrative in nature, or have no safety or environmental significance	1,200	$500
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	4,000	2,000
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 orders	12,300	6,000
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	25,600	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	45,900	20,000

[1] 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 this 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 overcharges to the licensee or applicant or billing the licensee or applicant for additional fees.

[2] 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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§ 170.23 Schedule of fees for routine health, safety and environmental inspections of facilities.

SCHEDULE OF FACILITY ROUTINE HEALTH, SAFETY AND ENVIRONMENTAL INSPECTION FEES [1]

Category	Fee [2]	Maximum frequency [3]
(1) Power reactor:		
First unit	$75,700 per year	Continuous.
Additional units at same site [4]	$60,400 per year	Do.
(2) Test reactor	$4,500 per inspection	2 per year.
(3) Research reactor	$4,200 per inspection	1 every 2 years.
(4) Other production or utilization facility [5]	$42,100 per year	Continuous.
(5) Production or utilization facility licensed for possession but not operation.	$650 per year	1 per year.

[1] Routine inspections are safety, environmental, and health physics inspections performed at specified frequencies for purposes of reviewing a licensed program to assure that the authorized activities are being conducted in accordance with the Atomic Energy Act of 1954, as amended, Commission regulations, and the terms and conditions of the license.

[2] The frequency shown in the schedule is the maximum number of routine inspections for which a fee will be assessed.

[3] A reduced fee will be charged when the inspection of an additional unit at the same site is conducted concurrently with the first unit.

[4] Fee is applicable for a fuel reprocessing facility and for a uranium enrichment facility.

§ 170.24 Schedule of fees for routine safeguards inspections of facilities

SCHEDULE OF FACILITY ROUTINE SAFEGUARDS INSPECTION FEES

Category	Fee	Maximum frequency [1]
(1) Power reactor:		
First unit	$11,800 per year	2 per year.
Additional unit at same site [2]	$9,500 per year	Do.
(2) Test reactor (fuel of high strategic importance)	$6,500 per inspection	1 per year.
(3) Research reactor (fuel of moderate strategic importance):	$1,300 per inspection	1 every 2 years.
(4) Other production or utilization facility [3]	$38,700 per year	3 per year.

[1] The frequency shown in the schedule is the maximum number of safeguards inspections for which a fee will be assessed. Power reactors and other production and utilization facilities will be assessed the yearly inspection fee shown in the above table.

[2] A reduced fee will be charged when the inspection of additional unit(s) at the same site is conducted concurrently with the first unit.

[3] Fee is applicable for a fuel reprocessing facility and for a uranium enrichment facility.

§ 170.31 Schedule of fees for materials licenses and other regulatory services.

Applicants for materials licenses and other regulatory services and holders of materials licenses shall pay the following fees.

SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES

Category of materials licenses	Type of fee [1]	Fee
1. Special nuclear material: [2]		
A. Licenses for possession and use of 5 kg or more of contained uranium 235 in uranium enriched to 20 pct or more, or 2 kg or more of uranium 233, for fuel processing and fabrication. [3]	Application	$14,000
	New license	122,600
	Renewal	76,800
	Amendment: [4]	
	Major—Safety and environmental	34,600
	Major—Safeguards	8,300
	Minor—Safety and environmental	1,400
	Minor—Safeguards	3,500
	Administrative	150
B. Licenses for possession and use of 5 kg or more of contained uranium 235 in uranium enriched to less than 20 pct, for fuel processing and fabrication. [3]	Application	12,000
	New license	112,800
	Renewal	71,900
	Amendment: [4]	
	Major—Safety and environmental	34,600
	Major—Safeguards	6,900
	Minor—Safety and environmental	1,400
	Minor—Safeguards	3,500
	Administrative	150
C. Licenses for possession and use of 2 kg or more of plutonium for fuel processing and fabrication. [3]	Application for construction approval	50,000
	Construction approval	480,300
	License fee	241,600
	Renewal	170,800
	Amendment: [4]	
	Major—Safety and environmental	75,000
	Major—Safeguards	13,800
	Minor—Safety and environmental	1,400
	Minor—Safeguards	6,200
	Administrative	150

See footnotes at end of table.

SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES—Continued

Category of materials licenses	Type of fee[1]	Fee
D. Licenses for possession and use of 5 kg or more of contained uranium 235 in unsealed form, or 2 kg or more of uranium 233 in unsealed form for activities other than fuel processing and fabrication.[2]	Application	3,000
	New license	31,600
	Renewal	18,000
	Amendment:	
	Safety and environmental	1,400
	Safeguards	2,800
	Administrative	150
E. Licenses for possession and use of quantities of plutonium of 2 kg or more in unsealed form for activities other than fuel processing and fabrication.[2]	Application	6,000
	New license	56,300
	Renewal	38,100
	Amendment:	
	Safety and environmental	1,400
	Safeguards	6,900
	Administrative	150
F. Licenses for possession and use of 200 g but less than 2 kg of plutonium in unsealed form.[2]	Application	5,000
	New license	42,100
	Renewal	29,800
	Amendment:	
	Safety and environmental	1,400
	Safeguards	4,800
	Administrative	150
G. Licenses for possession and use of 350 g but less than 5 kg of contained uranium 235 in unsealed form, or 200 g but less than 2 kg of uranium 233 in unsealed form[2]	Application	2,000
	New license	18,800
	Renewal	11,100
	Amendment:	
	Safety and environmental	1,400
	Safeguards	2,800
	Administrative	150
H. Licenses for receipt and storage of spent fuel or spent fuel at an independent spent fuel storage installation (ISFSI):[4]		
(1) License application for an ISFSI of custom design requiring a full design review:		
(a) Storage facility to be located at a new site.	Application	$35,000
	New license	290,000
	Renewal	32,000
	Amendment:[3]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
(b) Storage facility to be located at the site of an existing nuclear facility.[2]	Application	25,000
	New license	209,300
	Renewal	32,000
	Amendment:[3]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
(2) License application for an ISFSI which references an approved standardized design:		
(a) Storage facility to be located at a new site.	Application	25,000
	New license	236,600
	Renewal	32,000
	Amendment:[3]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
(b) Storage facility to be located at the site of an existing nuclear facility.[2]	Application	15,000
	New license	130,000
	Renewal	32,000
	Amendment:[3]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
(3) License application for an ISFSI of duplicate design—design which is identical to a previously licensed detail design:		
(a) Storage facility to be located at a new site.	Application	15,000
	New license	159,200
	Renewal	32,000
	Amendment:[3]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
(b) Storage facility to be located at the site of an existing nuclear facility.[2]	Application	10,000
	New License	73,500
	Renewal	32,000

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See footnotes at end of table.

SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES—Continued

Category of materials licenses	Type of fee[1]	Fee
	Amendment:[9]	
	Major—Safety and environmental	88,500
	Major—Safeguards	6,200
	Minor—Safety and environmental	3,500
	Minor—Safeguards	3,500
	Administrative	150
I. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems.[7]	Application—New license	110
	Renewal	110
	Amendment	40
J. All other special nuclear material licenses, except licenses authorizing special nuclear material in unsealed form in combination that would constitute a critical quantity as defined in § 150.11 of Part 150 which shall pay the same rate as Category 1G and special nuclear material for use in power generation which shall pay the fee in Category 10.[8]	Application—New license	460
	Renewal	460
	Amendment	110
2. Source material:		
A. Licenses for possession and use of source material in milling operations, except in in situ leaching and heap-leaching operations.	Application	11,000
	New license[4]	96,700
	Renewal[4]	100,800
	Amendment:[9]	
	Major—Safety and environmental[4]	20,800
	Minor—Safety and environmental[4]	3,500
	Administrative	150
B. Licenses for processing and recovery of source material in in situ leaching operations or heap-leaching operations.	Production scale activity:	
	Application	7,000
	New license[4]	59,500
	Research and development scale activity:	
	Application	2,000
	New license[4]	21,800
	Renewal[4]	[4]17,300
	Amendment:[9]	
	Major—Safety and environmental[4]	[4]4,200
	Minor—Safety and environmental	[4]760
	Administrative	[4]150
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.	Application	11,000
	New license[4]	96,700
	Renewal[4]	45,800
	Amendment:[9]	
	Major—Safety and environmental[4]	2[illegible],800
	Minor—Safety and environmental[4]	3,500
	Administrative	150
D. All other source material licenses	Application—New license	140
	Renewal	70
	Amendment	40
3. Byproduct material:		
A. Licenses for possession and use of byproduct material issued pursuant to Parts 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution, except byproduct material for use in power generation which shall pay the fee in category 10.	Application—New license	460
	Renewal	460
	Amendment	110
B. Licenses issued pursuant to § 32.72 of this chapter authorizing the processing or manufacture and distribution of radiopharmaceuticals containing byproduct material.	Application—New license	190
	Renewal	150
	Amendment	40
C. Licenses for byproduct material issued pursuant to Part 34 of this chapter for industrial radiography operations performed in shielded radiography installation(s) or permanently designated area(s) at the address(es) listed in the license.	Application—New license	190
	Renewal	150
	Amendment	40
D. Licenses for byproduct material issued pursuant to Part 34 of this chapter for industrial radiography operations performed in a shielded radiography installation(s) and at multiple temporary locations at the address(es) shown in the licenses or at temporary jobsites of the licensee in the field.	Application—New license	460
	Renewal	460
	Amendment	110
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is not removed from its shield (self-shielded units).	Application—New license	190
	Renewal	150
	Amendment	40
F. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.	Application—New license	460
	Renewal	460
	Amendment	110

See footnotes at end of table.

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SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES—Continued

Category of materials licenses	Type of fee[1]	Fee
G. Licenses issued pursuant to Subpart B of Part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under Parts 31 or 35 of this chapter, except specific licenses authorizing redistribution of items which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons generally licensed under Parts 31 or 35 of this chapter.	Application—New license	950
	Renewal	570
	Amendment	230
H. Licenses issued pursuant to Subpart A of Part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of Part 30 of this chapter, except: (1) §§ 32.11 and 32.18 of this chapter, (2) specific licenses authorizing redistribution of items and quantities which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons exempt from the licensing requirements of Part 30 of this chapter, and (3) specific licenses which authorize distribution of timepieces, hands, and dials.	Application—New license	950
	Renewal	570
	Amendment	230
I. Licenses issued pursuant to § 32.18 of this chapter to distribute quantities of byproduct material to persons exempt from the licensing requirements of Part 30 of this chapter.	Application—New license	190
	Renewal	150
	Amendment	40
J. Licenses issued pursuant to § 32.14 of this chapter to distribute timepieces, hands, and dials containing hydrogen 3 or promethium 147 to persons exempt from the licensing requirements of Part 30 of this chapter.	Application—New license	190
	Renewal	150
	Amendment	40
K. Licenses for possession and use of byproduct material for research and development, except those licenses covered by categories 3A or 3B, and licenses covered by categories 7B or 7C authorizing medical research.	Application—New license	190
	Renewal	150
	Amendment	40
L. All other specific byproduct material licenses, except those in categories 4A through 10A.[2]	Application—New license	110
	Renewal	110
	Amendment	40
4. Waste disposal:		
A. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material, from other persons for the purpose of commercial disposal by land or sea burial by the licensee.	Application	32,000
	New license[3]	291,100
	Renewal[3]	98,500
	Amendment:[3]	
	Major-Safety and environmental[4]	197,700
	Minor—Safety and environmental	690
	Administrative	150
B. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material from other persons for the purpose of packaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	Application—New license	1,100
	Renewal	570
	Amendment:	
	Safety and environmental	570
	Administrative[5]	150
C. Licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	Application—New license	190
	Renewal	150
	Amendment	40
5. Well logging and well surveys and tracer studies: A. Licenses for possession and use of special nuclear material and/or byproduct material for well logging, well surveys, and tracer studies.	Application—New license	460
	Renewal	460
	Amendment	110
6. Nuclear laundries: A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material.	Application—New license	460
	Renewal	460
	Amendment	110

See footnotes at end of table

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SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES—Continued

Category of materials licenses	Type of fee[1]	Fee
7. Human use of byproduct material, source material, or special nuclear material:		
A. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices.	Application—New license	300
	Renewal	270
	Amendment	40
B. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter to medical institutions, or two or more physicians on a single license, for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A.	Application—New license	190
	Renewal	150
	Amendment	40
C. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter to an individual physician for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A.	Application—New license	190
	Renewal	150
	Amendment	40
8. Civil defense: A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities.	Application—New license	190
	Renewal	150
	Amendment	40
9. Device, product, or sealed source safety evaluation:		
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices and devices or products distributed to general licensees or persons exempt from the requirements for a license pursuant to Parts 30, 40, and 70 of this chapter.	Application—Evaluation	570
B. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material, except: (1) Reactor fuel, (2) sealed sources distributed to general licensees or persons exempt from the requirements for a license pursuant to Parts 30, 40, and 70 of this chapter, and (3) power sources covered by category 10.	do	110
10. Power source: A. Licenses for the manufacture and distribution of encapsulated byproduct material or special nuclear material wherein the decay energy of said material is used as a source of power, except reactor fuel.	Application—New license	1,900
	Renewal	460
	Amendment	450
11. Transportation of radioactive material:		
A. Evaluation of spent fuel cask for greater than 20 kW decay heat.	Application	8,000
	Approval[4]	75,100
	Amendments:[5]	
	Major[6]	6,900
	Minor[7]	3,500
	Administrative	150
	Renewal	150
B. Evaluation of spent fuel cask for less than 20 kW decay heat; air shipping package for plutonium; high-level waste casks; and packages containing radioactive material greater than 2,000 times the type A quantity.[8]	Application	7,000
	Approval[4]	62,200
	Amendments:[5]	
	Major[6]	5,500
	Minor[7]	2,800
	Administrative	150
	Renewal	150
C. Evaluation of fissile packages containing greater than type A quantities of radioactive material; packages containing radioactive material less than 2,000 times the type A quantity.[8]	Application	1,000
	Approval[4]	12,800
	Amendments:[5]	
	Major[6]	3,500
	Minor	690
	Administrative	150
	Renewal	150
D. Evaluation of fissile packages containing less than type A quantities of radioactive material; packages containing radioactive material less than 200 times the type A quantity.[8]	Application	700
	Approval[4]	6,200
	Amendments:[5]	
	Major[6]	1,400
	Minor	350
	Administrative	150
	Renewal	150
E. Evaluation of packages containing radioactive material less than 20 times the type A quantity.[8]	Application	200
	Approval[4]	1,200
	Amendments:[5]	
	Major	350
	Minor	150
	Renewal	150

See footnotes at end of table.

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SCHEDULE OF FEES FOR MATERIALS LICENSES AND OTHER REGULATORY SERVICES—Continued

Category of materials licenses	Type of fee[1]	Fee
12. Review of a standardized independent spent fuel storage installation design [4].	Application	12,000
	Approval [4]	107,200
13. Special projects [5]		

[1] *Types of fees.* Separate charges as shown in the schedule will be assessed for applications for new licenses and approvals, issuance of new licenses and approvals, and amendments and renewals to existing licenses and approvals. The following guidelines apply to these charges:

(a) *Application fees.* Applications for materials licenses and approvals shall be accompanied by the prescribed application fee for each category, except that applications for licenses covering more than one fee category of special nuclear material (excluding category 1H) to be used at the same location, shall be accompanied by the prescribed application fee for the highest fee category. Where a license or approval has expired, the full application fee for each category shall be due, except for licenses covering more than one fee category of special nuclear material (excluding category 1H) for use at the same location, in which case the application fee for the highest category would apply.

(b) *License/approval fees.* New licenses and approvals issued in fee categories 1A through 1H, 2A, 2B, 2C, 4A, 11A through 11E, and category 12, shall pay the license or approval fee for each category, as determined by the Commission when the review of the application or project is completed (see footnote 4), except that a license covering more than one fee category of special nuclear material in categories 1A through 1G shall pay a license fee for the highest fee category assigned to the license.

(c) *Renewal fees.* Applications for renewal of materials licenses and approvals shall be accompanied by the prescribed fee for each category, except that applications for renewal covering more than one fee category of special nuclear material (excluding category 1H) to be used at the same location, shall be accompanied by the prescribed renewal fee for the highest fee category. When the review of an application for renewal is complete for licenses in fee categories 1A through 1H, 2A, 2B, 2C, and 4A, the Commission will examine the renewal fee in accordance with footnote 4, and will refund any overcharges of the renewal fee, if applicable.

(d) *Amendment fees.* Applications for amendments shall be accompanied by the prescribed amendment fee(s). At the time an application for amendment is filed for licenses and approvals in fee categories 1A through 1H, 2A, 2B, 2C, 4A, 11A, 11B, 11C, 11D, and 11E, the licensee or applicant shall provide an initial determination of the amendment class and state the basis therefor as part of the amendment or approval request, and shall remit the fee corresponding to that determination; however, when review of the amendment or approval is complete, the Commission will examine the amendment fee in accordance with footnote 4, if applicable, and will refund any overcharges to the licensee or applicant, or bill the licensee or applicant for the additional amendment fee. Amendments which result from written NRC requests may be exempted from these fees at the discretion of the Commission when the amendment is issued for the convenience of the NRC.

An application for amendment to a license or approval classified in more than one fee category shall be accompanied by the prescribed amendment fee for the category affected by the amendment, unless the amendment is applicable to two or more fee categories, in which case the amendment fee for the highest fee category would apply. An application for amendment to a materials license or approval that would place the license or approval in a higher fee category or add a new category shall be accompanied by the prescribed application fee for the new category, except for applications for amendments increasing the scope of a licensed program from fee categories 1F to 1E, 1G to 1D, 3C to 3D, and 7C to 7B, in which cases the amendment fee for the higher fee category would apply. An application for amendment reducing the scope of a licensee's program shall pay the amendment fee of the fee category assigned to the license at the time the application is filed. Applications to terminate licenses shall not be subject to fees.

[2] Licensees paying fees under categories 1A through 1H are not subject to fees under categories 1I and 1J for sealed sources authorized in the same license. Applicants for new licenses or renewal of existing licenses that cover both byproduct material and special nuclear material in sealed sources for use in gauging devices will pay the appropriate application or renewal fee for fee category 1I only.

[3] A major amendment is defined as one requiring evaluation of many aspects of licensed activities where the proposed action could present a potential risk to the public's health and safety. A minor amendment is defined as one where safety, environmental, or safeguards considerations may be easily resolved. An administrative amendment is defined as an amendment that is proforma routine in nature, or has no safety, environmental, or safeguards significance.

[4] When the review of an application 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 fees for materials licenses and other regulatory services. All administrative amendments are based on fixed charges.

[5] Fees would be applicable only in those instances where a site safety and environmental review has been performed and documented by the Commission for the site at which the storage facility is to be located.

[6] Fee is applicable to a license authorizing either production scale activity or research and development scale activity.

[7] A type A quantity is defined in § 71.4(q) of 10 CFR Part 71.

[8] 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.

§ 170.32 Schedule of fees for health and safety, and safeguards inspections for materials licenses.

SCHEDULE OF MATERIALS LICENSE INSPECTION FEES

Category of materials licenses	Type of fee[1]	Fee[2]	Maximum frequency[3]
1. Special nuclear material:			
A. Licenses for possession and use of five (5) kg or more of contained uranium 235 in uranium enriched to 20 pct or more, or two (2) kg or more of uranium 233, for fuel processing and fabrication.	Health and safety	$5,300	3 per year.
	Safeguards	10,300	Do.
B. license, for possession and use of five (5) kg or more of contained uranium 235 in uranium enriched to	Health and safety	5,300	Do.
	Safeguards	10,300	1 per year.

See footnote at end of table.

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SCHEDULE OF MATERIALS LICENSE INSPECTION FEES—Continued

Category of materials licenses	Type of fee[1]	Fee[2]	Maximum frequency[3]
less than 20 pct. for fuel processing and fabrication.			
C. Licenses for possession and use of two (2) kg or more of plutonium for fuel processing and fabrication.	Health and safety Safeguards	4,600 11,700	4 per year 3 per year.
D. Licenses for possession and use of five (5) kg or more of contained uranium 235 in unsealed form, or two (2) kg or more of uranium 233 in unsealed form for activities other than fuel processing and fabrication.	Health and safety Safeguards	4,900 7,600	1 per year. 2 per year.
E. Licenses for possession and use of quantities of plutonium of two (2) kg or more in unsealed form for activities other than fuel processing and fabrication.	Health and safety Safeguards	780 5,400	1 per year. 2 per year.
F. Licenses for possession and use of 200 g but less than two (2) kg of plutonium in unsealed form.	Health and safety Safeguards	780 2,300	1 per year. Do.
G. Licenses for possession and use of 350 g but less than five (5) kg of contained uranium 235 in unsealed form, or 200 g but less than two (2) kg of uranium 233 in unsealed form.	Health and safety Safeguards	780 4,000	1 every 2 years. 1 per year.
H. Licenses for receipt and storage of spent fuel at an independent spent fuel storage installation (ISFSI):			
(1) Licensee application for an ISFSI of custom design requiring a full design review:			
(a) Storage facility to be located at a new site.	Health and safety Safeguards	780 2,900	Do. 2 per year.
(b) Storage facility to be located at the site of an existing nuclear facility.	Health and safety Safeguards	780 2,900	1 per year. 2 per year.
(2) License application for an ISFSI which references an approved standardized design:			
(a) Storage facility to be located at a new site.	Health and safety Safeguards	780 2,900	1 per year. 2 per year.
(b) Storage facility to be located at the site of an existing nuclear facility.	Health and safety Safeguards	780 2,900	1 per year. 2 per year.
(3) License application for an ISFSI of duplicate design—a design which is identical to a previously licensed detail design:			
(a) Storage facility to be located at a new site.	Health and safety Safeguards	780 2,900	1 per year. 2 per year.
(b) Storage facility to be located at the site of an existing nuclear facility.	Health and safety Safeguards	780 2,900	1 per year. 2 per year.
I. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems.	Health and safety	330	1 every 5 years.
J. All other special nuclear material licenses, except licenses authorizing special nuclear material in unsealed form in combination that would constitute a critical quantity as defined in §150.11 of part 150 which shall pay the same rate as category 1G and special nuclear material for use in power generation which shall pay the fee in category 1O.	do	780	1 per year.

See footnote at end of table.

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SCHEDULE OF MATERIALS LICENSE INSPECTION FEES—Continued

Category of materials licenses	Type of fee[1]	Fee[1]	Maximum frequency[1]
2. Source material:			
A. Licenses for possession and use of source material in milling operations, except in in-situ leaching and heap-leaching operations.	...do...	1,800	Do.
B. Licenses for processing and recovery of source material in in-situ leaching operations or heap-leaching operations.	...do...	1,800	Do.
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.	...do...	1,800	Do.
D. All other source material licenses	...do...	460	1 every 2 years.
3. Byproduct material:			
A. Licenses for possession and use of byproduct material issued pursuant to parts 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution, except byproduct material for use in power generation which shall pay the fee in Category 10[2].	Health & Safety[3]: Large program	1,600	1 per year.
	Small program	780	Do.
B. Licenses issued pursuant to § 32.72 of this chapter authorizing the processing or manufacture and distribution of radio-pharmaceuticals containing byproduct material.	Health & Safety	650	1 every 3 years.
C. Licenses for byproduct material issued pursuant to part 34 of this chapter for industrial radiography operations performed in a shielded radiography installation(s) or permanently designated area(s) at the address(es) listed in the license[4].	...do...	720	1 per year.
D. Licenses for byproduct material issued pursuant to part 34 of this chapter for industrial radiography operations performed in a shielded radiograph installation(s) and at multiple temporary locations at the address(es) shown in the license or at temporary jobsites of the licensee in the field[4].	...do...	980	Do.
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is not removed from its shield (Self-shielded units).	...do...	390	1 every 5 years.
F. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.	Health and safety	390	1 every 3 years.
G. Licenses issued pursuant to Subpart B of part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under parts 31 or 35 of this chapter, except specific licenses authorizing redistribution of items which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons generally licensed under parts 31 or 35 of this chapter.	...do...	390	Do.
H. Licenses issued pursuant to Subpart A of part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of part 30 of this chapter, except (1) §§ 32.11 and 32.18 of this chapter, (2) specific licenses authorizing redistribution of items and quantities which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons exempt from the licensing requirements of part 30 of this chapter, and (3) specific licenses which authorize distribution of timepieces, hands and dials.	...do...	390	Do.
I. Licenses issued pursuant to § 32.18 of this chapter to distribute quantities of byproduct material to persons exempt from the licensing requirements of part 30 of this chapter.	...do...	390	Do.

See footnotes at end of table.

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SCHEDULE OF MATERIALS LICENSE INSPECTION FEES—Continued

Category of materials licenses	Type of fee[1]	Fee[1]	Maximum frequency[1]
J. Licenses issued pursuant to § 32.14 of this chapter to distribute timepieces, hands, and dials, containing hydrogen 3 or promethium 147 to persons exempt from the licensing requirements of part 30 of this chapter.	do	390	Do.
K. Licenses for possession and use of byproduct material for research and development, except those licenses covered by categories 3A or 3B, and licenses covered by categories 7B or 7C authorizing medical research.	do	390	Do.
L. All other specific byproduct material licenses, except those in categories 4A through 10A.	do	390	1 every 5 years.
4. Waste disposal:			
A. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material, from other persons for the purpose of commercial disposal by land or sea burial by the licensee.	do	980	1 per year.
B. Licenses specifically authorizing the receipt of waste byproduct material, source material, or special nuclear material, from other persons for the purpose of packaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	Health & Safety	650	1 every 3 years.
C. Licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material, from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	do	650	Do.
5. Well logging and well surveys and tracer studies:			
A. Licenses for possession and use of special nuclear material and/or byproduct material for well logging, well surveys, and tracer studies.	do	520	Do.
6. Nuclear laundries:			
A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material.	do	590	Do.
7. Human use of byproduct material, source material, or special nuclear material:			
A. Licenses issued pursuant to parts 30, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices.	do	460	1 every 2 years.
B. Licenses issued pursuant to parts 30, 40, and 70 of this chapter to medical institutions, or two or more physicians on a single license, for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A.	do	460	1 every 3 years.
C. Licenses issued pursuant to parts 30, 40, and 70 of this chapter to an individual physician for human use of byproduct material, source material, or special nuclear material, except licenses in category 7A.	do	330	Do.
8. Civil defense:			
A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities.	do	200	1 every 10 years.
9. Device, product, or sealed source safety evaluation:			
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices and devices or products distributed to general licensees or persons exempt from the requirements for a license pursuant to parts 30, 40, and 70 of this chapter.	Not applicable		No inspections conducted.

See footnotes at end of table.

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SCHEDULE OF MATERIALS LICENSE INSPECTION FEES—Continued

Category of materials licenses	Type of fee[1]	Fee[2]	Maximum frequency[3]
B. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material, except (1) reactor fuel, (2) sealed sources distributed to general licensees or persons exempt from the requirements for a license pursuant to parts 30, 40, and 70 of this chapter, and (3) power sources covered by category 10.	Not applicable		No inspections conducted.
10. Power source:			
A. Licenses for the manufacture and distribution of encapsulated byproduct material or special nuclear material wherein the decay energy of said material is used as a source of power, except reactor fuel.	Health and safety	780	1 per year.
11. Transportation of radioactive material:			
A. Evaluation of spent fuel cask for greater than 20 kW decay heat.	Not applicable		No inspections conducted.
B. Evaluation of spent fuel cask for less than 20 kW decay heat; air shipping package for plutonium; high-level waste casks; and packages containing radioactive material greater than 2,000 times the type A quantity.	do		Do.
C. Evaluation of fissile packages containing greater than type A quantities of radioactive material; packages containing radioactive material less than 2,000 times the type A quantity.	do		Do.
D. Evaluation of fissile packages containing less than type A quantities of radioactive material; packages containing radioactive material less than 200 times the type A quantity.	do		Do.
E. Evaluation of packages containing radioactive material less than 20 times the type A quantity.	do		Do.
12. Review of a standardized independent spent fuel storage installation design.	do		Do.

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[1] *Types of Fees*—Separate charges as shown in this schedule will be assessed for each routine inspection which is performed.

[2] Inspection fees are due upon receipt of notice from the Commission. The inspection fee for licenses covering more than one fee category will be charged only for the highest fee category assigned the license, if the inspection of the entire license is done at the same time. Where a licensee holds more than one materials license at a single location, a fee equal to the highest fee category covered by the licenses will be assessed, if the inspections are conducted at the same time.

[3] The frequency shown in the schedule is the maximum number of each type of inspection for which a fee will be assessed.

[4] Where a license authorizes shielded radiographic installations or manufacturing installations at more than one address, a separate fee will be assessed for inspection of each location, provided, however, that if the multiple installations are inspected during a single visit a single inspection fee will be assessed.

[5] For inspection purposes, large and small programs in Category 3A are defined as follows: A. *Large Programs*—Those licensees handling or processing loose or unsealed material for the manufacture of tagged compounds or products such as sealed sources and distribution of same to others. *Small Programs*—Those licensees who are processors of "finished products," such as previously tagged compounds and sealed sources for introduction into products or repackaging for sale to others.

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§ 170.41 Failure by applicant or licensee to pay prescribed fees.

In any case where the Commission finds that an applicant or a licensee has failed to pay a prescribed fee required in this part, the Commission will not process any application and may suspend or revoke any license or approval involved or may issue an order with respect to licensed activities as the Commission determines to be appropriate or necessary in order to carry out the provisions of this part, Parts 30, 40, 50, 70, 71, and 72 of this chapter, and of the Act.

NUREG-0268

U. S. NUCLEAR REGULATORY COMMISSION DETERMINATION OF PROPOSED LICENSE FEES FOR FISCAL YEAR 1977

References Federal Register
No. 42 FR 22149

Office of Administration
U. S. Nuclear Regulatory Commission

Available from
National Technical Information Service
Springfield, Virginia 22161
Price: Printed Copy $5.50; Microfiche $3.00

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U. S. NUCLEAR REGULATORY COMMISSION DETERMINATION OF PROPOSED LICENSE FEES FOR FISCAL YEAR 1977

References Federal Register
No. 42 FR 22149

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Washington, D. C. 20555

NRC License Fee Development
FY 1977 Budget

NRC staff has developed proposed license fees based on the Supreme Court decisions of March 4, 1974, the Court of Appeals decisions dated December 16, 1976 and internal guidelines developed as a result of these court decisions. (See Federal Register Notice 42 FR 22149)

The proposed license fees were developed using the following steps:

1. The activities performed and the services provided by all NRC offices were carefully reviewed and analyzed. Only those services which provided special benefits to identifiable recipients were included for fee computation. These services include the processing of applications for permits, licenses, amendments and approvals, routine health, safety, environmental and safeguards inspections, facility quality assurance inspections, vendor inspections, the processing of special projects including topical reports, and early site reviews.
2. The following offices were identified as those directly involved in the review, licensing, approval, or inspection process: Office of Nuclear Reactor Regulation (NRR), Office of Nuclear Material Safety and Safeguards (NMSS), Office of Inspection and Enforcement (IE), Advisory Committee on Reactor Safeguards (ACRS), Atomic Safety and Licensing Board Panel (ASLBP), and the Atomic Safety and Licensing Appeal Panel (ASLAP). Since professional employees from each of these offices are involved in the day to day processing of applications and conducting inspections or hearings, an average cost/man-year to maintain a professional employee (professional rate) was developed for each office (See Section 1)

3. In addition to the six offices described in item 2 above which are directly involved in the licensing or inspection process, there are other offices within the NRC which provide indirect support to the licensing and inspection process and which have been included, after a detailed analysis, in fee computations. These are the Offices of Secretary, Controller, Management Information and Program Control, Administration, Executive Director for Operations, and Executive Legal Director. (See Section 2)

4. The program support services (contractual line items) were individually reviewed to determine whether they support the review of applications, permits, licenses, approvals or inspections. Those contractual services which supported the review, licensing, inspection, or hearing process were considered as providing special benefit and included in the fee computation. (See Section 3)

5. An "Added Factor" was also included in the fee computation. The "Added Factor" is intended to cover the cost to finance the investment in the plant and capital equipment inventory (interest) and the appropriate charge to operations (depreciation) for utilization of this equipment in NRC's day to day operations. (See Section 4)

6. Each operating office responsible for the processing of applications and conducting inspections and hearings, developed the average professional manpower expressed in man-years or man-hours required to process each category or type of application, license, amendment, inspection, or hearing. (See Section 5)

7. The proposed fee for a specific category 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. (See Section 6)

SECTION 1

DETERMINATION OF AVERAGE
COST PER MAN-YEAR TO MAINTAIN A PROFESSIONAL
EMPLOYEE FOR:

OFFICE OF NUCLEAR REACTOR REGULATION (NRR)
OFFICE OF INSPECTION AND ENFORCEMENT(IE)
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS (NMSS)
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS)
ATOMIC SAFETY AND LICENSING BOARD PANEL (ASLBP)
ATOMIC SAFETY AND LICENSING APPEAL PANEL (ASLAP)

Office of Nuclear Reactor Regulation (NRR)
Average Cost Per Man-Year Computation
FY 1977 Budget

	Costs	Staff
Personnel Compensation Costs	$17,700,000	613
Personnel Benefits Costs	1,590,000	
Administrative Support Costs	4,460,000	
Travel and Transportation of Persons Cost	810,000	
Subtotal	$24,560,000	613
Less Consultants	(106,675)	
	$24,453,325	613
NRR's proportionate share of PDA & PTS[1/] Costs	5,731,134	
Training costs (From Program Support (contractual) line items)	300,000	
Added Factor[2/] 613 Man-years x $295/man-year	180,835	
Total Costs	$30,665,294	613[3/]
Average Cost/Man-year to maintain a professional employee	$30,665,294 ÷ 438 [3/] = $70,012	
Average Cost/Man-hour to maintain a professional employee	$70,012 ÷ 1800 [4/] = $39	
Average Cost/Man-day to maintain a professional employee	$39 x 8 = $312	

1/ PDA - Program Direction and Administration
PTS - Program Technical Support

2/ Added Factor represents interest and depreciation on plant and capital equipment apportioned on a cost per man-year basis.

3/ Of the 613 total, 438 have been identified as professional man-years.

4/ 1800 man-hours = 1 productive man-year.

Office of Nuclear Material Safety and Safeguards (NMSS)
Average Cost Per ManYear Computation
FY 1977 Budget

	Costs	Staff
Personnel Compensation Costs	$ 6,700,000	276
Personnel Benefits Costs	600,000	
Administrative Support Costs	1,720,000	
Travel and Transportation of Persons Costs	530,000	
Subtotal	$ 9,550,000	276
Less Consultants	(85,624)	
	$ 9,464,376	276
NMSS proportionate share of PDA & PTS[1/] Costs	2,640,951	
Added Factor[2/] 276 man-years x $295/man-year	81,420	
Total Costs	$12,186,747	276[3/]
Average Cost/Man-Year to maintain a professional employee	$12,186,747÷176 [3/]	$69,243
Average Cost/Man-Hour to maintain a professional employee	69,243÷1800 [4/]	= $38
Avearge Cost/Man-Day to maintain a professional employee	$38x8=$304	

[1/] PDA - Program Direction and Administration
PTS - Program Technical Support

[2/] Added Factor represents interest and depreciation on plant and capital equipment apportioned on a cost per man-year basis.

[3/] Of the 276 total, 176 have been identified as professional

[4/] 1800 man-hours=1 productive man-year

Office of Inspection and Enforcement (IE)
Average Cost Per Man-Year Computation
FY 1977 Budget

	Costs	Staff
Personnel Compensation Costs	$15,180,000	592
Personnel Benefits Costs	1,370,000	
Administrative Support Costs	3,920,000	
Travel and Transportation of Persons Costs	1,770,000	
Subtotal	$22,240,000	592
IE's proportionate share of PDA & PTS[1/] Costs	3,665,623	
Training Costs (From Program Support (Contractual) line items)	56,000	
Added Factor[2/]	275,130	
592 Man-years x $295/man-year = $174,640 I&E Special equipment only = 100,490		
Total Costs	$26,236,753	592[3/]
Average Cost/Man-year to maintain a professional employee	$26,236,753 ÷ 406[3/] = $64,623	
Average Cost/Man-hour to maintain a professional employee	$64,623 ÷ 1800[4/] = $36	
Average Cost/Man-day to maintain a professional employee	$36 x 8 = $288	

1/ PDA - Program Direction and Administration
PTS - Program Technical Support

2/ Added Factor represents interest and depreciation on plant and capital equipment. apportioned on a cost per man-year basis.

3/ Of the 592 total, 406 have been identified as professional man-years.

4/ 1800 man-hours = 1 productive man-year.

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS)
AVERAGE COST PER MAN-YEAR COMPUTATION
FY 1977 BUDGET

	Costs	Staff
Personnel Compensation Costs	$1,035,511	37
Personnel Benefits Costs	102,413[1/]	
Subtotal	$1,137,924	37
Administrative Support Costs	268,424	
Travel and Transportation of Persons Cost	348,000	
Program Support Costs	537,000	
Subtotal	$2,291,348	37
ACRS's proportionate share of PDA & PTS[2/] Costs	236,926	
Added Factor[3/] 37 Man-years x $295/man-year	10,915	
Total Costs	$2,539,189	37[4/]

Average Cost/Man-year to maintain a professional employee: $2,539,189 ÷ 28.5[4/] = $89,094

Average Cost/Man-hour to maintain a professional employee: $89,094 ÷ 1800[5/] = $50

1/ Represents 9% of $1,137,924, the total of personnel compensation and benefits costs combined.

2/ PDA - Program Direction and Administration
PTS - Program Technical Support

3/ Added Factor represents interest and depreciation on plant and capital equipment apportioned on a cost per man-year basis.

4/ Of the 37 total, 28.5 have been identified as professional man-years.

5/ 1800 man-hours = 1 productive man-year.

ATOMIC SAFETY AND LICENSING BOARD PANEL (ASLBP)
AVERAGE COST PER MAN-YEAR COMPUTATION
FY 1977 BUDGET

	Costs	Staff
Personnel Compensation Costs	$1,175,445	42
Personnel Benefits Costs	116,253[1/]	
Subtotal	$1,291,698	42
Administrative Support Costs	304,698	
Travel and Transportation of Persons Cost	127,000	
Program Support Costs	230,000	
Subtotal	$1,953,396	42
ASLBP's proportionate share of PDA & PTS[2/] Costs	458,685	
Added Factor[3/] 42 Man-years x $295/man-year	12,390	
Total Costs	$2,424,471	42[4/]

Average Cost/Man-year to maintain a professional employee $2,424,471 ÷ 28.38[4/] = $85,429

1/ Represents 9% of $1,291,698, the total of personnel compensation and benefits costs combined.

2/ PDA - Program Direction and Administration
PTS - Program Technical Support

3/ Added Factor represents interest and depreciation on plant and capital equipment apportioned on a cost per man-year basis.

4/ Of the 42 total, 28.38 have been identified as professional man-years.

ATOMIC SAFETY AND LICENSING APPEAL PANEL (ASLAP)
AVERAGE COST PER MAN-YEAR COMPUTATION
FY 1977 BUDGET

	Costs	Staff
Personnel Compensation Costs	$475,775	17
Personnel Benefits Costs	47,055[1/]	
Subtotal	$522,830	17
Administrative Support Costs	123,330	
Travel and Transportation of Persons Cost	25,000	
Program Support Costs	15,000	
Subtotal	$686,160	17
ASLAP's proportionate share of PDA & PTS[2/] Costs	150,623	
Added Factor[3/] 17 Man-years x $295/man-year	5,015	
Total Costs	$841,798	17[4/]

Average Cost/Man-year to maintain a professional employee. $841,798 ÷ 9.56[4/] = $88,054

1/ Represents 9% of $522,830, the total of personnel compensation and benefits costs combined.

2/ PDA - Program Direction and Administration
PTS - Program Technical Support

3/ Added Factor represents interest and depreciation on plant and capital equipment apportioned on a cost per man-year basis.

4/ Of the 17 total, 9.56 have been identified as professional man-years.

Computation of Average Cost Added To
Each Construction Permit for IE
Vendor Inspection Program

FY 1977

$64,623	IE Average Cost/Man-Year to maintain a professional
X 16.5	IE Professional Man-Years of effort - FY 1977
$1,066,280	FY'77 Costs - IE Vendor Program
X 4	Number of years inspections continue until unit complete
$4,265,120	Estimated IE costs for 4 year period
÷	
116	Number of units for which inspections will be conducted (50 Units under construction plus 66 units undergoing construction permit review per 2/18/77 Orange Book)
=	
$36,800	Average cost to be applied to each construction permit for IE Vendor Inspection Program

SECTION 2

DISTRIBUTION OF PROGRAM DIRECTION AND

ADMINISTRATION (PDA)[1/] AND PROGRAM TECHNICAL SUPPORT (PTS)[2/] COSTS

PDA - Includes offices of Commission, Secretary, General Counsel, Policy Evaluation, Inspection and Auditor, Congressional Affairs, Public Affairs, Executive Director for Operations, Administration, Controller, Plans and Analysis, Management Information and Program Control, and Equal Employment Opportunity.

PTS - Includes offices of Executive Legal Director, International and State Programs, Advisory Committee on Reactor Safeguards, Atomic Safety and Licensing Board Panel, Atomic Safety and Licensing Appeal Panel.

Program Direction and Administration (PDA) and Program Technical Support (PTS) Budgeted Costs

	Man Years	Budget Amount Personnel Compensation and Benefits	Program Support	Admin. Support	Travel	Total Costs
PDA						
Offices of:						
Commission	28	$ 688,249	$ 85,000	$ 193,139	$ 130,000	$ 1,096,388
Secretary	30	737,409	1,120,000	206,934	12,000	2,076,343
General Counsel	17	417,865	5,000	117,263	18,000	558,128
Policy Eval.	19	467,026	150,000	131,058	30,000	778,084
Insp. & Audit	25	614,507	-	172,445	17,000	803,952
Cong. Affairs	5	122,901	5,000	34,489	15,000	177,390
Pub. Affairs	18	442,445	5,000	124,161	17,000	588,606
Exec. Dir.	23	565,347	50,000	158,650	17,000	790,997
Admin.	247	6,071,332	1,676,000	1,703,759	63,000	9,514,091
Admin.-Excl.	-	-	24,000	-	-	24,000
Controller	65	1,597,719	480,000	448,358	9,000	2,535,077
Plans & Anal.	16	393,284	100,000	110,365	15,000	618,649
Mgt. Info. Prog. Control.	51	1,253,595	580,000	351,788	25,000	2,210,383
Equal Employ. Opp.	4	98,321	20,000	27,591	2,000	147,912
Total PDA w/o Equipment	548	$13,470,000[1]	$4,300,000	$3,780,000[2]	$ 370,000	$21,920,000
PTS						
Offices of:						
Exec. Legal. Dir.	90	$ 2,767,925	$ 40,000	$ 652,925	$ 175,000	$ 3,635,850
Int. State Prog.	26	799,623	565,000	188,623	60,000	1,613,246
ACRS	37	1,137,924	537,000	268,424	348,000	2,291,348
ASLBP	42	1,291,698	230,000	304,698	127,000	1,953,396
ASLAP	17	522,830	15,000	123,330	25,000	686,160
Total PTS	212	$ 6,520,000[3]	$1,387,000	$1,538,000[4]	$ 735,000	$10,180,000
Total PDA & PTS w/o Equipment	760	$19,990,000	$5,687,000	$5,318,000	$1,105,000	$32,100,000

[1] PDA Average Personnel Compensation and Benefits Costs:

Personnel Comp.	$12,360,000
Personnel Benefits	1,110,000
	$13,470,000
÷	
PDA People	548
=	
Avg. Compensation Used for Distribution	$24,580.29

[2] PDA Average Admin. Support:

Total Costs	$3,780,000
÷	
Total People	548
=	
Avg. Admin. Cost Used for Distribution	$6,897.81

[3] PTS Average Personnel Compensation & Benefits:

Personnel Comp.	$5,980,000
Personnel Benefits	540,000
	$6,520,000
÷	
PTS People	212
=	
Avg. Compensation Used for Distribution	$30,754.72

[4] PTS Average Admin. Support:

Total Costs	$ 1,538,000
÷	
Total People	212
=	
Avg. Adm. Cost Used for Distribution	$ 7,254.72

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of the Secretary Costs

	Man-Years	Budget Amount	Office of Secretary Distr. Base %	Cost	Totals
PDA					
Offices of					
Commission	28	$1,096,388	-	-	$1,096,388
Secretary	30	2,076,343	-	($2,076,343)	-
General Counsel	17	558,128	1.3	26,992	585,120
Policy Eval.	19	778,084	-	-	778,084
Insp.& Audit	25	803,952	-	-	803,952
Cong. Affairs	5	177,390	.2	4,153	181,543
Pub. Affairs	18	588,606	.2	4,153	592,759
Ex.Dir-Sp.Proj.Grp.	5	171,646	.67	13,911	185,557
Ex.Dir-All Other Grps.	18	619,351	2.43	50,455	669,806
Adm.-Rules & Rec.Grp.	9	342,507	.39	8,098	350,605
Adm.-All Other Grps.	238	9,171,584	10.41	216,147	9,387,731
Adm.-Excl.		24,000	-	-	24,000
Controller	65	2,535,077	1.1	22,840	2,557,917
Plans & Anal.	16	618,649	1.2	24,916	643,565
Mgt.Info.Prog.Control	51	2,210,383	.3	6,229	2,216,612
Equal Employ.	4	147,912	-	-	147,912
Total PDA	548	$21,920,000			
PTS					
Offices of					
Ex.Legal Dir.	90	3,635,850	1.7	$ 35,298	$3,671,148
Int.,State Programs	26	1,613,246	10.9	226,322	1,839,568
ACRS	37	2,291,348	1.5	31,145	2,322,493
ASLBP	42	1,953,396	10.8	224,245	2,177,641
ASLAP	17	686,160	2.7	56,061	742,221
Total PTS	212	$10,180,000			
Program Offices:					
Nuc.Reactor Reg.(NRR)	613		24.5	508,704	508,704
Nuc.Mat.& Sfgds(NMSS)	276		11.3	234,627	234,627
Inspect.& Enforce(IE)	592		8.3	172,336	172,336
Standards Devel.	153		6.6	137,039	137,039
Research	135		3.5	72,672	72,672
Totals	2,529	$32,100,000	100.0	-0-	$32,100,000

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of the Controller Costs

	Totals[1/]	Office of Controller Distr. Base MYs	%	Cost	Totals
PDA					
Offices of					
Commission	$1,096,388	28	1.14	$ 29,160	$1,125,548
General Counsel	585,120	17	.70	17,905	603,025
Policy Eval.	778,084	19	.78	19,952	798,036
Insp.& Audit	803,952	25	1.03	26,346	830,298
Cong. Affairs	181,543	5	.21	5,372	186,915
Pub. Affairs	592,759	18	.74	18,929	611,688
Ex.Dir-Sp.Proj.Grp.	185,557	5	.21	5,372	190,929
Ex.Dir-All Other Grps.	669,806	18	.74	18,929	688,735
Adm.-Rules & Rec.Grp.	350,605	9	.37	9,464	360,069
Adm.-All Other Grps.	9,387,731	238	9.77	249,908	9,637,639
Adm.-Excl.	24,000				24,000
Controller	2,557,917			(2,557,917)	
Plans & Anal.	643,565	16	.66	16,882	660,447
Mgt.Info.Prog.Control	2,216,612	51	2.10	53,716	2,270,328
Equal Employ Opp.	147,912	4	.16	4,093	152,005
PTS					
Offices of					
Ex.Legal Dir.	3,671,148	90	3.69	$ 94,387	$3,765,535
Int.,State Programs	1,839,568	26	1.07	27,370	1,866,938
ACRS	2,322,493	37	1.52	38,881	2,361,374
ASLBP	2,177,641	42	1.73	44,252	2,221,893
ASLAP	742,221	17	.70	17,905	760,126
Program Offices:					
Nuc.Reactor Reg.(NRR)	$ 508,704	613	25.18	$644,084	$1,152,788
Nuc.Mat.& Sfgds(NMSS)	234,627	276	11.34	290,068	524,695
Inspect.& Enforce(IE)	172,336	592	24.32	622,085	794,421
Standards Devel.	137,039	153	6.29	160,893	297,932
Research	72,672	135	5.55	141,964	214,636
Totals	$32,100,000	2,434	100.00	-0-	$32,100,000

1/ Totals from preceding page which include Office of Secretary distribution.

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of Management Information and Program Control Costs

	Totals[1/]	Mgmt.Info.& Prog.Con. Distr.Base %	Cost	Totals
PDA				
Offices of				
Commission	$1,125,548	-	$ -	$1,125,548
General Counsel	603,025	-	-	603,025
Policy Eval.	798,036	-	-	798,036
Insp.& Audit	830,298	-	-	830,298
Cong. Affairs	186,915	-	-	186,915
Pub. Affairs	611,688	-	-	611,688
Ex.Dir-Sp.Proj.Grp.	190,929	4.5	102,165	293,094
Ex.Dir-All Other Grps.	688,735	16.1	365,523	1,054,258
Adm.-Rules & Rec.Grp.	360,069	.1	2,270	362,339
Adm.-All Other Grps.	9,637,639	2.9	65,840	9,703,479
Adm.-Excl.	24,000	-	-	24,000
Plans & Anal.	660,447	-	-	660,447
Mgmt.Info.Prog.Control	2,270,328	-	($2,270,328)	
Equal Employ Opp.	152,005	-	-	152,005
PTS				
Offices of				
Ex.Legal Dir.	$3,765,535	-	$ -	$3,765,535
Int.,State Programs	1,866,938	2.9	65,840	1,932,778
ACRS	2,361,374	-	-	2,361,374
ASLBP	2,221,893	-	-	2,221,893
ASLAP	760,126	-	-	760,126
Program Offices:				
Nuc.Reactor Reg.(NRR)	$1,152,788	41.0	$930,834	$2,083,622
Nuc.Mat.& Sfgds(NMSS)	524,695	13.0	295,143	819,838
Inspect.& Enforce(IE)	794,421	1.6	36,325	830,746
Standards Devel.	297,932	7.1	161,193	459,125
Research	214,636	10.8	245,195	459,831
Totals	$32,100,000	100.0	-0-	$32,100,000

1/ Totals from preceding page which include distribution of Offices of Secretary, and Controller.

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of Administration Costs

	Totals[1/]	Office of Administration Distr.Base MYs	%	Cost	Totals
PDA					
Offices of					
Commission	$1,125,548	28	1.31	$127,116	$1,252,664
General Counsel	603,025	17	.79	76,657	679,682
Policy Eval.	798,036	19	.89	86,361	884,397
Insp.& Audit	830,298	25	1.17	113,531	943,829
Cong. Affairs	186,915	5	.23	22,318	209,233
Pub. Affairs	611,688	18	.84	81,509	693,197
Ex.Dir-Sp.Proj.Grp.	293,094	5	.23	22,318	315,412
Ex.Dir-All Other Grps.	1,054,258	18	.84	81,509	1,135,767
Adm.-Rules & Rec.Grp.	362,339	9	.42	40,755	403,094
Adm.-All Other Grps.	9,703,479			($9,703,479)	
Adm.-Excl.	24,000				24,000
Plans & Anal.	660,447	16	.74	71,806	732,253
Equal Employ Opp.	152,005	4	.19	18,437	170,442
PTS					
Offices of					
Ex.Legal Dir.	$3,765,535	90	4.20	$407,546	$4,173,081
Int.,State Programs	1,932,778	26	1.21	117,412	2,050,190
ACRS	2,361,374	37	1.72	166,900	2,528,274
ASLBP	2,221,893	42	1.96	190,188	2,412,081
ASLAP	760,126	17	.79	76,657	836,783
Program Offices:					
Nuc.Reactor Reg.(NRR)	$2,083,622	613	28.58	$2,773,254	$4,856,876
Nuc.Mat.& Sfgds(NMSS)	819,838	276	12.87	1,248,838	2,068,676
Inspect.& Enforce(IE)	830,746	592	27.60	2,678,160	3,508,906
Standards Devel.	459,125	153	7.13	691,858	1,150,983
Research	459,831	135	6.29	610,349	1,070,180
Totals	$32,100,000	2,145	100.00	-0-	$32,100,000

1/ Totals from preceding page which include distribution of Offices of Secretary, Controller, and MIPC.

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of General Counsel Costs

	Totals[1/]	Office of General Counsel Distr.Base %	Cost	Totals
PDA				
Offices of				
Commission	$1,252,664	-		$1,252,664
General Counsel	679,682	-	($679,682)	
Policy Eval.	884,397	-		884,397
Insp.& Audit	943,829	-		943,829
Cong. Affairs	209,233	-		209,233
Pub. Affairs	693,197	-		693,197
Ex.Dir-Sp.Proj.Grp.	315,412	-		315,412
Ex.Dir-All Other Grps.	1,135,767	-		1,135,767
Adm.-Rules & Rec.Grp.	403,094	-		403,094
Adm.-All Other Grps.	-	-		-
Adm.-Excl.	24,000	-		24,000
Plans & Anal.	732,253	-		732,253
Equal Employ Opp.	170,442	-		170,442
PTS				
Offices of				
Ex.Legal Dir.	$4,173,081	-		$4,173,081
Int.,State Programs	2,050,190	-		2,050,190
ACRS	2,528,274	-		2,528,274
ASLBP	2,412,081	-		2,412,081
ASLAP	836,783	-		836,783
Program Offices:				
Nuc.Reactor Reg.(NRR)	$4,856,876	-		$4,856,876
Nuc.Mat.& Sfgds(NMSS)	2,068,676	-		2,068,676
Inspect.& Enforce(IE)	3,508,906	-		3,508,906
Standards Devel.	1,150,983	-		1,150,983
Research	1,070,180	-		1,070,180
Other				
Contested Case Costs		15	$101,952	$ 101,952
Independent Public Benefit Costs		85	577,730	577,730
Totals	$32,100,000	100	-0-	$32,100,000

1/ Totals from preceding page which include distribution of Offices of Secretary, Controller, MIPC, and Administration.

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of the Executive Director for Operations Costs

	Totals[1/]	Office of Ex. Director Distr.Base %	Cost	Totals
PDA				
Offices of				
Commission	$1,252,664	-	-	$1,252,664
Policy Eval.	884,397	-	-	884,397
Insp.& Audit	943,829	-	-	943,829
Cong. Affairs	209,233	-	-	209,233
Pub. Affairs	693,197	-	-	693,197
Ex.Dir-Sp.Proj.Grp.	315,412	-	-	315,412
Ex.Dir-All Other Grps.	1,135,767	-	($1,135,767)	
Adm.-Rules & Rec.Grp.	403,094	1.24	14,084	417,178
Adm.-Excl.	24,000	-	-	24,000
Plans & Anal.	732,253	2.21	25,100	757,353
Equal Employ Opp.	170,442	.55	6,247	176,689
PTS				
Offices of				
Ex.Legal Dir.	$4,173,081	12.41	$140,949	$4,314,030
Int.,State Programs	2,050,190	3.59	40,774	2,090,964
ACRS	2,528,274	-	-	2,528,274
ASLBP	2,412,081	-	-	2,412,081
ASLAP	836,783	-	-	836,783
Program Offices:				
Nuc.Reactor Reg.(NRR)	$4,856,876	20.00	$227,153	$5,084,029
Nuc.Mat.& Sfgds(NMSS)	2,068,676	20.00	227,153	2,295,829
Inspect.& Enforce(IE)	3,508,906	10.00	113,577	3,622,483
Standards Devel.	1,150,983	10.00	113,577	1,264,560
Research	1,070,180	20.00	227,153	1,297,333
Other				
Contested Case Costs	$ 101,952	-	-	$ 101,952
Independ.Public Benefit Costs	577,730	-	-	577,730
	$32,100,000	100.00	-0-	$32,100,000

1/ Totals from preceding page which include distribution of Offices of Secretary, Controller, MIPC, Administration, and General Counsel.

PROGRAM DIRECTION AND ADMINISTRATION (PDA)
AND PROGRAM TECHNICAL SUPPORT (PTS) COSTS

Distribution of Office of the Executive Legal Director Costs

		Of. of Ex. Legal Dir.		
	Totals[1/]	Distr.Base %	Cost	Totals
PDA				
Offices of				
Commission	$1,252,664	-	$ -	$1,252,664
Policy Eval.	884,397	-	-	884,397
Insp.& Audit	943,829	-	-	943,829
Cong. Affairs	209,233	-	-	209,233
Pub. Affairs	693,197	-	-	693,197
Ex.Dir-Sp.Proj.Grp.	315,412	1.62	69,887	385,299
Adm.-Rules & Rec.Grp.	417,178	2.91	125,538	542,716
Adm.-Excl.	24,000	-	-	24,000
Plans & Anal.	757,353	5.17	223,036	980,389
Equal Employ.Opp.	176,689	1.30	56,082	232,771
PTS				
Offices of				
Ex.Legal Dir.	4,314,030	-	($4,314,030)	
Int.,State Programs	2,090,964	-	-	2,090,964
ACRS	2,528,274	-	-	2,528,274
ASLBP	2,412,081	-	-	2,412,081
ASLAP	836,783	-	-	836,783
Program Offices				
Nuc.Reactor Reg.(NRR)	$5,084,029	15.00	$647,105	$5,731,134
Nuc.Mat.& Sfgds(NMSS)	2,295,829	8.00	345,122	2,640,951
Inspect.& Enforce(IE)	3,622,483	1.00	43,140	3,665,623
Standards Devel.	1,264,560	5.00	215,702	1,480,262
Research	1,297,333	-	-	1,297,333
Other				
Contested Case Costs	$ 101,952	60.00	$2,588,418	$2,690,370
Independ.Public Benefit Costs	577,730	-	-	577,730
Totals	$32,100,000	100.00	-0-	$32,100,000

1/ Totals from preceding page which include distribution of Offices of Secretary, Controller, MIPC, Administration, General Counsel, and Executive Director for Operations.

SUMMARY OF PROGRAM DIRECTION AND ADMINISTRATION
AND
PROGRAM TECHNICAL SUPPORT COSTS

PDA & PTS Exclusions from Fees	PDA & PTS Budget Amount	Proportionate Share of Further PDA & PTS Distribution[1]	Totals
PDA			
Offices of			
Commission	$1,096,388	$156,276	$1,252,664
Policy Eval.	778,084	106,313	884,397
Insp. & Audit	803,952	139,877	943,829
Cong. Affairs	177,390	31,843	209,233
Public Affairs	588,606	104,591	693,197
Ex.Dir.-Sp.Projects	171,646	213,653	385,299
Adm.-Rules & Rec.	342,507	200,209	542,716
Adm.-Excl.	24,000	-	24,000
Plans & Anal.	618,649	361,740	980,389
Equal Employ Opp.	147,912	84,859	232,771
PTS			
Offices of			
Inter., State Programs	$1,613,246	$477,718	$2,090,964
Other			
Proportionate Share of PTS & PDA to:			
Office of Standards	-	$1,480,262	$1,480,262
Office of Research	-	1,297,333	1,297,333
Contested Cases	-	2,690,370	2,690,370
Independ. Public Benefit	-	577,730	577,730
Subtotal PDA & PTS Exclusions	$6,362,380	$7,922,774	$14,285,154
To Be Further Considered for Fees[2]			
Offices of			
ACRS	$2,291,348	$236,926	$2,528,274
ASLBP	1,953,396	458,685	2,412,081
ASLAP	686,160	150,623	836,783
Other			
Proportionate Share of PTS & PDA to:			
Office of NRR	-	$5,731,134	$5,731,134
Office of NMSS	-	2,640,951	2,640,951
Office of IE	-	3,665,623	3,665,623
Subtotal Further Considered for Fees	$4,930,904	$12,883,942	$17,814,846
TOTAL PDA & PTS	$11,293,284	$20,806,716	$32,100,000

1/ The following offices within PDA & PTS were distributed (see preceding pages) -- Office of Secretary, Office of the Controller, Management Information and Program Control, Office of Administration, Office of General Counsel, Office of Executive Director for Operations, and Office of Executive Legal Director.

2/ Although these costs will be further considered for fees, this does not mean that their entire costs will be recovered through fees. For example, there will be contested case work in ASLBP and ASLAP which will be identified and excluded when the total costs for those offices are determined.

SECTION 3

ANALYSIS OF PROGRAM SUPPORT (CONTRACTUAL) COSTS FOR NRR, IE, AND NMSS

NRR Summary of Program Support
(Contractual Services)Costs FY 1977

Contractual Line Items Included For Fee Computation	$ In $1,000's
Safety Casework (CP & OL's)	$ 650
Environmental Casework	3,630
Operator Exams (Safety)	140
License Amendments (Safety)	50
Clinch River	465
Offshore Plants	15
Training (See NRR Cost/Man-year Computation)	300
Subtotal	$ 5,250

Contractual Line Items Excluded From Fee Computation		
Generic Studies		$ 8,875
Applications	$5,330	
Operating Reactors	1,750	
Advanced Reactors	1,795	
Antitrust - Contested Hearings		200
Subtotal		$ 9,075
Total NRR Program Support Costs		$14,325

NRR Computation of Average Program Support (Contractual) Costs
To Be Assessed for Construction Permits and Operating Licenses

Contractual Line Items	Amount	Average Contractual Costs Applied to Reviews	
		Construction Permit	Operating License
Site Safety Casework			
B5190 COE Foundation Design	$ 100,000	$ 9,615	$ -
B5884 USGS Earthquake Prob.	185,000	10,054	10,054
B5074 USGS Geology Eval.	215,000	11,684	11,684
A7001 LASL Assist.	8,000	-	1,000
B0195 HNL Concept Code	17,000	923	923
B5061 Newmark Seismic	75,000	7,211	-
B5490 Hearing Notices	50,000	2,192	2,192
Total Site Safety Casework	$ 650,000	$ 41,679	$ 25,853
Environmental Casework			
A2001 ANL (EIS)	$1,500,000)		
B0001 HNL (EIS)	1,800,000)	$210,000	$130,000
B5563 Hendron Soil Behavior	20,000	823	823
B5077 NOAA Meterological	65,000	6,250	-
B5078 INFONET Time Share	50,000	2,717	2,717
B1136 ERDA Fuel Cycle	50,000	4,807	-
B1137 FPC Need for Power	25,000	2,403	-
- DOC Obers Proj.	25,000	2,403	-
- Energy Consult.	15,000	1,442	-
B0090 HNL Plt. Cap. Cost	30,000	1,630	1,630
B5490 Hearing Notices	50,000	2,192	2,192
Total Environmental Casework	$3,630,000	$234,667	$137,362

NRR

Computation of Average Program Support (Contractual) Costs
To Be Assessed for Construction Permits and Operating Licenses

Clinch River Breeder Reactor Contractual Line Items	Amount	Average Contractual Costs Applied To Reviews		
		Construction Permit		
		Safety	Environmental	Total Safety & Env.
B2001 PNL	$100,000	$ -	$335,000[1/]	$335,000
B1130 AERO Retention Study	135,000	135,000	-	135,000
B1116 NUS LMFBR	75,000	75,000	-	75,000
- Venus	40,000	40,000	-	40,000
- Structural Analysis	50,000	50,000	-	50,000
B20?? Fuel Behavior	65,000	65,000	-	65,000
Subtotal	$465,000	$365,000	$335,000	$700,000
	-	41,679[2/]	-	41,679[2/]
Total Clinch River	$465,000	$406,679	$335,000	$741,679

1/ Based on costs to date, including $100,000 in FY'77
2/ Average safety CP costs for a construction permit added since contracts would assist Clinch River

NRR
Average Costs in Program Support
(Contractual) Dollars To Complete
Various Types of Facility Reviews (Each Site)

Type of Review	Site Safety Casework	Environmental Casework	Total Safety & Environmental
Construction Permit	$ 41,679	$234,667	$276,346
Operating License	25,853	137,362	163,215
Manufacturing License	41,679	400,000	441,679 1/
Utility Referencing Manufacturing License	56,679	370,000	426,679 2/
Clinch River Breeder Reactor	406,679	335,000	741,679 3/

1/ Based on costs to date plus estimate to complete Offshore Power Systems Application for 8 floating nuclear power units.

2/ Based on costs to date plus estimate to complete Public Service Gas and Electric application for Offshore Units - Atlantic 1 & 2.

3/ Based on costs to date plus estimate to complete Clinch River Breeder Reactor.

NRR
Computation of Average Cost
To License Operators For A Company
Receiving and Holding an Operating License

Power Reactors

Type of Examination	Average Profess. Time To Administer Exams (Man-Day)	Cost Per[1/] Man-Day	Total Cost
Cold Exam			
NRR Manpower	42	$368	$15,456
Consultants	14	105.90	1,483
Subtotal			$16,939
Initial Hot Exams			
NRR Manpower	33	$368	$12,144
Consultants	11	105.90	1,165
Subtotal			$13,309
Total Cold and Initial Hot Exam - Power Reactor OL			$30,248

Non Power Reactors

Type of Examination			
Cold/Hot Exams	7	$368	$ 2,576
Consultants	2	105.90	212
Total Cold/Hot Exam - Non Power Reactor OL			$ 2,788

1/NRR Basic Cost Per Man-Year = $70,012
Add Program Support (contractual) Costs/Man-Year = 12,727 2/
Total Cost/Man-Year= $82,739

Cost Per Man-Day $82,739 ÷ 225 days= $368

2/$140,000 Program Support Costs for Operator Exams
÷ 11 Professional employees
= $12,727 Cost per professional for program support costs

NRR

COMPUTATION OF AVERAGE PROFESSIONAL HOURLY RATE TO BE USED FOR FACILITY AMENDMENTS

NRR Average Cost/Man-Year to maintain a Professional Employee	$70,012
Add: NRR Program Support (Contractual) costs relating to amendments	1,250[1/]
NRR Average Cost/Man-Year to maintain a Professional Employee working on amendments	$71,262
NRR Average Cost/Man-Hour to maintain a professional employee working on amendments.	$71,262 ÷ 1,800[2/] = $40

1/ $50,000 Program Support Costs for Facility amendments
÷ 40 professional employees
= $1,250 cost per professional man-year for program support costs

2/ 1,800 man-hours = 1 productive man-year.

IE SUMMARY OF PROGRAM SUPPORT

(Contractual Services)

COSTS

FY 1977

Contractual Line Items Included for Fee Computation	Costs
Safety Casework	$ 406,705
Environmental Casework	906,210
Safeguards Casework	633,085
Training (See IE Cost/Man-Years Computation)	56,000
Subtotal	$2,002,000

Contractual Line Items Excluded from Fee Computation	
Generic Studies	$1,440,000
Undesignated Contracts	288,000
Subtotal	$1,728,000

Total IE Program Support Costs	$3,730,000

DISTRIBUTION OF IE PROGRAM SUPPORT (CONTRACTUAL) COSTS

Functional Area	Program Support Costs	Distribution of Regional Of. Contracts Distribution Base MY	%	Cost	Total
Safety Casework	$ 301,000	394	78.3	$105,705	$ 406,705
Environmental Casework	900,000	23	4.6	6,210	906,210
Safeguards Casework	610,000	86	17.1	23,085	633,085
Regional Office Contracts[1/]	135,000	-	-	(135,000)	-0-
Generic Studies	1,440,000	-	-	-	1,440,000
Undesignated Contracts	288,000	-	-	-	288,000
Training[2/]	56,000	-	-	-	56,000
Total	$3,730,000	503	100.0%	-0-	$3,730,000

1/ Program support costs relating to regional support. These costs were considered to be related to the safety, environmental and safeguards casework programs and were distributed to these programs on a pro-rata basis based on manpower.

2/ Training costs included in IE cost/man-year computation.

ALLOCATION OF INSPECTION AND ENFORCEMENT

PROGRAM SUPPORT (CONTRACTUAL) LINE ITEMS TO MAJOR PROGRAMS

	Reactors	Fuel Cycle Facilities	Materials Program	All Other Programs 1/	Total
Safety					
IIIB Reactor Safety Consulting	$ 25,000	-	-	-	$ 25,000
IIIC Reactor Safety Consulting	25,000	-	-	-	25,000
VIIA Simulator Training	180,000	-	-	-	180,000
VIIB Welding Technology	10,000	-	-	-	10,000
VIIB Electrical & Instrumentation	10,000	-	-	-	10,000
VIIB Non-Destructive Eval.	23,000	-	-	-	23,000
VIIB Concrete Technology	18,000	-	-	-	18,000
VIID Video Tapes	7,000	-	-	-	7,000
VIID NRR Courses	3,000	-	-	-	3,000
Total Safety	$301,000	-	-	-	$301,000
Environmental					
IA Radiological Measurements	$200,000	$16,000	$ 9,000	-	$225,000
IB Analytical Ser. Env. Monitoring	442,000	21,000	2,000	-	465,000
ID Arms Assist	180,000	28,000	2,000	-	210,000
Total Environmental	$822,000	$65,000	$ 13,000	-	$900,000
Safeguards					
IIA Analytical & Tech Services	$ 40,000	$19,000	$436,000	-	$495,000
IIB Program Support	5,000	2,000	53,000	-	60,000
IIB Maintain Meas. Van - Reg. 1	-	1,000	9,000	-	10,000
IIB Maintain Meas. Van - Reg. 2	-	2,000	3,000	-	5,000
IIB Assay SNM Van - Reg. 3	1,000	5,000	29,000	-	35,000
IIB Maintain Meas. Van - Reg. 3	-	2,000	3,000	-	5,000
Total Safeguards	$ 46,000	$31,000	$533,000	-	$610,000
Regional Office Contracts					
Safety Casework	$ 76,953	$ 3,277	$ 15,539	$9,936	$105,705
Environmental Casework	$ 5,676	$ 509	$ 25	-	$ 6,210
Safeguards Casework	$ 7,249	$ 9,395	$ 4,825	$1,616	$ 23,085

1/ Includes Test and Research Reactors, Government-owned Reactors, and Special Projects.

ALLOCATION OF IE SAFETY AND ENVIRONMENTAL PROGRAM SUPPORT (CONTRACTUAL)

COSTS TO LICENSE FEE CATEGORIES

Fee Categories	Safety Casework	Reg. Of. Safety Casework	Total Safety	Environ. Casework	Reg. Of. Environ. Casework	Total Environ.
Power Reactors						
CP	$ 86,000	$ 29,280	$115,280	-	-	-
CL	5,000	13,953	18,953	$139,000	$ 1,354	$140,354
Routine Inspect.	210,000	26,849	236,849	683,000	4,322	687,322
Non-Routine Inspect.	-	6,871	6,871	-	-	-
Subtotal Power Reactors	$301,000	$ 76,953	$377,953	$822,000	$ 5,676	$827,676
Fuel Reprocessing						
CP	$ -	$ 63	$ 63	$ -	$ -	$ -
OL	-	159	159	-	-	-
Routine Inspect.	-	624	624	10,000	267	10,267
Non-Routine Inspect.	-	-	-	-	-	-
Subtotal Fuel Reprocessing	-	$ 846	$ 846	$ 10,000	$ 267	$ 10,267
Materials Program						
1A & 1B (U. Fuel Fab.)	$ -	$ 2,431	$ 2,431	$ 55,000	$ 242	$ 55,242
1D (>5 kg U-235 - other)	-	106	106	3,000	25	3,025
3A (Byproduct Mfg. - large)	-	846	846	5,000	-	5,000
4A (Waste Disposal)	-	846	846	5,000	-	5,000
Other Materials	-	13,741	13,741	-	-	-
Subtotal Materials	$ -	$ 17,970	$ 17,970	$ 68,000	$ 267	$ 68,267
All Other Programs[1/]	$ -	$ 9,936	$ 9,936	$ -	$ -	$ -
Totals	$301,000	$105,705	$406,705	$900,000	$ 6,210	$906,210

1/ Includes Test, Research, Government-owned Reactors, and Special Projects.

COMPUTATION OF IE AVERAGE SAFETY AND ENVIRONMENTAL PROGRAM SUPPORT (CONTRACTUAL)

COSTS APPLIED TO EACH PROFESSIONAL

Fee Category or Type of Activity	Total Costs Safety	Total Costs Environ.	Total	Profess. Man-Years Safety	Profess. Man-Years Environ.	Total Prof. M/Ys	Average Cost App. to Each Profess. M/Y
Power Reactors							
CP	$115,280	$ -	$ 115,280	77.00	-	77.00	$ 1,497
OL	18,953	140,354	159,307	38.00	4.0	42.00	3,793
Routine Inspection	236,849	687,322	924,171	72.00	14.0	86.00	10,746
Non-Routine Inspection	6,871	-	6,871	18.00	-	18.00	382
Subtotal	$377,953	$827,676	$1,205,629	205.00	18.0	223.00	
Fuel Reprocessing Plant							
CP	$ 63	$ -	$ 63	.20	-	.20	$ 315
OL	159	-	159	.30	-	.30	530
Routine Inspection	624	10,267	10,891	1.50	1.0	2.50	4,356
Non-Routine Inspection	-	-	-	-	-	-	-
Subtotal	$ 846	$ 10,267	$ 11,113	2.00	1.0	3.00	
Materials							
1A & 1B (U Fuel Fab.)	$ 2,431	$ 55,242	$ 57,673	4.50	.9	5.40	$10,680
1D (> 5 kg U-235 - other)	106	3,025	3,131	.50	.1	.60	5,218
3A (Byproduct Mfg. - lge)	846	5,000	5,846	1.50	-	1.50	3,897
4A (Waste Disposal)	846	5,000	5,846	1.15	-	1.15	5,083
Other Materials	13,741	-	13,741	26.35	-	26.35	521
Subtotal	$ 17,970	68,267	$ 86,237	34.00	1.0	35.00	
All Other Categories or Types of Activities 1/	9,936	-	9,936	28.00	-	28.00	355
Total	$406,705	$906,210	$1,312,915	269.00	20.0	289.00	

1/ Includes Test, Research, Government-owned Reactors, and Special Projects.

ALLOCATION OF IE SAFEGUARDS PROGRAM SUPPORT (CONTRACTUAL)

COSTS TO LICENSE FEE CATEGORIES

Fee Categories	Safeguards Casework	Reg. Of. Safeguards Casework	Total Safeguards	Safeguards Prof. M/Y	Avg. Sfgds. Costs App. to Each Prof. (Col.3 ÷ Col.4)
Power Reactors					
CP	$ -	$ -	$ -	-	$ -
OL	12,000	1,339	13,339	3.0	4,446
Routine Inspect.	34,000	5,910	39,910	15.0	2,661
Non-Routine Inspect.	-	-	-	-	-
Subtotal Power Reactors	$ 46,000	$ 7,249	$ 53,249	18.0	
Fuel Reprocessing					
Routine Inspect.	$ 31,000	$ 808	$ 31,808	2.0	$15,904
Materials Program					
1A & 1B (U. Fuel Fab.)	$235,000	$ 6,441	$241,441	17.5	$13,797
1C (Pu Fuel Fab.)	93,000	2,146	95,146	5.0	19,029
1D (>5 kg U-235 - other)	6,000	531	6,531	1.5	4,354
1E (>2 kg Pu - other)	10,000	162	10,162	.3	33,873
1F (200 g to 2 kg Pu)	20,000	346	20,346	.8	25,433
1G (350 g to 5 kg U-235)	35,000	669	35,669	1.5	23,779
1H (Spent Fuel Storage)	5,000	162	5,162	.4	12,905
1J (Other SNM)	73,000	1,870	74,870	4.0	18,718
Unirradiated Fuel Storage (Exempt)	56,000	1,085	57,085	3.0	19,028
	$533,000	$13,412	$546,412	34.0	
All Other Programs 1/	$ -	$ 1,616	$ 1,616	6.0	269
Total Safeguards	$610,000	$23,085	$633,085	60.0	

1/ Includes Test, Research, Government-owned Reactors, and Export Program.

NMSS SUMMARY OF PROGRAM SUPPORT

(CONTRACTUAL SERVICES)

COSTS

FY 1977

Contractual Line Items Included for Fee Consideration	$ In 1,000's
Safety Casework	$1,393
Environmental Casework	815
Safeguards Casework	150
Subtotal	$2,358

Contractual Line Items Excluded from Fee Consideration	
Safeguards Non-Casework	$3,025
Generic Studies	2,030
Standards	547
State Agreements Program	240
Research	200
Subtotal	$6,042

Total NMSS Program Support Costs	$8,400

NMSS Safety and Environmental Program Support (Contractual)
Costs by License Fee Category FY 1977 Budget
($ In 1,000's)

Contract	1A >5Kg U-235 Fuel Fab.		1C Pu Fuel Fab.		1H SNM Spent Fuel Storage		2A Milling Operations		2B Heap Leach Operations		Uranium Enrichment Facilities		Reprocessing Complexes		Transportation		Total Contractual Costs	
	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.	Safety	Env.
A-2010 Environmental/Mills								$355		$ 25								$380
- Environmental/Enrichment												$ 20						20
A-2010 Environmental/Fuel Fab.		$ 90		$ 50														140
B-5912 Safety/Enrichment											$ 15						$ 15	
A-7010 Fuel Cycle Fac/Tech Rev Asst.			$150										$150				300	
B-0102 Safety Rev. of Nuc Fac.					$125								400				525	
A-0147 Struct. Eval/Fuel Cycle Plts.													100				100	
A-2060 UF6 Plant Review Assist													95				95	
B-1517 Natural Phenom Existing Pu Fac			150														150	
A-2010 Environmental/Reprocessing						$ 25								$150				175
B-0276 Supp. Barnwell Env. Statement														25				25
- Environmental/GE Storage						75												75
B-0009 Computer Assist/Cask Anal.															$208		208	
Total Safety & Environmental Contractual Costs	-	$ 90	$300	$ 50	$125	$100	-	$355	-	$ 25	$ 15	$ 20	$745	$175	$208	-	$1,393	$815

NMSS SAFETY AND ENVIRONMENTAL PROGRAM SUPPORT (CONTRACTUAL)

BY LICENSE FEE CATEGORY

FY 1977 Budget

($ In 1,000's)

Fee Category	Safety Contractual Costs	Environmental Contractual Costs	Total Safety & Environmental Contractual Cost
Special Nuclear Material			
1A > 5 kgs. U-235 Fuel Fab.	$ -	$ 90	$ 90
1C Pu Fuel Fab.	300	50	350
1H SNM Spent Fuel Storage	125	100	225
Subtotal SNM	$ 425	$ 240	$ 665
Source Material			
2A Milling Operations	$ -	$ 355	$ 355
2B Heap Leach Operations	-	25	25
Subtotal Source Mat.	$ -	$ 380	$ 380
Other Production & Utilization Facilities			
Uranium Enrichment Facilities	$ 15	$ 20	$ 35
Reprocessing Complexes	745	175	920
Subtotal Other Prod. & Utilization Facilities	$ 760	$ 195	$ 955
Transportation	208	-	208
	$1,393	$ 815	$2,208

NMSS Safeguards Program Support
(Contractual) Costs
By License Fee Category
FY 1977 Budget

Contractual Line Item	Fee Category: 1C Pu Processing and Fabrication	Fee Category: Fuel Reprocessing	Total
Environmental Impact Statement (EIS) Formats	-	$50,000	$50,000
Fuel Reprocessing and Plutonium Fabrication (EIS)	$50,000	50,000	100,000
Total	$50,000	$100,000	$150,000

SECTION 4

ADDED FACTOR COMPUTATION

ADDED FACTOR COMPUTATION WORKSHEET
FY 1977

		PLANT AND CAPITAL EQUIPMENT (P&CE)			
		I&E	Research	All Other	Totals
(1)	Balances 6/30/75 [1]	$ 309,581	$ -0-	$ 4,190,280	$ 4,499,861
	Budget Estimates [2]				
(2)	FY 1976	120,000	9,600,000	370,000	10,090,000
(3)	FY 1976 - Trans Qtr.	60,000	1,080,000	70,000	1,210,000
(4)	FY 1977	320,000	8,000,000	390,000	8,710,000
(5)	Total P&CE as of 9/30/77	$ 809,581	$ 18,680,000	$ 5,020,280	$ 24,509,861
(6)	Less 1/2 of FY 1977 [3] P&CE Budget	160,000	4,000,000	195,000	4,355,000
(7)	P&CE Added Factor Computation Base	$ 649,581	$ 14,680,000	$ 4,825,280	$ 20,154,861
	FY 1977 ADDED FACTOR COMPUTATION				
(8)	Depreciation @7.67% [1]	$ 49,823	$ 1,125,956	$ 370,099	$ 1,545,878
(9)	Interest @7.8% [1]	50,667	1,145,040	376,372	1,572,079
(10)	Total Added Factor	$ 100,490	$ 2,270,996	$ 746,471	$ 3,117,957
	FY 1977 BUDGETARY ANALYSIS				
(11)	Dollar Amounts [2]	$26,290,000	$122,390,000	$100,750,000	$249,430,000
(12)	Less P&CE [2]	320,000	8,000,000	390,000	8,710,000
(13)	Net Budget [2]	$25,970,000	$114,390,000	$100,360,000	$240,720,000
(14)	Personnel Distribution No. of Manyears	592	135	1,802	2,529
	ADDED FACTOR RATE				
(15)	Cost Per Manyear	170 [4]	16,822 [6]	295 [8]	1,233 [10]
(16)	Percent of Budget	.39% [5]	1.99% [7]	.31% [9]	1.30% [11]

1/ Per Division of Accounting's letter dated June 18, 1976.

2/ NRC FY 1977 Budget Estimate as of January 21, 1976
This document provided by the Division of Budget.

3/ It is assumed that 1/2 of the FY 1977 P&CE purchases would be costed throughout FY 1977.

4/ Line 10 (I&E Col.) ÷ Line 14 (I&E Col.)

5/ Line 10 (I&E Col.) ÷ Line 13 (I&E Col.)

6/ Line 10 (RES. Col.) ÷ Line 14 (RES. Col.)

7/ Line 10 (RES. Col.) ÷ Line 13 (RES. Col.)

8/ Line 10 (All Other Col.) ÷ Line 14 (Total Col.)

9/ Line 10 (All Other Col.) ÷ Line 13 (Total Col.)

10/ Line 10 (Total Col.) ÷ Line 14 (Total Col.)

11/ Line 10 (Total Col.) ÷ Line 13 (Total Col.)

SECTION 5

NRC PROFESSIONAL MANPOWER REQUIRED TO CONDUCT APPLICATION REVIEWS AND HEALTH & SAFETY AND SAFEGUARDS INSPECTIONS

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety - Env.	Anti-Trust	Safe-Guards	Total
Custom Design Review CP - 1st Unit						
NRR	4.4	1.7	6.1	.2	.3	6.6
IE	1.86	-	1.86	-	-	1.86
ACRS	1.5	-	1.5	-	-	1.5
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	8.187	1.7	9.887	.2	.3	10.387
OL - 1st Unit						
NRR	4.4	1.4	5.8	.1	.3	6.2
IE	3.68	.45	4.13	-	.1	4.23
ACRS	1.2	-	1.2	-	-	1.2
Total OL	9.28	1.85	11.13	.1	.4	11.63
Total CP & OL Combined	17.467	3.55	21.017	.3	.7	22.017
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	1.86	-	1.86	-	-	1.86
ACRS	.16	-	.16	-	-	.16
Total CP	2.02	-	2.02	-	-	2.02
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.15	-	.15	-	-	.15
Total OL	3.83	.45	4.28	-	.1	4.38
Total CP & OL Combined	5.85	.45	6.30	-	.1	6.40

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Duplicate Design Review						
CP - 1st Unit						
NRR	4.4	1.7	6.1	.2	.3	6.6
IE	1.86	-	1.86	-	-	1.86
ACRS	1.5	-	1.5	-	-	1.5
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	8.187	1.7	9.887	.2	.3	10.387
OL - 1st Unit						
NRR	4.4	1.4	5.8	.1	.3	6.2
IE	3.68	.45	4.13	-	.1	4.23
ACRS	1.2	-	1.2	-	-	1.2
Total OL	9.28	1.85	11.13	.1	.4	11.63
Total CP & OL Combined	17.467	3.55	21.017	.3	.7	22.017
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	1.86	-	1.86	-	-	1.86
ACRS	.16	-	.16	-	-	.16
Total CP	2.02	-	2.02	-	-	2.02
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.12	-	.12	-	-	.12
Total OL	3.80	.45	4.25	-	.1	4.35
Total CP & OL Combined	5.82	.45	6.27	-	.1	6.37
CP - 1st Unit - 2nd Site						
NRR	1.1	1.7	2.8	-	.3	3.1
IE	1.86	-	1.86	-	-	1.86
ACRS	.75	-	.75	-	-	.75
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	4.137	1.7	5.837	-	.3	6.137
OL - 1st Unit - 2nd Site						
NRR	.8	1.4	2.2	-	.3	2.5
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.6	-	.6	-	-	.6
Total OL	5.08	1.85	6.93	-	.4	7.33
Total CP & OL Combined	9.217	3.55	12.767	-	.7	13.467

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Replicate Design Review						
CP - 1st Unit						
NRR	3.4	1.7	5.1	.2	.3	5.6
IE	1.86	-	1.86	-	-	1.86
ACRS	.8	-	.8	-	-	.8
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	6.487	1.7	8.187	.2	.3	8.687
OL - 1st Unit						
NRR	3.4	1.4	4.8	.1	.3	5.2
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.75	-	.75	-	-	.75
Total OL	7.83	1.85	9.68	.1	.4	10.18
Total CP & OL Combined	14.317	3.55	17.867	.3	.7	18.867
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	1.86	-	1.86	-	-	1.86
ACRS	.05	-	.05	-	-	.05
Total CP	1.91	-	1.91	-	-	1.91
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.05	-	.05	-	-	.05
Total OL	3.73	.45	4.18	-	.1	4.28
Total CP & OL Combined	5.64	.45	6.09	-	.1	6.19
CP - 1st Unit - 2nd Site						
NRR	1.1	1.7	2.8	-	.3	3.1
IE	1.86	-	1.86	-	-	1.86
ACRS	.4	-	.4	-	-	.4
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	3.787	1.7	5.487	-	.3	5.787
OL - 1st Unit - 2nd Site						
NRR	.8	1.4	2.2	-	.3	2.5
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.37	-	.37	-	-	.37
Total OL	4.85	1.85	6.70	-	.4	7.10
Total CP & OL Combined	8.637	3.55	12.187	-	.7	12.887

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Util. Ref. NSSS/Custom BOP						
CP - 1st Unit						
NRR	4.0	1.7	5.7	.2	.3	6.2
IE	1.86	-	1.86	-	-	1.86
ACRS	.8	-	.8	-	-	.8
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	7.087	1.7	8.787	.2	.3	9.287
OL - 1st Unit						
NRR	4.0	1.4	5.4	.1	.3	5.8
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.5	-	.5	-	-	.5
Total OL	8.18	1.85	10.03	.1	.4	10.53
Total CP & OL Combined	15.267	3.55	18.817	.3	.7	19.817
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	1.86	-	1.86	-	-	1.86
ACRS	.03	-	.03	-	-	.03
Total CP	1.89	-	1.89	-	-	1.89
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.03	-	.03	-	-	.03
Total OL	3.71	.45	4.16	-	.1	4.26
Total CP & OL Combined	5.60	.45	6.05	-	.1	6.15
CP - 1st Unit - 2nd Site						
NRR	1.1	1.7	2.8	-	.3	3.1
IE	1.86	-	1.86	-	-	1.86
ACRS	.4	-	.4	-	-	.4
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	3.787	1.7	5.487	-	.3	5.787
OL - 1st Unit - 2nd Site						
NRR	.8	1.4	2.2	-	.3	2.5
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.12	-	.12	-	-	.12
Total OL	4.60	1.85	6.45	-	.4	6.85
Total CP & OL Combined	8.387	3.55	11.937	-	.7	12.637

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Util. Ref. NSSS/STD BOP						
CP - 1st Unit						
NRR	2.5	1.7	4.2	.2	.3	4.7
IE	1.86	-	1.86	-	-	1.86
ACRS	.5	-	.5	-	-	.5
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	5.287	1.7	6.987	.2	.3	7.487
OL - 1st Unit						
NRR	2.5	1.4	3.9	.1	.3	4.3
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.5	-	.5	-	-	.5
Total OL	6.68	1.85	8.53	.1	.4	9.03
Total CP & OL Combined	11.967	3.55	15.517	.3	.7	16.517
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	1.86	-	1.86	-	-	1.86
ACRS	.03	-	.03	-	-	.03
Total CP	1.89	-	1.89	-	-	1.89
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.03	-	.03	-	-	.03
Total OL	3.71	.45	4.16	-	.1	4.26
Total CP & OL Combined	5.60	.45	6.05	-	.1	6.15
CP - 1st Unit - 2nd Site						
NRR	1.1	1.7	2.8	-	.3	3.1
IE	1.86	-	1.86	-	-	1.86
ACRS	.4	-	.4	-	-	.4
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	3.787	1.7	5.487	-	.3	5.787
OL - 1st Unit - 2nd Site						
NRR	.8	1.4	2.2	-	.3	2.5
IE	3.68	.45	4.13	-	.1	4.23
ACRS	.12	-	.12	-	-	.12
Total OL	4.60	1.85	6.45	-	.4	6.85
Total CP & OL Combined	8.387	3.55	11.937	-	.7	12.637

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Manufacturing License						
Preliminary Design						
NRR	8.0	2.0	10.0	.2	.3	10.5
IE	3.72	-	3.72	-	-	3.72
ACRS	1.25	-	1.25	-	-	1.25
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total Preliminary Design	13.397	2.0	15.397	.2	.3	15.897
Final Design Amendment						
NRR	6.0	-	6.0	.1	.3	6.4
Total Preliminary & Final Design	19.397	2.0	21.397	.3	.6	22.297
Utility Reference Manufacturing License						
CP - 1st Unit						
NRR	2.0	1.7	3.7	.2	.3	4.2
IE	.93	-	.93	-	-	.93
ACRS	.4	-	.4	-	-	.4
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	3.757	1.7	5.457	.2	.3	5.957
OL - 1st Unit						
NRR	2.0	1.7	3.7	.1	.3	4.1
IE	2.79	.34	3.13	-	.1	3.23
ACRS	.4	-	.4	-	-	.4
Total OL	5.19	2.04	7.23	.1	.4	7.73
Total CP & OL Combined	8.947	3.74	12.687	.3	.7	13.687
CP - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	.93	-	.93	-	-	.93
ACRS	-	-	-	-	-	-
Total CP	.93	-	.93	-	-	.93
OL - Concurrent Unit						
NRR	-	-	-	-	-	-
IE	2.79	.34	3.13	-	.1	3.23
ACRS	-	-	-	-	-	-
Total OL	2.79	.34	3.13	-	.1	3.23
Total CP & OL Combined	3.72	.34	4.06	-	.1	4.16

NRC MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 Budget

Type of Review	NRC Manpower (M/Y)					
Power Reactors	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Clinch River Breeder Review						
CP - 1st Unit						
NRR	8.0	1.7	9.7	-	.3	10.0
IE	1.86	-	1.86	-	-	1.86
ACRS	3.0	-	3.0	-	-	3.0
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	13.287	1.7	14.987	-	.3	15.287
OL - 1st Unit						
NRR	8.0	1.4	9.4	-	.3	9.7
IE	3.68	.45	4.13	-	.1	4.23
ACRS	2.4	-	2.4	-	-	2.4
Total OL	14.08	1.85	15.93	-	.4	16.33
Total CP & OL Combined	27.367	3.55	30.917	-	.7	31.617

NRC PROFESSIONAL MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 BUDGET

Type of Review	NRC Manpower (M/Y)					
	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Vendor Design Review						
Preliminary NSSS						
NRR	6.6	-	6.6	-	-	6.6
IE	-	-	-	-	-	-
ACRS	-	-	-	-	-	-
Total	6.6	-	6.6	-	-	6.6
Final NSSS						
NRR	6.6	-	6.6	-	-	6.6
IE	-	-	-	-	-	-
ACRS	.8	-	.8	-	-	.8
Total	7.4	-	7.4	-	-	7.4
Total Prelim. & Final Combined	14.0	-	14.0	-	-	14.0
Architect Engineer Design Review						
Preliminary BOP						
NRR	6.6	-	6.6	-	-	6.6
IE	-	-	-	-	-	-
ACRS	-	-	-	-	-	-
Total	6.6	-	6.6	-	-	6.6
Final BOP						
NRR	6.6	-	6.6	-	-	6.6
IE	-	-	-	-	-	-
ACRS	1.0	-	1.0	-	-	1.0
Total	7.6	-	7.6	-	-	7.6
Total Prelim. & Final Combined	14.2	-	14.2	-	-	14.2

NRC PROFESSIONAL MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 BUDGET

Type of Review	NRC Manpower (M/Y)					
	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Test Reactors						
Custom Design Review						
CP - 1st Unit						
NRR	.1	-	.1	-	.1	.2
IE	.9	-	.9	-	-	.9
Total CP	1.0	-	1.0	-	.1	1.1
OL - 1st Unit						
NRR	.1	-	.1	-	-	.1
IE	1.4	-	1.4	-	-	1.4
Total OL	1.5	-	1.5	-	-	1.5
Total CP & OL Combined	2.5	-	2.5	-	.1	2.6
Research Reactors						
Custom Design Review						
CP - 1st Unit						
NRR	.1	-	.1	-	.1	.2
IE	.4	-	.4	-	-	.4
Total CP	.5	-	.5	-	.1	.6
OL - 1st Unit						
NRR	.1	-	.1	-	-	.1
IE	.7	-	.7	-	-	.7
Total OL	.8	-	.8	-	-	.8
Total CP & OL Combined	1.3	-	1.3	-	.1	1.4

NRC PROFESSIONAL MANPOWER REQUIRED TO CONDUCT REVIEWS
FY 1977 BUDGET

Type of Review	NRC Manpower (M/Y)					
Reprocessing Plant Complex	Safety	Env.	Subtotal Safety & Env.	Anti-Trust	Safe-Guards	Total
Custom Design Review						
Construction Permit						
NMSS	2.5	.8	3.3	-	1.2	4.5
NRR	1.1	.7	1.8	.2	-	2.0
IE	.7	-	.7	-	-	.7
ACRS	1.0	-	1.0	-	-	1.0
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	5.727	1.5	7.227	.2	1.2	8.627
Operating License						
NMSS	3.3	-	3.3	-	1.6	4.9
NRR	.8	.4	1.2	.1	-	1.3
IE	2.0	-	2.0	-	-	2.0
ACRS	1.0	-	1.0	-	-	1.0
Total OL	7.1	.4	7.5	.1	1.6	9.2
Total CP & OL Combined	12.827	1.9	14.727	.3	2.8	17.827
Major Amendment - Reprocessing						
NMSS	.4	.2	.6	-	.2	.8
Minor Amendment - Reprocessing						
NMSS	.05	-	.05	-	.05	.1
Uranium Enrichment Plant						
Construction Permit						
NMSS	.5	.5	1.0	-	.35	1.35
NRR	.5	.2	.7	-	-	.7
IE	.7	-	.7	-	-	.7
ACRS	1.0	-	1.0	-	-	1.0
ASLBP	.4	-	.4	-	-	.4
ASLAP	.027	-	.027	-	-	.027
Total CP	3.127	.7	3.827	-	.35	4.177
Operating License						
NMSS	.5	.5	1.0	-	.5	1.5
NRR	.5	-	.5	-	-	.5
IE	2.0	-	2.0	-	-	2.0
ACRS	1.0	-	1.0	-	-	1.0
Total OL	4.0	.5	4.5	-	.5	5.0
Total CP & OL Combined	7.127	1.2	8.327	-	.85	9.177

NRC PROFESSIONAL MANPOWER REQUIRED TO PROCESS FACILITY AMENDMENTS

	Power Reactors & Design Approvals Profess. Man-Hrs. To Process	Test & Research Reactors Profess. Man-Hrs. To Process
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.	NRR 10	-
Class II - Amendments that are proforma, administrative in nature, or do not have significant safety considerations.	NRR 30	15
Class III - Amendments that involve a single consideration, have acceptability for the consideration clearly identified by a regulatory position, or are deemed not to involve significant hazards consideration.	NRR 100	50
Class IV - Amendments that involve a complex issue or more than one consideration, several changes of the Class III type incorporated into proposed amendment, or have been judged to involve significant hazards consideration.	NRR 286 ACRS 18	150
Class V - Amendments that require evaluation of many aspects of facility operation and the associated safety analysis, are likely to involve review by the ACRS or involve significant hazards consideration and may require a hearing.	NRR 600 ACRS 36	300
Class VI - Amendments that require evaluation of a new Safety Analysis Report and rewrite of the facility license (including technical specifications), are likely to involve significant hazards consideration or review by ACRS and are known to involve a hearing.	NRR 900 ACRS 198	500

NRC PROFESSIONAL MANPOWER REQUIRED TO CONDUCT
FACILITY HEALTH & SAFETY AND SAFEGUARDS INSPECTIONS
FY 1977 BUDGET

Type of Facility Inspection	Safety (M/Y)	Environ-Mental (M/Y)	Subtotal Safety Environ-Mental (M/Y)	Safe Guards (M/Y)
Power Reactors[1/]				
First Unit	.84/yr	.164/yr	1.004/yr	.176/yr
Concurrent Unit	.67/yr	.131/yr	.801/yr	.141/yr
Test Reactor	.07/Insp.	-	.07/Insp.	.10/Insp.
Research Reactor	.065/Insp.	-	.065/Insp.	.02/Insp.
Other Production and Utilization Facility[2/]	.48/yr	.131/yr	.611/yr	.48/yr
Production or Utilization Facility licensed for possession but not operation.	.01/yr	-	.01/yr	-

1/ Fees are also applicable to inspection of a manufacturing license.

2/ Fee is applicable to a fuel reprocessing and uranium enrichment plant.

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. Special Nuclear Material:		
A. Licenses for possession and use of five (5) kilograms or more of contained uranium 235 in uranium enriched to 20% or more, or two (2) kilograms or more of uranium 233 for fuel processing and fabrication.	Application-New License	
	Safety	.75 MY
	Environmental	.20
	Subtotal	.95
	Safeguards	.30
	Total	1.25
	Renewal	
	Safety	.50
	Environmental	.15
	Subtotal	.65
	Safeguards	.17
	Total	.82
	Amendment	
	Major:	
	Safety	.35
	Environmental	.17
	Total	.50
	Safeguards	.12
	Minor:	
	Safety	.02
	Safeguards	.05
	Inspection	
	Health & Safety	.07
	Safeguards	.131

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. B. Licenses for possession and use of five (5) kilograms or more of contained uranium 235 in uranium enriched to less than 20% for fuel processing and fabrication.	Application-New License	
	Safety	.75
	Environmental	.20
	Subtotal	.95
	Safeguards	.13
	Total	1.08
	Renewal	
	Safety	.50
	Environmental	.15
	Subtotal	65
	Safeguards	.10
	Total	.75
	Amendment	
	Major:	
	Safety	.35
	Environmental	.15
	Total	.50
	Safeguards	.10
	Minor	
	Safety	.02
	Safeguards	.05
	Inspection	
	Health & Safety	.07
	Safeguards	.131

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. C. Licenses for possession and use of two (2) kilograms or more of plutonium for fuel processing and fabrication.	Request for Construction Approval	
	Safety	3.2
	Environmental	.6
	Subtotal	3.8
	Safeguards	.32
	Total	4.12
	Application-New License	
	Safety	2.1
	Environmental	-
	Subtotal	2.1
	Safeguards	.45
	Total	2.55
	Renewal	
	Safety	1.0
	Environmental	.3
	Subtotal	1.3
	Safeguards	.3
	Total	1.6
	Amendment	
	Major:	
	Safety	.50
	Environmental	.15
	Total	.65
	Safeguards	.20
	Minor:	
	Safety	.02
	Safeguards	.09
	Inspection	
	Health & Safety	.07
	Safeguards	.14

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. D. Licenses for possession and use of five (5) kilograms or more of contained uranium 235, or two (2) kilograms or more of uranium 233 for activities other than fuel processing and fabrication.	Application-New License	
	Safety	.2
	Environmental	.2
	Subtotal	.4
	Safeguards	.1
	Total	.5
	Renewal	
	Safety	.1
	Environmental	.1
	Subtotal	.2
	Safeguards	.06
	Total	.26
	Amendment	
	Safety	.02
	Safeguards	.04
	Inspection	
	Health & Safety	.07
	Safeguards	.11
E. Licenses for possession and use of quantities of plutonium of two (2) kilograms or more for activities other than fuel processing and fabrication.	Application-New License	
	Safety	.30
	Environmental	.15
	Subtotal	.45
	Safeguards	.45
	Total	.90
	Renewal	
	Safety	.15
	Environmental	.10
	Subtotal	.25
	Safeguards	.30
	Total	.55
	Amendment	
	Safety	.02
	Safeguards	.10
	Inspection	
	Health & Safety	.012
	Safeguards	.055

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. F. Licenses for possession and use of 200 grams but less than two (2) kilograms of plutonium.	Application-New License	
	Safety	.30
	Environmental	.15
	Subtotal	.45
	Safeguards	.23
	Total	.68
	Renewal	
	Safety	.15
	Environmental	.10
	Subtotal	.25
	Safeguards	.18
	Total	.43
	Amendment	
	Safety	.02
	Safeguards	.07
	Inspection	
	Safety	.012
	Safeguards	.025
G. Licenses for possession and use of 350 grams but less than five (5) kilograms of contained uranium 235, or 200 grams but less than two (2) kilograms of uranium 233.	Application-New License	
	Safety	.1
	Environmental	.1
	Subtotal	.2
	Safeguards	.1
	Total	.3
	Renewal	
	Safety	.1
	Environmental	-
	Subtotal	.1
	Safeguards	.06
	Total	.16
	Amendment	
	Safety	.02
	Safeguards	.04
	Inspection	
	Health & Safety	.012
	Safeguards	.045

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. H. Licenses for receipt and storage of spent reactor fuel.	Application-New License	
	Safety	2.2
	Environmental	.4
	Subtotal	2.6
	Safeguards	.15
	Total	2.75
	Renewal	
	Safety	.2
	Environmental	.1
	Subtotal	.3
	Safeguards	.09
	Total	.39
	Amendment	
	Major:	
	Safety	.5
	Environmental	.2
	Total	.7
	Safeguards	.09
	Minor:	
	Safety	.05
	Safeguards	.05
	Inspection	
	Health & Safety	.012
	Safeguards	.038

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
1. I. Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems.	Application-New License	
	Safety	5 MH
	Renewal	
	Safety	4 MH
	Amendment	
	Safety	1 MH
	Inspection	
	Health & Safety	.005 MY
J. All other special nuclear material licenses, except licenses authorizing special nuclear material in combination that would constitute a critical quantity as defined in § 150.11 of Part 50 which shall pay the same rate as Category 1G.	Application-New License	
	Safety	12 MH
	Renewal	
	Safety	12 MH
	Amendment	
	Safety	3 MH
	Inspection	
	Health & Safety	.012 MY
2. Source Material:		
A. Licenses for possession and use of source material in milling operations, except in-situ leaching and heap-leaching operations.	Application-New License	
	Safety	.2 MY
	Environmental	.2
	Total	.4
	Renewal	
	Safety	.1
	Environmental	.2
	Total	.3
	Amendment	
	Major:	
	Safety	.1
	Environmental	.2
	Total	.3
	Minor:	
	Safety	.05
	Inspection	
	Health & Safety	.027

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
2. B. Licenses for processing and recovery of source material in in-situ leaching operations or heap-leaching operations.	Application-New License Production Scale	
	Safety	.1 MY
	Environmental	.5
	Total	.6
	Application-New License Research & Development	
	Safety	.1
	Environmental	.2
	Total	.3
	Renewal	
	Safety	.05
	Environmental	.20
	Total	.25
	Amendment	
	Safety	.01
	Environmental	.05
	Total	.06
	Inspection	
	Health & Safety	.027

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
2. C. Licenses for refining uranium mill concentrates to uranium hexafluoride.	Application-New License	
	Safety	.2 MY
	Environmental	.2
	Total	.4
	Renewal	
	Safety	.1
	Environmental	.2
	Total	.3
	Amendment	
	Major:	
	Safety	.1
	Environmental	.2
	Total	.3
	Minor:	
	Safety	.05
	Inspection	
	Health & Safety	.027
D. All other source material licenses.	Application-New License	
	Safety	.002
	Renewal	
	Safety	.001
	Amendment	
	Safety	.0005
	Inspection	.007

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
Byproduct Material:		
A. Licenses for possession and use of byproduct material issued pursuant to Parts 30 and 33 of this chapter for processing or manufacturing of items containing byproduct material for commercial distribution.	Safety	
	Application-New License	12 MH
	Renewal	12 MH
	Amendment	3 MH
	Inspection	
	Large Program	.024 MY
	Small Program	.012 MY
B. Licenses issued pursuant to § 32.72 of this chapter authorizing the processing or manufacture and distribution of radiopharmaceuticals containing byproduct material.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.01 MY
C. Licenses for byproduct material issued pursuant to Part 34 of this chapter for industrial radiography operations at one location.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.011 MY
D. Licenses for byproduct material issued pursuant to Part 34 of this chapter for industrial radiography operations at more than one location.	Safety	
	Application-New License	12 MH
	Renewal	12 MH
	Amendment	3 MH
	Inspection	.015 MY
E. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is not removed from its shield (self-shielded units).	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.006 MY

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
3. F. Licenses for possession and use of byproduct material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.	Safety	
	Application-New License	12 MH
	Renewal	12 MH
	Amendment	3 MH
	Inspection	.006 MY
G. Licenses issued pursuant to Subpart B of Part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons generally licensed under Parts 31 or 35 of this chapter, except specific licenses authorizing redistribution of items which have been manufactured or imported under a specific license and licensed by the Commission for distribution to persons generally licensed under Parts 31 or 35 of this chapter.	Safety	
	Application-New License	25 MH
	Renewal	15 MH
	Amendment	6 MH
	Inspection	.006 MY
H. Licenses issued pursuant to Subpart A of Part 32 of this chapter to distribute items containing byproduct material or quantities of byproduct material to persons exempt from the licensing requirements of Part 30 of this chapter, except (1) §§ 32.11 and 32.18 of this chapter, (2) specific licenses authorizing redistribution of items and quantities which have been manufactured or imported under a specific license and licensed by the Commission	Safety	
	Application-New License	25 MH
	Renewal	15 MH
	Amendment	6 MH
	Inspection	.006 MY

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Professional Processing Time (MY/MH)
3. for distribution to persons exempt from the licensing requirements of Part 30 of this chapter, and (3) specific licenses which authorize distribution of timepieces, hands and dials.		
I. Licenses issued pursuant to § 32.18 of this chapter to distribute quantities of byproduct material to persons exempt from the licensing requirements of Part 30 of this chapter.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.006 MY
J. Licenses issued pursuant to § 32.14 of this chapter to distribute timepieces, hands and dials, containing hydrogen 3 or promethium 147 to persons exempt from the licensing requirements of Part 30 of this chapter.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.006 MY
K. Licenses for possession and use of byproduct material for research and development, except those licenses covered by Categories 3A or 3B, and licenses covered by Categories 7B or 7C authorizing medical research	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.006 MY
L. All other specific byproduct material licenses, except those in Categories 4A through 10B.	Safety	
	Application-New License	3 MH
	Renewal	3 MH
	Amendment	1 MH
	Inspection	.006 MY

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
4. Waste Disposal:		
A. Waste disposal licenses specifically authorizing the receipt of waste by-product material, source material, or special nuclear material from other persons for the purpose of commercial disposal by land or sea burial by the waste disposal licensee.	Application-New License	
	Safety	1.0
	Environmental	1.5
	Total	2.5
	Renewal	
	Safety	.5
	Environmental	.2
	Total	.7
	Amendment	
	Major:	
	Safety	.7
	Environmental	1.0
	Total	1.7
	Minor	
	Safety	.01
	Inspection	
	Health & Safety	.014
B. Waste disposal licenses specifically authorizing the receipt of waste by-product material, source material, or special nuclear material from other persons for the purpose of packaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	Safety	
	Application-New License	30 MH
	Renewal	15 MH
	Amendment	15 MH
	Inspection	.01 MY

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
4. C. Waste disposal licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, or special nuclear material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.01 MY
5. Well Logging and Well Surveys and Tracer Studies:		
A. Licenses for possession and use of special nuclear material and/or byproduct material for well logging, well surveys, and tracer studies.	Safety	
	Application-New License	12 MH
	Renewal	12 MH
	Amendment	3 MH
	Inspection	.008 MY
6. Nuclear Laundries:		
A. Licenses for commercial collection and laundry of items contaminated with byproduct material, source material, or special nuclear material.	Safety	
	Application-New License	12 MH
	Renewal	12 MH
	Amendment	3 MH
	Inspection	.009 MY
7. Human Use of Byproduct Material, Source Material, or Special Nuclear Material:		
A. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter for human use of byproduct material, source material, or special nuclear material in sealed sources contained in teletherapy devices.	Safety	
	Application-New License	8 MH
	Renewal	7 MH
	Amendment	1 MH
	Inspection	.007 MY

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
7. B. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter to medical institutions, or two or more physicians on a single license for human use of byproduct material, source material, or special nuclear material, except licenses in Category 7A.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.007 MY
C. Licenses issued pursuant to Parts 30, 40, and 70 of this chapter to an individual physician for human use of byproduct material, source material, or special nuclear material, except licenses in Category 7A.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.005 MY
8. Civil Defense:		
A. Licenses for possession and use of byproduct material, source material, or special nuclear material for civil defense activities.	Safety	
	Application-New License	5 MH
	Renewal	4 MH
	Amendment	1 MH
	Inspection	.003 MY
9. Device, Product, or Sealed Source Safety Evaluation:		
A. Safety evaluation of devices or products containing byproduct material, source material, or special nuclear material, except reactor fuel devices and devices or products distributed to general licensees or persons exempt from the requirements for a license pursuant to Parts 30, 40, and 70 of this chapter.	Safety	
	Application-Evaluation	15 MH

AVERAGE PROFESSIONAL MAN-YEARS/MAN-HOURS
REQUIRED TO CONDUCT LICENSING REVIEWS OR INSPECTIONS FOR MATERIALS LICENSES

Category of Materials License	Type of Review	Average Profess. Processing Time (MY/MH)
9. B. Safety evaluation of sealed sources containing byproduct material, source material, or special nuclear material except reactor fuel and sealed sources distributed to general licensees or persons exempt from the requirements for a license pursuant to Parts 30, 40, and 70 of this chapter.	Safety Application-Evaluation	3 MH
10. Power Source:		
A. Licenses for the manufacture and distribution of encapsulated byproduct material or special nuclear material for use in power generation, except reactor fuel.	Safety Application-New License	50 MH
	Renewal	12 MH
	Amendment	12 MH
	Inspection	.012 MY
11. Transportation of Licensed Material:		
A. Evaluation of spent fuel casks and air shipping packages for plutonium	Safety Application-Evaluation	1.2 MY
	Amendment: Major	.1 MY
	Minor	.05 MY
B. Evaluation of high level waste casks and large irradiator packages.	Safety Application-Evaluation	1.1 MY
	Amendment: Major	.1 MY
	Minor	.05 MY
C. Evaluation of all other packages.	Safety Application-Evaluation	.1 MY
	Amendment: Major	.05 MY
	Minor	.01 MY

SECTION 6

DETERMINATION OF PROPOSED FEES

DETERMINATION OF FACILITY LICENSE FEES

Custom Design Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	6.1	$70,012	$427,073	$944,000
NRR Safety & Env. Contracts			276,346	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	1.5	89,094	133,641	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$1,068,954	
CP - Conc. Unit				$174,000
NRR Safety & Env. Manpower	-	-	-	
I&E Safety & Env. Contracts	1.86	$64,623	$120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.16	89,094	14,255	
Total			$174,038	
CP - 1st Unit-2nd Site - See Duplicate Unit				
NRR Safety & Env. Manpower				
NRR Safety & Env. Contracts				
NRR Safeguards Manpower				
NRR Consultants				
I&E Safety & Env. Manpower				
I&E Contracts				
I&E Vendor Program				
ACRS Review				
ASLBP Review				
ASLAP Review				
Total				

DETERMINATION OF FACILITY LICENSE FEES

Custom Design Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
OL - 1st Unit				$1,024,500
NRR Safety & Env. Manpower	5.8	$70,012	$406,070	
NRR Safety & Env. Contracts			163,215	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Cperator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	1.2	89,094	106,913	
Total			$1,024,472	
OL - Conc. Unit				$ 302,800
I&E Safety & Env. Manpower	4.13	$64,623	$266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.15	89,094	13,364	
Total			$302,829	
OL - 1st Unit-2nd Site - See Duplicate Unit				
NRR Safety & Env. Manpower				
NRR Safety & Env. Contracts				
NRR Safeguards Manpower				
NRR Consultants				
NRR Operator Exams				
I&E Safety & Env. Manpower				
I&E Safety & Env. Contracts				
I&E Safeguards Manpower				
I&E Safeguards Contracts				
ACRS Review				
Total				

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Duplicate Unit Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	6.1	$70,012	$427,073	944,000
NRR Safety & Env. Contracts			276,346	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	1.5	89,094	133,641	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$1,068,954	
CP - Conc. Unit				$174,000
NRR Safety & Env. Manpower	-	-	-	
I&E Safety & Env. Contracts	1.86	$64,623	$120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.16	89,094	14,255	
Total			$174,038	
CP - 1st Unit-2nd Site				$757,100
NRR Safety & Env. Manpower	2.8	$70,012	$196,034	
NRR Safety & Env. Contracts			276,346	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.75	89,094	66,821	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$757,093	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Duplicate Unit Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
OL - 1st Unit				$1,024,500
NRR Safety & Env. Manpower	5.8	$70,012	$406,070	
NRR Safety & Env. Contracts			163,215	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	1.2	89,094	106,913	
Total			$1,024,472	
OL - Conc. Unit				$ 300,200
I&E Safety & Env. Manpower	4.13	$64,623	$266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.12	89,094	10,691	
Total			$300,156	
OL - 1st Unit-2nd Site				$ 712,000
NRR Safety & Env. Manpower	2.2	$70,012	$154,026	
NRR Safety & Env. Contracts			163,215	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.5	89,094	53,456	
Total			$711,970	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Replicate Unit Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	5.1	$70,012	$357,061	811,600
NRR Safety & Env. Contracts			276,346	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.8	89,094	71,275	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$936,576	
CP - Conc. Unit				$164,200
NRR Safety & Env. Manpower	-	-	-	
I&E Safety & Env. Contracts	1.86	$64,623	$120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.05	89,094	4,455	
Total			$164,238	
CP - 1st Unit-2nd Site				$725,900
NRR Safety & Env. Manpower	2.8	$70,012	$196,034	
NRR Safety & Env. Contracts			276,346	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.4	89,094	35,638	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$725,910	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Replicate Unit Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
OL - 1st Unit				$914,400
NRR Safety & Env. Manpower	4.8	$70,012	$336,058	
NRR Safety & Env. Contracts			163,215	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.75	89,094	66,821	
Total			$914,368	
OL - Conc. Unit				$293,900
I&E Safety & Env. Manpower	4.13	$64,623	$266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.05	89,094	4,455	
Total			$293,920	
OL - 1st Unit-2nd Site				$691,500
NRR Safety & Env. Manpower	2.2	$70,012	$154,026	
NRR Safety & Env. Contracts			163,215	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.37	89,094	32,965	
Total			$691,479	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Utility Ref.NSSS-Custom BOP Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	5.7	$70,012	$399,068	853,600
NRR Safety & Env. Contracts			276,346	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.8	89,094	71,275	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$978,583	
CP - Conc. Unit				$162,500
NRR Safety & Env. Manpower	-	-	-	
I&E Safety & Env. Contracts	1.86	$64,623	$120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.03	89,094	2,673	
Total			$162,456	
CP - 1st Unit-2nd Site				$725,900
NRR Safety & Env. Manpower	2.8	$70,012	$196,034	
NRR Safety & Env. Contracts			276,346	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.4	89,094	35,638	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$725,910	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Utility Ref.NSSS-Custom BOP Review	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
OL - 1st Unit				$934,100
NRR Safety & Env. Manpower	5.4	$70,012	$378,065	
NRR Safety & Env. Contracts			163,215	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.5	89,094	44,547	
Total			$934,101	
OL - Conc. Unit				$292,100
I&E Safety & Env. Manpower	4.13	$64,623	$266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.03	89,094	2,673	
Total			$292,138	
OL - 1st Unit-2nd Site				$669,200
NRR Safety & Env. Manpower	2.2	$70,012	$154,026	
NRR Safety & Env. Contracts			163,215	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.12	89,094	10,691	
Total			$669,205	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Utility Ref.NSSS-Standardized BOP	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
				$125,000 appl.
CP - 1st Unit				
NRR Safety & Env. Manpower	4.2	$70,012	$294,050	721,800
NRR Safety & Env. Contracts			276,346	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.5	89,094	44,547	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$846,837	
				$162,500
CP - Conc. Unit				
NRR Safety & Env. Manpower	-	-	-	
I&E Safety & Env. Contracts	1.86	$64,623	$120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.03	89,094	2,673	
Total			$162,456	
				$725,900
CP - 1st Unit-2nd Site				
NRR Safety & Env. Manpower	2.8	$70,012	$196,034	
NRR Safety & Env. Contracts			276,346	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	.4	89,094	35,638	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$725,910	

DETERMINATION OF FACILITY LICENSE FEES

Standardized Design Utility Ref.NSSS-Standardized BOP	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
OL - 1st Unit				$829,100
NRR Safety & Env. Manpower	3.9	$70,012	$273,047	
NRR Safety & Env. Contracts			163,215	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.5	89,094	44,547	
Total			$829,083	
OL - Conc. Unit				$292,100
I&E Safety & Env. Manpower	4.13	$64,623	$266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.03	89,094	2,673	
Total			$292,138	
OL - 1st Unit-2nd Site				$669,200
NRR Safety & Env. Manpower	2.2	$70,012	$154,026	
NRR Safety & Env. Contracts			163,215	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.12	89,094	10,691	
Total			$669,205	

DETERMINATION OF FACILITY LICENSE FEES

Manufacturing License Preliminary Design	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
				$125,000 appl.
NRR Safety & Env. Manpower	10.0	$70,012	$700,120	$1,477,500
NRR Safety & Env. Contracts			441,679	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	3.72	64,623	240,398	
I&E Vendor Program			36,800	
ACRS Review	1.25	89,094	111,368	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$1,602,476	
Final Design Amendment				$448,100
NRR Safety & Env. Manpower	6.0	$70,012	$420,072	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
Total			$448,077	

DETERMINATION OF FACILITY LICENSE FEES

Utility Reference Manufacturing License	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	3.7	$70,012	$259,044	$730,000
NRR Safety & Env. Contracts			426,679	
NRR Antitrust Manpower	.2	70,012	14,002	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	.93	64,623	60,099	
I&E Safety & Env. Contracts			1,392	
ACRS Review	.4	89,094	35,638	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$854,963	
CP - Conc. Unit				$ 61,500
NRR Safety & Env. Manpower	-	$ -	$ -	
I&E Safety & Env. Manpower	.93	64,623	60,099	
I&E Safety & Env. Contracts			1,392	
Total			$ 61,491	
OL - 1st Unit				$1,001,200
NRR Safety & Env. Manpower	3.7	$70,012	$259,044	
NRR Safety & Env. Contracts			426,679	
NRR Antitrust Manpower	.1	70,012	7,001	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	3.13	64,623	202,270	
I&E Safety & Env. Contracts			11,872	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	.4	89,094	35,638	
Total			$1,001,219	
OL - Conc. Unit				$221,000
I&E Safety & Env. Manpower	3.13	$64,623	$202,270	
I&E Safety & Env. Contracts			11,872	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
Total			$221,049	

DETERMINATION OF FACILITY LICENSE FEES

Clinch River Breeder Reactor	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NRR Safety & Env. Manpower	9.7	$70,012	$679,116	$1,781,000
NRR Safety & Env. Contracts			741,679	
NRR Antitrust Manpower	-	-	-	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
I&E Safety & Env. Manpower	1.86	64,623	120,199	
I&E Safety & Env. Contracts			2,784	
I&E Vendor Program			36,800	
ACRS Review	3.0	89,094	267,282	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$1,905,969	
OL - 1st Unit-2nd Site				$1,954,900
NRR Safety & Env. Manpower	9.4	$70,012	$658,113	
NRR Safety & Env. Contracts			741,679	
NRR Safeguards Manpower	.3	70,012	21,004	
NRR Consultants			556	
NRR Operator Exams			30,248	
I&E Safety & Env. Manpower	4.13	64,623	266,893	
I&E Safety & Env. Contracts			15,665	
I&E Safeguards Manpower	.1	64,623	6,462	
I&E Safeguards Contracts			445	
ACRS Review	2.4	89,094	213,826	
Total			$1,954,891	

DETERMINATION OF FACILITY LICENSE FEES

Safety Review

	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
VENDOR - REVIEW OF PRELIMINARY NSSS DESIGN				
NRR Safety Costs	6.6	$70,012	$462,079	$ 50,000 App.
I&E Safety Costs	-	-	-	$412,100
ACRS Review	-	-	-	
ASLBP Review	-	-	-	
			$462,079	
VENDOR - REVIEW OF FINAL NSSS DESIGN				
NRR Safety Costs	6.6	$70,012	$462,079	$ 50,000
I&E Safety Costs	-	-	-	$483,400
ACRS Review	.8	$89,094	71,275	
ASLBP Review	-	-	-	
			$533,354	
AE - REVIEW OF PRELIMINARY BOP DESIGN				
NRR Safety Costs	6.6	$70,012	$462,079	$ 50,000 App.
I&E Safety Costs		-	-	$412,100
ACRS Review		-	-	
ASLBP Review		-	-	
			$462,079	
AE - REVIEW OF FINAL BOP DESIGN				
NRR Safety	6.6	$70,012	$462,079	$ 50,000
I&E Safety Costs				
ACRS Review	1.0	$89,094	89,094	$501,200
ASLBP Review	-	-	-	
			$551,173	

DETERMINATION OF FACILITY LICENSE FEES

TEST REACTORS	Average Professional Processing Time	Cost Per Man-Year	Cost	Proposed Fee
Construction Permit				
NRR Safety Manpower	.1	$70,012	$ 7,001	
NRR Safeguards Manpower	.1	70,012	7,001	$ 5,000 App.
I&E Safety Manpower	.9	64,623	58,161	67,200
ACRS	-	-	-	
ASLBP	-	-	-	
			$ 72,163	
Operating License				
NRR Safety Manpower	.1	$70,012	$ 7,001	$100,300
NRR Operator Exams	-	-	2,788	
I&E Safety Manpower	1.4	64,623	90,472	
ACRS	-	-	-	
ASLBP	-	-	-	
			$100,261	
RESEARCH REACTORS				
Construction Permit				
NRR Safety Manpower	.1	$70,012	$ 7,001	
NRR Safeguards Manpower	.1	70,012	7,001	$ 5,000 App.
I&E Safety Manpower	.4	64,623	25,849	34,900
ACRS	-	-	-	
ASLBP	-	-	-	
			$ 39,851	
Operating License				
NRR Safety Manpower	.1	$70,012	$ 7,001	$ 55,000
NRR Operator Exams	-	-	2,788	
I&E Safety Manpower	.7	64,623	45,236	
ACRS				
ASLBP	-		-	
			$ 55,025	

DETERMINATION OF FACILITY LICENSE FEES

Reprocessing Facility Complexes	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NMSS Safety & Env. Manpower	3.3	$69,243	$228,502	875,700
NMSS Safety & Env. Contracts			320,000	
NMSS Safeguards Manpower	1.2	69,243	83,092	
NMSS Safeguards Contracts			58,000	
NRR Safety & Env. Manpower	1.8	70,012	126,022	
NRR Antitrust Manpower	.2	70,012	14,002	
I&E Safety & Env. Manpower	.7	64,623	45,236	
I&E Safety & Env. Contracts			221	
ACRS Review	1.0	89,094	89,094	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$1,000,718	
Operating License				$952,400
NMSS Safety & Env. Manpower	3.3	$69,243	$228,502	
NMSS Safety & Env. Contracts			275,000	
NMSS Safeguards Manpower	1.6	69,243	110,789	
NRR Safety & Env. Manpower	1.2	70,012	84,014	
NRR Antitrust Manpower	.1	70,012	7,001	
I&E Safety & Env. Manpower	2.0	64,623	129,246	
I&E Safety & Env. Contracts			1,060	
ACRS Review	1.0	89,094	89,094	
Operator Exam	.4	69,243	27,697	
Total			952,403	
Major Safety & Env. Amendment				$ 71,500
NMSS Safety & Env. Manpower	.6	$69,243	$ 41,546	
NMSS Safety & Env. Contracts			30,000	
Total			$ 71,546	
Major Safeguards Amendment				$ 43,800
NMSS Safeguards Manpower	.2	$69,243	$ 13,849	
NMSS Safeguards Contracts			30,000	
Total			$ 43,849	
Minor Safety & Env. Amendment				$ 3,500
NMSS Safety & Env. Manpower	.05	$69,243	$ 3,462	
Minor Safeguards Amendment				$ 3,500
NMSS Safeguards Manpower	.05	$69,243	$ 3,462	

DETERMINATION OF FACILITY LICENSE FEES

Uranium Enrichment Plants	Average Professional Processing Time (MY)	Cost Per Man-Year	Cost	Proposed Fee
CP - 1st Unit				$125,000 appl.
NMSS Safety & Env. Manpower	1.0	$69,243	$ 69,243	388,400
NMSS Safety & Env. Contracts			200,000	
NMSS Safeguards Manpower	.35	69,243	24,235	
NRR Safety & Env. Manpower	.7	70,012	49,008	
I&E Safety & Env. Manpower	.7	64,623	45,236	
ACRS Review	1.0	89,094	89,094	
ASLBP Review	.4	85,429	34,172	
ASLAP Review	.027	88,054	2,377	
Total			$513,365	
OL - 1st Unit				$457,200
NMSS Safety & Env. Manpower	1.0	$69,243	$ 69,243	
NMSS Safety & Env. Contracts			100,000	
NMSS Safeguards Manpower	.5	69,243	34,622	
NRR Safety & Env. Manpower	.5	70,012	35,006	
I&E Safety & Env. Manpower	2.0	64,623	129,246	
ACRS Review	1.0	89,094	89,094	
Total			$457,211	

DETERMINATION OF FACILITY AMENDMENT FEES

		Power Reactors					Non-Power Reactors				
			Profess. Man-Hrs. To Process	x	Cost Per Man-Hr.	= Amend. Fee		Profess. Man-Hrs. To Process	x	Cost Per Man-Hr.	= Amend. Fee
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.	NRR	10	x	$40	= $ 400		-	x		-
Class II	- Amendments that are proforma, administrative in nature, or do not have significant safety considerations.	NRR	30	x	$40	= $ 1,200		15	x	$40	= $ 600
Class III	- Amendments that involve a single consideration, have acceptability for the consideration clearly identified by a regulatory position, or are deemed not to involve significant hazards consideration.	NRR	100	x	$40	= $ 4,000		50	x	$40	= $ 2,000
Class IV	- Amendments that involve a complex issue or more than one consideration, several changes of the Class III type incorporated into proposed amendment, or have been judged to involve significant hazards consideration.	NRR	286	x	$40	= $11,440		150	x	$40	= $ 6,000
		ACRS	18	x	$50	= 900					
						$12,340					
Class V	- Amendments that require evaluation of many aspects of facility operation and the associated safety analysis, are likely to involve review by the ACRS or involve significant hazards consideration and may require a hearing.	NRR	600	x	$40	= $24,000		300	x	$40	= $12,000
		ACRS	36	x	$50	= 1,800					
						$25,800					
Class VI	- Amendments that require evaluation of a new Safety Analysis Report and rewrite of the facility license (including technical specifications), are likely to involve significant hazards consideration or review by ACRS and are known to involve a hearing.	NRR	900	x	$40	= $36,000		500	x	$40	= $20,000
		ACRS	198	x	$50	= 9,900					
						$45,900					

DETERMINATION OF ROUTINE HEALTH AND SAFETY AND ENVIRONMENTAL INSPECTION FOR FACILITY LICENSES

Category of Type of Activity	Routine Inspection Fees: Prof. Review Time (PMY)	x	Cost Per M/Y 1/	=	Inspection Fee	Inspection Fee Rounded
Power Reactors						
A. First Unit	1.004/yr.		$64,623		$64,881	$75,700/yr.
	Contr'l Costs				10,789	
					$75,670	
B. Concurrent Unit	.801/yr.		$64,623		$51,763	$60,400/yr.
	Contr'l Costs				8,608	
					$60,371	
Test Reactors	.07/Insp.		$64,623		$ 4,524	$ 4,500/Insp.
	Contr'l Costs				25	
					$ 4,549	
Research Reactors	.065/Insp.		$64,623		$ 4,200	$ 4,200/Insp.
	Contr'l Costs				23	
					$ 4,223	
Fuel Reprocessing Plant	.611/yr.		$64,623		$39,485	$42,100/yr.
	Contr'l Costs				2,662	
					$42,147	
Uranium Enrichment Plant	.611/yr.		$64,623		$39,485	$42,100/yr.
	Contr'l Costs				2,662	
					$42,147	
Manufacturing License					2/	2/
Facility Licensed for Possession but not Operation	.01/Insp.		$64,623		$ 646	$ 650/Insp.
	Contr'l Costs				4	
					$ 650	

1/ The cost per man-year represents the cost of maintaining a professional employee. This would include the employee's salary benefits, travel as well as administrative, clerical and supervisory support.

2/ Same as Power Reactor

DETERMINATION OF ROUTINE SAFEGUARDS INSPECTION FEES FOR FACILITIES

Type of Facility	Routine Inspection Fees: Prof. Review Time (PMY)	x	Cost Per (PMY)	=	Inspection Fee	Inspection Fee Rounded
Power Reactors						
A. First Unit	.176/yr		$64,623		$11,374	$11,800/yr.
	Contr'l. Costs				468	
					$11,842	
B. Concurrent Unit	.141/yr.		$64,623		$ 9,112	$ 9,500/yr.
	Contr'l. Costs				375	
					$ 9,487	
Test Reactors	.10/Insp.		$64,623		$ 6,462	$ 6,500/Insp.
	Contr'l. Costs				27	
					$ 6,489	
Research Reactors	.02/Insp.		$64,623		$ 1,292	$ 1,300/Insp.
	Contr'l. Costs				5	
					$ 1,297	
Fuel Reprocessing Plant	.48/yr.		$64,623		$31,019	$38,700/yr.
	Contr'l. Costs				7,634	
					$38,653	
Uranium Enrichment Plant	.48/yr.		$64,623		$31,019	$38,700/yr.
	Contr'l. Costs				7,634	
					$38,653	

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/ =	Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/ =	Renewal Fee		Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/ =	Amend. Fee
1. Special Nuclear Material:													
A. SNM licenses for fuel processing and fabrication.													
Highly Enriched Uranium (>20%)													
Safety & Env.	.95		$69,243	$ 65,781	.65		$69,243	$ 45,008	Major	.5		$69,243	$ 34,622
Safety & Env. Contracts				50,000				20,000					-
Subtotal Safety & Env.				$115,781				$ 65,008					$ 34,622
Safeguards	.30		$69,243	$ 20,773	.17		$69,243	$ 11,771	Major	.12		$69,243	$ 8,309
Total				$136,554				$ 76,779					
Safety & Env.									Minor	.02		$69,243	$ 1,385
Safeguards									Minor	.05		$69,243	$ 3,462
B. SNM licenses for fuel processing and fabrication.													
Low Enriched Uranium (<20%)													
Safety & Env.	.95		$69,243	$ 65,781	.65		$69,243	$ 45,008	Major	.5		$69,243	$ 34,622
Safety & Env. Contracts				50,000				20,000					-
Subtotal Safety & Env.				$115,781				$ 65,008					$ 34,622
Safeguards	.13		$69,243	9,002	.1		$69,243	6,924	Major	.1		$69,243	$ 6,924
Total				$124,783				$ 71,932					
Safety & Env.									Minor	.02		$69,243	$ 1,385
Safeguards.									Minor	.05		$69,243	$ 3,462

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Applicat	- New License		Renewal Fees			Amendment Fees			
	Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	Appl. Fee	Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	= Renewal Fee		Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	= Amend. Fee
1. Special Nuclear Material (contd):										
C. Licenses for plutonium processing and fuel fabrication plants.										
Request for Construction Approval										
Safety & Env.	3.8	$69,243	$263,123							
Safety & Env. Contracts			220,000							
Subtotal Safety & Env.			$483,123							
Safeguards	.32	$69,243	$ 22,158							
Safeguards Contracts			25,000							
Subtotal Safeguards			$ 47,158							
Total Safety, Env. & Safeguards			$530,281							
New License Application										
Safety & Env.	2.1	$69,243	$145,410	1.3	$69,243	$ 90,016	Major	.65	$69,243	$ 45,008
Safety & Env. Contracts			65,000			60,000				30,000
Subtotal Safety & Env.			$210,410			$150,016				$ 75,008
Safeguards	.45	$69,243	$ 31,159	.3	$69,243	$ 20,773	Major	.2	$69,243	$ 13,849
Total Safety, Env. & Safeguards			$241,569			$170,789				
Safety & Env.							Minor	.02	$69,243	$ 1,385
Safeguards							Minor	.09	$69,243	$ 6,232
Recap										
Construction App. & New License Combined-Safety & Env.			$693,533							
Safeguards			78,317							
Total			$771,850							

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Renewal Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Amend. Fee
I. Special Nuclear Material (contd):												
D. SNM licenses with quantities of 5 kilograms or more of U-235, or 2 kilograms or more of U-233 for activities other than fuel processing and fabrication.												
Safety & Env.	.4		$69,243	$ 27,697	.2		$69,243	$ 13,849	.02		$69,243	$ 1,385
Safeguards	.1		$69,243	$ 6,924	.06		$69,243	$ 4,155	.04		$69,243	$ 2,770
Total				$ 34,621				$ 18,004				
E. Licenses for possession and use of quantities of plutonium of 2 kilograms or more for activities other than fuel processing and fabrication (includes activities involving irradiated fuel in hot cells.												
Safety & Env.	.45		$69,243	$31,159	.25		$69,243	$ 17,311	.02		$69,243	$ 1,385
Safeguards	.45		$69,243	$31,159	.3		$69,243	$ 20,773	.1		$69,243	$ 6,924
Total				$62,318				$ 38,084				

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Prof. Rate (MY/MH)	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Prof. Rate (MY/MH)	= Amend. Fee	Prof. Process. Time (MY/MH)	x	Prof. Rate (MY/MH)	= Renewal Fee
1. Special Nuclear Material (contd):												
F. SNM licenses for possession and use of 200 grams but less than 2 kilograms of plutonium.												
Safety & Env.	.45		$69,243	$ 31,159	.25		$69,243	$ 17,311	.02		$69,243	$ 1,385
Safeguards	.23		$69,243	$ 15,926	.18		$69,243	$ 12,464	.07		$69,243	$ 4,847
Total				$ 47,085				$ 29,775				
G. SNM licenses for quantities of 350 grams but less than 5 kilograms of U-235, or 200 grams but less than 2 kilograms of U-233.												
Safety & Env.	.2		$69,243	$ 13,849	.1		$69,243	$ 6,924	.02		$69,243	$ 1,385
Safeguards	.1		$69,243	$ 6,924	.06		$69,243	$ 4,155	.04		$69,243	$ 2,770
Total				$ 20,773				$ 11,079				

1/ The cost per man-year/man-hour represents the co t of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/]	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/]	= Renewal Fee		Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/] = Amend. Fee
1. Special Nuclear Material (contd):												
H. SNM licenses for receipt and storage of spent reactor fuel.												
Safety & Env.	2.6		$69,243	$180,032	.3		$69,243	$ 20,773	Major	.7		$69,243 $ 48,470
Safety & Env. Contracts				$145,000				5,000				$ 40,000
Subtotal Safety & Env.				$325,032				$ 25,773				$ 88,470
Safeguards	.15		$69,243	$ 10,386	.09		$69,243	$ 6,232	Major	.09		$69,243 $ 6,232
Total				$335,418				$ 32,005				
Safety									Minor	.05		$69,243 $ 3,462
Safeguards									Minor	.05		$69,243 $ 3,462
I. SNM licenses for use of SNM in sealed sources contained in devices used in measuring systems.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152		1MH		$38/MH $ 38
J. All other specific SNM licenses.	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456		3MH		$38/MH $ 114

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	= Appl. Fee		Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	= Renewal Fee		Prof. Process. Time (MY/MH)	x Cost per (MY/MH) 1/	= Amend. Fee	
2. Source Material:												
A. Licenses for milling operations.												
Safety & Env.	.4	$69,243	$ 27,697		.3	$69,243	$ 20,773	Major	.3	$69,243	$ 20,773	
Safety & Env. Contracts			80,000				80,000				-	
Total			$107,697				$100,773				$ 20,773	
								Minor	.05	$69,243	$ 3,462	
B. Licenses for processing and recovery of source material in in-situ leaching, or heap leach operations.												
Production Scale Activity												
Safety & Env.	.6	$69,243	$ 41,546		.25	$69,243	$ 17,311		.06	$69,243	$ 4,155	
Safety & Env. Contracts			25,000				-					
Subtotal Safety & Env.			$ 66,546				$ 17,311				$ 4,155	
R&D Scale Activity (Pilot Plant)												
Safety & Env.	.3	$69,243	$ 20,773		.25	$69,243	$ 17,311		.06	$69,243	$ 4,155	
Safety & Env. Contracts			3,000				-					
Total			$ 23,773				$ 17,311				$ 4,155	

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License			Renewal Fees				Amendment Fees		
	Prof. Process. Time (MY/MH)	Cost per (MY/MH) 1/	Appl. Fee	Prof. Process. Time (MY/MH)	Cost per (MY/MH) 1/	Renewal Fee		Prof. Process. Time (MY/MH)	Cost per (MY/MH) 1/	Amend. Fee
2. Source Material (contd):										
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.										
Safety & Env.	.4	$69,243	$ 27,697	.3	$69,243	$ 20,773	Major	.3	$69,243	$ 20,773
Safety & Env. Contracts			80,000			25,000				-
Total			$107,697			$ 45,773				$ 20,773
							Minor	.05	$69,243	$ 3,462
D. All other specific source material licenses.										
Safety	.002	$69,243	$ 138	.001	$69,243	$ 69		.0005	$69,243	$ 35

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]/ =	Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]/ =	Renewal Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]/ =	Amend. Fee
3. Byproduct Material:												
A. Licenses for processing or manufacturing for commercial distribution.	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456	3MH		$38/MH	$ 114
B. Licenses for manufacture and distribution of radio-pharmaceuticals.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
C. Industrial radiography - one location.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
D. Industrial radiography - multiple locations.	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456	3MH		$38/MH	$ 114
E. Irradiators (self-shielded units)	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
F. Irradiators (exposed source)	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456	3MH		$38/MH	$ 114
G. Distribution of generally licensed items.	25MH		$38/MH	$ 950	15MH		$38/MH	$ 570	6MH		$38/MH	$ 228
H. Distribution of exempt items (except exempt quantities, exempt concentrations, and timepieces, hands and dials).	25MH		$38/MH	$ 950	15MH		$38/MH	$ 570	6MH		$38/MH	$ 228
I. Distribution of exempt quantities.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
J. Distribution of timepieces, hands and dials.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1 MH		$38/MH	$ 38

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Renewal Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH) 1/	= Amend. Fee
3. Byproduct Material (contd):												
K. Research and development.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
L. All other specific byproduct licenses (except those licenses in Categories 4A through 8A).	3MH		$38/MH	114	3MH		$38/MH	$ 114	1MH		$38/MH	$ 38
4. Waste Disposal:												
A. Commercial waste disposal involving burial.												
Safety & Env.	2.5		$69,243	$173,108	.7		$69,243	$ 48,470	Major	1.7	$69,243	$117,713
Safety & Env. Contracts				150,000				50,000				80,000
Total				$323,108				$ 98,470				$197,713
Safety & Env.									Minor	.01	$69,243	$ 692
B. All other commercial disposal involving packaging & transfer.	30MH		$38/MH	$ 1,140	15MH		$38/MH	$ 570	15MH		$38/MH	$ 570
C. Commercial disposal - No packaging or burial by licensee.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/]	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/]	= Renewal Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1/]	= Amend. Fee
5. Well Logging:												
A. Well logging and well surveys and tracer studies.	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456	3MH		$38/MH	$ 114
6. Nuclear Laundries:												
A. Laundry facilities for decontamination of clothing.	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456	3MH		$38/MH	$ 114
7. Human Use:												
A. Licenses for use of material in teletherapy devices.	8MH		$38/MH	$ 304	7MH		$38/MH	$ 266	1MH		$38/MH	$ 38
B. Licenses issued to medical institutions, except Category 7A.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
C. Licenses issued to private physicians, except Category 7A.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF MATERIALS LICENSE FEES

	Application Fees - New License				Renewal Fees				Amendment Fees			
	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]	= Appl. Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]	= Renewal Fee	Prof. Process. Time (MY/MH)	x	Cost per (MY/MH)[1]	= Amend. Fee
8. Civil Defense:												
A. Licenses issued for civil defense activities.	5MH		$38/MH	$ 190	4MH		$38/MH	$ 152	1MH		$38/MH	$ 38
9. Device Product or Sealed Source Safety Evaluation:												
A. Device evaluation.	15MH		$38/MH	$ 570								
B. Sealed source design evaluation.	3MH		$38/MH	$ 114								
10. Power Sources:												
A. Licenses for manufacture and distribution of encapsulated material for use in power generation.	50MH		$38/MH	$ 1,900	12MH		$38/MH	$ 456	12MH		$38/MH	$ 456
11. Transportation:												
A. Evaluation of spent fuel casks and air shipping packages for plutonium.	1.2		$69,243	$83,092					Major .1MY Minor .05MY		$69,243 $69,243	$ 6,924 $ 3,462
B. Evaluation of high level waste casks and large irradiator packages.	1.1		$69,243	$76,167					Major .1MY Minor .05MY		$69,243 $69,243	$ 6,924 $ 3,462
C. Review of all other packages.	.1		$69,243	$ 6,924					Major .05MY Minor .01		$69,243 $69,243	$ 3,462 $ 692

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF ROUTINE HEALTH AND SAFETY
INSPECTION FEES FOR MATERIALS LICENSES

	Routine Inspection Fees				
	Prof. Review Time(MY)	x Cost per (MY)[1/]	= Inspection Fee		Inspection Fee Rounded
1. Special Nuclear Material:					
A. SNM licenses for fuel processing and fabrication.	.07 Contractual Costs	$64,623	$4,524 748 $5,272		$5,300
Highly Enriched Uranium (>20%)					
B. SNM licenses for fuel processing and fabrication.	.07 Contractual Costs	$64,623	$4,524 748 $5,272		$5,300
Low Enriched Uranium (<20%)					
C. Licenses for plutonium processing and fuel fabrication plants.	.07 Contractual Costs	$64,623	$4,524 36 $4,560		$4,600
D. SNM licenses with quantities of 5 kilograms or more of U-235, or 2 kilograms or more of U-233 for activities other than fuel processing and fabrication.	.07 Contractual Costs	$64,623	$4,524 365 $4,889		$4,900
E. Licenses for possession and use of quantities of plutonium of 2 kilograms or more for activities other than fuel processing and fabrication (includes activities involving irradiated fuel in hot cells).	.012 Contractual Costs	$64,623	$ 775 6 $ 781		$ 780
F. SNM licenses for possession and use of 200 grams but less than 2 kilograms of plutonium.	.012 Contractual Costs	$64,623	$ 775 6 $ 781		$ 780
G. SNM licenses for quantities of 350 grams but less than 5 kilograms of U-235, or 200 grams but less than 2 kilograms of U-233.	.012 Contractual Costs	$64,623	$ 775 6 $ 781		$ 780
H. SNM licenses for receipt and storage of spent reactor fuel.	.012 Contractual Costs	$64,623	$ 775 6 $ 781		$ 780

DETERMINATION OF ROUTINE HEALTH AND SAFETY
INSPECTION FEES FOR MATERIALS LICENSES

	Routine Inspection Fees				
	Prof. Review Time(MY)	x	Cost per (MY)[1/]	= Inspection Fee	Inspection Fee Rounded
I. SNM licenses for use of SNM in sealed sources contained in devices used in measuring systems.	.005		$64,623	$ 323	
	Contractual Costs			3	
				$ 326	$ 330
J. All other specific SNM licenses.	.012		$64,623	$ 775	
	Contractual Costs			6	
				$ 781	$ 780
2. Source Material:					
A. Licenses for milling operations.	.027		$64,623	$1,745	
	Contractual Costs			14	
				$1,759	$1,800
B. Licenses for processing and recovery of source material in in-situ leaching, or heap leach operations.	.027		$64,623	$1,745	
	Contractual Costs			14	
				$1,759	$1,800
C. Licenses for refining uranium mill concentrates to uranium hexafluoride.	.027		$64,623	$1,745	
	Contractual Costs			14	
				$1,759	$1,800
D. All other specific source material licenses.	.007		$64,623	$ 452	
	Contractual Costs			4	
				$ 456	$ 460

DETERMINATION OF ROUTINE HEALTH AND SAFETY
INSPECTION FEES FOR MATERIALS LICENSES

	Routine Inspection Fees				
	Prof. Review Time(MY)	x	Cost per (MY)[1/]	= Inspection Fee	Inspection Fee Rounded
3. Byproduct Material:					
A. Licenses for processing or manufacturing for commercial distribution.					
Large Programs	.024		$64,623	$1,551	
	Contractual Costs			94	
				$1,645	$1,600
Small Programs	.012		$64,623	$ 775	
	Contractual Costs			6	
				$ 781	$ 780
B. Licenses for manufacture and distribution of radiopharmaceuticals.	.01		$64,623	$ 646	
	Contractual Costs			5	
				$ 651	$ 650
C. Industrial radiography - one location.	.011		$64,623	$ 711	
	Contractual Costs			6	
				$ 717	$ 720
D. Industrial radiography - multiple locations.	.015		$64,623	$ 969	
	Contractual Costs			8	
				$ 977	$ 980
E. Irradiators (self-shielded units)	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
F. Irradiators (exposed source)	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
G. Distribution of generally licensed items.	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
H. Distribution of exempt items (except exempt quantities, exempt concentrations, and timepieces, hands and dials).	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390

DETERMINATION OF ROUTINE HEALTH AND SAFETY
INSPECTION FEES FOR MATERIALS LICENSES

	Routine Inspection Fees				
	Prof. Review Time(MY)	x	Cost per (MY)[1/]	= Inspection Fee	Inspection Fee Rounded
I. Distribution of exempt quantities.	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
J. Distribution of timepieces, hands and dials.	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
K. Research and development.	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
L. All other specific byproduct licenses (except those licenses in Categories 4A through 8A).	.006		$64,623	$ 388	
	Contractual Costs			3	
				$ 391	$ 390
4. Waste Disposal:					
A. Commercial waste disposal involving burial.	.014		$64,623	$ 905	
	Contractual Costs			71	
				$ 976	$ 980
B. All other commercial disposal involving packaging & transfer.	.01		$64,623	$ 646	
	Contractual Costs			5	
				$ 651	$ 650
C. Commercial disposal - No packaging or burial by licensee.	.01		$64,623	$ 646	
	Contractual Costs			5	
				$ 651	$ 650
5. Well Logging:					
A. Well logging and well surveys and tracer studies.	.008		$64,623	$ 517	
	Contractual Costs			4	
				$ 521	$ 520
6. Nuclear Laundries:					
A. Laundry facilities for decontamination of clothing.	.009		$64,623	$ 582	
	Contractual Costs			5	
				$ 587	$ 590

DETERMINATION OF ROUTINE HEALTH AND SAFETY
INSPECTION FEES FOR MATERIALS LICENSES

	Routine Inspection Fees				
	Prof. Review Time(MY)	x Cost per (MY)[1/]	= Inspection Fee		Inspection Fee Rounded
7. Human Use:					
A. Licenses for use of material in teletherapy devices.	.007	$64,623	$ 452		
	Contractual Costs		4		
			$ 456		$ 460
B. Licenses issued to medical institutions, except Category 7A.	.007	$64,623	$ 452		
	Contractual Costs		4		
			$ 456		$ 460
C. Licenses issued to private physicians, except Category 7A.	.005	$64,623	$ 323		
	Contractual Costs		3		
			$ 326		$ 330
8. Civil Defense:					
A. Licenses issued for civil defense activities.	.003	$64,623	$ 194		
	Contractual Costs		2		
			$ 196		$ 200
9. Device Product or Sealed Source Safety Evaluation:					
A. Device evaluation.	Not applicable				
B. Sealed source design evaluation.	Not applicable				
10. Power Sources:					
A. Licenses for manufacture and distribution of encapsulated material for use in power generation.	.012	$64,623	$ 775		
	Contractual Costs		6		
			$ 781		$ 780
11. Transportation:					
A. Evaluatuon of spent fuel casks and air shipping packages for plutonium.	Not applicable				
B. Evaluation of high level waste casks and large irradiator packages.	Not applicable				
C. Review of all other packages.	Not applicable				

1/ The cost per man-year/man-hour represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

DETERMINATION OF ROUTINE SAFEGUARDS INSPECTION FEES

FOR MATERIALS LICENSES

	Safeguards Inspection Fees			
	Prof. Review Time(MY) x	Cost Per (MY)[1/] =	Inspection Fee	Inspection Fee Rounded
1. Special Nuclear Material:				
A. SNM licenses authorizing 5 kilograms or more U-235 in uranium enriched to greater than 20% for fuel processing and fabrication.	.131 Contr'l Costs	$64,623	$ 8,466 1,807 $10,273	$10,300
B. SNM licenses authorizing 5 kilograms or more U-235 in uranium enriched to less than 20% for fuel processing and fabrication.	.131 Contr'l Costs	$64,623	$ 8,466 1,807 $10,273	$10,300
C. Licenses for plutonium processing and fuel fabrication plants.	.14 Contr'l Costs	$64,623	$ 9,047 2,664 $11,711	$11,700
D. SNM licenses with quantities of 5 kilograms or more of U-235, or 2 kilograms or more of U-233 for activities other than fuel processing and fabrication.	.11 Contr'l Costs	$64,623	$ 7,109 479 $ 7,588	$ 7,600
E. SNM licenses for possession and use of quantities of plutonium of 2 kilograms or more for activities other than fuel processing and fabrication (irradiated fuel in hot cells).	.055 Contr'l Costs	$64,623	$ 3,554 1,863 $ 5,417	$ 5,400
F. SNM licenses for possession and use of 200 grams but less than 2 kilograms of plutonium.	.025 Contr'l Costs	$64,623	$ 1,616 636 $ 2,252	$ 2,300
G. SNM licenses for quantities of 350 grams but less than 5 kilograms of U-235.	.045 Contr'l Costs	$64,623	$ 2,908 1,070 $ 3,978	$ 4,000
H. SNM licenses for receipt and storage of spent reactor fuel.	.038 Contr'l Costs	$64,623	$ 2,456 490 $ 2,946	$ 2,900

DETERMINATION OF ROUTINE SAFEGUARDS INSPECTION FEES

FOR MATERIALS LICENSES

	Safeguards Inspection Fees				
	Prof. Review Time (MY)	x	Cost Per (MY) 1/	= Inspection Fee	Inspection Fee Rounded
1. Special Nuclear Material (Cont'd):					
I. SNM licenses for use of SNM in sealed sources contained in devices used in measuring systems.				NOT APPLICABLE	
J. All other specific SNM licenses, except those licenses covered by Categories 4A through 8A.				NOT APPLICABLE	

1/ The cost per man-year represents the cost of maintaining a professional employee. This would include the employee's salary, benefits, travel, as well as administrative, clerical, and supervisory support.

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