

JUN 11 1985

Docket Nos.: 50-443
50-444

Mr. Robert J. Harrison
President & Chief Executive Officer
Public Service Company of New Hampshire
Post Office Box 330
Manchester, New Hampshire 03105

Dear Mr. Harrison:

SUBJECT: TMI ACTION ITEM II.K.3.30 FOR WESTINGHOUSE PLANTS

On May 21 1985, the NRC approved the new Westinghouse small break LOCA model, NOTRUMP, for use in satisfying the TMI Action Item II.K.3.30. The Westinghouse model was documented in the two Topical Reports, WCAP-10079 and WCAP-10054. The Westinghouse Owners Group (WOG) references NOTRUMP as their new licensing small break LOCA model to satisfy the requirements of TMI Action Item II.K.3.30. Our Safety Evaluation of II.K.3.30 for the members of WOG is enclosed.

It is our understanding that you are a member of the WOG and that NOTRUMP is to be used in the small break LOCA analysis for the (Plant). If this is correct, this completes the TMI Action Item II.K.3.30 for your plant and in accordance with the TMI Action Item II.K.3.31, your plant specific analysis is due within one year of receipt of this letter. Please advise this office within 60 days if this is not correct and provide your plans and schedule for completing II.K.3.30 and II.K.3.31.

On November 2, 1983 in Generic Letter No. 83-35, the NRC provided clarification and proposed a generic resolution of TMI Action Item II.K.3.31. That is, resolution of II.K.3.31 may be accomplished by generic analysis to demonstrate that the previous analyses performed with WFLASH were conservative. Future plant specific analysis performed for your plant by Westinghouse for reloads or Technical Specification amendments (those beyond 90 days of the date of this letter) should be calculated with the new code, NOTRUMP.

Sincerely,

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PDR ADOCK 05000443
A PDR

George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing

Enclosure:
As stated

cc: D. Wigginton
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SAFETY EVALUATION
TMI ACTION ITEM II.K.3.30 FOR
WESTINGHOUSE PLANTS

NUREG-0737 is a report transmitted by a letter from D. G. Eisenhut, Director of the Division of Licensing, NRR, to licensees of operating power reactors and applicants for operating reactor licenses forwarding TMI Action Plan requirements which have been approved by the Commission for implementation. Section II.K.3.30 of Enclosure 3 to NUREG-0737 outlines the Commission requirements for the industry to demonstrate its small break loss of coolant accident (SBLOCA) methods continue to comply with the requirements of Appendix K to 10 CFR Part 50.

The technical issues to be addressed were outlined in NUREG-0611, "Generic Evaluation of Feedwater Transients and Small Break Loss-of-Coolant Accidents in Westinghouse-Designed Operating Plants." In addition to the concerns listed in NUREG-0611, the staff requested licensees with U-tube steam generators to assess their computer codes with the Semiscale S-UT-08 experimental results. This request was made to validate the code's ability to calculate the core coolant level depression as influenced by the steam generators prior to loop seal clearing.

In response to TMI Action Item II.K.3.30, the Westinghouse Owners Group (WOG) has elected to reference the Westinghouse NOTRUMP code as their new licensing small break LOCA model. Referencing the new computer code did not imply deficiencies in WFLASH to meet the Appendix K requirements. The decision was based on desires of the industry to perform licensing evaluations with a computer program specifically designed to calculate small break LOCAs with greater phenomenological accuracy than capable by WFLASH.

The following documents our evaluation of the WOG response to TMI Action Item II.K.3.30 confirmatory items.

II. SUMMARY OF REQUIREMENTS

NUREG-0611 required licensees and applicants with Westinghouse NSSS designs to address the following concerns:

- A. Provide confirmatory validation of the small break LOCA model to adequately calculate the core heat transfer and two-phase coolant level during core uncover conditions.
- B. Validate the adequacy of modeling the primary side of the steam generators as a homogeneous mixture.
- C. Validate the condensation heat transfer model and affects of non-condensable gases.
- D. Demonstrate, through nodding studies, the adequacy of the SBLOCA model to calculate flashing during system depressurization.
- E. Validate the polytropic expansion coefficient applied in the accumulator model, and
- F. Validate the SBLOCA model with LOFT tests L3-1 and L3-7. In addition, validate the model with the Semiscale S-UT-08 experimental data.

Detailed responses to the above items are documented in WCAP-10054, "Westinghouse Small Break ECCS Evaluation Model Using the NOTRUMP Code."

III. EVALUATION

The following is the staff's evaluation of the TMI Action Item requirements outlined above.

A. Core Heat Transfer Models

The Westinghouse Owners Group (WOG) referenced the NOTRUMP computer code as their new computer program for small break loss of coolant accident (SBLOCA) evaluation. NOTRUMP was benchmarked against core uncover experiments conducted at the Oak Ridge National Laboratory (ORNL). These tests were performed under NRC sponsorship. The good agreement between the calculations and the data confirmed the adequacy of the drift flux model used for core hydraulics as well as the core heat transfer models of clad temperature predictions.

The staff finds the core thermal-hydraulic models in NOTRUMP acceptable. This item is resolved.

B. Steam Generator Mixture Level Model

NUREG-0611 requested licensees and applicants with Westinghouse designed NSSSs to justify the adequacy of modeling the primary system of the steam generators as a homogeneous mixture. This question was directed to the WFLASH code. NOTRUMP, the new SBLOCA licensing code models phase separation and incorporates flow regime maps within the steam generator tubes. The adequacy of this model was demonstrated through benchmark analyses with integral experiments, in particular with Semiscale test S-UT-08.

The staff finds the steam generator model in NOTRUMP acceptable. This item is resolved.

C. Noncondensible Affects On Condensation Heat Transfer

NUREG-0611 requested validation of the condensation heat transfer correlations in the Westinghouse SBLOCA model and an assessment of

the consequences of noncondensable gases in the primary coolant. The condensation heat transfer model used in NOTRUMP is based on steam experiments performed by Westinghouse on a 16-tube PWR steam generator model. For two-phase conditions, an empirical correlation developed by Shah is applied.

The staff finds the condensation heat transfer correlation in NOTRUMP acceptable.

The influences of noncondensable gases on the condensation heat transfer was demonstrated by degrading the heat transfer coefficient in the steam generators. The heat transfer degradation was calculated using a boundary layer approach. For this calculation, the noncondensable gases generated within the primary coolant system were collected and deposited on the surface of the steam generator tubes. The sources of noncondensibles considered were:

- (i) Air dissolved in the RWST.
- (ii) Hydrogen dissolved in the primary system.
- (iii) Hydrogen in the pressurizer vapor space.
- (iv) Radiolytic decomposition of water.

With a degradation factor on the heat transfer coefficient, the limiting SBLOCA was reanalyzed for a typical PWR. The WOG, thereby, concluded that formation of noncondensable gases in quantities that may reasonably be expected for a 4-inch cold leg break LOCA presents no serious detriment on the PWR system response in terms of core uncover or system pressure. What perturbation was observed was minor in nature.

The staff finds acceptable the Westinghouse submittal on the influences of noncondensable gases on design basis SBLOCA events. Our conclusion is based on the limited amount of noncondensable gases available during a design basis SBLOCA event, as well as results obtained from Semi-scale experiments which reached similar conclusions while injecting noncondensable gases in excess amount expected during a SBLOCA design basis event. This item is resolved.

D. Nodalization Studies For Flashing During Depressurization

As a consequence of the staff's experience with modeling SBLOCA events with NRC developed computer codes (in particular the TMI-2 accident), the staff questioned the adequacy of the nodalization in the licensing model to calculate the depressurization of the primary system. The staff therefore requested validation of the Westinghouse Evaluation Model to properly calculate the depressurization expected during a SBLOCA event.

Through nodalization studies and validation of the NOTRUMP licensing model with integral experiments (e.g., LOFT and Semiscale), Westinghouse demonstrated the acceptability of the nodalization and nonequilibrium models.

The staff finds the Westinghouse model acceptable for calculating depressurization during SBLOCA events. This item is resolved.

E. Accumulator Model

WFLASH, the previous Westinghouse small break loss of coolant accident (SBLOCA) analysis code, applied a polytropic gas expansion coefficient of 1.4 to the nitrogen in the accumulators. The WOG was requested to validate this accumulator model in light of data obtained through the LOFT experimental programs for SBLOCAs. Westinghouse reviewed the applicable LOFT data and determined the need to perform full scale accumulator tests. Based upon these tests, Westinghouse modified the polytropic expansion coefficient to a more realistic value. Of interest is Westinghouse's conclusion that the selection of either a high or low expansion coefficient had negligible effect on the calculated peak clad temperature (PCT). This insensitivity is only appropriate to NOTRUMP, with its nonequilibrium assumptions.

The staff finds acceptable the polytropic expansion coefficient in the NOTRUMP code. This item is resolved.

F. Code Validation

Following the Three Mile Island event of 1979, staff analyses with NRC developed computer codes led to concerns that detailed nodalization was required to simulate realistic systems responses to postulated SBLOCAs. As a consequence, licensees and applicants with Westinghouse plants were requested to validate their licensing tools with integral experiments. In specific, the NRC requested that the computer codes be validated with the LOFT L3-1 and L3-7 experimental data. In addition, the staff also requested that the code be benchmarked with the Semiscale S-UT-08 experimental data.

Westinghouse performed the above benchmark analyses. For the LOFT tests, Westinghouse showed good agreement between the NOTRUMP calculations and the experimental data. For the S-UT-08 test, Westinghouse demonstrated that NOTRUMP did a reasonable job calculating the experimental data. However, this required a more detailed nodalization of the steam generators then used in the licensing model. With the less detailed licensing nodalization, the pre-loop-seal-clearing core level depression phenomenon, as observed in the S-UT-08 data, was not conservatively calculated for very small breaks. However, the calculated peak clad temperature was demonstrated to be higher (more conservative) with the coarse nodalization. The staff, therefore, finds acceptable the NOTRUMP computer code and the associated nodalization for SBLOCA design basis evaluation.

This item is resolved.

IV. CONCLUSION

The Westinghouse Owners Group (WOG), by referencing WCAP-10079 and WCAP-10054, have identified NOTRUMP as their new thermal-hydraulic computer program for calculating small break loss of coolant accidents (SBLOCAs). The staff finds acceptable the use of NOTRUMP as the new Westinghouse licensing tool for calculating SBLOCAs for Westinghouse NSSS designs.

The responses to NUREG-0611 concerns, as evaluated within this SER, have also been found acceptable.

This SER completes the requirements of TMI Action Item II.K.3.30 for licensees and applicants with Westinghouse NSSS designs who were members of the WOG and referenced WCAP-10079 and WCAP-10054 as their response to this item.

Within one year of receiving this SER, the licensees and applicants with Westinghouse NSSS designs are required to submit plant specific analyses with NOTRUMP, as required by TMI Action Item II.K.3.31. Per generic letter 83-35, compliance with Action Item II.K.3.31 may be submitted generically. We require that the generic submittal include validation that the limiting break location has not shifted away from the cold legs to the hot or pump suction legs.



U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REGULATORY RESEARCH

DRAFT REGULATORY GUIDE AND VALUE/IMPACT STATEMENT

PDR
June 1985
Division 10
Task FC 412-4

Contact: J. Brown (301)427-9008

GUIDE FOR THE PREPARATION OF APPLICATIONS
FOR LICENSES FOR THE USE OF RADIOACTIVE
MATERIALS IN LEAK-TESTING SERVICES

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PDR REGGD
10. XXX R PDR

This regulatory guide and the associated value/impact statement are being issued in draft form to involve the public in the early stages of the development of a regulatory position in this area. They have not received complete staff review and do not represent an official NRC staff position.

Public comments are being solicited on both drafts, the guide (including any implementation schedule) and the value/impact statement. Comments on the value/impact statement should be accompanied by supporting data. Comments on both drafts should be sent to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch, by August 15, 1985.

Requests for single copies of draft guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future draft guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Technical Information and Document Control.

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1. INTRODUCTION

1.1 PURPOSE OF GUIDE

The purpose of this regulatory guide is to provide assistance to applicants and licensees in preparing applications for new licenses, license amendments, and license renewals. This guide describes the information the NRC staff needs to evaluate an application for a license for the use of radioactive material in performing certain commercial services for NRC or Agreement State licensees. The services covered by this guide are leak-testing sealed sources, analyzing leak-test samples, and supplying preregistered leak-test kits.

This regulatory guide is intended to provide you, the applicant or licensee, with information that will enable you to understand specific regulatory requirements and licensing policies as they apply to your services. The information in this guide is not a substitute for training in radiation safety.

After you are issued a license, you must conduct your program in accordance with (1) the statements, representations, and procedures contained in your application, (2) the terms and conditions of the license, and (3) the NRC's regulations. The information you provide in your application should be clear, specific, and accurate.

1.2 APPLICABLE REGULATIONS

NRC regulations applicable to this type of license are in 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections"; 10 CFR Part 20, "Standards for Protection Against Radiation"; 10 CFR Part 21, "Reporting of Defects and Noncompliance"; 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"; 10 CFR Part 71, "Packaging and Transportation of Radioactive Material"; and 10 CFR Part 170, "Fees for Facilities and Materials Licenses and Other Regulatory Services Under the Atomic Energy Act of 1954, as Amended." It is your responsibility as an applicant and as a licensee to have copies of, to read, and to abide by each regulation. As a licensee, you are subject to all applicable provisions of the regulations that pertain to your use of byproduct materials.

This guide identifies the information needed to complete NRC Form 313 for applications for a license for the use of radioactive material in commercial

leak-testing services. The information collection requirements in NRC Form 313 have been cleared under OMB Clearance No. 3150-0120.

1.3 AS LOW AS IS REASONABLY ACHIEVABLE (ALARA) PHILOSOPHY

As an applicant, you must not only be prepared to comply with all applicable regulations, but you must also make a commitment to the ALARA philosophy as stated in paragraph 20.1(c) of 10 CFR Part 20: "...persons engaged in activities under licenses issued by the Nuclear Regulatory Commission pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974 should, in addition to complying with the requirements set forth in this part, make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas, as low as is reasonably achievable." Regulatory Guide 8.10, "Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable," provides the NRC staff position on this important subject. As an applicant, you should consider the ALARA philosophy as described in Regulatory Guide 8.10 in the development of plans for work with licensed radioactive materials.

2. FILING AN APPLICATION

You, as the applicant for a materials license, should complete NRC Form 313 (see Appendix A to this guide). You should complete Items 1 through 4, 12, 13, and 14 on the form itself. For Items 5 through 11, submit the required information on supplementary pages. Each separate sheet or document submitted with your application should be identified and keyed to the item number on the application to which it refers. All typed pages, sketches, and, if possible, drawings should be on 8-1/2 x 11 inch paper to facilitate handling and review. If larger drawings are necessary, fold them to 8-1/2 x 11 inches.

You should complete all items in the application in sufficient detail for the NRC to determine that your equipment, facilities, training and experience, and radiation safety program are adequate to protect health and minimize danger to life or property.

Please note that license applications are available for review by the general public in the NRC Public Document Rooms. Do not submit proprietary

information unless it is absolutely necessary. If submittal of such information is necessary, follow the procedure in § 2.790 of 10 CFR Part 2. Failure to follow this procedure may result in disclosure of the proprietary information to the public or substantial delays in processing your application.

Do not submit personal information about your individual employees unless it is necessary. For example, the training and experience of individuals should be submitted to demonstrate their ability to manage radiation safety programs or to work safely with radioactive materials. Home addresses and home telephone numbers should be submitted only if they are part of an emergency response plan. Dates of birth, Social Security numbers, and radiation dose information should be submitted only if specifically requested by NRC.

You should file your application in duplicate. Retain one copy for yourself, because the license will require that you possess and use licensed material in accordance with the statements and representations in your application and any supplements to it.

If you wish to possess or use licensed material on Federal property or in any State subject to NRC jurisdiction, you should file your application with the NRC Regional Office for the State in which the material will be possessed or used. (A list of NRC's Regional Offices and the States they cover is provided below.) The exceptions to the above are the United States Air Force and Navy and persons wishing to distribute exempt material under 10 CFR Part 32 Subpart A, who should file their applications directly with the U.S. Nuclear Regulatory Commission, Division of Fuel Cycle and Material Safety, Washington, DC 20555.

Twenty-seven States have entered into agreements with the NRC that give them the authority to license radioactive materials used or possessed within their borders. These States are called Agreement States. A current list of Agreement States (including names, addresses, and telephone numbers of responsible officials) may be obtained upon request from the Material Licensing Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555, or from NRC's Regional Offices, whose addresses are listed below. If you are a non-Federal organization that wishes to possess or use licensed material in one of these Agreement States, your application should be filed with the State's radiation control program and not with the NRC.

If you are located in Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania,

Rhode Island, or Vermont, send your applications to the U.S. Nuclear Regulatory Commission, Region I, Nuclear Material Section B, 631 Park Avenue, King of Prussia, PA 19406.

If you are located in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, Virginia, Virgin Islands, or West Virginia, send your applications to the U.S. Nuclear Regulatory Commission, Region II, Material Radiation Protection Section, 101 Marietta Street, Suite 2900, Atlanta, GA 30323.

If you are located in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, or Wisconsin, send your applications to the U.S. Nuclear Regulatory Commission, Region III, Material Licensing Section, 799 Roosevelt Road, Glen Ellyn, IL 60137.

If you are located in Arkansas, Colorado, Idaho, Kansas, Louisiana, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, or Wyoming, send your applications to the U.S. Nuclear Regulatory Commission, Region IV, Material Radiation Protection Section, 611 Ryan Plaza Drive, Suite 1000, Arlington, TX 76011.

If you are located in Alaska, Arizona, California, Hawaii, Nevada, Oregon, Washington, or U.S. territories and possessions in the Pacific, send your applications to the U.S. Nuclear Regulatory Commission, Region V, Material Radiation Protection Section, 1450 Maria Lane, Suite 210, Walnut Creek, CA 94596.

3. CONTENTS OF AN APPLICATION

The following comments apply to the indicated items of NRC Form 313.

Item 1 - LICENSE INFORMATION

For a new license, check subitem A. For an amendment to an existing license, check subitem B. For a renewal of an existing license, check subitem C.

Item 2 - APPLICANT'S NAME AND MAILING ADDRESS

If you are an individual, you should be designated as the applicant only if you are acting in a private capacity and the use of byproduct material is not connected with your employment with a corporation or other legal entity.

Otherwise, you, the applicant, should be the corporation or other legal entity applying for the license.

The address specified here should be your mailing address for correspondence. This address may or may not be the same as the address at which the material¹ will be used, as specified in Item 3.

Item 3 - LOCATIONS OF USE

You should specify each location of use by the street address, city, and State or other descriptive address (such as 5 miles east on Highway 10, Anytown, State) to allow us to easily locate each facility. A Post Office box address is not acceptable. If you wish to maintain and operate more than one location where byproduct material will be used, you must give the specific address of each location. In Items 5 through 11 of your application, describe the intended use and the facilities and equipment at each location. Leak-testing services performed exclusively at customer facilities should be identified as "only at temporary job sites of licensees." If you will perform the services only at customer facilities, the address specified in Item 2 may not be a post office box in order that the records maintained under the license may be easily located for inspection purposes.

Item 4 - PERSON TO BE CONTACTED ABOUT APPLICATION

You should name the individual who knows your proposed radioactive materials program and can answer questions about your application. Note his or her telephone number. This individual will serve as the point of contact during the review of your application and during the period of your license. This person is usually the radiation safety officer or a principal user of radioactive materials. Notify the NRC if the person assigned to this function changes.

Item 5 - RADIOACTIVE MATERIAL

A variety of radionuclides may be involved in performing the specified leak-testing services. The following are acceptable methods for completing Item 5:

5.1 Subitem a -- Element and Mass Number

- If services involve no tritium or alpha sample analysis, you may state: "Any byproduct material between atomic numbers 3 and 83."
- If services involve tritium sample analysis but no alpha sample analysis, you may state: "Any byproduct material between atomic numbers 1 and 83."
- If services involve both tritium and alpha sample analysis, you may state: "Any licensed material."

NOTE: The wording for subitem a must be compatible with your sample analysis equipment specified in Item 10.2.

5.2 Subitem b -- Chemical and Physical Form

In all cases, you may state: "Analytical samples."

5.3 Subitem c -- Maximum Amount

You need not specify the maximum amount of licensed material you wish to possess. Simply state "not applicable" or "see Item 6" for this subitem.

Item 6 - PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED

You should specify that your possession and use of licensed material will be incident to performing leak tests on customers' sealed sources or sealed sources in devices. Provide the following additional information on the kinds of sources or devices you wish to service.

- Describe the kinds of sealed sources or sources in devices to be leak-tested. For example, specify the isotope and amount of curies.
- For sources in devices, specify the kinds of devices to be leak-tested, for example, gas chromatographs, portable moisture-density gauges, explosive detectors, fixed in-plant gauges (such as density gauges, level gauges, or gauges for measuring weight, bulk, moisture, thickness), and others appropriate to your proposed leak-testing program.

NOTE: In describing the sealed sources and devices, you should provide enough additional information to show you are knowledgeable about the sealed sources and the devices containing sealed sources to perform the testing properly. Applications may contain statements such as "for leak-testing 10-mCi nickel-63 sources in chromatography detectors" or "for leak-testing 10-mCi cesium-137 sources and 40-mCi americium-241 sources in portable moisture-density gauges."

Item 7 - INDIVIDUALS RESPONSIBLE FOR RADIATION SAFETY--THEIR TRAINING AND EXPERIENCE

Paragraph 30.33(a)(3) of 10 CFR Part 30 specifies that you must be qualified by training and experience to use the material for the purposes requested in such a manner as to protect health and minimize danger to life or property before an application for a license is approved.

You should provide the following information about the individual or individuals who will be responsible for your radiation safety program ("responsible individual"):

1. The name of each "responsible individual."

a. The name of the individual or individuals responsible for your day-to-day radiation protection program and for ensuring compliance with applicable NRC regulations and the terms and conditions of your license. This individual is normally the Radiation Safety Officer (RSO).

b. The names of any other personnel who will actually perform or directly supervise the leak-test procedures and perform the analyses on the leak-test samples.

NOTE: The "responsible individuals" you list will also be listed on your license as users. The licensed materials specified on your license should be used by, or under the supervision of, these designated individuals.

2. The training of each "responsible individual."

To demonstrate compliance with paragraph 30.33(a)(3) of 10 CFR Part 30, you should submit a resumé of training and experience for each "responsible individual" listed above. This resumé should cover formal academic training and on-the-job training in performing leak tests on the specified equipment. It should also describe each individual's experience in counting and interpreting leak-test sample results. Guidelines on training and experience are:

a. Formal training should encompass the following topics:

- (1) The principles and practices of radiation protection.
- (2) Radioactivity measurements, monitoring techniques, and the use of instruments.
- (3) Mathematics and calculations basic to the use and measurement of radioactivity.
- (4) The biological effects of radiation.

b. A minimum of 40 hours of formal course work should be completed by each "responsible individual" listed in Item 7.

c. On-the-job training should encompass hands-on training in leak-testing the typical sources and devices specified in Item 6 of your application, including performing independent analysis of leak-test samples. For individuals who have completed specific training presented by the manufacturers of the listed sources and devices, include copies of certificates or statements of training.

d. Outline any additional training that will be provided periodically for your "responsible individuals" to keep them up to date on new leak-testing techniques, new equipment to be leak-tested, and any factory modifications of existing equipment. You should indicate that such training will be augmented by using up-to-date manuals and instruction sheets provided by source and device manufacturers who provide new information on their recommended leak-test procedures and methods.

Item 8 - TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

Since you have named "responsible individuals" and provided a resumé of their training and experience in Item 7, in this item you should provide information on the training (pursuant to § 19.12 of 10 CFR Part 19) that will be provided to ancillary personnel who may frequent any radiation area or work under the direct supervision of your "responsible individuals." Consider secretarial and janitorial personnel and technicians, among others, who might work directly under the supervision of your "responsible individuals" or who might frequent any restricted area in your facility. You should provide the following information on this training.

1. An outline of your training program, including the topics that will be covered. Examples of topics to be included in this training are (1) the basic principles and fundamentals of radiation safety and good safety practices related to your use of radioactive materials, (2) the purpose for which radiation detection instruments will be used, (3) a review of your operating and emergency procedures, including safety procedures unique to your uses and facilities, and (4) specific instruction in precautions and procedures to be used to minimize any exposure to radiation and radioactive materials.
2. The duration of your training program. The duration should be commensurate with your radiological health protection problems, but should be from 2 to 8 hours.
3. The name of your training instructor or instructors. If your instructor is not a "responsible individual" specified in Item 7, submit his or her qualifications. The minimum qualifications for an instructor should be the same as those for a "responsible individual" specified in Item 7.
4. A commitment that records documenting the training of each individual will be maintained.

Item 9 - FACILITIES AND EQUIPMENT

Paragraph 30.33(a)(2) of 10 CFR Part 30 states that an application will be approved if, among other things, the applicant's proposed facilities and equipment are adequate to protect health and minimize danger to life or

property. Therefore, you should describe the facility and equipment you maintain at each of the locations specified in Item 3 of your application. The descriptions may be brief written paragraphs with annotated sketches that illustrate particular design features. Describe such items as:

- Laboratory counting rooms and calibration source storage facilities,
- Receiving and handling areas where leak-test samples are received from customers,
- Shielded areas, including auxiliary shielding ("L" blocks, etc.), where bare sources may be actually leak-tested,
- Storage facilities for sealed sources or devices that may be received by you for leak-testing in your facilities,
- Special tools for handling bare sources or devices and for wiping sealed sources or devices.

NOTE: Sketches and descriptions should show the relationship of material use areas to any adjoining unrestricted areas (e.g., offices, rest rooms, cafeterias, and other areas not under your control).

Item 10 - RADIATION SAFETY PROGRAM

10.1 Personnel Monitoring Equipment

Section 20.202 of 10 CFR Part 20 requires that personnel monitoring equipment be used by individuals entering restricted areas who receive, or are likely to receive, a dose in excess of 25% of the dose specified in paragraph 20.101(a) of 10 CFR Part 20. The specified doses per calendar quarter are 1-1/4 rems to the whole body, head and trunk, active blood-forming organs, or gonads; 18-3/4 rems to the hands and forearms or feet and ankles; and 7-1/2 rems to the skin of the whole body. Individuals under 18 years of age need to use personnel monitoring equipment if they receive, or are likely to receive, a dose in excess of 5% of the specified doses in paragraph 20.101(a). In addition, personnel monitoring equipment must be used by any individual who enters a high radiation area.

Pursuant to § 20.202 of 10 CFR Part 20, all your personnel should wear personnel monitoring devices such as film badges or thermoluminescent dosimeters (TLDs) when performing routine leak tests on uncontained sealed sources in the

low millicurie activity range and leak tests on multimillicurie sources contained in devices. If personnel monitoring equipment will be used, specify that the organization furnishing the film badge or TLD service will be a commercial service company and state the exchange frequency for the film badges or TLDs. Film badges should be exchanged at intervals not to exceed 1 month and TLDs at intervals not to exceed 3 months.

If personnel monitoring will not be used, provide a justification that clearly demonstrates it is unlikely that any individual will receive a radiation dose equal to or greater than that indicated in 10 CFR Part 20. Examples of acceptable justifications might be "Since we will be performing leak tests only on gas chromatography detectors that will not be dismantled, the likelihood of receiving 25% of the radiation dose specified in 10 CFR Part 20 is negligible" or "We will be leak-testing Model XXXX gauges with the gauge in the off or shutter-closed position only, and personnel monitoring devices are not required for the customer's routine users of this device."

10.2 Radiation Detection Instruments and Instrument Calibration

According to § 20.201 of 10 CFR Part 20, each licensee must make surveys as necessary to evaluate the extent of radiation hazards that may be present during the possession and use of licensed material. Therefore, you should list the radiation detection instruments you will have available for use in performing the leak-test services. Your list should specify for each instrument (1) the type of instrument, (2) the number of instruments available, (3) the type of radiation detected, (4) the sensitivity range, and (5) the specific use. The instruments listed should have sufficient sensitivity to accurately measure any radioactive contamination on leak-test samples obtained from your customer's sources and devices. Table 1 is an example of such a listing.

10.2.1 Survey Meters

Survey meters, as in the first example in Table 1, must be calibrated at least once every 12 months and after any servicing of the instrument (other than a simple battery exchange) pursuant to § 30.53 of 10 CFR Part 30. You have three options for calibration, as follows:

1. If the instruments will be returned to the manufacturer for calibration, so state.
2. If the survey instruments will be contracted out for calibration, state the name and address of the firm and its NRC or Agreement State license number.
3. If the instruments will be calibrated inhouse, provide the following additional information:
 - The name of the manufacturer and model number of each radiation source to be used,
 - The nuclide and quantity of radioactive material contained in each source,

Table 1
RADIATION DETECTION INSTRUMENTS

TYPE	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE	USE
1. Portable thin-window GM survey meter	2	Beta, gamma	0-500 mr/hr	Survey and monitoring (gross testing of samples)
2. Liquid scintillation counting system	1	Low-energy beta	10 ⁻⁵ microcurie	Analytical measurement
3. Well counter system with single channel analyzer	1	Gamma	10 ⁻⁶ microcurie	Analytical measurement
4. Gas-flow proportional counting system	1	Alpha, beta	10 ⁻⁶ to 10 ⁻⁸ microcurie	Analytical measurement
5. Portable thin-window G.M. meter with constant geometry sample holder	1	Beta, gamma	10 ⁻³ microcurie	Analytical measurement

- The accuracy of each source and the traceability of the source to a primary radiation standard,
- The step-by-step procedures, including associated radiation safety procedures, you will use in calibrating, and
- The name and experience and training in instrument calibration of each individual who will perform the calibrations.

NOTE: Guidance is being developed on inhouse calibration of survey instruments. Draft Regulatory Guide FC 413-4, "Guide for the Preparation of Applications for Licenses for the Use of Radioactive Materials in Calibrating Radiation Survey and Monitoring Instruments," was issued for public comment recently.

10.2.2 Wipe-Sample Counting Equipment

Quantitative measuring instruments (as in examples 2 through 5 in Table 1) used to perform analytic measurements on leak-test samples should be calibrated before use with standard sources having an accuracy of at least $\pm 5\%$ of the stated value. Standard sources should be traceable to a primary radiation standard such as those maintained by the National Bureau of Standards. You should supply the following information on the calibration of the listed instruments you will use to perform measurements on leak-test samples:

- List the standard sources to be used with each listed wipe-sample counting instrument by nuclide and quantity of radioactive material contained in each of the sources.
- Provide a statement of the accuracy of each standard source (information usually available from the source manufacturer). At a minimum, you should state that the accuracy of the standard will be $\pm 5\%$ of the stated value and traceable to a primary radiation standard such as those maintained by the National Bureau of Standards.
- Provide an example of a calculation for converting leak-test sample counting results to microcuries.

10.3 Operating and Emergency Procedures

Each individual who will perform leak-test services on a customer's sealed sources or sources in a customer's devices should have a set of operating and

emergency procedures. You should state in your application that personnel will be provided with operating and emergency procedures. Submit an outline of the basic elements of these procedures to be provided to personnel. The following elements should be included in your operating and emergency procedures, if applicable:

- Instructions for performing the wipe tests, including materials to use and methods of handling samples to prevent or minimize exposure to personnel.
- Surveys to be performed, such as those around the housing to be sure the device is in the "safe," "store," or "off" position before wipe samples are taken from designated areas of the device.
- Surveys to be performed on wipe- or leak-test samples to check for gross contamination before removal from the site.
- Any specific instructions provided by source and device manufacturers on recommended methods and areas to be wiped.
- Instructions on what to do in case of emergencies, for example, if sources or devices are found to be leaking or excessive radiation levels are found around devices. These instructions should include procedures for proper notification to customer personnel, means of preventing and controlling the spread of contamination, and means of obtaining professional assistance, if needed.

10.4 Commercial Leak-Test Kits

If you plan to manufacture and distribute commercial leak-test kits for your customers' use, provide samples of each type of kit you intend to distribute. Commercial leak-test kits are designed to be used by your customers to wipe specific sources or to wipe sources in specific devices; the wipes are then returned to you for analysis. Each type of kit you wish to distribute should be identified by a separate model number and clearly labeled as to the type and strength of the source or device it is designed to test.

Each kit should contain all necessary components for use: (1) the swabs, wipes, absorbent-tipped sticks, etc., that are to be used to make the wipes on

the specified sources or devices, (2) instructions for safe use of the particular kit (including the type and strength of the source the kit is designed for), step-by-step procedures for making the wipes or smears, and procedures for returning the wipes to you for analysis, and (3) a label for the customer to fill out that identifies the customer's name, license number, source or device (by manufacturer, model number, and activity) wiped, and the name of the individual who made the wipes.

You must have appropriate sample analysis equipment to properly evaluate the customers' wipes for each type of kit you wish to distribute.

10.5 Records

You should include copies or descriptions of the types of records you will maintain on leak-test samples as part of the documentation of your radiation protection program. These records should include:

- Identification of each source or device (manufacturer, model number, serial number, isotope, quantity),
- Identification of each customer (name, address, person to contact),
- Radiation survey measurements, as appropriate.
- Date of test and date of next scheduled test,
- Information on test methods used (e.g., type of wipe such as dry filter paper or wet cloth swipe and areas wiped),
- Leak-test results expressed in microcuries of alpha, beta, or gamma radiation for each area wiped, and
- Identification of the individual who performed the test.

You should include a copy of the leak-test certificate you will supply to customers.

Item 11 - WASTE MANAGEMENT

Sections 20.301 and 20.311 of 10 CFR Part 20 specify the general requirements for disposal of licensed material. You should describe the means you will use to dispose of licensed materials that are no longer needed such as

contaminated swipes or sealed sources. State which of the following three options you will exercise.

1. Use a waste disposal service or broker licensed by the NRC or an Agreement State for the disposal of the licensed material.
2. Return any sealed sources or devices to the manufacturer in accordance with the manufacturer's specific packaging and shipping instructions.
3. Describe any other methods you will use and demonstrate their compliance with the regulations.

Item 12 - LICENSE FEES

An application fee paid in full is required by paragraph 170.12(a) of 10 CFR Part 170 for most types of licenses, including applications for license amendments and renewals. You should refer to § 170.31, "Schedule of Fees for Materials Licenses and Other Regulatory Services," to determine the amount of the fee that must accompany your application. An application received without a fee or with an inadequate fee may be returned to you. All application fees may be charged irrespective of the NRC's disposition of the application or your withdrawal of the application.

Item 13 - CERTIFICATION

If you are an individual applicant acting in a private capacity, you are required to sign the form pursuant to paragraph 30.32(c) of 10 CFR Part 30. Otherwise, your application should be dated and signed by your representative of the corporation or legal entity who is authorized to sign official documents and to certify that the application contains information that is true and correct to the best of your knowledge and belief. Unsigned applications will be returned for proper signature.

Item 14 - VOLUNTARY ECONOMIC DATA

The Regulatory Flexibility Act of 1980 requires Federal agencies to consider the effects of their rules on small businesses and other small

entities. In order for the NRC to maintain an up-to-date data base of its licensees, four categories of economic information are sought from applicants. These economic data will be used by the NRC in preparing regulatory analyses that contain, among other things, the anticipated economic burden a proposed rulemaking action will have on affected licensees. To the extent that it is possible and consistent with public health and safety, the NRC will consider the economic burden in light of the size of the entities affected by the rule in an attempt to mitigate the potential for a significant economic impact on a substantial number of small entities.

14.a Annual Receipts

Guidance for determining the appropriate box in 14.a, Annual Receipts:*

1. Holders of One NRC License. If your organization (named on the license or application) holds one NRC license and operates from one address, check the box that most closely approximates your annual receipts; in the case of hospitals, academic institutions, or other entities that do not operate on the basis of receipts, check the box that most closely approximates the annual operating budget of your organization.

2. Holders of Multiple NRC Licenses Issued for One Address. If your organization (named on the license or application) holds multiple NRC licenses, all of which are issued to the same address, check the box that most closely approximates the annual receipts or annual operating budget for your entire organization, regardless of the number of NRC licenses possessed at that single address.

3. Holders of Multiple NRC Licenses at Multiple Addresses. If your organization (named on the license or application) holds multiple NRC licenses at multiple addresses, check the box that most closely approximates the annual receipts or annual operating budget for the operations conducted at the address on this license or application and not for the entire corporate entity.

*If the applicant is a university with a teaching hospital that operates under a separate annual budget and has been issued multiple licenses, it should distinguish the figures that pertain solely to the university from those figures that pertain solely to the teaching hospital.

14.b Number of Employees

The number of employees reported should reflect all employees for the organization at the address listed on the license or application, excluding outside contractors. The number of employees reported should not be that of a single department or division within the organization.

14.c Number of Beds (Hospitals Only)

Enter the total number of beds in the hospital excluding bassinets and nursing-home-type units.

14.d Would You Be Willing To Furnish Cost Information on the Economic Impact of Current Regulations or any Future Proposed NRC Regulations that May Affect You?

Indicate if you would be willing to furnish additional economic data to the NRC that would help the NRC evaluate the economic impact of a rule on affected licensees.

4. AMENDMENTS TO A LICENSE

After you are issued a license, you must conduct your program in accordance with (1) the statements, representations, and procedures contained in your application, (2) the terms and conditions of the license, and (3) the NRC's regulations.

It is your obligation to keep your license current. You should anticipate the need for a license amendment insofar as possible. If any of the information provided in your application is to be modified or changed, submit an application for a license amendment. In the meantime, you must comply with the terms and conditions of your license until it is actually amended; NRC regulations do not allow you to implement changes on the basis of a submission requesting an amendment to your license.

An application for a license amendment may be prepared either on the application form (NRC Form 313) or in letter form and should be submitted in duplicate to the address specified in Section 2 of this guide. Your application should

identify your license by number and should clearly describe the exact nature of the changes, additions, or deletions. References to previously submitted information and documents should be clear and specific and should identify the pertinent information by date, page, and paragraph. For example, if you wish to change the responsible individual, your application for a license amendment should specify the new individual's name, training, and experience. The qualifications of the new responsible individual should be equivalent to those specified in Item 7 of this regulatory guide.

You must send the appropriate fee for a license amendment with your application. The NRC will not accept an application for filing or processing before the proper fee is paid in accordance with § 170.12 of 10 CFR Part 170.

5. RENEWAL OF A LICENSE

Licenses are issued for a period of up to 5 years. You must send an application for renewal in duplicate to the address specified in Section 2 of this guide. You may submit an entirely new application for renewal as if it were an application for a new license without referring to previously submitted information.

As an alternative, you may:

1. Review your current license to determine whether the information accurately represents your current and anticipated program. Identify any necessary additions, deletions, or other changes and then prepare information appropriate for the required additions or changes.
2. Review the documents you have submitted in the past to determine whether the information in them is up to date and accurately represents your management control program, facilities, equipment, personnel, radiation safety procedures, locations of use, and any other information pertinent to your program. The documents you consider to represent your current program should be identified by date. Any out-of-date or superseded documents should also be identified, and changes should be made in the documents as necessary to reflect your current program.
3. Review NRC regulations to ensure that any changes in the regulations are appropriately covered in your program description.

4. After you have completed your review, submit two copies of a letter containing the information specified in Items 1, 2, and 3, as necessary, with the proper fee, requesting renewal of your license. If your current license and supporting documents accurately reflect your current program, state that operations will continue in accordance with these documents, applicable NRC regulations, and license conditions.

5. Include the name and telephone number of the person to be contacted about your renewal application and include your current mailing address if it is not indicated correctly on your license.

If you file your application for license renewal at least 30 days before the expiration date of your license and include the appropriate fee for license renewal, your present license will automatically remain in effect until the NRC takes final action on your application for renewal. However, if you file an application less than 30 days before the expiration date and the NRC cannot process it before that date, you would be without a valid license when your license expires.

It is important that the appropriate fee accompany your application for license renewal. In accordance with § 170.12 of 10 CFR Part 170, the NRC will not accept an application for filing or processing before the proper fee is paid.

If you do not wish to renew your license, you must dispose of all licensed radioactive material you possess in a manner authorized by §§ 20.301 and 20.311 of 10 CFR Part 20. Complete NRC Form 314, "Certificate of Disposition of Materials," and send it to the NRC before the expiration date of your license with a request that your license be terminated.

If you cannot dispose of all your licensed radioactive material before the expiration date, you must request a license renewal for storage only of the radioactive material. The renewal is necessary to avoid violating NRC's regulations that do not allow you to possess licensable material without a valid license.

APPENDIX A

NRC FORM 313 (1-84) 10 CFR 30, 32, 33, 34, 35 and 40	APPLICATION FOR MATERIAL LICENSE	U.S. NUCLEAR REGULATORY COMMISSION APPROVED BY OMB 3180-0120 Expires: 5-31-87								
INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.										
FEDERAL AGENCIES FILE APPLICATIONS WITH: U.S. NUCLEAR REGULATORY COMMISSION DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS WASHINGTON, DC 20555 ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN: CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION I NUCLEAR MATERIAL SECTION B 631 PARK AVENUE KING OF PRUSSIA, PA 19406 ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION II MATERIAL RADIATION PROTECTION SECTION 101 MARIETTA STREET, SUITE 2900 ATLANTA, GA 30323	IF YOU ARE LOCATED IN: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION III MATERIALS LICENSING SECTION 799 ROOSEVELT ROAD GLEN ELLYN, IL 60137 ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION IV MATERIAL RADIATION PROTECTION SECTION 611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TX 76011 ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION V MATERIAL RADIATION PROTECTION SECTION 1430 MARIA LANE, SUITE 210 WALNUT CREEK, CA 94596									
PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.										
1. THIS IS AN APPLICATION FOR (Check appropriate item): ☐ A. NEW LICENSE ☐ B. AMENDMENT TO LICENSE NUMBER _____ ☐ C. RENEWAL OF LICENSE NUMBER _____		2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)								
3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.										
4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION		TELEPHONE NUMBER								
SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.										
5. RADIOACTIVE MATERIAL a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.		6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.								
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.		8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.								
9. FACILITIES AND EQUIPMENT.		10. RADIATION SAFETY PROGRAM.								
11. WASTE MANAGEMENT.		12. LICENSEE FEES (See 10 CFR 170 and Section 170.31) FEE CATEGORY: _____ AMOUNT ENCLOSED \$ _____								
13. CERTIFICATION (Must be completed by applicant): THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.										
SIGNATURE—CERTIFYING OFFICER		TYPED/PRINTED NAME								
TITLE		DATE								
14. VOLUNTARY ECONOMIC DATA.										
a. ANNUAL RECEIPTS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">☐ <\$250K</td> <td style="width: 50%;">☐ \$1M—3.5M</td> </tr> <tr> <td>☐ \$250K—500K</td> <td>☐ \$3.5M—7M</td> </tr> <tr> <td>☐ \$500K—750K</td> <td>☐ \$7M—10M</td> </tr> <tr> <td>☐ \$750K—1M</td> <td>☐ >\$10M</td> </tr> </table>		☐ <\$250K	☐ \$1M—3.5M	☐ \$250K—500K	☐ \$3.5M—7M	☐ \$500K—750K	☐ \$7M—10M	☐ \$750K—1M	☐ >\$10M	b. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors) c. NUMBER OF BEOS
☐ <\$250K	☐ \$1M—3.5M									
☐ \$250K—500K	☐ \$3.5M—7M									
☐ \$500K—750K	☐ \$7M—10M									
☐ \$750K—1M	☐ >\$10M									
d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Dollars and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)		☐ YES ☐ NO								
FOR NRC USE ONLY										
TYPE OF FEE	FEE LOG	FEE CATEGORY								
COMMENTS		APPROVED BY								
AMOUNT RECEIVED	CHECK NUMBER	DATE								

PRIVACY ACT STATEMENT ON THE REVERSE

APPENDIX A (Continued)

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY:** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S):** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30, 32, 33, 34, 35 and 40 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES:** The information may be (a) provided to State health departments for their information and use; and (b) provided to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION:** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.
5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555