NOV 2 5 1985

License No. 20-06216-02
Docket No. 030-04655
Control No. 104524

Yankee Atomic Electric Co.
ATTN: Gregory Babineau
1671 Worcester Road
Framingham, Massachusetts 01701

Gentlemen:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5239, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Please note your license has been amended in its entirety with the following changes:

1) Subitems 6.A, 7.A and 8.A. have been changed to better define the materials you may be handling. Your license now includes radiation level limits on contaminated equipment and reference to NUREG 0767 to assure equipment removed from the reactor site does not include sufficient quantities of radioactive material that would require your submittal of a Radiological Contingency Plan.

2) Condition 9. now authorizes maintenance which may better define some of your planned activities.

3) Condition 10. does not permit use at facilities that already possess a NRC license.

4) Condition 12. replaces John C. Trejo and Donald A. Rice with three new supervisors, Mark T. Vandale, Pete Hollenbeck, and Thomas E. Shippee. This condition now requires that one of these personnel be physically present at the temporary job site.

5) Condition 16. has been added to require you to inform us when you have established a temporary job site.

OFFICIAL RECORD COPY ML 20-06216-02/LTR - 0001.0.0
11/19/85

ML18

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
Thomas K. Thompson

John E. Glenn, Chief
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:
1. Amendment No. 05
2. Requirements for Materials Licensees
3. Regulatory Guides 0767

RI:DRSS
Thompson/mjh
11/20/85

RI:DRSS
Glenn
11/ /85

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11/19/85

YANKEE ATOMIC ELECTRIC COMPANY

Telephone (617) 872-8100
TWX 710-380-7619

1671 Worcester Road, Framingham, Massachusetts 01701

2.C.2.1
FYR 85-106

October 15, 1985

United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, 19406

Attention: Mr. John Glenn, Chief
Materials Program, Section 2

References: (a) License No. DPR-3 (Docket No. 50-29)
(b) Materials License No. 20-06216-02

Subject: Materials License Amendment

Dear Sir:

We find it necessary to amend our license due to changes in personnel and assignments. The amended Items are 4, 7, and references to Items 4 and 7. Additional minor changes were made to other sections.

Attached, please find an amended copy of our previous submittal. This amendment is fee exempt for 10CFR, Part 170.11(a)(3).

Sincerely,

Louis H. Heider
Vice President

LHH/ba

Cat - 145
FEE EXEMPT
170 11(a)(3)

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OCT 18 1985

NRC FORM 313
(1-84)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires 5-31-87

APPLICATION FOR MATERIAL LICENSE

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
1450 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
- [X] B. AMENDMENT TO LICENSE NUMBER 20-06216-02
- [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Yankee Atomic Electric Co.
1671 Worcester Road
Framingham, MA 01701

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Temporary job sites of the licensee anywhere in the United States where the NRC maintains jurisdiction for regulating the use of by-product material

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Gregory Babineau

TELEPHONE NUMBER: (413)625-6140

SUBMIT ITEMS 5 THROUGH 11 ON 8½ 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

See Item 10 IV

9. FACILITIES AND EQUIPMENT

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*

FEE CATEGORY: 170.11(a)(3)

AMOUNT ENCLOSED: $ Exempt

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
L H Heider	L. H. Heider	Vice President/Manager of Operations	10/10/85

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

- [ ] <$250K
- [ ] $250K - 500K
- [ ] $500K - 750K
- [ ] $750K - 1M
- [ ] $1M - 3.5M
- [ ] $3.5M - 7M
- [ ] $7M - 10M
- [ ] >$10M

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*

c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(dollar 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
AMD	Oct 1H I	EX 3P	"OFFICIAL RECORD COPY" 104524	G Jackson
AMOUNT RECEIVED	CHECK NUMBER			DATE
FEE EXEMPT			ML10 OCT 18 1985	11/9/85

PRIVACY ACT STATEMENT ON THE REVERSE

170.11(a)(3)

cc: SS 10214124

ATTACHMENT

Item 5 - Licensed Material

5A Element and mass number.
Any byproduct material.

5B Chemical and/or physical form.
Fixed upon surface and/or contained within reactor equipment.

5C Maximum number of millicuries and/or sealed sources and maximum activity per source which will be possessed at any one time.

Total activity of any mixture of byproduct material shall not exceed 3 curies. Removable surface contamination on all external surfaces shall not exceed 2,200 disintegrations/minute/100 cm^2 prior to shipment.

Item 6 - Purpose(s) for Which Licensed Material Will be Used

Byproduct material used or handled under the provisions of this license will be associated with the inspection, repair and/or testing of reactor system components containing such materials at off-site locations.

Item 7 - Formal Training in Radiation Protection and Experience

Name: Gregory Babineau
Title: Radiation Protection Manager

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	University of Lowell	5 years	No	Yes
		Yankee Atomic Electric Company	9 years	Yes	No
b.	Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	University of Lowell	5 years	No	Yes
		Yankee Atomic Electric Company	9 years	Yes	No
c.	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	University of Lowell	5 years	No	Yes
		Yankee Atomic Electric Company	9 years	Yes	No
d.	Biological Effects of Radiation	University of Lowell	5 years	No	Yes
		Yankee Atomic Electric Company	9 years	Yes	No

e. Experience With Radiation (actual use or equivalent experience)

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
32p	1 mCi	University of Lowell	2 months	Nutrient Uptake in Plants
220_{Rn} and Daughters	10 mCi	University of Lowell	6 months	Calibrations
Mixed Fission and Activation Products	100 Ci	Yankee Atomic Electric Company	9 years	Radiation Control Contamination Control Waste Processing Waste Shipping Instrument Calibration Radiochemistry Decontamination

Item 7 - Formal Training in Radiation Protection and Experience

Name: John S. Gedutis
Title: Plant Chemist

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	Yankee Atomic Electric Company	12 years	Yes	No
b.	Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	Yankee Atomic Electric Company	12 years	Yes	No
c.	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	Yankee Atomic Electric Company	12 years	Yes	No
d.	Biological Effects of Radiation	Yankee Atomic Electric Company	12 years	Yes	No
e.	Experience With Radiation (actual use or equivalent experience)				

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
Mixed	p Ci	Controls for Radiation (Cambridge, Massachusetts)	3 years	Analysis
Mixed	p Ci	Tracer Lab (Waltham, Massachusetts)	2 years	Analysis
Mixed Fission and Activation Products	10 Ci	Yankee Atomic Electric Company	16 years	Radiochemistry Waste Processing Waste Shipping Instrument Calibration

Item 7 - Formal Training in Radiation Protection and Experience

Name: Russell Mellor
Title: Chemistry Manager

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	Yankee Atomic Electric Company	122 months	Yes	No
b.	Radioactivity Measurement	Yankee Atomic Electric Company	122 months	Yes	No
	Standardization and Monitoring Techniques and Instruments	*	122 months	No	Yes
c.	Mathematics and Calculations	Yankee Atomic Electric Company	122 months	Yes	No
	Basic to the Use and Measurement of Radioactivity	*	122 months	No	Yes
d.	Biological Effects of Radiation	Yankee Atomic Electric Company	24 months	Yes	No
e.	Experience With Radiation (actual use or equivalent experience)				

122 Months
Yankee Atomic Electric Company
Plant Radiochemist
Health Physics Supervisor
Senior Radiochemist

* B.S., Southeastern Massachusetts University, Chemistry. M.S., Southeastern Massachusetts University, Organic Chemistry. Westinghouse Electric Company, Advanced Reactors Division, Madison Pennsylvania. Analysis of Radionuclides, 1-month course.

Item 7 - Formal Training in Radiation Protection and Experience

Name: Russell Mellor (Continued)
Title: Chemistry Manager

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
Mixed Fission and Activation Products Including: ^{51}Cr, ^{54}Mn, ^{60}Co, ^{58}Co, ^{57}Co, ^{134}Cs, ^{137}Cs, ^{131}I ^{133}I, ^{133}Xe, ^{135}Xe, ^{110m}Ag, ^{125}Sb, ^{124}Sb, ^{144}Ce, ^{22}Na, ^{88}Y, ^{95}Zr-Nb, ^{65}Zn	uCi Range	Yankee Atomic Electric Company	122 months	Radiochemical Analysis and Calibration
^{60}Co (sealed sources)	to 25 mCi	Yankee Atomic Electric Company Rowe, Massachusetts	18 months	Instrument Calibrations
^{137}Cs (sealed sources) (calibration unit)	50 Ci	Yankee Atomic Electric Company Rowe, Massachusetts	18 months	Instrument Calibrations
Plutonium/Berylium Neutron Source	1 Ci	Yankee Atomic Electric Company Rowe, Massachusetts	18 months	Instrument Calibrations
^{3}H	1 mCi	Yankee Atomic Electric Company Rowe, Massachusetts	42 months	Radiochemical Analysis and Calibrations
^{241}Am	0.1 uCi	Yankee Atomic Electric Company Rowe, Massachusetts	3 months	Instrument Calibrations
^{90}Sr	2-1 mCi	Yankee Atomic Electric Company Westboro, Massachusetts	36 months	TLD Calibration

Item 7 - Formal Training in Radiation Protection and Experience

Name: Mark T. Vandale
Title: Radiation Protection Engineer

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	St. Anselm College	4 months	No	Yes
		United Nuclear Corp.	7 years	Yes	No
		Yankee Atomic Electric Company	5 years	Yes	No
b.	Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	St. Anselm College	4 months	No	Yes
		United Nuclear Corp.	7 years	Yes	No
		Yankee Atomic Electric Company	5 years	Yes	No
c.	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	St. Anselm College	4 months	No	Yes
		United Nuclear Corp.	7 years	Yes	No
		Yankee Atomic Electric Company	5 years	Yes	No
d.	Biological Effects of Radiation	St. Anselm College	4 months	No	Yes
		United Nuclear Corp.	7 years	Yes	No
		Yankee Atomic Electric Company	5 years	Yes	No

e. Experience With Radiation (actual use or equivalent experience)

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
Co^{60}	350 mCi	St. Anselm College	4 months	Biological Effects in Animals
Co^{60}	20 mCi	United Nuclear Corp.	7 years	Calibrations
Mixed Fission and Activation Products	100 Ci	Yankee Atomic Electric Company	5 years	Radiation Control Contamination Control Waste Processing Waste Shipping Instrument Calibration Decontamination

Item 7 - Formal Training in Radiation Protection and Experience

Name: Pete Hollenbeck
Title: Radiation Protection Engineer

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	University of Lowell	4 years	No	Yes
		Yankee Atomic Electric Company	2.5 years	Yes	No
b.	Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	University of Lowell	4 years	Yes	Yes
		Yankee Atomic Electric Company	2.5 years	Yes	No
c.	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	University of Lowell	4 years	Yes	Yes
		Yankee Atomic Electric Company	2.5 years	Yes	No
d.	Biological Effects of Radiation	University of Lowell	4 years	No	Yes
		Yankee Atomic Electric Company	2.5 years	Yes	No

e. Experience With Radiation (actual use or equivalent experience)

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
^{220}Rn and Daughters	10 mCi	University of Lowell	6 months	Calibrations
Mixed Fission and Activation Products	50 Ci	Yankee Atomic Electric Company	2.5 years	Radiation Control Contamination Control Instrument Calibration Decontamination

Item 7 - Formal Training in Radiation Protection and Experience

Name: Thomas E. Shippee
Title: Radiation Protection Engineer

	Type of Training	Location	Duration	On the Job	Formal
a.	Principles and Practices of Radiation Protection	Yankee Atomic Electric Company	10 years	Yes	Yes
b.	Radioactivity Measurement Standardization and Monitoring Techniques and Instruments	Yankee Atomic Electric Company	10 years	Yes	Yes
c.	Mathematics and Calculations Basic to the Use and Measurement of Radioactivity	Yankee Atomic Electric Company	10 years	Yes	Yes
d.	Biological Effects of Radiation	Yankee Atomic Electric Company	10 years	Yes	Yes
e.	Experience With Radiation (actual use or equivalent experience)				

Isotope	Quantity Maximum	Location	Duration of Experience	Type of Use
Mixed Fission and Activation Products	100 Ci	Yankee Atomic Electric Company	10 years	Radiation Control Contamination Control Waste Processing Waste Shipping Instrument Calibration Radiochemistry Decontamination

Item 9 - Facilities and Equipment

Complete Health Physics Laboratory facilities which include counters, scalers, air monitoring devices and portable instrumentation located at Yankee Atomic Electric Company may be used when necessary. The Radiochemistry Laboratory which includes multichannel gamma spectrometer, liquid beta spectrometer and gas flow proportional counter may be used when necessary.

Instrument calibration will be done by the Radiation Protection Department with calibrated sources and the equipment necessary to calibrate all radiation detection devices and instrumentation.

Respiratory protection devices may be required in situations where an airborne radioactivity condition is potential or existent. In such cases, the air will be monitored by the Radiation Protection Team, and the necessary protective devices specified according to the concentration and type of airborne contaminants present. Every precaution will be taken to keep airborne contamination to a minimum through use of a proper ventilation and prior decontamination of equipment and work areas.

Item 10 - Radiation Safety Program

The YANKEE ATOMIC ELECTRIC COMPANY hereby applies for renewal of our Byproduct Material License No. 20-06216-02 authorizing Yankee to receive, possess and handle radioactive materials at temporary field locations outside the boundaries of the Yankee plant site*. As an integral part of this license request, Yankee is concurrently requesting inclusion of a licensing provision that would authorize the Yankee Atomic Electric Company to conduct radiation protection activities at temporary field locations where radioactive materials would be present and handled pursuant to provisions of the proposed Byproduct Material License.

Specifically, this request is aimed at maintaining the mechanism whereby the Yankee Atomic Electric Company may ship reactor system components containing low level fixed radioactivity to vendor facilities for special inspection, repair and testing. Periodically, situations have arisen during the course of plant maintenance activities which required the services of specialized off-site facilities. The Yankee plant Maintenance Department is well equipped to handle almost any routine or nonroutine repair operation. There are, of course, limitations on what maintenance can be done in-plant. Unusual or unique maintenance problems are certain to evolve from time to time. Eventually, Yankee will be confronted with a choice of sending equipment off-site to expedite repairs or suffer an extended shutdown period until the necessary facilities could be set up on-site.

In view of the foregoing, we are therefore requesting consideration be given to renewing our Byproduct Material License No. 20-06216-02 that authorizes the following activities:

1. That the Yankee Atomic Electric Company be licensed to receive, possess and handle radioactive material fixed or contained within reactor system components, at temporary field locations (vendor plants), in all states in which the NRC retains regulatory authority.

2. That the Yankee Atomic Electric Company be licensed to conduct radiation protection activities at temporary field locations (vendor plants) where radioactive materials fixed or contained within the reactor system components belonging to Yankee, are handled pursuant to the provisions of the Byproduct Material License issued to the Yankee Atomic Electric Company.

Specific Conditions

1. All radioactive material, fixed or contained within reactor system components and shipped to a vendor's plant, will remain in the custody of the Yankee Atomic Electric Company and at all times be under the direct supervision of a Yankee representative specifically named in the license.

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*This license is not intended to apply at sites which maintain their own radiation protection program pursuant to a license granted by the NRC or an agreement state.

2. All shipments of Yankee equipment containing radioactive material shall be appropriately packaged, surveyed and labeled in accordance with applicable NRC, ICC and DOT regulations governing the transportation of radioactive materials.

3. The Yankee Atomic Electric Company shall assume responsibility for all radiation protection activities incident to inspection, repair and testing of Yankee equipment containing radioactive materials while such equipment is at the vendor's plant. All radiation protection activities shall be conducted in accordance with the requirements of Title 10CFR20.

4. The maximum limit or quantity of radioactive material contained within reactor system components at any one location (vendor plant) shall not exceed that quantity specified in Table I below:

TABLE 1

Limits

Material	Form	Material Quantity
Any byproduct material	*Fixed upon surface and/or contained within reactor equipment	Total activity of mixed corrosion products not to exceed 3 curies

*Removable surface contamination on all external surfaces shall not exceed the limits listed below prior to shipment from Yankee:

beta-gamma $\leq$ 2,200 disintegration/minute/100 cm^2
alpha $\leq$ 220 disintegration/minute/100 cm^2

Description of Off-Site Radiation Protection Program

I. PERSONNEL

Yankee personnel specifically named in the license for this proposed activity will be drawn from the plant staff. Members of this group have had extensive training and experience in the fundamentals, theory and practical aspects of radiation protection activities associated with reactor operation and maintenance. Personnel selected to represent Yankee will be fully qualified to perform the type of radiation protection activities at vendor plants that we propose in this license request (individual resumes are attached).

II. DUTIES AND RESPONSIBILITIES

An off-site Radiation Protection Team will normally consist of two persons, one of which is specifically named in Item 7 of the Byproduct Material License renewal application. The individuals named in Item 7 of the application are of supervisory capacity and shall be designated "Radiation Protection Supervisor." The other member of the team will be of technical grade and is designated the "Health Physics Technician."

The Radiation Protection Supervisor will be in attendance at the site to personally supervise the radiation protection activities. The supervisor shall be the individual directly responsible to Yankee management for assuring that activities are at all times in accordance with Commission regulations and conditions of the license.

The Radiation Protection Supervisor shall:

1. Evaluate the practicality of conducting licensed activities at a specific location.

2. Determine the scope of essential radiation protection activities.

3. Direct the establishment of a "Radiation Control Area" as necessary and appropriate to effectively control all radiation and radioactive materials.

4. Directly supervise radiation protection activities conducted under the license to ensure that adequate protective measures have been taken in respect to the following:

   A. Personnel Monitoring

   B. Exposure of Personnel

   C. Radiation Surveys

   D. Posting of Areas

   E. Records, Reports and Notification

The Health Physics Technician shall:

1. Work under the direction of the Radiation Protection Supervisor.

2. Carry out all radiation protection activities as directed by the supervisor.

3. Maintain accurate and legible records of all radiation survey and personnel monitoring records conducted in the course of radiation protection activities.

III. OPERATING PROCEDURES AND STANDING INSTRUCTIONS

This section details the precautionary measures which Yankee will take to comply with the regulations of the NRC and to protect the interests of the vendor company and Yankee personnel during all licensed activities conducted at temporary field locations.

As previously stated under specific conditions, all activities shall be conducted in strict accordance with 10CFR20. This section's operating procedures shall supplement the requirements of 10CFR20 in order to ensure safe and efficient operations at all times.

The Fundamental Standing Instruction shall be:

ALL OFF-SITE OPERATIONS MUST BE CONDUCTED AS CAREFULLY PLANNED ACTIVITY.

1. Radiation Safety Evaluation

Prior to off-site shipment of any radioactive equipment from the plant, a representative* from Yankee will make an inspection of the vendor's plant. The purpose of this inspection will be to evaluate the physical aspects of that particular facility to assure that adequate radiation protection measures can be instituted. This survey will pay special attention to the feasibility of establishing radiation control areas around plant equipment or areas where radioactive materials will be handled. Work areas will be selected to minimize any disruption of the normal operating routine of the vendor's facility.

2. Radiation Control Area

A "Radiation Control Area" shall be established at each temporary field location for the purpose of radiation protection. The "Radiation Control Area" shall encompass the area of a vendor's facility in which radioactive materials and radiation contained within Yankee reactor components are handled pursuant to the provisions of the Byproduct Material License.

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*An individual specifically named in Item 7 of the license renewal application.

A. Access Control

Access to the "Radiation Control Area" shall be limited to those persons specifically assigned to the activity by the vendor. Each individual assigned by the vendor must additionally be authorized to enter by the Yankee Radiation Protection Supervisor.

B. Preparation of Area

Prior to beginning any licensed activity which could result in radioactive contamination, the area in which the work is to take place shall be adequately prepared to control and contain all contamination.

1. Where possible and deemed necessary, floors, walls and ceilings shall be covered with polyethylene or other suitable material in such a manner as to contain radioactive materials and simplify decontamination at the completion of the activity.

2. If the possibility of airborne activity exists, the normal area ventilation shall be secured. A portable ventilation system, containing an absolute filter, shall then be used to ventilate the area and contain airborne activity generated.

3. Machine surfaces shall be covered where possible to prevent unnecessary contamination of equipment.

C. Posting of Area

All areas within the "Radiation Control Area" shall be routinely surveyed for radioactive materials and radiations. Criteria for classification and posting of areas shall be in accordance with the provisions of 10CFR20, Section 20.203.

D. Protective Clothing Requirements

All individuals entering the "Radiation Control Area" will be required to wear certain items of protective clothing. The Radiation Protection Supervisor shall specify the appropriate protective clothing requirements for each particular activity. The protective clothing shall be supplied by Yankee.

E. Respiratory Protection

The respiratory protection policy is described in Item 9, Facilities and Equipment.

3. Personnel Monitoring

All individuals who will receive radiation exposure while working within an area controlled by Yankee for the purposes of radiation protection shall be issued personnel monitor devices and shall be

required to wear such devices at all times while within the "Radiation Control Area."

The personnel monitor devices shall consist of TLDs or equivalent dosimetry and self reading dosimeters. The dosimeters are to be worn on the front of the clothing adjacent to each other and in a plainly visible position. It shall be required that each individual examine his self reading dosimeter periodically while in radiation areas. Personnel will be instructed not to allow the dosimeter reading to exceed three-quarters of full scale. Personnel will have the dosimeter rezeroed and the reading recorded prior to reaching three-quarters of full scale.

The TLD or equivalent badges will normally be processed at quarterly intervals or at the completion of licensed activities at a vendor's facility. The TLD or equivalent badge of any individual will be processed immediately at any time that an overexposure has occurred or is suspected. The official and permanent record of accumulation of external exposure received by an individual will be obtained principally from the interpretation of the TLD or equivalent badge. The self reading dosimeter will provide a day-to-day indication of external radiation exposure.

4. Radiological Surveys

The Radiation Protection Program shall include radiation surveys for air activity, removable surface contamination and radiation levels. These surveys shall be conducted at regular intervals within the "Radiation Control Area" to evaluate radiological conditions arising from handling of radioactive materials. The Radiation Protection Supervisor will review all surveys and recommend measures to control radiation exposure. These control measures will be of two basic kinds: physical and procedural.

A. Physical Measures will include such items as shielding, ventilation, respiratory protection and protective clothing.

B. Procedural Measures include access control, time limitations, and modification of working procedures.

Any unusual conditions detected during a radiation survey shall be brought to the immediate attention of the Radiation Protection Supervisor. Records of all surveys will be maintained for a permanent record of activities conducted at each temporary field location. Each survey record should contain sketches, instrument readings and explanatory notes of operation in progress.

5. Contamination Control Limits

At the completion of licensed activities at a vendor's facility, all equipment and plant areas located within and adjacent to the "Radiation Control Area" shall be surveyed for radioactive contamination and radiation dose rates.

Surface contamination limits on equipment and in-plant areas shall not exceed the values prescribed below upon termination of off-site activities at a temporary field location.

A. Removable Radioactive Surface Contamination

Beta-Gamma 1000 dpm/100 cm^2

B. Fixed Radioactive Surface Contamination

Beta-Gamma 0.1 mR/hr at 1 inch

6. Radioactive Waste Disposal

The description of waste disposal policy and information is contained in Item 11 of this license renewal application.

IV. RADIATION PROTECTION TRAINING

All vendor company employees shall receive a radiation protection orientation prior to their assignment of work in any area controlled by Yankee for the purposes of radiation protection. The orientation will cover all pertinent radiation protection practices and procedures to a degree sufficient to allow an employee to perform his assignment without incurring unnecessary radiation exposure.

V. RECORDS, REPORTS AND NOTIFICATIONS

The Yankee Atomic Electric Company shall maintain permanent records of all licensed activities conducted at temporary field locations. These records shall include:

1. Records showing the transfer of radioactive materials to and from the temporary field locations.

2. Records of radiation surveys.

3. Records of personnel radiation exposure.

A report showing individual radiation exposures shall be furnished to the vendor company upon completion of licensed activities at a temporary field location.

Reports of radiation exposure shall be furnished to individual vendor company employees in accordance with 10CFR20, Sections 20.407 and 20.408.

Item 11 - Waste Management

The handling of equipment containing radioactive materials at a vendor's facility shall be conducted in such a manner as to preclude the on-site release or disposal of any radioactive materials generated in the course of licensed activities. Prior to beginning any operation, provisions shall be made to collect and contain all liquid, solid and airborne radioactive waste materials.

All radioactive waste materials shall be appropriately packaged, surveyed and labeled in accordance with applicable NRC, ICC and DOT regulations governing the transport of radioactive materials. All disposal of radioactive waste material from a temporary field location shall be through one of the following methods:

1. The radioactive waste shall be appropriately packaged, surveyed, labeled and returned to the Yankee plant for ultimate disposal through a licensed contractor.

2. The radioactive waste shall be appropriately packaged, surveyed, labeled and directly transferred to a licensed waste disposal contractor from the temporary field location.

BETWEEN: William O. Mill[redacted], Chief
License Fee Management Branch
Office of Administration

John E. Glenn, Chief
Nuclear Materials Section B
Division of Engineering and
Technical Programs

LICENSE FEE TRANSMITTAL ~~Fee~~ Fee Exempt

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: Yankee Atomic Electric Company

Application Dated: 10/15/85

Control No.: 104524

License No.: 20-06216-02

2. FEE ATTACHED

Amount: 0

Check No.: 0

3. COMMENTS

03223 11/89

Signed Brenda Platchek

Date 10/21/85

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount: EX 3P

2. Correct Fee Paid. Application may be processed for:

Amendment ↘

Renewal

License

FEE EXEMPT

Signed [illegible]

Date 11/9/85

REGION I FORM 213
(MARCH 1983)