

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

September 30, 1988

90 OCT 6 12:11

U. S. Nuclear Regulatory Commission  
Region II  
Material Radiation Protection Section  
101 Marietta Street, N.W.  
Suite 2900  
Atlanta, Georgia 30323

Serial No. 88-653  
NL/JDH:jmj  
Docket Nos. 50-280  
50-281  
50-338  
50-339  
License Nos. DPR-32  
DPR-37  
NPF-4  
NPF-7  
45-13670-04

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION UNITS 1 AND 2  
NORTH ANNA POWER STATION UNITS 1 AND 2  
BYPRODUCT MATERIALS LICENSE RENEWAL

RECEIVED  
OCT 14 1988

Virginia Electric and Power Company requests renewal of our Materials License, Number 45-13670-04, which expires October 31, 1988. In accordance with 10CFR170.11(a)(3), no renewal fee is required.

The license was reviewed and accurately represents the current and anticipated program provisions and applicable NRC requirements. We wish to continue to operate under our current license referenced above in accordance with the statements, representations, and procedures contained in our applications dated June 20, 1978, and September 6, 1978 with the following exceptions:

1. The current Radiation Protection Officers are:

W. A. Thornton, Corporate Office, Richmond  
A. H. Stafford, North Anna Power Station  
S. P. Sarver, Surry Power Station

2. Health Physics instrumentation listed under the header "Radiation Detection Instruments" on page 000201 of the original application has been revised to reflect current instrumentation as shown in the attachment.

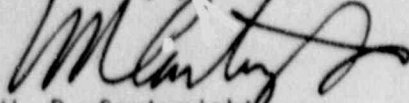
RECEIVED BY LFMS  
Date 10/14/88  
Log Oct-3-11  
By Messer  
Date Completed 10/14/88

FEE EXEMPT  
170-11(a)(3)

9002070404 890217  
REG2 LIC30  
45-13670-04 PDR

If any questions arise concerning this license renewal, please contact  
Mr. J. O. Hegner at (804) 273-2770.

Very truly yours,



W. R. Cartwright  
Vice President - Nuclear

Enclosure

cc: U. S. Nuclear Regulatory Commission  
101 Marietta Street, N.W.  
Suite 2900  
Atlanta, GA 30323

Mr. W. E. Holland  
NRC Senior Resident Inspector  
Surry Power Station

Mr. J. L. Caldwell  
NRC Senior Resident Inspector  
North Anna Power Station

## RADIATION DETECTION INSTRUMENTS

### Typical Survey Instruments

Eberline Model E-120, E-120E, E-130, E-130M, and E-140, intermediate range beta-gamma survey instrument, HP-270 detector, 0.1 to 50 mR/hr

Eberline Model E-520, intermediate range beta-gamma survey instrument, HP-270 detector plus internal gamma, 0.1 mR/hr to 2 R/hr.

Eberline Model E-530, intermediate range beta-gamma survey instrument, HP-270 detector or HP-210, 0.05 mR/hr to 200 mR/hr or count rate.

Eberline Teletector Model 6112, wide range gamma ray survey instrument with telescoping probe, 0 - 2mR/hr low scale, 1000 R/hr high scale.

Eberline Model RO-7, Beta and Gamma Radiation, 10 mR/hr to kR/hr upper range, extendible/remote detector capability.

Eberline Model RO-2 or RO-2A, Beta and Gamma Radiation, 0.1 mR/hr to 50 R/hr.

### Typical Monitoring and Measuring Instruments

Eberline Scaler MS-2 or MS-3, scaler, use with thin window GM detectors, HP-210 pancake or HP-190 end window.

Eberline Model RM-14, count rate meter, used with HP-210 thin window pancake detectors, 0 to 50,000 cpm.

Eberline Model RM-20, count rate meter, used with HP-210 thin window pancake detectors or scintillation detectors, 0 to 500,000 cpm.

Nuclear Data MCA ND-6700 (available at fixed locations)

NMC Proportional Counters PC-4, PC-5, or PC-55 (available at fixed locations)

Beckman Liquid Scintillation Counter LS-100C (available at fixed locations)

### Air sampling Instruments

Eberline Model AMS-2 Air Monitor

Eberline Model AMS-3 Air Monitor

Portable Air Samplers

RADECO Model H-809B2 Air Sampler

RADECO Air Sampler H-809C

### Area Monitors Personnel Monitors

Eberline Model RMS II and EC4-X, semi-portable remote area radiation monitoring system suitable for gamma radiation with remote readout and alarm, range 0.01 mR/hr to 10 R/hr depending on configuration.

Eberline Portal Monitor PM-6

Eberline Portal Monitor PMC-4B/PMP-4C

Eberline Model PCM-1A or 1B

NOTE: Calibration frequency of Count Room equipment is quarterly with the exception of the MCA which is annually. Survey equipment calibration is performed semi-annually.

*Materials*  
*License, Appl.*

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

STEWART  
VICE PRESIDENT  
NUCLEAR OPERATIONS

'83 AUG 30 10:07 August 23, 1983

Mr. Richard E. Cunningham, Director  
Division of Fuel Cycle and Material Safety  
Office of Nuclear Material Safety  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Serial No. 477  
NOCHP/OEH:ba  
Docket Nos. 50-280,50-281  
50-338,50-339  
License Nos. DPR-32,DPR-37  
NPF-4,NPF-7

Dear Sir:

VIRGINIA ELECTRIC AND POWER COMPANY  
BYPRODUCT MATERIALS LICENSE RENEWAL

In response to your Notice of Expiration dated July 13, 1983, the Virginia Electric and Power Company (Veeco) requests renewal of our Materials License, Number 45-13670-04, which expires September 30, 1983. In accordance with 10CFR170.11(a)(3) and in reference to correspondence from the Nuclear Regulatory Commission (NRC) dated June 27, 1978, no fee is required.

The license was reviewed and accurately represents the current and anticipated program provisions and applicable NRC requirements. Veeco wishes to continue to operate under our current license referenced above in accordance with statements, representations, and procedures contained in applications dated June 20, 1978, and September 6, 1978 with the following exceptions:

The current Radiation Protection Officers are:

- W. W. Cameron, Corporate Office, Richmond
- A. H. Stafford, North Anna Power Station
- S. P. Sarver, Surry Power Station

If any questions arise concerning this license renewal, please contact Mr. W. Wayne Cameron, Director - Chemistry and Health Physics, at the address on the license or by telephone; (804)771-4301.

Very truly yours,

*W. L. Stewart*  
W. L. Stewart

RECEIVED BY LHM
Date... <i>9/2/83</i>
Log... <i>Sept. 4 Ren.</i>
By... <i>Qrom</i>
Orig To
Action Compl. <i>9/12/83</i>

cc: Mr. D. J. Burke  
NRC Resident Inspector  
Surry Power Station

Mr. M. B. Shymlock  
NRC Resident Inspector  
North Anna Power Station

**COPY SENT REGION IL**

**FEE EXEMPT** 170.11(a)(3)  
15740

'83 AUG 30 10:08

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23209

3386

September 6, 1978

Mr. Richard E. Cunningham, Acting Director  
Division of Fuel Cycle and Material Safety  
Office of Nuclear Material Safety and  
Safeguards  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Serial No. 310B  
LQA/JEE:jal

Dear Mr. Cunningham:

By letter dated June 19, 1978, Vepco applied for a By-Product Material License to allow use of such materials at locations other than our nuclear facilities. Through recent telecons between Mr. Earl Wright of your staff and Mr. James East of Vepco certain information was given in support of our application and is restated below:

1. The maximum amount of any by-product material as contamination will be three (3) curies (Application Item 6A)
2. The maximum activity of any sealed calibration or check source will be 10 millicuries (Application Item 6B)
3. The current Radiation Protection Officers are:  
W. W. Cameron, System Office, Richmond  
D. M. Hopper, North Anna Power Station  
R. M. Smith, Surry Power Station

If you have any further questions, please feel free to contact Mr. East at (804) 771-4322.

Very truly yours,

*C. M. Stallings*

C. M. Stallings  
Vice President-Power Supply  
and Production Operations

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INSPECTION AND ENFORCEMENT

UNITED STATES ATOMIC ENERGY COMMISSION  
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

INSTRUCTIONS — Complete items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to items 6 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Material Branch, Directorate of Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in item 16 and the appropriate fee enclosed. (See Note in Instruction Sheet).

1. (a) NAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc. include ZIP Code and telephone number.)

Virginia Electric and Power Company  
7th & Franklin Street  
P. O. Box 26666  
Richmond, VA 23261  
(804) 771-3000

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a), include ZIP Code.)

Unspecified locations within the state of Virginia

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Power Department

3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)

45-13670-02

4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in items 8 and 9.)

See attached program description

5. RADIATION PROTECTION OFFICER. (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in items 8 and 9.)

See attached program description

6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)

- A. Any byproduct material
- B. Any byproduct material

(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)

As radioactive contamination in or on equipment, components, waste, and/or maintenance supplies in quantities as produced.

Any chemical and/or physical form.

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," Supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)

- A. Byproduct material to be transferred, possessed and used during repair, calibration or associated activities concerned with handling contaminated items.
- B. Byproduct material to be used as instrument calibration sources or check sources.

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

E. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)		FORMAL COURSE (Circle answer)	
			Yes	No	Yes	No
a. Principles and practices of radiation protection	See attached program description		Yes	No	Yes	No
b. Radioactivity measurement standardization and monitoring techniques and instruments			Yes	No	Yes	No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes	No	Yes	No
d. Biological effects of radiation			Yes	No	Yes	No

F. EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
See attached program description				

G. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	USE (Monitoring, surveying, measuring)
See attached program description					

H. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

See attached program description

I. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

See attached program description

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE:

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes  No

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

License Fee Category \$ 460  
 Fee Enclosed \$ 460

U.S. NUCLEAR REGULATORY COMMISSION

Applicant named in item 1 Virginia Electric and Power Co.

By: [Signature]

RECEIVED JUN 23 AM 10 48 '78

Senior Vice President  
 Title of certifying official

Date June 20, 1978

WARNING:—THE U. S. C., Section 1001, Act of June 25, 1948, 62 Stat. 949, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States or to any minor within its jurisdiction.

APPLICATION FOR BYPRODUCT MATERIAL LICENSEPROGRAM FOR TEMPORARY USE OF CONTAMINATED COMPONENTS AT SERVICE OR VENDOR FACILITIESPersonnel - Qualification, Authority and Responsibility  
(Items 4, 5, 8 and 9 of Form NRC-313 or AEC-313)

Health Physics Technicians (HP Techs) must have at least two years of experience in radiation protection, preferably at a nuclear power station. This experience must include training in the proper use of the radiation detection instrumentation to be used, basic Health Physics including personnel dosimetry and biological effects of radiation, radioactivity and radiation measurements, and the control of radioactive materials. The qualifications of HP Techs will be reviewed and approved by a VEPCO Supervisor Health Physics or a corporate Health Physics staff individual. This approval must be done prior to the HP Tech being considered as an authorized user of the byproduct material. A HP Tech will be present during the receipt handling, packaging, clean up and disposal of licensed material.

The Radiation Protection Officer's (RPO) position will be filled by a individual with supervisory authority from VEPCO. This individual must have at least four years of experience in radiation protection and training appropriate to the position. Approval of this person will be similar to that for HP Techs. During activities involving licensed material, this individual will be responsible for assuring compliance with NRC regulations, license conditions and good radiological safety practices. This position may substitute for a HP Tech at any time.

Any individual approving the above positions must have a bachelor's degree in a science or engineering subject, some formal training in radiation protection and five years of experience in radiation protection. Five additional years of radiation protection experience may be substituted for the bachelor's degree.

Radiation Detection Instruments  
(Items 10 and 11 of Form NRC-313 or AEC-313)

Instrumentation will be selected for use as appropriate for the operation anticipated and would normally be obtained from the supplies of the nuclear power stations. Ample numbers and types will be on hand to provide sufficient back up capability if needed.

Typical survey instruments available are:

Eberline E-520, detects beta-gamma, 0-2R/hr, 30 mg/cm<sup>2</sup> window  
Eberline E-530N, detects gamma, 0-20R/hr  
Eberline PIC-6A, detects gamma, 1 mR/hr - 1000 R/hr  
Eberline Teletector 6112, detects gamma, 0.1 mR/hr - 1000 R/hr  
Eberline PNR-4, detects neutrons, 0.5 mrem/hr - 5 rem/hr  
Victoreen Radector III, detects beta-gamma, 0.1 mR/hr - 1000 R/hr

Typical monitoring and measuring instruments available are:

Eberline RM-15 with AC-3 probe, detects alpha, 0-500,000 CPM, 0.5 mg/cm<sup>2</sup> window  
Eberline FM-12 Floor Monitor, detects beta-gamma, 0-240,000 CPM, 30 mg/cm<sup>2</sup> window



- Eberline RM-14 with HP 210 probe, detects beta-gamma, 0-50,000 CPM, 2.0 mg/cm<sup>2</sup> window
- Eberline MS-2 Scaler with HP<sub>2</sub>210 or HP 190 probe, detects beta-gamma, ratemeter/scaler Instrument, 2 mg/cm<sup>2</sup> window

Instrumentation is calibrated in accordance with manufacturer's instructions or accepted industry practice. Survey instruments are calibrated quarterly and monitoring or measuring equipment is calibrated at least quarterly. Gamma sources up to 130 Curie Cs-137 are available and the exposure rates from the sources are determined using a Victoreen Condenser R-Meter with appropriate chambers. Beta and alpha emitting standards are purchased from suppliers and are used to determine counting efficiencies of monitors. Pulse generators, such as the Eberline MP-1, are used to pulse calibrate instruments requiring such. Neutron emitting source such as PuBe or AmBe are used to response check neutron counters. Check sources (not necessarily standards) are available to response check instrumentation periodically, such as daily or before use.

Calibration of instrumentation will normally be performed at the power station supplying the instrument by a qualified technician. The instrument will then be response tested with a source which will be available at the offsite location for verification of proper instrument operation. Additional details are below under "Radiation Protection Program".

Personnel Dosimetry

(Item 12 of Form NRC-313 or AEC-313)

Personnel monitoring will be in accordance with 10 CFR 20 and any license conditions. Self reading pocket dosimeters will be issued to all workers entering the control point, established as detailed below under "Radiation Protection Program", and personnel exposure estimated at least daily using these devices. If it is anticipated an individual may be exposed to more than 25 mR during the entire operation a TLD badge will be assigned and worn at all times whenever they are inside the control area. Self reading dosimeters are response and drift checked at least once every six months. TLD's are response checked at least every twelve months. The response checks are made by exposure to a known amount of gamma radiation and recording the dosimeter response. An acceptance band is established and all dosimeters falling outside this band are removed from personnel dosimetry service. All dosimeters are checked prior to first use after receipt from a vendor. TLD badges will normally be read with a calibrated reader located at a power station and the results forwarded. Bioassays, normally whole body counting, will be performed on any worker for which survey results or other indicators show an exposure may have occurred 10% of the limits established by 10 CFR 20 for exposure to concentrations of radioactive materials in air in restricted areas.

After completion of the offsite operation, the exposure results for all the vendor's workers provided dosimetry will be supplied to the vendor including any results obtained from bioassays. Individual reports will be made of requested by a worker or required by 10 CFR 20 or other license condition.

Facilities and Equipment  
(Item 13 of Form NRC-313 or AEC-313)

Temporary facilities will be established to the extent necessary to minimize personnel exposure, prevent the spread of contamination and control airborne radioactivity. The facility could include a personnel clothes changing area, a personnel dosimetry control station, temporary ventilation with filters, a radiological evaluation area, and a rad waste-decon area.

The equipment and supplies to provide the facility would normally be similar to that used at the power stations such as:

- A. Radiological Evaluation - survey instruments, air samplers, counting equipment, area monitors, calibration/check sources
- B. Dosimetry - self reading dosimeters, TLD, TLD readers, alarming dosimeters, whole body counters (normally offsite)
- C. Posting and Access Control - barrier rope, warning signs, barricade material if needed
- D. Personnel Protection - protective clothing, respirators, shielding materials
- E. Containments - poly sheeting, blowers, HEPA filters
- F. Decontamination supplies - detergents, chemicals, brushes, mops, containers, cloth, absorbent material, electrical/electronic systems
- G. Waste Handling - drums, boxes, sheeting, tape, bags, portable waste treatment systems

Radiation Protection Program

Prior to the arrival of any material covered by the applicable license, the organization receiving the component and VEPCO will have a clear understanding in which VEPCO will have full control over all matters relative to radiological aspects of the pending activity. Training will be given to workers of the organization and be commensurate with the radiological hazards involved. The posting of NRC-3, "Notice to Employees" and other requirements of 10 CFR 19 will be followed.

Once it has been decided to send a component to an offsite facility, the individual designated as RPO will begin evaluating the scope of the pending maintenance. The RPO will coordinate preparations for shipping the component and discuss with responsible personnel of the offsite facility any necessary preparations and considerations during the operation. If appropriate, the RPO will be at the offsite facility when the component is received, verify radiological controls before work begins, coordinate clean up operations and preparations for return of the component, and verify, in the presence of a representative of the offsite facility, the final radiological status of the facility to demonstrate the effectiveness of any decon work.

Technicians will survey the component prior to shipment and prior to maintenance at its destination. Technicians will also be responsible for assisting/directing the establishment of control areas, providing radiological controls including necessary air, contamination and radiation surveys, providing personnel monitoring and any special job coverage. Technicians will control waste packaging and decon evaluations and survey all outgoing shipments.

A Radiation Work Permit (RWP) system will be implemented and workers indoctrinated in their use. RWP's will describe radiation and contamination levels, specify dosimetry and protective clothing requirements, specify the type of control area to be established, specify minimum survey requirements and any other instructions to minimize exposure. RWP's will normally be filled out by the RSO and implemented by technicians. Only those individuals who require access to radiation areas will be permitted entry.

Transportation of components will be in accordance with DOT and NRC regulations. If permissible, the component will be sent as "Low Specific Activity Material" provided contamination levels will meet the definition as given by 49 CFR 173.389(c), in which case the regulations of 49 CFR would apply. If contamination levels are such that 10 CFR 71 applies to the packaging requirements, an appropriate container would be obtained for the shipment and both 10 CFR 71 and 49 CFR Parts 170-189 would be applicable.

Before a component is shipped from the station, decontamination efforts to the extent practical will be performed. Before the component is unloaded at the offsite facility, a "pre maintenance" baseline radiological survey would normally be done to determine any preexisting circumstances which may require evaluation.

Radiological control areas will be established at the offsite location and be appropriate for the condition of the component being worked. If any radiation level, when measured 12 to 18 inches from any accessible area of the component, exceeds 100 mR/hr the control area will be placed under direct surveillance either by technicians to control entries or by authorized security personnel to prevent unauthorized entry. If the high radiation area will exist for more than 30 days, the entrance to the area will be locked and a technician present during each entry.

Any material leaving the control area must be monitored by a technician for both radiation and contamination levels. Radioactive calibration sources will be kept under lock and key and small check sources will normally be used only by technicians. Posting of radiation area and radioactive materials will be in accordance with 10 CFR 20 or any applicable state regulation.

Surveys will be conducted on a frequency applicable to the nature of the operation being performed. Contamination surveys will be performed on all personnel and items exiting a control area. The areas adjacent to the control area will be surveyed for radiation and contamination levels at least once per day when maintenance is ongoing. Monitoring devices such as TLD badges will be located at selected points outside the control area to demonstrate compliance with allowable radiation levels in unrestricted areas resulting from this work and will normally be placed at the beginning of the job and removed after final clean up is complete and the exposures then determined unless more frequent determinations are indicated or desired.

Areas inside the control area will be surveyed for radiation and contamination at least 3 times per day whenever maintenance is ongoing. The radiation survey may be reduced in frequency provided a constant radiation monitoring device is used which will alarm at a present radiation level or at a preset integrated exposure. Air samples will be taken using equipment and at a schedule appropriate to anticipated airborne contamination. If it is determined that the exposure limits specified for air in restricted areas by 10 CFR 20 may be exceeded a constant air monitor with an alarm will be utilized to give early warning if such a condition is actually being approached. If it is determined some airborne contamination may be generated and require evaluation then a constant air sampler would be used during such times and samples periodically counted. If no airborne contamination problems are anticipated air samples will be taken at least daily to document the evaluation.

Once the maintenance activity is concluded and the component removed, a radiation and contamination survey will be done and a decontamination plan formulated. The decontamination agents and techniques will be selected as deemed to best suit the existing situation. The proper setting up of the control area, and prior treatment of equipment and surfaces to aid in decontamination, and reasonable effort should result in an effective clean up program. To be considered suitable for unrestricted use the facility is to be returned to radiological conditions no higher than originally found, or have no component or area having a radiation level higher than 0.1 mR/hr, fixed contamination on any component averaging greater than 100 dpm/cm<sup>2</sup> or removable averaging greater than 10 dpm/cm<sup>2</sup>. Personnel responsible for the offsite facility will be encouraged to participate in and witness the final verification of the radiological status.

#### Waste Disposal

(Item 15 of Form NRC-313 or AEC-313)

Radioactive waste resulting from the maintenance activities will be disposed of in accordance with the applicable regulations of 10 CFR and 49 CFR any any other conditions imposed by licenses. Solid waste will be packaged in control areas under the direction of technicians. The containers of waste will be shipped to a licensed vendor for disposal, turned over to another authorized licensee, or returned to a licensed facility for disposition. No solid radioactive waste will be left at the offsite location with unlicensed contractors.

Radioactive liquid waste may be produced by decontamination of personnel, equipment, or areas. Personnel are not expected to become contaminated, however if they do, only small amounts of very low level liquid waste would be produced and normally be disposed of in the facility's sanitary sewer system as provided by 10 CFR 20.

Radioactive liquids produced by the decontamination of equipment or areas will be contained until their radioactivity content can be determined. These liquids may then be disposed of per the requirements of 10 CFR 20 plus the additional restriction that such liquids be treated or diluted until the radioactive materials are in concentrations less than specified in Appendix "B", Table II of 10 CFR 20 prior to release. Any radioactive concentrates, filters or ion exchange resins produced by treating liquid will be properly disposed of. Records will be maintained for liquid releases.