

## APPENDIX B

### MATERIALS PROCESSOR/MANUFACTURER INSPECTION REFERENCES

#### 1. ORGANIZATION AND SCOPE OF PROGRAM

License application and applicable license conditions.

#### 2. MANAGEMENT OVERSIGHT

##### A. Radiation Safety Committee

Applicable license conditions.

##### B. Radiation Safety Officer

Applicable license conditions.

##### C. Audits, Reviews, or Inspections

10 CFR 20.1101 Radiation protection programs.

10 CFR 20.2102 Records of radiation protection programs.

Applicable license conditions.

##### D. ALARA

10 CFR 20.1101 Radiation protection programs.

##### E. Authorized Users

Applicable license conditions.

#### 3. FACILITIES

##### A. Access Control

10 CFR 20.1601, 1602 Control of access to high/very high radiation areas.

10 CFR 20.1801 Security of stored material

10 CFR 20.1802 Control of material not in storage

Applicable license conditions.

##### B. Engineering Controls

10 CFR 20.1101 Radiation protection programs.

10 CFR 20.1701 Use of process or other engineering controls.

Applicable license conditions.

#### 4. EQUIPMENT AND INSTRUMENTATION

- A. Survey Instruments
  - 10 CFR 20.1501 General.
  - 10 CFR 20.1701 Use of Process or Other Engineering Controls.
  - 10 CFR 20.2103 Records of Surveys.
  - Applicable license conditions.

- B. Safety Component Defects
  - 10 CFR 21.21 Notification of failure to comply or existence of a defect and its evaluation.

5. MATERIAL USE, CONTROL AND TRANSFER

- A. License and applicable license conditions.

- B. Security and Control
  - 10 CFR 20.1003 Definitions (restricted area and unrestricted area).
  - 10 CFR 20.1801 Security of stored material.
  - 10 CFR 20.1802 Control of material not in storage.

- C. Receipt and Transfer of Licensed Material
  - 10 CFR 20.1302 Compliance with dose limits for individual members of the public.
  - 10 CFR 20.1906 Procedures for receiving and opening packages.
  - 10 CFR 20.1501 Surveys.
  - 10 CFR 20.2103 Records of surveys.
  - 10 CFR 30.41 Transfer of byproduct material.
  - 10 CFR 30.51 Records of receipt and transfer.

6. AREA RADIATION SURVEYS AND CONTAMINATION CONTROL

- A. Area Surveys
  - 10 CFR 20.1302 Compliance with dose limits for individual members of the public.
  - 10 CFR 20.1501 General.
  - 10 CFR 20.2103 Records of surveys.
  - 10 CFR 20.2107 Records of dose to individual members of the public.
  - Applicable license conditions.

- B. Leak Tests and Inventories
  - Applicable license conditions.

7. TRAINING AND INSTRUCTIONS TO WORKERS

- A. General

10 CFR 19.12            Instruction to workers.  
10 CFR Part 20        Radiation protection procedures and requirements.  
Applicable license conditions.

8.    RADIATION PROTECTION

A.    Radiation Protection Program

1.    Exposure evaluation

10 CFR 20.1501        General.

2.    Programs

10 CFR 20.1101        Radiation protection programs.

B.    Dosimetry

1.    Dose Limits

10 CFR 20.1201        Occupational dose limits for adults.  
10 CFR 20.1202        Compliance with requirements for summation of  
external and internal doses.  
10 CFR 20.1207        Occupational dose limits for minors.  
10 CFR 20.1208        Doses to an embryo/fetus.

2.    External

10 CFR 20.1203        Determination of external dose from airborne  
radioactive material.  
10 CFR 20.1501        General.  
10 CFR 20.1502        Conditions requiring individual monitoring of  
external and internal occupational dose.  
Applicable license conditions.

3.    Internal

10 CFR 20.1204        Determination of internal exposure.  
10 CFR 20.1502        Conditions requiring individual monitoring of  
external and internal occupational dose.  
10 CFR Part 20        Respiratory protection and controls to restrict  
Subpart H internal exposure in restricted areas.

C.    Records

10 CFR 20.2102        Records of radiation protection programs.  
10 CFR 20.2103        Records of surveys.  
10 CFR 20.2104        Determination of prior occupational dose.  
10 CFR 20.2106        Records of individual monitoring results.

9.    RADIOACTIVE WASTE MANAGEMENT

A.    Disposal

10 CFR 20.1904        Labeling containers.

10 CFR 20.2001	General requirements.
10 CFR 20.2103	Records of surveys.
10 CFR 20.2108	Records of waste disposal.
10 CFR 20.2003	Disposal by release into sanitary sewerage.

B. Effluents

1. General

IP 87102	Maintaining Effluents from Materials Facilities As Low As Is Reasonably Achievable (ALARA).
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2. Release to septic tanks

10 CFR 20.1003	Definitions (sanitary sewerage).
10 CFR Part 20, Appendix B, Table 2	Effluent Concentrations.

3. Incineration of waste

10 CFR 20.2004	Treatment or disposal by incineration.
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4. Control of air effluents and ashes

10 CFR 20.1201	Occupational dose limits for adults.
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10 CFR 20.1301	Dose limits for individual members of the public.
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10 CFR 20.1501	General.
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10 CFR 20.1701	Use of process or other engineering controls.
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Applicable license conditions

C. Waste Management

1. General

10 CFR 20.2001	General requirements.
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IP 84850	Radioactive Waste Management - Inspection of Waste Generator Requirements of 10 CFR Part 20 and 10 CFR Part 61.
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2. Waste compacted

Applicable license conditions.

3. Waste storage areas

10 CFR 20.1801 Security of stored material.  
10 CFR 20.1902 Posting requirements.  
10 CFR 20.1904 Labeling containers.  
Applicable license conditions.

4. Packaging, Control and Tracking

10 CFR Part 20 Requirements for Low-Level Waste Transfer Appendix F for Disposal at Land Disposal Facilities and Manifests.

10 CFR 20.2006 Transfer for disposal and manifests.

10 CFR 61.55 Waste classification.

10 CFR 61.56 Waste characteristics.

5. Transfer

10 CFR Part 20 Requirements for Low-Level Waste Transfer Appendix F for Disposal at Land Disposal Facilities and Manifests.

10 CFR 20.2001 General requirements.

10 CFR 20.2006 Transfer for disposal and manifests.

6. Records

10 CFR 20.2103 Records of surveys.

10 CFR 20.2108 Records of waste disposal.

10. DECOMMISSIONING

10 CFR 30.35 Financial assurance and record keeping for decommissioning.

10 CFR 30.36 Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.

IMC 2602 Decommissioning Inspection Program for Fuel Cycle Facilities and Materials Licensees.

IP 87104 Decommissioning Inspection Procedure for Materials Licensees.

IMC 2605 Decommissioning Procedures for Fuel Cycle and Materials Licensees.

NUREG/BR-0241 NMSS Handbook for Decommissioning Fuel Cycle and Materials Licensees.

11. TRANSPORTATION

A. General

NRC Charts	Hazard Communication for Class 7 (Radioactive) Materials.
10 CFR 71.5	Transportation of licensed material.
TI 2515/133	Implementation of Revised 49 CFR Parts 100-179 and 10 CFR Part 71.

B. Shippers Requirements for Shipments and Packaging

1. General Requirements

49 CFR Part 173	Class 7 (radioactive) materials. Subpart I
49 CFR 173.24	General requirements for packaging and packages.
49 CFR 173.448	General transportation requirements.
49 CFR 173.435	Table of A <sub>1</sub> and A <sub>2</sub> values for radionuclides.

2. Transport Quantities

10 CFR 71.4	Definitions.
a. All quantities	
10 CFR 71.4	Definitions.
49 CFR 173.410	General design requirements.
49 CFR 173.441	Radiation level limitations.
49 CFR 173.443	Contamination control.
49 CFR 173.475	Quality control requirements prior to each shipment of Class 7 (radioactive) materials.
49 CFR 173.476	Approval of special form Class 7 (radioactive) materials.
b. Limited quantities	
49 CFR 173.421	Excepted packages for limited quantities of Class 7 (radioactive) materials.
49 CFR 173.422	Additional requirements for excepted packages containing Class 7 (radioactive) materials.

- c. Type A quantities
  - 49 CFR 173.412 Additional design requirements for Type A packages.
  - 49 CFR 173.415 Authorized Type A packages.
  - 49 CFR 178.350 Specification 7A; general packaging, Type A.
- d. Type B quantities
  - IP 86740, Section 2 Inspection of Transportation activities.
- e. LSA material and SCO
  - 49 CFR 173.403 Definitions.
  - 49 CFR 173.427 Transport requirements for low specific activity (LSA) Class 7 (radioactive) materials and surface contaminated objects (SCO).

3. HAZMAT Communication Requirements

- 49 CFR 172.200-205 Shipping papers.
- 49 CFR 172.300-338 Marking.
- 49 CFR 172.400-450 Labeling.
- 49 CFR 172.500-560 Placarding.
- 49 CFR 172.600-604 Emergency response information.

C. HAZMAT Training

- 49 CFR 172.702 Applicability and responsibility for training and testing.
- 49 CFR 172.704 Training requirements.

D. Transportation by Public Highway

- 49 CFR 171.15 Immediate notice of certain hazardous materials incidents.
- 49 CFR 171.16 Detailed hazardous materials incident reports.
- 49 CFR 177.800 Purpose and scope of this part and responsibility for compliance and training.
- 49 CFR 177.816 Driver training.
- 49 CFR 177.842 Class 7 (radioactive) material.

12. NOTIFICATIONS AND REPORTS

- 10 CFR 19.13            Notifications and reports to individuals.
- 10 CFR 20.2201        Reports of theft or loss of licensed material.
- 10 CFR 20.2202        Notification of incidents.
- 10 CFR 20.2203        Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the constraints or limits.
- 10 CFR 30.50           Reporting requirements.

13. POSTING AND LABELING

- 10 CFR 19.11           Posting of notices to workers.
- 10 CFR 21.6            Posting requirements.
- 10 CFR 20.1902        Posting requirements.
- 10 CFR 20.1903        Exemptions to posting requirements.
- 10 CFR 20.1904        Labeling containers.
- 10 CFR 20.1905        Exemptions to labeling requirements.

14. INDEPENDENT AND CONFIRMATORY MEASUREMENTS

No references.

15. VIOLATIONS, NON-CITED VIOLATIONS, AND OTHER SAFETY ISSUES

- NUREG/BR-0195, Rev.1    NRC Enforcement Manual.  
NUREG-1600                General Statement of Policy and Procedures for NRC  
   Enforcement Actions.

16. SOURCE OR DEVICE REVIEW

- 10 CFR 32.210           Registration of product information.

17. PERSONNEL CONTACTED

No references.

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