

SECTION	VII.	Environmental Programs
Chapter	2	Radioactive Waste
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RADIOACTIVE WASTE MANAGEMENT

INTRODUCTION

PURPOSE

Duke University must take precautions to protect its employees, visitors, students, neighbors and the environment from the improper handling or disposal of radioactive wastes. The Environmental Programs Division of the Occupational and Environmental Safety Office (OESO) manages the appropriate handling and disposal of radioactive wastes in accordance with State and Federal laws.

The Nuclear Regulatory Commission established requirements for the management of radioactive materials including wastes. Specifically, radioactive waste must be monitored similar to all other radioactive materials under a license from the NRC or the state approved program. Duke University holds two broad licenses allowing the use of isotopes up to atomic number 83. Researchers who wish to use radioisotopes are licensed by the Radiation Safety division of the OESO.

RESPONSIBILITIES

Departments shall ensure that all radioisotope users within their department are licensed by the Radiation Safety Division of the OESO and that they comply with this policy. In the case of laboratory cleanouts or abandoned materials, the department may bear the costs of identifying and preparing hazardous materials for proper disposal.

Generators of radiological waste shall:

- Follow the policies and procedures in the “Radioactive Waste Management Policy for Duke University/Medical Center”.
- Register as a generator with OESO EP.
- Ensure that waste containers are properly labeled and accompanied with signed paperwork when collected.
- Minimize the amount of waste generated.

- Follow specific segregation guidelines so as to not mix isotope wastes with significantly different half-lives.
- Limit use of the sanitary sewer for isotope disposal.
- Receive OESO EP approval prior to generating "mixed wastes".

OESO Environmental Programs will:

- Ensure rapid removal of radiological wastes from area of generation.
- Ensure proper storage and disposal of all waste radiological substances.
- Maintain a database of all radiological waste transactions.
- Prepare required reports.

Employees that create radioactive waste must comply with the procedures defined in this Policy.

PROCEDURES

All Radioisotope Licensees will be assigned a generator identification number for the specific location where the waste is stored. Upon registration, a new generator will receive an orientation to the system and be provided all materials necessary, including a copy of the Radioactive Waste Management Policy for Duke University/Medical Center See Supplement R.

The Radioactive Waste Management Procedure involves the following steps:

Generators of radioactive will:

- Segregate waste by type and half-life.
- Identify the types of radiological waste intended for disposal.
- Submit of a waste collection request.

OESO Environmental Programs will:

- Properly manage the storage, decay and shipment of radioactive wastes to authorized disposal/processing facilities.

REFERENCES

Code of Federal Regulations, Title 10

North Carolina Administrative Code Title 15 Chapter 11

Durham City Sewer Ordinance

Radioactive Waste Management Policy for Duke University/Medical Center

Duke University/Medical Center Radiation Safety Manual

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