RADIATION SAFETY OFFICER

PURPOSE

This procedure defines the qualifications, authority and responsibilities of the Radiation Safety Officer (RSO) for implementing the University's radiation protection program.

POLICY

The University is committed to an effective radiation protection program based upon recommendations of authoritative organizations such as the International Commission on Radiological Protection (ICRP), the National Council on Radiation Protection and Measurements (NCRP) and the American National Standards Institute (ANSI), and in compliance with the rules and regulations of the U. S. Nuclear Regulatory Commission (NRC) and the Utah Division of Radiation Control (UDRC). The appointment of a qualified individual to the position of Radiation Safety Officer carries with that appointment the automatic delegation of authority and responsibilities described in this procedure.

DEFINITIONS

Radiation Safety Officer (RSO) is the individual appointed by the University, and named on the radioactive materials licenses, to establish and enforce such procedures as are necessary to assure compliance with applicable regulations and license conditions, and to ensure effective implementation of the policies and rules established by the Radiation Safety Committee.

Depending on the context, "RSO" may also refer to any individual designated to perform specific tasks on behalf of the RSO.

Alternate RSO is an individual designated by the RSO and approved by the Radiation Safety Committee who, in the absence of the RSO, shall assume the authority and responsibilities the RSO.

QUALIFICATIONS

The minimum qualifications for appointment as the RSO are:

1 An advanced degree in a scientific field directly related to radiation protection, including graduate-level training in:

- **a** physics of radiation sources,
- **b** radiation and radioactivity measurements methods, instruments and calibrations,
- **c** mathematics and calculations related to radiation protection,
- **d** biological effects of radiation, and
- **e** radiological protection practices.

2 Experience in a position with responsibility for radiation protection:

- **a** sufficient to be eligible for certification by the American Board of Health Physics, and
- **b** with at least 2 years in a major institutional program.

3 Experience in personnel administration and financial management of a program comparable in scope to the Radiological Health Department.

4 Any other qualifications deemed appropriate by the University Administration.

An individual designated as the alternate RSO shall have most of the qualifications for the position of RSO, with the likelihood of becoming fully qualified within three years.

AUTHORITY

The RSO is authorized and directed to promulgate and enforce such procedures as are necessary to assure compliance with applicable federal and state regulations and to ensure the accurate interpretation and effective implementation of the policies and rules established by the Radiation Safety Committee. The RSO is authorized and directed to terminate immediately any project or operation that presents a radiological threat to health or property.

RESPONSIBILITIES

The RSO shall:

1 maintain cognizance and general surveillance over all activities involving radioactive material and other sources of ionizing radiation;

2 establish criteria for using personal monitoring devices and for performing bioassays, and maintain personnel exposure and bioassay records;

3 establish investigation levels for radiation exposures to personnel that, when exceeded, will initiate a prompt investigation of the cause of the exposure and consideration of actions that might be taken to reduce the probability of recurrence;

4 investigate overexposures, accidents, spills, losses, thefts, unauthorized receipts, uses, transfers, disposals, misadministrations, and other deviations from approved radiation safety practices, and implement corrective actions as necessary;

5 provide training for radiation users on the proper procedures for the use of radioactive material and other radiation sources;

6 assure proper calibration and operation of radiation measuring and surveying instruments used to determine compliance with regulations or procedures;

7 ensure the performance of periodic radiological evaluations and surveys of all radiation-generating machines and all areas where radioactive materials are stored or used;

8 establish written policies and procedures for purchasing, receiving, opening, storing, using, and disposing of radioactive materials;

9 maintain an inventory of all radioactive materials and limit the quantities in possession to the amounts authorized by the license(s);

10 ensure that all incoming shipments pf radioactive materials are properly surveyed and recorded, and that all outgoing shipments of radioactive materials are properly packaged, labeled, manifested and transported;

11 supervise and coordinate the radioactive waste disposal program, including keeping waste storage and disposal records and monitoring effluents;

12 ensure the performance of leak tests on all sealed sources;

13 maintain copies of all licenses, regulations, policies, procedures and other records pertaining to the radiation protection program;

14 assist, advise and serve on the Radiation Safety Committee, the Radioactive Drug Research Committee and the Reactor Safety Committee.

REFERENCES

National Council on Radiation Protection and Measurements, *Operational Radiation Safety Program,* Report No. 127, 1998.

US Nuclear Regulatory Commission:

Applications for Type A Licenses of Broad Scope, Reg. Guide 10.5, 1981.

Guide for the Preparation of Applications for Medical Use Programs, Reg. Guide 10.8, Rev. 2, 1987.

Specific Domestic Licenses for Broad Scope of Byproduct Material, 10 CFR 33.

Medical Use of Byproduct Material, 10 CFR 35.

Utah Division of Radiation Control, *Utah Radiation Control Rules:*

Specific Licenses, R313-22.

Medical Use of Radioactive Material, R313-32.