4. TRAINING PROGRAM

4.1 INITIAL TRAINING

4.1.1 Institutional Radiation Safety Examinations

Radiation Safety provides 3 different examinations, each designed to cover a specialized type of RAM usage:

- **Radiation Safety Examination (RSE)** is required of all users of by-product material, including positron-emitting (PET) isotopes, in a research or laboratory medicine area. The RSE is based on the material contained in the *Training Manual for Users of Radioactive Material*. More information is given on our Getting Started webpage.

- **PET Examination (PET)** is required of all users of PET material, including those in research, laboratory medicine & clinical areas. The PET is based on the material contained in *Radiation Safety Information for PET Laboratory Personnel*. More information is given on our Getting Started webpage.

- **Irradiator Examination (IRR)** is required of all individuals who need to use one of the gamma irradiators, whether it is for research or clinical applications. The IRR is based on the material contained in the “*Training Manual for Users of Self-Shielded Gamma Irradiators*”. Because of NRC regulations controlling access to certain radioactive sources, training for irradiator use is initiated only at the written request of an Irradiator Co-Authorized User. More information is given on our Getting Started webpage.

All of the study guides are also available on the Training Information page at the Radiation Safety website, [http://radsafety.wustl.edu](http://radsafety.wustl.edu). The exam schedule varies according to seasonal demand, but the RSE and PET exams are always on a Thursday between the hours of 1:15 – 2:45 pm at the Radiation Safety Office. More details, location information, and exam sign-up instructions are given on the Training Information page.

4.1.2 Lab-Specific Training

Prior to independently working with RAM, an individual must be provided training by the authorized user, or by a person designated by the authorized user, about the safety aspects of the specific procedures that will be performed by the individual.

The same kind of instruction must be provided by the authorized user or designate before radioactive materials are used for a new procedure that has significantly different radiation safety aspects.
4.2 CONTINUING TRAINING

4.2.1 Annual Refresher Training

Radiation Safety provides annual refresher training for personnel working with radioactive materials. The annual refresher information is provided as an on-line presentation with quiz questions. It includes:

- General information concerning radioactivity,
- Risks and biological effects of radiation exposure,
- Rules that apply to the use of RAM at this institution,
- Obligations of employees to report unsafe conditions,
- Employees' rights to be informed of their radiation exposure and bioassay results, and
- Locations where the licensee has posted or made available notices, copies of regulations, and copies of licenses and license conditions.

4.2.2 Lab Specific Training/ALARA Session

The authorized user directly responsible for personnel in a particular laboratory is required to hold an annual training/ALARA session, before September 30 of each year. The session must address the safety issues associated with the specific procedures conducted in the laboratory and ways to achieve ALARA. In addition, it is recommended that other radiation safety issues be reviewed at the time of the annual session, including the following:

- The ALARA concept and the ALARA program (refer to Section 11 of the institutional Radiation Safety Manual)
- The general rules for the safe-handling of RAM (refer to Sections 5 and 9 of the Radiation Safety Manual)
- The appropriate actions to take in case of a spill of radioactive materials (refer to Section 15 of the Radiation Safety Manual)

It is recommended that these two categories of instruction, i.e., the completion of the on-line refresher presentation/quiz and the ALARA session organized by the authorized user, be provided in conjunction with each other. Both categories of training must be provided each year during the training period from mid-April until September 30. Documentation must be provided to Radiation Safety verifying that the training requirements have been fulfilled. The on-line refresher training is automatically documented in our database. If you combine the two categories in a laboratory meeting without having each person take the on-line portion, a training documentation sign-up sheet to use is provided with the e-mailed training announcement.