Illinois State University receives a license from the Illinois Department of Nuclear Safety, (IDNS), to procure and use certain radioactive substances. As part of this license the University agrees to abide by the rules and regulations set forth by this agency. To insure that these rules and regulations are being carried out, IDNS periodically sends an officer to inspect our laboratories and to review our radiation safety program.

The ISU Radiation Safety Committee, authorized by IDNS, is the body that governs the use of radioactive materials on campus. This committee consists of seven members, three of whom come from Environmental Health and Safety (EHS); the chairman, who is the head of EHS, the radiation safety officer and assistant radiation safety officer. The remaining four consist of one representative from each of the departments of Biological Sciences, Chemistry, Health Sciences and Health Services. One main function of the committee is to review the qualifications of faculty members who wish to use radioactive materials in their research. A faculty member makes application to the committee, which includes his/her training and experience with the radioactive materials that are to be used in the research. The particular isotopes and amounts needed are included in the application. After successful review the committee grants permission to purchase and use such materials within the limits of ISU’s license.

The complete outline of ISU’s radioactive materials program is described in the Radiation Safety Manual, available on Environmental Health and Safety’s web site. A small number of important points follow.

1. Surveys of radioactive material work areas are to be performed weekly when such material is being used. The appropriate instrument must be used, such as a Geiger counter for P-32 or I-125, or swipe for H-3, C-14 and S-35. Written records must be maintained of these tests. If no radioactive materials have been used the weekly record should so indicate.
2. When radioactive material is to be transferred to another authorized laboratory, approval must be obtained from the radiation safety officer or the assistant radiation safety officer and a copy of the amended inventory form sent.
3. Experiments involving volatile radioactive substances, such as volatile I-125, must be done in an approved fume hood.
4. Film badges are not to be shared between persons and should be worn on the chest or waist when working with high-energy beta emitters, such as P-32 or gamma emitters.
5. Solid radioactive contaminated waste must be stored in separate packages with labels indicating the isotope and the date. If the contamination is less than 0.05 microcuries per gram of H-3 or C-14, the waste may be discarded in ordinary trash.
6. Liquid radioactive contaminated waste must be stored in separate containers with labels indicating the isotope, the type of liquid, and the date.

7. Packages of radioactive materials received from vendors that have been delivered to the laboratory should be inspected for contamination. All non-contaminated packing materials are to be disposed of in ordinary trash after radioactive warning labels have been removed. Do not put non-radioactive waste into radioactive waste containers.

8. Decontaminating skin is accomplished by washing the area with mild cleansers two or three times. Strong soaps or solvents or vigorous scrubbing with a brush should not be used. The contamination should be removed not worked in.

9. If an accident occurs in a laboratory involving an injured contaminated person including spilled material the steps taken should be in the following order:
   a. Assist the person, give first aid if necessary
   b. Monitor the person and begin their decontamination
   c. Control the work area lock the door if necessary
   d. Decontaminate the work area
   e. Call Environmental Health and Safety to report the accident and ask for assistance.

10. Maintain up-to-date inventory records.

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