Contamination Control

"Are you taking your work home with you?"

In most laboratory settings, contamination control is the primary concern with respect to using radioactive material. Unless large activities of high energy beta or gamma-emitting radionuclides are used, the external radiation exposure one receives from routine procedures is easily controlled. However, avoiding internal contamination is important in all uses of unsealed radioactive material. The following guidelines outline measures that should be taken to control contamination and prevent internal exposure to radioactive material:

1. Lab coats and disposable gloves should always be worn when handling radioactive material or equipment that is used in radioactive procedures. In addition, protective eyewear should be utilized when procedures may disperse radioactive material to the face (e.g., grinding or using large volumes of radioactive liquid). It is also advisable to avoid shorts and open-toed shoes. The use of radiochemical fume hoods may also be necessary to control airborne contamination.

2. Prior to beginning your radioactive procedure, label all pipettes, vials, etc. with "radioactive" tape if there is a potential that they may become contaminated.

3. Remember to remove your gloves if you are interrupted during your procedures (e.g., the phone rings) or if you need to open a freezer, incubator, etc.

4. If the radionuclide that you are working with is capable of being detected by a survey meter, perform a survey of yourself and your work area periodically and at the end of your experiment. Decontaminate as necessary in accordance with established limits (see Radiation Safety Procedures Manual).

5. Remember that eating, drinking, smoking and application of cosmetics are prohibited in laboratories. (Application of hand lotion is allowable.)