



## CLEAN AREA FACTSHEET

### INTRODUCTION

It has for some time been the policy of the UC Irvine Radiation Safety Committee to permit the establishment of Clean Areas within laboratories in which radioisotopes (and other hazardous materials, such as chemicals and, biohazards) are used and/or stored. However, UC Irvine's approval from the California Department of Health Services to permit Clean Areas in laboratories is conditional on them being established in a safe and appropriate manner.

### PURPOSE

The purpose of a Clean Area is to serve as a location within a radioisotope laboratory (an authorized location on an approved Radiation Use Authorization [RUA]) at which food and beverages may be safely consumed *during periods in which radioisotopes are not actively being handled*. It is recognized by EH&S that many laboratory personnel do not have offices outside of the laboratory, and that setting aside certain areas inside the laboratory in which individuals can safely eat their lunches/snacks and consume beverages is quite useful.

### ESTABLISHING A SAFE CLEAN AREA

Clean Areas must be established in locations in which contamination by radioisotopes, chemicals and biohazardous materials is very unlikely to occur. Generally, desks, tables and refrigerators well away from hazardous materials are used as Clean Areas. These areas must be labeled using Clean Area signs issued by EH&S. The signs are white with black print and a blue border around the word "Notice". *Do not substitute homemade signs or photocopies*. If you need more signs, contact EH&S at 949-824-6098.

Clean Areas must be distanced from laboratory areas in which unsealed radioisotopes and other hazardous materials are handled, particularly well away from fume hoods in which iodinations using I-125 are performed. This is to reduce the likelihood of the Clean Area becoming contaminated. In addition, Clean Areas must not be in areas in which personnel may be exposed to external radiation dose rates exceeding 0.05 mrem per hour. This is because many individuals tend to spend a good deal of time seated at their desks, which are frequently designated as Clean Areas.

Refrigerators and freezers used to store food and beverages must be labeled as Clean Areas, and they must be free of all hazardous materials.



## **IMPROPER USES OF RADIOISOTOPE AREAS AND CLEAN AREAS**

**No radioisotopes must ever be stored in Clean Area refrigerators or freezers used to store food and beverages – even for very brief periods of time!!!**


**Likewise, no food (lunches, ice cream, etc.) or beverages must ever be stored in refrigerators or freezers used to store hazardous materials such as radioisotopes, chemicals, or biohazards – even for very brief periods of time!!!**

Clean areas are not to be used as safe havens for food and beverages to be consumed while you are handling radioactive materials in other areas of the laboratory. Finish your radioisotope work, remove any potentially-contaminated safety attire, *wash your hands*, and then you may consume the food and beverages safely in your designated Clean Area. A radiation survey meter can also be used to verify that you are not contaminated with radioactivity (*survey meters cannot detect H-3 contamination!*).

If you have any reason to believe that a Clean Area has somehow become contaminated, check the area carefully and decontaminate it if necessary. Do not use it for food or beverage consumption until it is known to be free of radioisotopes and other hazardous materials!

Occasionally, EH&S personnel have found milk and other items produced for human consumption in refrigerators in which radioactive materials and other hazardous materials are stored, only to be told by the individuals in the laboratory that the items are for experimental animal consumption. Unless such items become contaminated, it is best to store them in the Clean Area refrigerator with your food. If it is necessary to store them in the standard laboratory refrigerators, make sure they are labeled prominently with something similar to “Not for human consumption” or “For animal/laboratory use only”.

The suitability of established Clean Areas is verified by EH&S personnel during each radiation protection survey of your laboratory. These surveys are performed every 3 months or every 6 months, depending upon the quantities of radioisotopes used in your laboratory, and how they are used. [A few laboratories are surveyed only annually.] However, if you have any questions regarding the suitability of a specific location in your laboratory for establishing a Clean Area, please contact EH&S for advice. **Do not risk setting up a Clean Area in a potentially dangerous location!**

 If you have any questions about Clean Areas or any other radiation safety matter, please contact the Radiation Safety Division of EH&S at 949-824-6098 or 949-824-6904.