**Instructions for Use of Dosimeter**

Environmental Health & Safety provides individual monitoring devices to any individual who is likely to receive, in one year, from sources external to the body, a dose in excess of 10 percent of the limits listed below or who enters a high or very high radiation area. The dosimeters issued to University personnel are effective for measuring dose resulting from exposure to high energy betas, x and gamma rays.

Total Effective Dose Equivalent (whole body) - 5 rem per year

Lens of the eye - 15 rem per year

Skin of whole body or skin of any extremity - 50 rem per year

**The following rules should be observed by all dosimeter wearers:**

1. The dosimeter is non-transferable. All exposures to the dosimeter are added to an individual's account as indicated by the identification code.
2. The dosimeter should not be worn outside of the work environment. It is intended to monitor your exposure to radiation at work only. They are to be worn at all times when you are working with radioactive material or radiation producing equipment.
3. To report a lost or damaged dosimeter, contact EHS immediately (434-982-4911 or [grm4na@virginia.edu](mailto:grm4na@virginia.edu)) so that a temporary replacement dosimeter can be issued. Return your dosimeter at the end of each wear period to the designated person in your department and pick up your new dosimeter. An unreturned dosimeter provides no information. Your department will be charged for late or unreturned badges.
4. **The dosimeter indicates only the exposure at the position at which it is worn, and for that reason, should be worn on the part of the body most likely to receive the highest exposure. It is important that the badges are worn properly at all times.** If they are worn improperly (or not worn when required), the dose recorded will not be an accurate record of the dose you actually received.

If it is likely that the body may be exposed fairly uniformly, a dosimeter should be worn on the trunk of the body since the gonads and most of the blood-forming organs that constitute the principal critical organs for whole-body exposure are located in the trunk. Suitable locations are the breast pockets, lapels, and the belt. Dosimeters should be worn so that they are visible at all times, except when they are intentionally covered by a shield. This prevents unintentional shielding by clothing or by items in a pocket. **In situations where the trunk of the body is shielded but the head region is not, the dosimeter should be worn on the collar to monitor exposure to the thyroid and lenses of the eyes.** A whole body dosimeter should not be used to monitor radiation exposure to extremities. A ring badge will be issued to you for this purpose if necessary.

**Extremity Dosimeters** - In non-uniform radiation fields where an extremity may receive a significant exposure, extremity dosimeters should be worn as near to the point of maximum exposure as possible (e.g. finger or wrist) and should not be shielded by the extremity. Ring badges may be issued for one or both hands. Ring badges are marked with right and left hand indicators. Do not interchange them. When protective gloves are being worn while handling radioactive material, the ring badge(s) should always be worn under the gloves to prevent contamination of the badge. Wear the ring with the label facing the source (for example, if handling material, toward the palm).

**NOTE: The dosimeter is not an indication of authorization to use radioactive material. The authorization to use radioactive material is an independent process that is initiated by the completion of applicable training and a General or Qualified User application.**

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