| Name of Appendix: **Safety when working with ionizing radiation** |
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| General |  | Handling radioactive sources on University property is permitted only to those with a current license signed by the University’s radiation supervisor. This license is given only after taking a relevant certification course. |
| Safety directives |  | Anyone who will be handling radioactive materials or ionizing radiation for more than 20 days per year must undergo a preliminary (prior) medical test with repeat examinations every 12 months. Actions taken in this regard must be recorded in the log of the University’s radiation supervisor. |
|  |  | Bringing radioactive materials onto University property from any source whatsoever requires prior authorization from the University’s radiation supervisor. |
|  |  | Bringing radioactive materials from abroad (directly, with no agent involved) must be through the Supply Division, after filling out a separate order form (separate from other materials) that must be approved in advance by the University’s radiation supervisor. |
|  |  | Using radioactive materials is permitted only in areas that are approved for this purpose, regarding the different radiation levels, by the University’s radiation supervisor. |
|  |  | Centralized storage of radioactive materials for an academic unit will be only in a separate room designated for this purpose, and this designation must be approved by the University’s radiation supervisor. This room must be locked and have warning signs. Radioactive materials must be stored in a container or behind suitable protection. The package must be marked with: The name of the material, type of radiation, radiation strength, date when storage began, and name of the person responsible for the material. |
|  |  | Any space where radioactive materials are used or that is subject to other sources of radiation must contain special warning signs for this purpose. |
|  |  | Inside work rooms (laboratories, culture rooms, etc.), radioactive materials must be stored in a separate metal cabinet that is labeled, or in a special radioactive fume hood that is separate and labeled, or in a separate and labeled refrigerator. |
|  |  | Glass containers that contain solutions of radioactive materials must always be put into another, unbreakable external container that can hold the entire solution in the event of a leak or breakage. |
|  |  | Cages with animals that have been injected with radioactive materials shall be placed, with the additional external container, in separate rooms that are locked and labeled. In addition, after their use the cages should be stored in separate rooms, located and labeled, together with cages that are in use or separately, until they have been washed (sanitized) or until the radiation level decreases. |
|  |  | Ensure that there is a maximum distance between radioactive materials and people, and that people are in proximity of radioactive materials for as short a time as possible. These are the most important rules for protecting oneself against radiation. When working with materials with high energy gamma or beta radiation, be sure there is appropriate screening in addition to the aforesaid. |
|  |  | Those working with radioactive materials must use suitable protective gloves and a lab coat whenever they are working with them. |
|  |  | Any work surface with radioactive materials must be covered with special “absorbent paper” that is replaced after any contamination, but not less than once a week. Work with radioactive materials must be carried out on trays that have sufficient capacity. |
|  |  | Volatile radioactive materials, powders or aerosols, must be handled only in an appropriate, special radioactive fume hood. |
|  |  | Do not remove instruments, furnishings etc. from radioactive rooms to other rooms, for any reason whatsoever (repair, maintenance, inspection, use or disqualification) without prior approval from the radiation supervisor. |
|  |  | It is forbidden to eat, drink and smoke in rooms where radioactive materials or used or stored. |
|  |  | Articles of clothing or personal protective equipment items that have been contaminated by radioactive materials become radioactive waste and they must be handled accordingly. |
|  |  | Do not give radioactive equipment to be washed unless they have first been sanitized. Preliminary washing and sanitizing of equipment that have come into contact with radioactive material shall be done by the person who used these materials himself, or under his supervision and in his presence. This sanitization must be done in a special, separate sink that is appropriated labeled.  |
|  |  | Do not throw radioactive waste into the sewage system, or into the general waste. This waste must be stored in a radioactive waste container located in the lab until it is transferred to waste barrels (with a volume of 200 liters and painted yellow) located in the special radioactive waste rooms. |
|  |  | When removing any type of radioactive waste whatsoever, taken into account potential chemical reactions between the waste and other substances and the need to prevent air pollution with volatile radioactive materials. |
|  |  | Before leaving the room (lab) where radioactive materials were used, remove your lab coat, gloves and goggles, and other items of protective clothing; thoroughly wash your hands and dry them using only disposable towels. |
|  |  | At the end of the work day the person working with radioactive materials must inspect the place where he worked and the surround area. If he discovers any contamination, he must be sure to sanitize the area and report this immediately to the radiation supervisor. |
|  |  | In the event of a hazardous malfunction, such as dispersion of material, a broken container, bodily contamination and the like, the worker must immediately inform the department supervisor, and in his absence, to the University radiation supervisor. Later, the worker must minimize the damage from the malfunction by keeping people away, cordoning off and labeling the area, preventing the spread of the dispersed radioactive material, and so on. |
|  |  | Do not perform any maintenance work (plumbing, carpentry, construction or electrical) in radioactive laboratories without coordinating this in advance with the person in charge of the laboratory. |
|  |  | Sinks that are used to wash radioactive equipment, and their pipes, must be labeled with special signs. |
|  |  | Any contamination, or even suspected contamination of a person’s body by radioactive material requires calling the University’s radiation supervisor. If the material splashed onto the body “gentle rinsing” is required and washing with gentle soap and a soft brush to prevent the contamination from entering the body further. In the event that radioactive material is swallowed, the person must spit out the substance, rinse out his mouth with water and induce vomiting. |
| Responsible for performance |  | The University’s radiation supervisor is responsible for carrying out this directive. |