



GUIDELINES/PROCEDURE FOR DISPOSING OF RADIATION GENERATORS (X-RAY MACHINES)

1. Inform Atomic Energy Council in writing of the intention to dispose of the radiation generator.
2. Ensure that only suitably trained and experienced individuals are allowed to carry out the exercise.
3. Remove the head of the unit.
4. Detach the cables that power the equipment and any other electrical components.
5. Dismantle the parts of the radiation generator.
6. Test the equipment parts for the presence of any hazardous material.

Note:

- i) The X-ray tube head and transformers may contain oil that has polychlorinated biphenyls (PCBs) also known as chlorobiphenyls. This is a known carcinogen. PCBs are mixtures of chemicals that form clear to yellow, oily liquids or mixtures that form white, crystalline (sand-like) solids and hard resins.
- ii) The X-ray tubes may also have beryllium windows.
- iii) The X-ray tube housing may be made of lead or cast steel with a lead lining encased which is hazardous waste.

NB: X-ray parts with these hazardous substances should be stored in a special container/box marked with hazardous material.

7. For generators without hazardous materials, place the X-ray tube in a special container/ box in a hard-to-reach area or store.
8. Radiation signs such as trefoils must also be removed or obscured prior to disposal.
9. Do not smash the X-ray tube. The X-ray tube is under vacuum and smashing the tube may result in flying glass fragments that may cause injury.
10. The other dismantled parts (except the X-ray tube) may be sold to recycle or scrap dealers as scrap material.
11. The licensee/registrant should then notify Council in writing about the disposed radiation generator clearly stating the details and an updated inventory of radiation generators at the facility as stated in the Atomic Energy Regulations, 2012.