



DEPARTMENT OF HEALTH
DIRECTORATE: RADIATION CONTROL



GUIDELINES

DISPOSAL OF X-RAY UNITS AND TUBES CONTAINING BERYLLIUM

1. X-RAY UNIT

If an obsolete x-ray unit cannot be returned to the manufacturer or supplier the unit may be disposed of at any waste landfill site **provided that**:

- 1.1 The x-ray tube **DOES NOT** contain beryllium. Should any doubt exist, treat the unit as if it does contain beryllium (see paragraph 2 below).
- 1.2 The unit is regarded inoperable only if it is not possible for anyone to restore it to a point where it could again produce radiation. The x-ray unit must be rendered inoperable as follows:
 - Remove the tube from the unit;
 - cut the electric cord, and
 - destroy vital components of the X-ray generator.
- 1.3 Approval has been obtained from the Directorate: Radiation Control using the application form RC002.

2. X-RAY TUBE CONTAINING BERYLLIUM

- 2.1 According to the Hazardous Substances Act, Act 15 of 1973, Beryllium is classified as a Group 1 category B substance. As such any waste containing beryllium should be considered hazardous and be managed accordingly.
- 2.2 The management of this waste is explained in the document "*Minimum Requirements for the handling, classification and disposal of hazardous waste*" that was published by the Department of Water Affairs and Forestry in 2005. According to SANS (South African National Standards) 10228 document, waste **containing beryllium** is classified as Class 6.1 hazardous waste and as such, be managed as follows:
 - All containers containing such waste should be securely closed.
 - All containers containing such waste should be clearly labelled.
 - All such waste should be disposed of at an **(H:H) Hazardous Waste Landfill Site**.
- 2.3 Any of the following approved H:H Hazardous Waste Landfill Sites in the RSA can be contacted regarding specific requirements for the disposal of x-ray tubes containing beryllium.

1. Gauteng
The Sales Consultant
EnviroServe Waste Management (Pty) Ltd
PO Box 232
BEDFORDVIEW
2008
Tel: 011-4565400
2. Port Elizabeth
The Commercial Department
EnviroServe Waste Management (Pty) Ltd
PO Box 9028
ESTADEAL
6012
Tel: 041-4662741
3. Cape Town
The Commercial Department
EnviroServe Waste Management (Pty) Ltd
PO Box 3306
TYGERPARK
7536
Tel: 021-9518420

References:

1. Department of Water Affairs and Forestry, 2005. Waste Management Series. Minimum Requirements for the Handling, Classification and Disposal Hazardous Waste.
2. SANS 10228: 2012 Edition 6. Published by SABS Standards Division.

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