

Summary of existing radiation regulations

Two metallurgical melting facilities and various metal scrap recycling companies are authorised to transport, process, store and recycle NORM contaminated material, below specified limits **(0,5 bq/g total activity.)**

A public release limit, allows material with very low levels of contamination to be released into the public domain **(below 0,4 bq/cm² beta and 0,04 bq/cm² alpha.)**

NORM contaminated material, above controlled release limits, defined as “prohibited list” must remain on the generators property, in a secure storage facility, if it cannot be decontaminated to below controlled release levels.

Redundant or damaged man-made sources should be transported to Pelindaba for safe storage, at the authorisation holders' expense.

MONITORING POINTS

Scrap metal is usually handled and transported several times before it is used, and so there are a number of opportunities to monitor the scrap metal for radioactivity.

Should metal scrap be monitored two or more times within the transport chain the overall possibility of detecting radioactivity is substantially increased.

It follows that it is in the interests of the final user of the metal scrap to monitor metal scrap as it arrives at the site, and where possible to purchase metal scrap from suppliers who perform monitoring themselves.

Issued by:

**Metal Recyclers Association
Non-Ferrous Metal Industry Association
South African Institute of Foundrymen
South African Iron and Steel Institute**

General Radiation Detection Procedures



General radiation detection procedures

Immediate actions to be taken when an alarm level has been exceeded either by drive-through or hand-held detection devices :

1. Repeat measure to check alarm validity;
2. Isolate the vehicle or container;
3. Contact the SAPS Bomb Squad with full details and await instructions (keep detailed record of instructions or directives);
4. Do not allow vehicle to leave premises without a SAPS/NNR directive (confirm that load arrived at licensed yard);
5. Advise HAZCOM secretariat of the incident for inclusion in the central hazardous metal scrap register.

Note: The SAPS Bomb Squad provides the service of recovering manmade sources on site at no cost.

SAPS Bomb Squad

Cluster Office: Pretoria Lt Col Vandayar	079 529 3446 (standby) 012 342 9091
Cluster Office: North/ East Rand (Germiston) Lt Col Alberts	011 776 5356 079 520 2139
Satellite Office: Vereeniging/Sasolburg Lt Col FP van der Walt	016 450 2120 082 575 1805 079 520 2144
Cluster Office: Middelburg	013 249 1707 079 529 5093 (standby)

Necsa Emergency Control Centre

Collection, storage and disposal of radioactive sources	012 305 3333
---	--------------

Radiation Control—Dept of Health

Head Office Inspectorate - Cape Town	021 957 7444
Ms. E. Snyman Dep Dir Radionuclides	082 319 9173

National Nuclear Regulator

Mr. S Pheto Chief Inspector: NORM	012 674 7107 082 901 7267 spheto@nnr.co.za
Mr. M Skosana Senior Inspector	012 674 7155 082 480 0967 mkskosana@nnr.co.za
Mr. D Sennanye Principal Inspector	012 674 7124 082 886 2571 dmsennanye@nnr.co.za

Metal scrap recycling and metal producing companies are encouraged to:

- train their personnel,
- develop adequate procedures for e.g. visual inspection of the metal scrap, principally during collection to detect discrete sources early (at their point of entry to the recycling industry),
- install and use detection equipment. Detection equipment should be installed at crucial points of the recycling loop, in particular at entrance/exit points as well as checking final product and by-products e.g. slag, fume dust etc.