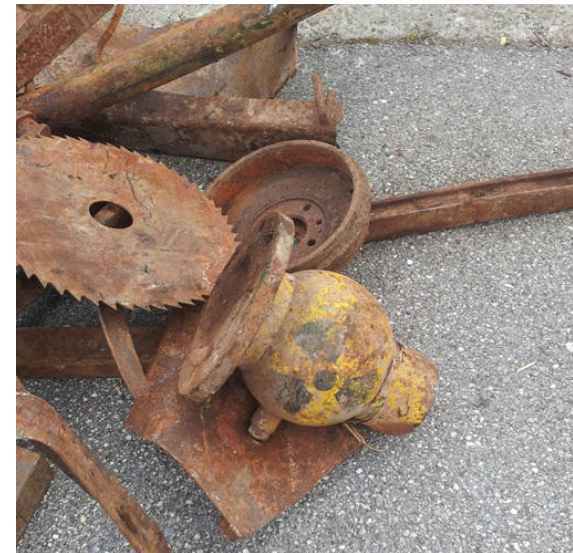


Radiation Protection Course for companies dealing with recycling, disposal and processing of scrap materials

J. Neuwirth, F. Strebl, A. Hefner
Seibersdorf Laboratories

ETRAP, 30 May - 2 June 2017, Valencia, Spain



COUNCIL DIRECTIVE 2013/59/EURATOM - Article 16



Member States shall ensure that workers potentially exposed to orphan radioactive sources should be:

- advised and trained in the visual detection of sources and their containers;
- informed of basic facts about ionising radiation and its effects;
- informed of and trained in the actions to be taken on site in the event of the detection or suspected detection of a source

Radiation Protection Training Award (Strahlenschutz-Leistungsabzeichen)

- established in Austria half a century ago;
- became nationwide success
- “Orphan Source Management Course” has been developed as part of the additional training
- has to be revised now!



approx. 1963: Beginning of the Radiation Protection Training Award in Seibersdorf.

since 2013...

„Radiation Protection Course for companies dealing with recycling, disposal and processing of scrap materials“ provides:

- basic theoretical knowledge (50 %)
- practical exercises for workers (50 %)

Duration:

- 2 days (16 hours)

Content - theoretical knowledge

- Basics facts about
 - physics of ionizing radiation
 - radiation protection and dosimetry
- Legal aspects
- Radiation accidents
- Measurement devices/ techniques



Content - Practical exercises

Practical exercises

- Measurement techniques/devices



Content - Practical exercises

Portal Monitoring



Left: Exploranium
Right: Yantar 2L



Content - Practical exercises

Radioactive sources...



Level indicator
(370 MBq Cs-137;
110 MBq Co-60)



Display device
(500 kBq Ra-226;
~ 50 μ Sv/h at contact)



Pipeline with mineral
residues containing
Ra-228sec

Content - Practical exercises

Correct behavior at radioactive findings



Conclusions – Lesson learned

- Hands-on exercises with real sources and detection systems supports:
 - Awareness building
 - Self confidence and safety work
- Clear procedures – clear responsibilities
 - As basis for efficient risk reduction
 - Enhanced problem solving capacity at companies

Questions?

