



Incident No 1

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Who is who?

- Gamma Service Recycling GmbH, Leipzig
- ÚJP Praha a.s., Prague – licence holder
- Triangl s.r.o., Hrob – foundry, contractor to ÚJP



- Old radiotherapy unit of Russian Origin (GUT 400)
- Material: lead and depleted uranium
- Source: Co 60



What happened

- Three units sold to UJP Praha (2005)
- Without sources (declaration of Gamma Service)
- No visual control





9.1.2012

- Transport of units to TRIANGL
- Preparation of units for smelting, dismantling of mechanical parts
- Rod (with source) was separated and placed on the workbench





- Smelting furnace was prepared
- RPO from UJP came on site
- Reading on the dosimeter
- Dosimeter not reliable
- Work continued



10.1.2012

- RPO with another dosimeter
- 8 mSv/h
- Notification to SUJB (SONS)
- Area secured







11.1.2012

- Inspectors of SUJB on site, GR135
- Identification of source
- Dose rate: 30 mSv/h in 1 meter
- Activity: 100 GBq of Co 60





12.1.2012

- ISOTREND
- Source placed into transport container and transported to Prague
- Hot chamber
- Cylinder: diameter 26 mm, height 27 mm
- 102 GBq Co 60
- Wipe test, no contamination



Dose reconstruction

- The most exposed worker
 - Effective dose
 - Dismantling of mechanical parts....60 mSv
 - Preparation of furnace.....12.9 mSv
 - In total **73 mSv**
 - Ekvivalent dose for hands
 - **0.1 to 10 Sv**



Medical consequences

- Center for special medical care of University Hospital in Prague
- First examination – 16.1.2012 (whole scale of laboratory tests)
- Second examination – 26.1.2012
- No skin deterministic effects



Conclusions

- UJP did not carry out physical check of all units received from Gamma Service
- RPO was not on site during whole process – licence conditions
- RPO did not make all necessary steps to avoid or reduce doses to workers