



Radiological Protection Institute of Ireland

An Institiúid Éireannach um Chosaint Raideolaíoch

Iodine Ablation Therapy

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Iodine ablation in Ireland

- 5 centres, 6 therapy rooms
 - 4 centres discharge to sewers
 - 1 centre uses a holding tank
- National policy on ablation tanks – September 2009
 - Retro-fitting for existing centres not required
 - Centre with tank should continue to use tank
 - New centres to be assessed on a case by case basis



Licence application

- Risk assessment based upon maximum workloads
- Most exposed individuals
 - Plumber clearing blockage on-site
 - Sewage treatment plant worker
 - Fisherman
 - Recreational swimmer
- Recommend Environment Agency (UK) and NRPB guidance/models
- Plans and shielding assessments
- Radiation Safety Procedures



Article 35 Verification Visit (May 2009)

- No requirement for hospitals to monitor what is discharged to the sewers
- Hospital must maintain record of administered activities
 - Reported to OSPAR RSC annually

“.....in order to validate the models and to cross check the initial activity calculations and dose estimations, the verification team recommends periodically taking and analyzing appropriate discharge samples”.



Hospitals

- RPII advised in November 2009 that
“.....licensees with ablation facilities are required to undertake both on and off site monitoring to evaluate the assumptions and calculations used in the risk assessment”
- Hospitals argued that monitoring not required as they have detailed records of activities administered and hence discharged



ERPAN Survey

- Email to ERPAN members (13th January 2011)
 - Do you have such a requirement for hospitals in your country, and if so what does it involve?
 - Any suggestions as to how a hospital could comply with this requirement?



ERPAN responses

- Responses received from Sweden, Spain, Switzerland, Slovenia and Luxemburg
- Spain:
 - Holding tanks are required
- Luxemburg:
 - Holding tanks are required
 - Sample analysed before discharge (limit 2 Bq/g)



ERPAN responses

- Switzerland:
 - Holding tanks are required
 - Activity discharge limit in authorisation
 - Demonstrate adherence by
 - Calculations
 - Measurements



ERPAN responses

- Sweden:
 - No requirement to monitor discharges
 - Annual reporting of administered activities
 - Patient excreta exempted from regulations
 - Modelling indicates negligible impact



ERPAN responses

- Slovenia:
 - Regulations require monitoring
 - Samples taken from sewers every 5 years
 - University Medical Centre
 - Central sewage treatment plant
 - Samples taken over 7 days
 - 20 litres collected once per day
 - Samples analysed in laboratory

