

Refurbishment of the Tritium Laboratory from NIPNE Romania

Lidia Matei*, C Postolache

*“Horia Hulubei” National Institute for Physics and Nuclear Engineering IFIN HH, Atomistilor street, 407,
077125 Magurele, Ilfov, Romania, email:lidiamatei@nipne.ro*

The Tritium Laboratory from NIPNE, Romania is part of Radioisotope Research and Production Center. The Tritium Laboratory has been in operation since 1976, and carries out R&D activities involving tritium sources in gaseous, liquids and solid state, provides specialized service to CANDU NPP Cernavoda, Romania and tritium assay services to internal and external customers.

The Tritium Laboratory from NIPNE is in the process of restructuring to modernize. One POS Priority Axis 2 project and several national projects financially support the upgrading works, which involves dismantling the used equipment, the decontamination of contaminated areas, sorting and characterization of resulted tritium wastes.

The reconstruction of Tritium Laboratory is preceded by preliminary activities, respectively:

- Radiological features for inventory of radioactive and non-radioactive wastes resulted from the refurbishment activities. The results obtained will allow drawing up a map indicating the distribution of contamination (superficial and in depth) to be used in the reconstruction stage and the volume and the activity of resulting waste will be assessed (weight, total and mass activity).
- Dismantling and decontamination of the used equipment (glass tritium manifolds, vacuum pumps, manufacture and sources characterisation equipments)
- The characterization and storage of resulted radioactive wastes