**Clearance Benefits and Inputs for Safety and Sustainability**

**Nataliia Rybalka, State Nuclear Regulatory Inspectorate of Ukraine, nv.rybalka@snriu.gov.ua**

One of the main safety principles for radwaste management is minimization of radwaste. This goal except of minimization of radwaste on the stage of their generation could also be benefited by effective implementation of methodologies and procedures of release of waste and materials from regulatory control. This approach will allow to minimize the volume of radioactive waste which require further conditioning, storage and/or disposal and thus will optimize the whole radwaste management system for ensuring safety. From the other hand this also is beneficial because the valuable materials are returning back to economically reasonable use which lead to resources save. All these achievements are the positive factors for enabling sustainability of nuclear safety use activity and for overall sustainable development.

Up to now Ukraine has already some experience and achievements in practical implementation of clearance procedures and methodologies. There are regulations in place, established clearance criteria fully harmonized with the international, regulatory procedures, requirements for materials preparation and decontamination, measurement process, QA, conformity assessment, documenting etc. The different materials/waste streams are practically released from regulatory control within the approved particular procedures, such as decontaminated: tubes from oil and gas industry, bioshields after removal of SRS, metal-contain materials from Chornobyl NPP site and Exclusion zone, former containers (big-cubes) from RW packages storage. In the progress of these experience a lot of efforts were put to enhance the approaches, procedures, methodologies for clearance. Within the European Commission cooperation INSC project the overall “Methodology for the Clearance of Radioactive Materials from Regulatory Control. General Provisions” has been developed in 2016 aiming to be used by all involved enterprises and regulator. According to this Methodology the approach of “radionuclide vector” has been established for the characterisation of particular streams of materials for the purpose of their clearance, the appropriate sampling methods have to be specified for different type of materials.

 Newly clearance facilities are under development:

* at ChNPP has been developed in the separate “clean” building of ChNPP;
* the design for the special site for the release of radioactive materials from regulatory control at operated NPPs of NAEC Energoatom has been approved.