# International Commission on Radiological Protection

## **Task Group 97: Application of the Commission's Recommendations** for Surface and Near-surface Disposal of Solid Radioactive Waste



#### Members

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### Mandate

Prepare a publication, in conjunction with the waste management community that describes in plain language and clarifies the application of the Commission's recommendations for the protection of the public and workers (Publications 101 & 103) as well as the environment (Publication 124) as applicable to surface and near surface disposal of radioactive waste. The report will be a companion to Publication 122.

The publication will discuss:

- a. How the fundamental radiation protection principles are to be applied over the life cycle of surface and near surface disposal including the transitioning from planned exposure to existing exposure situation in the case of a loss of institutional control.
- b. Application of the graded approach in implementing the protection principles and advice in all facets of a facility's life cycle, based on the hazard posed, including the degree of isolation of the waste.
- c. Dialogue amongst regulators, implementers and relevant stakeholder's concerning the practical implementation of the Commission's recommendations.
- 2. The new publication will be drafted as a standalone document in coherence with Publication 122 without unnecessary repetition. The objective is to complement the previous publication.
- 3. The publication will consider Publications 46, 77, and 81 in light of the Commission's current recommendations, taking into account recent international experience.

#### **Current Status**

Task Group 97 met in March 2019 to address comments from the ICRP Committee 4 review of the draft document and currently has a new draft that will be reviewed by Committee 4, ICRP Special Liaison Organizations and the Main Commission. It is anticipated that

#### report will be available for public consultation in 2020. The main points of the draft include:

- The system of radiological protection is applied to the near-surface disposal of solid radioactive waste in the context of a planned exposure situation with appropriate considerations of the timeframes and related uncertainties.
- Optimization of radiological protection, when applied to the development and implementation of a near-surface disposal system, has to  $\bullet$ be understood in the broadest sense as an iterative, systematic, and transparent evaluation of options for enhancing the protective capabilities of the disposal facility and for reducing impacts (radiological and others).
- The majority of optimization of the actual near-surface disposal facility is performed in the siting and design phases.
- Appropriate mechanisms for formal and structured dialog between the regulator and operator and with stakeholders should be • established as early as possible in the process.
- Estimates of future exposures and risks have uncertainty about whether they may or may not occur and the magnitude of the events;  $\bullet$ the optimization process should consider those uncertainties. An example is human intrusion, where there is a high degree of uncertainty on the probability of occurrence in longer time frames, and optimization may only address the magnitude of the impact.