Safety Reports, Development and Application to RADON Type Facilities

Terms of Reference
draft

October 2011
1. Background

1.1 In all former USSR republics and some other countries exist the RADON type facilities used for institutional RW. All the facilities were designed as disposal facilities. Due to new more strict requirements in the field of radiation safety these facilities now are considered as storages.

1.2 Today the operator of these RADON type facilities are obliged to perform safety assessment for decision making regarding to the future status of these facilities: (a) storage facility, or (b) disposal facility, or (c) retrieval of the RW for the conditioning.

1.3 The DS284 methodology will be applied to RADON type facilities and activities bound to the decision made.

1.4 The SAFRAN tool will help users to undertake safety assessment of waste management facilities in a consistent and transparent manner.

2. Objective of the Safety Reports, Development and Application to RADON Type Facilities

2.1 The objective of the RADON Type Facilities group of the CRAFT project are:

(a) to develop the methodology for the RADON Type Facilities safety assessment based on DS284 guide;

(b) to develop illustrative test cases for applying this methodology to a RADON Type facilities using SAFRAN tool.

3. Scope, Input, and Output of the Safety Reports, Development and Application to RADON Type Facilities

3.1 Scope

- To apply safety assessment methodology for RADON Type Facilities

- To provide Member States with the supporting tool for safety assessment of the RADON Type Facilities and for the decision making on the further activities and regulatory issues;

3.2 Input

- Results of the SADRWMS project;

- DS284;

- Draft of the TINT facility test case;

- Information needed for test case of Estonian Radon storage facility retrieval project;

- Information needed for test case of Moscow Radon site;

- SAFRAN tool;

- Contribution of Working group participants during project duration;

- Results of the Working group workshops (the workshops are foreseen to be once per year, 3 all together, including workshop during the CRAFT Plenary
meeting in June 2012)

3.3 Output

- The methodology for the RADON Type Facilities safety assessment based on DS284 guide;
- Illustrative test cases for applying this methodology to a RADON Type facilities using SAFRAN tool in particular:
  - Storage of RW at the Moscow Radon site
  - Retrieval of RW from Radon storage facility in Estonia

4. Details

4.1. The methodology for the RADON Type Facilities safety assessment will include the overall scope of issues connected to such facilities depending on their current status.

4.2. The safety assessment test case of storage at the Moscow Radon site should include assessment for the activities connected to the:
  - Packaging of RW into containers;
  - placing RW containers for the storage;
  - storage.

4.3. The safety assessment test case of Estonian Radon storage facility retrieval project should include assessment for the activities connected to the:
  - retrieval legacy RW from vaults
  - packaging of retrieved RW and transportation
  - consideration of possible options for safe storage

5. Work plan

By June 2012:

Drafts of the documents prepared and presented to the working group:
- Moscow Test Case (Nikolay Anisimov)
- Estonian Test Case (Merle Lust)
- Historical Overview, explanation of the problems (Nataliia Rybalka)

June 2012:
- Discussion of the draft documents on the workshop of the working group.
- Starting of the drafting process of the methodology for RADON facilities

By June 2013:
- Final versions of the test cases approved by the working group
- Discussion of the draft methodology
- Consultation of the test cases with the regulatory working group
By June 2014
- Approval of the methodology for the RADON Type Facilities safety assessment by the working group

6. Working Methods

6.1. As detailed above there will be three technical meetings of working group. These meetings will provide the opportunity for members of working group to get together to influence the development of the safety cases and guidance. Also it is important to agree on the work and responsibilities for the subsequent year.

6.2. Between meetings members of the working group will use the SAFRAN forum and emails to maintain links on their work areas and continue the momentum of the project.

7. List of participants

Merle Lust, merle.lust@gmail.com, Estonia (TSO of Regulator/Operator)

Natalia Vasilieva, vasilieva-natalia@yandex.ru, Moldova (Regulator)

Alexander Smetnik, smetnik2000@yahoo.com, Russia (TSO of Regulator)

Nikolay Anisimov, anisn@bk.ru, Russia (TSO of Regulator)

Nataliia Rybalka, rybalko@hq.snrc.gov.ua, Ukraine (Regulator)
Decision making scheme for “RADON” type facility