TASK GROUP 98

Application of the Commission's Recommendations to Exposures Resulting from Contaminated Sites from Past Industrial, Military and Nuclear Activities

ICRP 2023
6-9 NOVEMBER 2023 • TOKYO, JAPAN

Mandate

The objective of Task Group 98 is to develop a report that describes and clarifies the application of the Commission's Recommendations on radiological protection of workers, the public, and environment to exposures resulting from sites contaminated due to past industrial, military, and nuclear activities.

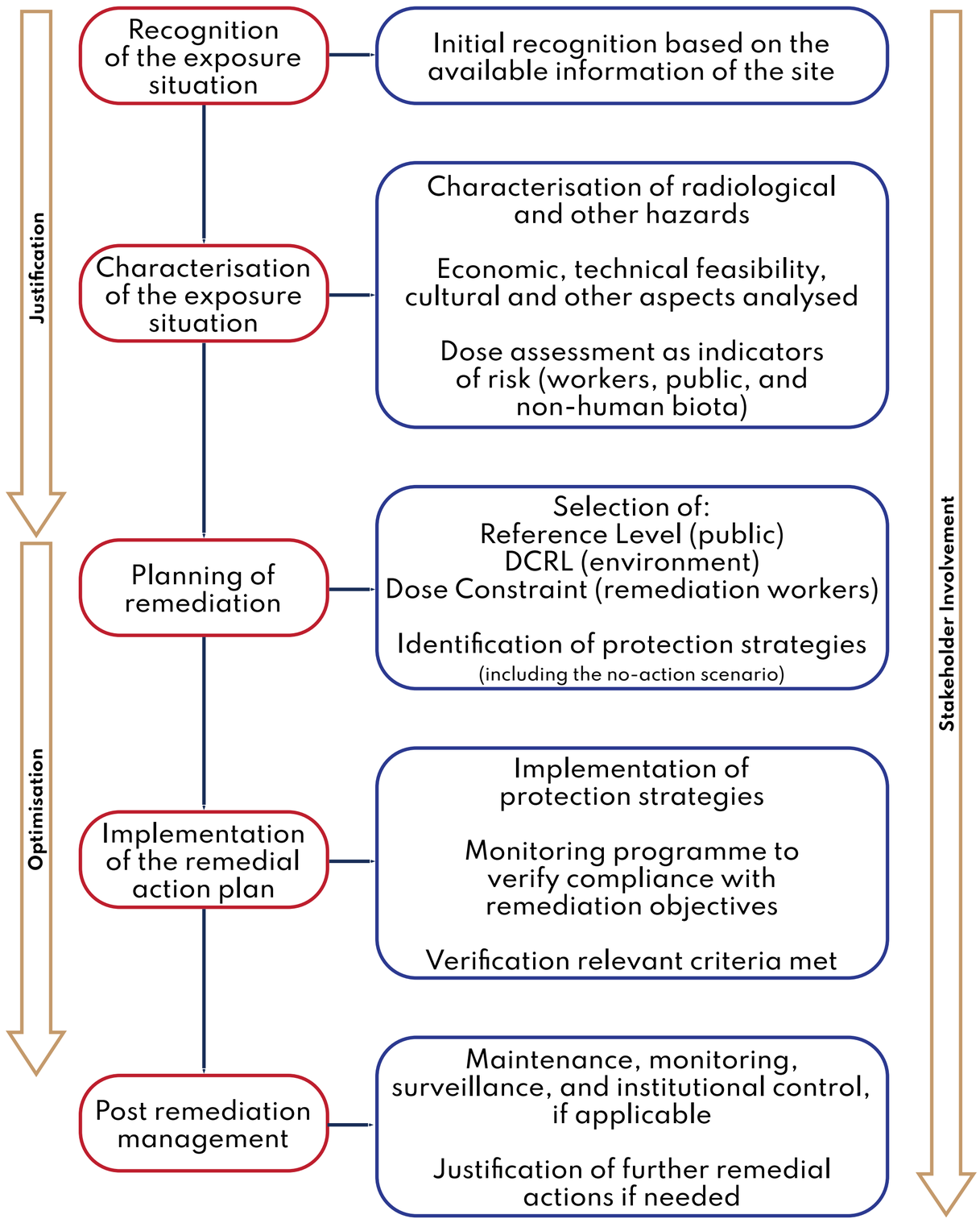
Scope

The report covers areas contaminated by residual radioactive material from past industrial, military, and nuclear activities never subject to regulatory control or that were subject to regulatory control, but not in accordance with current Recommendations. Emergency response in the case of a severe nuclear power plant accident, and the subsequent post-accident recovery phase, are not within the scope of this report.

Approach

Due to the potential wide variety of contaminated sites and circumstances that could fall under the scope of this report, TG98's approach is to provide generic advice with enough flexibility to be applicable to a wide variety of contaminated sites, supported by a series of site-specific case studies.

The remediation process underpins the management of contaminated areas within 5 phases:



Scheme for the phases involved in a remediation process

Five Site-specific Case Studies

- Rocky Flats Manufacturing Plant (USA)
- Maralinga Nuclear Weapons Test Site (Australia)
- Swiss watch industry radium sites (Switzerland)
- Techa River liquid discharges (Russian Federation)
- Radium Contamination at Dalgety Bay (UK)

Views of the Rocky Flats (USA) Site Before and After Remediation

Main Points

- The Commission recommends managing exposures in areas contaminated by past activities as existing exposure situations. A graded and integrated approach should be taken for the protection of the workers, public and the environment, addressing actual and potential exposures, now and in the future.
- The remediation process underpins the management of contaminated areas. It encompasses 5 phases: recognition, site characterisation, planning of remediation, implementation of the remedial action plan and post-remediation management.
- Early, broad and ongoing stakeholder involvement in the remediation process, including the selection of relevant radiological criteria, is central to a sustainable strategy.
- The reference level for public protection should be selected in the lower range of the 1 to 20 mSv per year dose band, with the objective to progressively reduce exposure close to 1 mSv per year as the site situation improves.
- The management of conventional and radioactive waste generated from remediation is an important aspect to be considered during the whole remediation process.
- Remediation workers are in most circumstances managed as occupationally exposed workers. The requisites for occupational exposure apply, including dose constraints and dose limits. Nevertheless, the Commission recognises that flexibility in the use of regulatory tools to effectively achieve protection may be required in special circumstances.
- Addressing radiation risks to humans and non-human biota should be balanced with addressing other site-related risks (e.g., physical and chemical hazards). The optimisation of radiological protection has to be included as part of an all hazards approach.

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