



## REQUIREMENTS DOCUMENT

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RD-007	REQUIREMENTS FOR THE CONTROL OVER RADIOACTIVE EFFLUENT DISCHARGES AND ENVIRONMENTAL SURVEILLANCE: MINING AND MINERALS PROCESSING	0

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## 1. INTRODUCTION

This document addresses control over the release of radioactive material by liquid and airborne discharges, as well as surface run-off and airborne dispersion of radioactive materials from Authorised sites. It does not cover control over the migration of radioactive contaminants into groundwater.

## 2. CONTROL OVER RADIOACTIVE RELEASES

- 2.1 All releases, from the Authorised site to the environment which may be contaminated by or contain radioactive material shall be subject to controls approved by the National Nuclear Regulator (NNR).
- 2.2 All release pathways shall be assessed to determine, on a nuclide-specific basis, the quantities of radioactive material that will be released annually to the environment under normal expected operational conditions. The activity to be discharged by the Holder will be authorized provided it is demonstrated that the resulting radiation dose to the critically exposed group of the general public arising from such discharges together with those arising from other projected releases is not in excess of the applicable dose limit and that radiation doses to the public will be as low as reasonably achievable.
- 2.3 A NNR approved programme of sampling and analysis of releases shall be implemented.

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2.4 A report shall be submitted to the NNR on a quarterly basis or at another frequency approved by the NNR, including the results of the above programme and the volumes released through the various release pathways.

### 3. ENVIRONMENTAL SURVEILLANCE

3.1 A NNR approved programme of sampling and analysis of environmental media shall be carried out in order to:

- verify the adequacy of controls over the release of radioactive material from the authorised site,
- ensure that assumptions made in the assessment of hazards arising from the release of radioactive material from the Authorised site, are not invalid,
- identify the existence of any uncontrolled release of radioactive material to the environment,
- provide public assurance of the effectiveness of control over the discharge of radioactive material from the Authorised site.

The programme shall include the sampling of media from identified exposure pathways at a frequency that will be necessary to account for seasonally dependent pathways. Sampling points must include the locations of maximum predicted concentrations. In addition, control samples must be included from locations sufficiently remote to ensure they will not be contaminated by releases from authorised sites.

3.2 Analytical capabilities must be such as to determine all the radionuclides which could possibly be released from the authorised site at levels in environmental media which could give rise to radiation doses in excess of 10% of the specified dose limit. This may be achieved by direct measurement of a particular radionuclide or inferred from the measurement of a valid surrogate.

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- 3.3 A land use survey shall be conducted at an approved frequency to verify the continued adequacy of the environmental programme.
- 3.4 A documented record shall be made of all results of the environmental monitoring programme in a format approved by the NNR.
- 3.5 A report shall be made to the NNR on a quarterly basis or at another frequency approved by the NNR, detailing the information recorded in terms of the above paragraph and giving reasons for any samples not taken or analyzed. In addition, an annual report shall be submitted which will summarize and interpret the results of the above programme and demonstrate its adequacy and ongoing appropriateness.

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