REGULATORY GUIDE

Surrender of a facility licence and release from regulatory control

REGULATORY SERVICES
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Purpose

This document provides guidance to assist the determination of whether the CEO should accept the surrender of a facility licence following decommissioning and release the facility from regulatory control. A licence holder seeking approval to surrender a facility licence should ensure the principles included in this guide are covered in their submission.

Principles

The guiding principles for release of regulatory control of controlled facilities are:

1. The remaining structures, systems components and the environment at the location of the facility must no longer contain controlled material unless the activity concentrations of the material(s) are exempt from regulatory control.

Schedule 1 of the Regulations\(^1\) provides information on the total activity and radionuclide concentration in materials, both individually and in mixture, that require regulatory control. ARPANSA must be satisfied that the licence holder has adequately demonstrated, by analysis or measurement or both, that radionuclide total activities or concentrations are below the exemption levels. Consideration should be given to commissioning independent assessment or measurement.

2. Radioactivity levels at the facility location which are associated with the facility (i.e. above natural background) should not pose an ongoing danger.

ARPANSA must be satisfied that any residual radioactivity levels resulting from the previously controlled activity do not pose an ongoing danger. An individual dose in the order of 10 µSv/yr or less above natural background for the location will be considered to demonstrate that there is no residual danger from the licensed facility based on the following international standards, guidance and practices.

IAEA Safety Guide WS-G-5.1\(^2\) (Item 6.1) sets a basic exposure limit of 1 mSv/yr above natural background for any critical group at a site released from regulatory control. However the IAEA also state that a dose constraint in the order of 0.1 mSv/yr should be applied if any other practices are to be undertaken at the location. IAEA Basic Safety Standards\(^3\) (Schedule I, Item I.2) states that, that under all reasonably foreseeable circumstances the effective dose expected to be incurred by any individual owing to the exempt practice or the exempt source within the practice is of the order of 10 µSv or less in a year. In regard to International Best Practice (IBP) some regulatory bodies use the 10 µSv/yr as equating to no ongoing danger. The IAEA Basic Safety Standards also considers low probability scenarios where a different criterion could be used, namely that the effective dose expected to be incurred by any individual for such low probability scenarios does not exceed 1 mSv in a year.

IAEA advice on the application of exemption principles is provided in IAEA Safety Guide RS-G-1.7\(^4\). This guide includes information on radionuclide concentrations which are consistent with this objective.

An application to surrender a licence should demonstrate that the dose expected to be incurred by any member of the public is in the order of 10 µSv per year or less. Justification should be provided by a licence holder to deviate from this objective.
3. All materials containing non-exempt radionuclide concentrations must be transferred to an appropriate licence or disposed of via an approved method.

The licence holder must account for the full inventory of non-exempt waste arising from the decommissioning process which has been undertaken. The licence holder must be able to demonstrate that all non-exempt waste is managed appropriately before a licence may be surrendered.

REFERENCES

1. Australian Radiation Protection and Nuclear Safety Regulations 2018

