

COGSC7

Provide consequence assessments for nuclear safety cases



Overview

This unit is about activities in the development of a consequence assessment, to be included in the overall risk assessment in the safety case.

This activity includes identifying reviewing the hazards arising from an activity, and defining the scope of the consequence assessment, selecting appropriate consequence assessment methods, obtaining relevant data, applying the consequence assessment method; identifying radiological release mechanisms, providing data on the consequences, and explaining any uncertainties or limitations.

The activity is likely to be undertaken by someone involved in preparing safety cases primarily by writing them or contributing to the detailed content.

This unit deals with the following:

1. Provide consequence assessments for nuclear safety cases

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

Previous Version: Unit N307 National Occupational Standards in Radiation Protection - December 2005

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Performance criteria

You must be able to:

- P1 review the outcomes of all relevant hazard identification studies
- P2 define the scope of the consequence assessment and how it contributes to the safety case
- P3 select the appropriate consequence assessment method, and justify its use by identifying its strengths and weaknesses
- P4 obtain and collate all relevant data for the consequence assessment by using appropriate information sources and specialist assistance if necessary
- P5 apply the consequence assessment method by adopting suitable techniques relevant to the safety case
- P6 identify the radiological release mechanisms and the sequence of events that could develop as a result of hazards
- P7 undertake detailed assessments of the consequence of the hazards for the site, off-site, and on the environment
- P8 generate data on consequences for use in risk assessments and for developing plant procedures
- P9 consider the results of the consequence assessment against ALARP principles
- P10 explain clearly any uncertainties or limitations relating to the results of the consequence assessment
- P11 comply with all relevant regulations and standards, and record all relevant actions and outcomes in the appropriate information systems

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Knowledge and understanding

You need to know and understand:

- K1 ALARP principles
- K2 communication and presentation methods
- K3 consequence assessment methods
- K4 hazard and risk assessment methods
- K5 health and safety issues and requirements
- K6 nuclear industry: types of facilities, materials, and processes
- K7 organisational structures and procedures
- K8 radiation: types, sources, and hazards
- K9 safety case design and preparation
- K10 statutory requirements, regulations, and standards, including international, national, and local

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Suite Safety Case Preparation

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