



Australian Government

PSPRAD008 Coordinate radiation safety

Release: 1

PSPRAD008 Coordinate radiation safety

Modification History

Release	Comments
1	This unit was released in PSP Public Sector Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to PSPRAD708A Coordinate radiation safety. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit describes the skills required to coordinate an organisation's ongoing safety management of radiation-related work activities for the purpose of protecting workers, the public and the environment from radiation hazards. This involves assessing local radiation protection and safety requirements and assessing implementation of systems and controls that are employed to ensure the organisation/licensee's compliance with relevant radiation protection and safety legislation, standards, licences or codes of practice.

This unit applies to those working as a local radiation safety coordinator. They may assist a radiation safety officer:

- at a mine or processing plant that produces radioactive ore or minerals
- with instruments that emit ionising radiation at geotechnical, construction, mining and manufacturing sites, or analytical and research facilities
- in a laboratory or licensed facility that handles radioactive materials
- in a nuclear facility

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently, performing routine tasks in familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Radiation Safety

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Assess radiation protection and safety requirements	1.1 Confirm radiation protection and safety requirements for site by reviewing relevant radiation protection and safety legislation, standards, codes and guidelines. 1.2 Review relevant available records and information about hazards due to radioactive materials, equipment and work activities conducted at the site. 1.3 Identify known and potential hazards associated with current and future radiation-related work activities. 1.4 Identify appropriate radiation instruments, monitoring equipment and measuring/survey procedures to quantify hazards. 1.5 Quantify ionising radiation hazards and anticipated exposure/dose, and compare results with relevant limits. 1.6 Review available information about relevant radiation control measures, safety procedures, radiation monitoring programs and personal protective equipment (PPE). 1.7 Determine if specific work areas need to be controlled more effectively. 1.8 Undertake risk analysis for local site specific to radiation related activity.
2. Develop or revise local radiation management plans	2.1 Review the local procedures for developing or revising radiation protection policy, procedures and plans. 2.2 Identify local compliance against radiation safety requirements. 2.3 Design or amend local radiation management plans to control and monitor all radiation-related work activities to comply with regulator requirements. 2.4 Identify possible impacts of new or revised local radiation management plans on relevant organisational policies, procedures and systems, and advise relevant personnel. 2.5 Forward draft local radiation management plans for feedback and approval. 2.6 Distribute authorised local radiation management plans to relevant personnel and confirm they understand their roles and responsibilities.

	2.7 Design key performance indicators for radiation safety performance measurement. 2.8 Negotiate targets for radiation safety key performance indicators in line with organisational plan. 2.9 Develop and implement quantitative risk management and risk assessment tools for radiation.
3. Ensure local radiation protection and monitoring systems are implemented effectively	3.1 Design a strategy for implementing the new or revised local radiation management plans that identifies key people, recommended approaches and available resources. 3.2 Provide information about radiation protection and monitoring equipment and procedures to relevant personnel and confirm they understand their responsibilities. 3.3 Confirm that prescribed radiation signs and safety communication systems, including noticeboards, are maintained in good condition and are readily visible. 3.4 Design appropriate audit tools and audit plans. 3.5 Conduct audits of radiation protection and monitoring systems, equipment and safety performance in accordance with agreed audit plans. 3.6 Analyse audit information to identify non-conformances and opportunities for improvements. 3.7 Produce audit reports that clearly define actions required to correct non-conformances. 3.8 Record findings, actions and outcomes.
4. Investigate and rectify local safety, quality and non-compliance issues	4.1 Investigate atypical dose results with reference to radiation safety key performance indicators. 4.2 Examine defects or changes in work practices and equipment, and hazards that could increase exposure of personnel or present an environmental risk at local level, and determine appropriate controls. 4.3 Analyse instances of potential or actual non-compliance and re-design work practices and procedures to prevent recurrence. 4.4 Identify opportunities and strategies to further improve the organisation's radiation protection and monitoring systems. 4.5 Implement authorised corrective and preventative actions. 4.6 Record recommendations, actions and outcomes.
5. Inform radiation safety officer management or licensee about radiation protection and	5.1 Provide regular status reports, including details of instances of potential or actual non-compliance, or incidents/accidents and the actions taken. 5.2 Provide regular information about the adequacy of radiation management plans and protection and monitoring systems, and recommend improvements. 5.3 Obtain authorisation for significant equipment purchases.

safety	5.4 Obtain authorisation for corrective and preventative actions. 5.5 Advise the organisation when input from external radiation specialists is required.
6. Promote a radiation safety culture	6.1 Assess the competency of personnel to safely undertake specific radiation-related work activities and make appropriate recommendations to the responsible person. 6.2 Access or develop learning and development programs that meet organisational and regulator requirements. 6.3 Deliver, or arrange for the delivery of, training that meets the identified needs of personnel. 6.4 Communicate effectively the need to make doses as low as reasonably achievable.
7. Manage information about radiation protection and safety	7.1 Specify all information that must be recorded and secured and advise relevant personnel. 7.2 Control access to records. 7.3 Provide reports. 7.4 Maintain and secure records, and provide advice on improvements to record management.
8. Respond to potential or actual radiation incidents or accidents	8.1 Recognise unusual situations, unexpected hazards, and potential or actual emergency radiation incidents. 8.2 Inform relevant personnel about the situation, hazard or incident and seek their advice as necessary. 8.3 Assist emergency response personnel to control the situation.

Foundation Skills

Foundation skills are embedded within the elements and performance criteria of this unit.

Unit Mapping Information

This unit supersedes and is equivalent to PSPRAD708A Coordinate radiation safety.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bebbece7-ff48-4d2c-8876-405679019623>

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Assessment Requirements for PSPRAD008 Coordinate radiation safety

Modification History

Release	Comments
1	These Assessment Requirements were released in PSP Public Sector Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- locating and interpreting information about radiation protection and safety legislation, standards, codes and guidelines
- assessing and reassessing risks and hazards and designing appropriate controls
- developing plans, organisational policy and procedures and safe work practices
- initiating audits and inspections of radiation protection and safety systems
- choosing and using appropriate available radiation source equipment and radiation instruments
- interpreting manuals for radiation sources/equipment and radiation instruments used in organisation
- designing, planning and conducting monitoring surveys under direction
- analysing radiation data, and verifying and reporting results
- seeking advice in situations that may require decisions or response actions beyond technical competence
- explaining radiation protection and safety issues, safe working rules and recommended procedures to other personnel

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- ionising radiation, radioactivity, radioactive material, NORM, contamination, contamination controls, concentration, shielding, half-life, radionuclide, transport index, safe distance, and weighting factor
- types and properties of ionising radiation sources and shielding methods
- definitions of radiation quantities, including exposure, dose, effective dose, dose rate, dose equivalent, and dose limits
- exposure pathways and protective measures
- signs and symptoms of radiation exposure, radiation health effects, and deterministic and stochastic effects
- international system (SI) of units for radiation quantities
- operating principles and function of key components, and set-up and calibration checks for radiation instruments, dosimeters and equipment used in job role
- detailed requirements of relevant legislation, codes, guidelines and safety procedures for working with radiation sources/equipment used at the organisation's facilities or sites
- health and safety and workplace emergency response procedures for radiation-related work activities in organisation
- types of PPE for personnel working in ionising radiation environments and the recommended selection process
- potential adverse health and performance effects of wearing PPE while working in potentially hazardous environments
- principles and techniques for decontamination of personnel and equipment
- techniques and procedures for collecting potentially radioactive samples
- techniques for assessing radiation hazards likely to be encountered in organisation
- techniques for conducting contamination surveys
- techniques for control, containment and confinement of radiation sources/equipment encountered by organisation.
- working knowledge of the business activities and operations conducted at the organisation's sites and the associated radiation risks

Assessment Conditions

This unit contains no specific industry-mandated assessment conditions. Guidance on suggested and recommended conditions and methods can be found in the Implementation Guide.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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