Australian Government

PSP80212 Graduate Certificate in Radiation Safety

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

PSP80212 Vocational Graduate Certificate in Radiation Safety

Modification History

Release	TP Version	Comments
1	PSP12 V1	First release. Supersedes and equivalent to PSP70210

Description

This qualification supports people with responsibility as radiation safety officers (RSOs) and is particularly relevant for those whose responsibilities as an RSO form a significant part of their role.
The candidate may work in a department, organisation, division or business unit that provides advice and guidance to others on radiation safety matters and the development and implementation of ionising radiation management plans. They will have responsibility developing and/or sustaining a radiation safety culture and ensuring that all legislative and organisational requirements are met.

Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

Employability skill	Industry/enterprise requirements for this qualification include:
Communication	• using relevant information sources to locate and interpret information about the safe transport of radioactive materials • interpreting radiation labels, placards and safety signs • completing documentation accurately with close attention to detail • interpreting guidelines for consigners, carriers and consignees defined in local regulations and relevant codes • using technical words, such as radioactivity, radioactive material, ionising radiation, contamination, contamination controls, shielding, half-life, Transport Index, and safe distance • interpreting information on radiation labels, placards, emergency information sheets and safety signs, and in transport documents relevant to job role • interpreting manuals for radiation monitoring equipment used in job role or duties • interpreting guidelines and safety procedures for working with radiation sources (based on principles of reduce exposure time, maintain greatest distance and use as much shielding as possible) • interpreting manuals for radiation sources/equipment and radiation instruments used in organisation • using plain English to explain radiation protection and safety issues, safe working rules and recommended procedures to other personnel • interpreting manuals and writing operating instructions for radiation measuring instruments used in organisation • applying requirements of house or other style manual protocols for written communications • using advanced literacy skills to read, write, edit and proofread documents to ensure clarity of meaning, accuracy and consistency of information • actively promote the need to make doses as low as reasonably achievable consistent with organisational policy, procedures and legislation
Teamwork	• seeking advice or further directions when faced with unexpected situations that may require decisions or actions beyond own technical competence • designing, planning and conducting monitoring surveys

	under direction • listening to and questioning clients and other audit team members • relating to people from diverse backgrounds and abilities • using interpersonal skills to establish rapport with clients and to liaise with other audit team members
Problem-solving	• recognising the limitations, restrictions and applicability of various detector units • using relevant information sources to locate and interpret information about radiation sources/equipment encountered in job role or duties • processing and analysing radiation monitoring data • identifying types and properties of ionising radiation (e.g. alpha, beta, gamma, neutron, X-ray, electron), sources and shielding methods • applying definitions of radiation quantities, such as exposure, dose, effective dose, dose rate, dose equivalent, and dose limits • assessing/re-assessing risks and hazards and designing appropriate controls • choosing and using appropriate available radiation sources/equipment and radiation instruments • identifying exposure pathways and protective measures, signs and symptoms of radiation exposure, radiation health effects, and deterministic and stochastic effects • analysing potential adverse health and performance effects of wearing personal protective equipment while working in potentially hazardous environments
Initiative and enterprise	• regularly assessing/re-assessing risks and hazards and taking appropriate protective measures • seeking advice and further directions when faced with unforeseen circumstances or situations that may require decisions or response actions beyond technical competence • initiating audits/inspections of radiation protection and safety systems • maintaining working knowledge of the business activities and operations conducted at the organisation's sites and the associated radiation risks
Planning and organising	• analysing types and properties of ionising radiation and interpreting relevant dose limits • applying health, safety and workplace emergency response procedures, safe working rules, personal hygiene

	requirements and safe operating procedures for equipment relevant to job role • recognising different types of monitoring equipment such as air proportional, gas proportional, gas ionisation, Geiger-Muller, scintillation, neutron monitors, solid state, personal dosimeters (badge and electronic) • conducting pre-use checks for radiation instruments and monitoring equipment used in job role or duties • collecting, labelling and preserving occupational and environmental samples • using and caring for personal protective equipment used in job role • applying techniques and procedures for collecting (potentially) radioactive samples (if required in job role or duties) • applying techniques for assessing radiation hazards likely to be encountered in job role or duties • applying techniques for conducting monitoring surveys used in job role or duties • developing plans, organisational policy and procedures and safe work practices • applying principles and techniques for decontamination of personnel and equipment • applying techniques and procedures for collecting (potentially) radioactive samples • applying techniques for assessing radiation hazards likely to be encountered in organisation • applying techniques for conducting contamination surveys • applying techniques for control, containment and/or confinement of radiation sources/equipment encountered by organisation
Self-management	• using organisational, planning and time management skills to sequence tasks, and meet timelines • conducting inspections and arranging meetings • negotiating targets for radiation safety key performance indicators • analysing audit information to identify non-conformances and opportunities for improvements and provide recommendations to licensee or responsible person
Learning	• reviewing training needs regularly in radiation protection/safety, workplace emergency response and environmental protection • undertaking research to ensure that the legislative

	responsibilities of the licensee are fulfilled • sourcing and analysing new and existing information regarding radiation protection, legislation, standards, codes and guidelines • monitoring industry information and information from relevant professional bodies to maintain currency • working knowledge of the business activities and operations conducted at the organisation's sites and the associated radiation risks
Technology	• using and caring for personal monitoring equipment • using monitoring equipment to measure radiation • safely operating radiation instruments and monitoring equipment used in job role or duties to obtain reliable data • selecting and using types of personal protective equipment for personnel working in ionising radiation environments and the recommended selection process • safely operating radiation measuring instruments used in job role to obtain reliable data • identifying characteristics, capabilities, limitations, function of key components and operating principles for radiation measuring instruments used in organisation • assessing common instrument faults, troubleshooting, and recommending remedial actions and repairs • using software applications relevant to conducting quality auditing activities

Packaging Rules

7 units of competency are required for this qualification:

- 7 core units

Core units	
BSBAUD503B	Lead a quality audit
PSPRAD302	Consign radioactive material
PSPRAD707A	Monitor radiation
PSPRAD708A	Coordinate radiation safety
PSPRAD709A	Select, commission and maintain radiation measuring instruments

PSPRAD710A	Apply radiation safety knowledge to develop and implement ionising radiation management plans
PUAWER009B	Participate as a member of a workplace emergency initial response team