

Business Procedure

Radiation Safety

Document Number – OHS-PROC-07

This document applies to the following sites:

All Sites	<input type="checkbox"/>		
Rockhampton Office	<input type="checkbox"/>	Brisbane Office	<input type="checkbox"/>
		Tarong Site	<input checked="" type="checkbox"/>
Barron Gorge Hydro PS	<input checked="" type="checkbox"/>	Kareeya Hydro PS	<input checked="" type="checkbox"/>
		Mica Creek PS	<input checked="" type="checkbox"/>
Koombooloomba Hydro PS	<input checked="" type="checkbox"/>	Swanbank PS	<input checked="" type="checkbox"/>
		Mackay Gas Turbine	<input checked="" type="checkbox"/>
Wivenhoe Small Hydro PS	<input type="checkbox"/>	Stanwell PS	<input checked="" type="checkbox"/>
		Meandu Mine	<input type="checkbox"/>

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Doc No: OHS-PROC-07 Revision No: 1 Revision Date: 01.06.2020 Page: 1 of 5

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1.0 Purpose

This Business Procedure defines Stanwell's minimum mandatory requirements for managing radiation safety in Stanwell workplaces.

2.0 Scope

This Business Procedure applies throughout Stanwell, all its sites and all activities under Stanwell's control. It applies to all Stanwell employees and contractors, including visitors to Stanwell workplaces.

3.0 Actions

3.1 Safe Work Systems

Where practicable, the need to use and store radiation sources on site shall be eliminated through design and planning. Where elimination is not possible, the potential for harm shall be minimised.

The use of radiation sources shall be controlled under the Stanwell Safe Work System.

A Hazard Identification and Risk Assessment (HIRA) shall be developed for any activity that involves the use of a radiation source.

3.1.1 Radiation Safety and Protection Plan

A site specific *Radiation Safety and Protection Plan* is required where a site has a permanent source of radiation (i.e. not simply for industrial radiography tasks); the plan must be approved by the Chief Executive of the Department of Health (Director General, Queensland Health). The purpose of a *Radiation Safety and Protection Plan* is to ensure that the risks associated with radiation sources are minimised to as low as reasonably practicable. It shall as a minimum identify the location and types of radiation sources and the specific requirements of limiting exposure to radioactive sources to as low as reasonably practicable. The *Radiation Safety and Protection Plan* shall address the following:

- particulars and a risk assessment of all the radiation hazards specific to the operation / use of the sources;
- the control measures to manage the hazard, including:
 - any measures necessary to deal with the hazard including storage and disposal;
 - how the licensee proposes to monitor and review the implementation and effectiveness of the measures;
- the functions of the Radiation Safety Officer and the Possession Licensee;
- particulars of the competencies and training requirements for persons exposed to / working with sources of radiation;
- other particulars under the Radiation Safety Regulation;
- annual audit / verification requirements, including the positions to which the results must be advised;
- details of the requirements for personal protective equipment to be used for persons exposed to / working with sources of radiation, i.e. personal monitoring devices;
 - the supply of a personal monitoring device; and
 - assessment of the device (following working with radiation source);
- the plan must be written in a way likely to be understood by persons carrying out activities associated with the plan and must be signed and dated by the licensee (the possession licensee contact, on behalf of Stanwell);
- Stanwell must not dispose or relocate a radiation source without approval and within legislated requirements; and
- Stanwell must not abandon a radiation source.

3.1.2 Radiation Safety and Protection Plan (cont'd)

A radiation Safety Protection Plan must specify at which intervals a review of the plan is to take place. Changes to an approved plan must be submitted for approval to Queensland Health, using the applicable form (*Application to Change an Approved Radiation Safety and Protection Plan*); approval must be sought when a change to a relevant radiation practice is required.

3.1.2 Radiation Safety Officer

Sites which have permanent sources of radiation (and therefore have a *Radiation Safety and Protection Plan*) shall appoint a trained and competent Radiation Safety Officer.

3.1.3 Possession Licensee

Stanwell shall hold a current possession licence issued under the Radiation Safety Act and shall nominate a Possession Licensee contact to act on behalf of the corporation. This contact will be the most relevant person to fulfil the designated responsibilities (e.g. Site Manager) and will be the Stanwell representative who shall sign and date *Radiation Safety and Protection Plans*. The Possession Licensee is responsible for:

- ensuring the development and implementation of required *Radiation Safety and Protection Plans*;
- appointment of a Radiation Safety Officer;
- ensuring that an approval to acquire is obtained before taking possession of a radiation source;
- ensuring required certificates of compliance are obtained and maintained;
- ensuring an approval to relocate is obtained if a radiation source is to be relocated to a place outside of Queensland's jurisdiction; and
- ensuring radiation sources are disposed of according to the legislation.

3.1.4 Record Keeping

The following records shall be maintained, as applicable:

- risk assessments;
- audits and inspections of radiation storage and containment areas;
- current possession licences issued under the statutory authority;
- current *Radiation Safety and Protection Plans*;
- approval notifications for the acquisition of radioactive sources;
- equipment maintenance log books;
- the results of all quality-control checks performed;
- an inventory showing the location of radioactive materials;
- results of source leakage tests;
- calibration check certificates (for sealed source meters);
- approval certificates for radiation stores and movement logs;
- radiation safety audit reports; and
- incident reports.

3.2 Training and Competency Requirements

All personnel involved in the use or management of radiation sources shall be trained and competent in accordance with their specific *Radiation Safety and Protection Plan*.

4.0 Document Control

This procedure and its underlying Site Radiation Safety and Protection Plans will be published on the intranet (GenNet) and in Stanwell's Controlled Documents system.

5.0 Review, Consultation and Communication

5.1 Review:

This Document is required to be reviewed as a minimum every 5 years.

5.2 Consultation:

Consultation will occur in accordance with the Health and Safety Consultation Business Procedure OHS-PROC-21.

5.3 Communication/Requirements after Update:

This Business Procedure will be communicated and available to sites on GenNet.

6.0 References (Including Information Services)

Source	Reference
Legislation	<ul style="list-style-type: none">Queensland Radiation Safety Act 1999Queensland Radiation Safety Regulation 2010Code for Radiation Protection in Planned Exposure Situations (2020), RPS C-1 (Rev.1)Radiation Safety Standard – PR100:2010 – Standard for Premises – Ionising Radiation SourcesNM009:2010 Standard for sealed radioactive substances incorporated in sealed source apparatus used to carry out industrial gaugingNM005:2010 Standard for radiation apparatus used to carry out chemical analysis
Business Procedures	<ul style="list-style-type: none">Hazard Management – OHS-PROC-33
Stay Safe	<ul style="list-style-type: none">Nil
Tools	<ul style="list-style-type: none">Nil

7.0 Definitions

Term	Meaning
Radiation	Ionising radiation or non-ionising radiation.
Radiation Safety Officer	A person who holds a current approved radiation safety licence issued by the statutory radiation safety authority.
Possession Licensee	Stanwell's nominated contact and signatory of the <i>Radiation Safety and Protection Plans</i>

8.0 Revision History

Rev. No.	Rev. Date	Revision Description	Author	Endorse/Check	Approved. By
0	21.10.2014	Procedure created	Jason Paull	Michael Joy, Trevor Hooper	Ian Gilbar
1	01.06.2020	Scheduled review	C. Rothman	J. Paull	K. Ussher