



Radiation Safety

OHS-PROC-07



This document applies to:

- | | | | | | |
|-----------------------|--------------------------|------------------|-------------------------------------|----------------------|-------------------------------------|
| Brisbane Office | <input type="checkbox"/> | CQ Hydrogen | <input type="checkbox"/> | FEITH | <input type="checkbox"/> |
| Iron Flow Battery SPS | <input type="checkbox"/> | Meandu Mine | <input type="checkbox"/> | Non-Operational Land | <input type="checkbox"/> |
| SAMCo | <input type="checkbox"/> | Stanwell Battery | <input type="checkbox"/> | Stanwell PS | <input checked="" type="checkbox"/> |
| Tarong Battery | <input type="checkbox"/> | Tarong Site | <input checked="" type="checkbox"/> | Wambo Wind Farm | <input type="checkbox"/> |
| Wivenhoe Pipeline | <input type="checkbox"/> | | | | |

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APPROVED BY: K. Ussher

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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 must be eliminated through design and planning. Where elimination is not possible, the potential for harm must be minimised.

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

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

3.1.1 Radiation Safety and Protection Plan

A *Radiation Safety and Protection Plan* is required where sites have 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.

Each *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.

4.0 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*.

5.0 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.

6.0 Review, Consultation and Communication

Review:

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

Consultation:

Consultation will occur with relevant Health, Safety and Environment team members, and appointed Radiation Safety Officers as required.

Communication/Requirements after Update:

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

7.0 References

- Qld Environmental Protection Act 1994
- Qld Environmental Protection Regulation 2019
- Qld Radiation Safety Act 1999
- Qld Radiation Safety Regulation 2021
- Qld Work Health and Safety Act 2011
- Qld Work Health and Safety Regulation 2011
- Code for Radiation Protection in Planned Exposure Situations (2020), RPS C-1 (Rev.1)
- Radiation Safety Standard – PR100:2010 – Standard for Premises – Ionising Radiation Sources
- NM009:2010 Standard for sealed radioactive substances incorporated in sealed source apparatus used to carry out industrial gauging
- NM005:2010 Standard for radiation apparatus used to carry out chemical analysis

Document No	Document Title
OHS-PROC-33	Hazard Management
HB559334	Radiation Safety and Protection Plan
OHS-PROC-212	Radiation Safety & Protection Plan for Sealed Source Apparatus Industrial Gauging Practice
OHS-PROC-43	Radiation Safety & Protection Plan for Field Portable XRF Analyser Irradiating Apparatus
OHS-PROC-219	Radiation Safety & Protection- Sealed Source Apparatus Industrial Gauging Practice – TEC Coal Pty Ltd

8.0 Definitions

Word / Abbreviation	Definition
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>

9.0 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
	10.11.2021	Minor edits only – new revision not required. Updated the site list on page 1 and reference to the Queensland Radiation Safety Regulation 2021 (previously 2010) on page 4. No other changes required, as there are no material changes identified that will impact Stanwell operations. No increase to Revision no. or revision date.	D. Wood / T. Lawback		
2	07.01.2025	Scheduled periodic review, no material changes made. Radiation Safety and Protection Plans added to references.	Jayde Smith	Carl Rothman	Kriss Ussher