



Synthetic Mineral Fibres (SMF)

OHS-PROC-221



This document applies to:

Brisbane Office

Iron Flow Battery SPS

SAMCo

Tarong Battery

Wivenhoe Pipeline

CQ Hydrogen

Meandu Mine

Stanwell Battery

Tarong Site

FEITH

Non-Operational Land

Stanwell PS

Wambo Wind Farm

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1.0 Purpose

This Business Procedure describes Stanwell's minimum mandatory requirements for managing risks associated with synthetic mineral fibres (SMF).

SMF is a general term used to collectively describe a number of non-crystalline fibrous materials which can be an irritant to the eyes, nose, skin and respiratory tract.

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.

This Business Procedure applies to all SMF applications involving mineral wool, glasswool, and ceramic fibre (refer to section 6 of this procedure for the definition of each). It does not apply to the use of continuous glass filament which is used as a reinforcing agent.

3.0 Actions

The following is to occur:

- where possible, eliminate the need to disturb SMF;
- purchase SMF material in a form and shape that requires minimum cutting and handling where possible;
- appropriate instruction, training and supervision is provided to workers who handle SMF; and
- handling of SMF is planned, risk assessed, and suitable risk control measures are implemented.

3.1 Safe System of Work Requirements

3.1.1 Risk Assessment

The risks to health, safety, psychosocial wellbeing, and the environment for work involving SMF must be identified through the completion of a risk assessment and controlled through the application of the hierarchy of controls to achieve the highest level of protection that is reasonably practicable in the circumstances.

3.2 Work Environment Requirements

3.2.1 Barricading and Signage

Where work is being undertaken involving SMF, the work area must be:

- controlled via barriers;
- clearly signed at all access points; and
- set up to minimise the spread of fibres.

All non-essential personnel are to be kept clear of any work area(s) where SMF is being handled. Controls must also be considered, and where required implemented, to minimise potential exposure to workers in the immediate vicinity of SMF work area(s).

Barricading and signage must be used in accordance with *Stanwell Business Procedure: Barricading and Signage (OHS-PROC-134)*.

3.2.2 Air Monitoring

Air monitoring is not required when it has been clearly established that work practices are undertaken in line with the *National Code of Practice for the Safe Use of Synthetic Mineral Fibres 1990*. Where reasonable doubt still exists as to the levels of exposure, monitoring of fibre levels should be undertaken in accordance with accepted practices.

Air monitoring records must be kept for at least 30 years.

3.2.3 Health Monitoring

In most situations, routine health monitoring of workers for SMF is not necessary, however, health monitoring can be undertaken if a worker is carrying out ongoing work with SMF and there is a significant risk to the workers' health because of exposure to SMF.

Health monitoring records must be maintained in accordance with *Stanwell Business Procedure: Pre-Employment Medicals and Periodic Health Monitoring Business Procedure (OHS-PROC-421)*.

3.3 Plant and Equipment Requirements

As far as reasonably practicable, products and materials containing SMF are to be in the shape that requires minimum trimming / cutting and handling on site.

3.3.1 PPE Requirements

All personnel conducting SMF related work must be provided suitable personal protective equipment (PPE), including as a minimum appropriate respiratory protective equipment, coveralls and gloves.

For SMF related work:

- respirators must be correctly fitted and maintained in good condition;
- used PPE must be sealed, decontaminated, labelled and correctly disposed of; and
- as far as reasonably practicable, disposable clothing is to be worn. Where non-disposable clothing is worn, it should be washed regularly and separated from other laundry to avoid cross-contamination.

Refer to *Stanwell Business Procedure: Personal Protective Equipment – PPE (OHS-PROC-30)* for further guidance on PPE selection, use and maintenance.

3.4 Safe Work Practices

There are several factors (alone or in combination) that largely determine the fibre levels present during SMF work activities, including:

- the degree of disturbance of the product;
- the proportion of respirable fibres in the product;
- the extent of any binders, cladding or sealants; and
- ventilation in areas where the product is being used.

These factors therefore will determine the most appropriate safe work practices to be undertaken.

Safe work practices to ensure the lowest possible level of airborne fibres and dust is achieved when working with SMF include:

- wetting down unbonded SMF during removal activities, where other hazards do not exist (i.e. electricity or heat);
- storing SMF products and materials in a way that minimises workers exposure, for example, in low traffic areas and contained in sealed packaging or covered / wrapped in plastic sheeting;

- regularly cleaning work areas to remove any build-up of SMF, and promptly removing visible waste to avoid being trampled and spread; and
- using an industrial vacuum cleaner for cleaning SMF contaminated areas. The industrial vacuum cleaner must be fitted with a high efficiency particulate air (HEPA) filter. Where the use of an industrial vacuum cleaner is not practicable, wet mopping and wiping may be undertaken. Disposable cloths / mop heads are to be used for this purpose and are to be disposed of in the same manner as SMF waste. Barricading is to be established for cleaning tasks at a suitable distance.

Exposed skin that has been in contact with SMF should be immediately placed under running water. Scratching or rubbing the affected area should be avoided. Where fibres are embedded in the skin or where skin has become irritated, medical assessment should be sought.

3.5 Waste and Disposal

SMF itself is not defined as regulated waste under the *Qld Environmental Protection Regulation 2008*, however is a regulated, trackable waste when contaminated with ash.

SMF waste must be placed in plastic bags or other containers to prevent fibre and / or dust emissions and be disposed in accordance with site requirements and local waste disposal authority requirements.

3.6 Training and Competence Requirements

All personnel who work with SMF must be provided with adequate information, instruction and training.

4.0 Review, Consultation and Communication

Review:

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

Consultation:

Personnel consulted during the review of this document include members of the Health, Safety and Environmental team as well as any other personnel who have an interest in the process.

Communication/Requirements after Update:

This Business Procedure will be available in Controlled Documents and on the Stanwell Intranet.

5.0 References

Legislation

- National Code of Practice for the Safe Use of Synthetic Mineral Fibres 1990
- Qld Environmental Protection Act 1994
- Qld Environmental Protection Regulation 2019
- Qld Work Health and Safety Act 2011
- Qld Work Health and Safety Regulation 2011
- Workplace Exposure Standards for Airborne Contaminants 2024

Document No	Document Title
<u>Business Procedures</u>	
OHS-PROC-134	Barricading and Signage
OHS-PROC-33	Hazard Management
OHS-PROC-108	Hazardous Chemicals
OHS-PROC-421	Pre-Employment Medicals and Periodic Health Monitoring
OHS-PROC-30	Personal Protective Equipment
<u>Stay Safe</u>	
OHS-PROC-221A	Synthetic Mineral Fibres (SMF)

6.0 Definitions

Word / Abbreviation	Definition
Amorphous	Non-crystalline.
Ceramic fibre	Amorphous, glassy, predominantly alumino-silicate materials which are created from molten masses of either alumina and silica or naturally occurring kaolin clays.
Glasswool	Fibrous product formed by either blowing or spinning a molten mass of glass. The resultant fibres are subsequently collected as a mat of fibrous product which may either be bonded or non-bonded.
Mineral wool	Fibrous product manufactured by the process of blowing or spinning from a molten mass of raw material. The resultant fibres are subsequently collected as an entangled mat of fibrous product. Mineral wool may be either slagwool, rockwool, or glasswool depending upon the raw material from which it is produced.
Synthetic Mineral Fibre (SMF)	A general term used to collectively describe a number of amorphous fibrous materials including glass wool, mineral wool and ceramic fibre. SMFs are also referred to as Man Made Mineral Fibres (MMMFs).

7.0 Revision History

Rev. No.	Rev. Date	Revision Description	Author	Endorse/Check	Approved By
0	22.05.2015	Document created to incorporate all legacy documents	J. Paull	M. Joy / T. Hooper	I. Gilbar
1	15.08.2020	Scheduled 5 year review	J. Fullard	J. Paull	K. Ussher
2	12.11.2024	Scheduled periodic review. Factors added for determining appropriate work practices. Air monitoring and health monitoring requirements clarified. Waste and Disposal section added. SMF skin exposure actions added. Definitions added. Requirement to have non-disposable clothing laundered removed.	Jayde Smith	Carl Rothman	Kriss Ussher

8.0 Appendices

Appendix A: Synthetic Mineral Fibres (SMF) Document Flowchart

