

B. PERFORMANCE STANDARDS

B4. HAZARDOUS SUBSTANCES

1.0 Scope

This Standard applies to both dangerous goods and hazardous substances, be they process or non-process materials. It covers hazard evaluation, control programme design and control programme evaluation, to ensure that employees, contractors and third parties will not suffer adverse health effects from hazardous substances either used or generated by the Business. Local definitions of dangerous goods and hazardous substances in regulations should be adhered to by Businesses.

2.0 Programme Design

- 2.1 A hazardous materials register or inventory system must be available and be used to control the purchase and introduction of new materials to operations, including those brought in by contractors. The register must be updated regularly.
- 2.2 The properties of materials brought to site, site products, intermediates, by-products and wastes must be adequately understood and documented with regard to their ability to impact on health. Material Safety Data Sheets (MSDS) must be obtained where possible and when required by law prior to using hazardous materials at site.
- 2.3 MSDS for products and any process or waste materials sent off site must be sent to customers.
- 2.4 MSDS must be used to:
 - (a) Provide adequate information regarding health effects, precautions and safe handling practices to end users of all hazardous materials/substances on site;
 - (b) Conduct a risk assessment to determine the need for workplace monitoring, medical surveillance and controls;
 - (c) Prepare workplace labels as necessary; and
 - (d) Provide emergency response information.
- 2.5 A coordinator must be assigned the accountability for maintaining the hazardous materials register and MSDS system.
- 2.6 Safe working procedures and training in the safe handling, transport and storage of hazardous substances, and also appropriate storage facilities and personal protective equipment, must be provided.
- 2.7 The assessment as to potential for adverse exposure during routine and non-routine or intermittent operations or tasks must take into account:
 - (a) Inhalation as airborne particulate, gases or vapours;
 - (b) Skin contact with hazardous substances; and
 - (c) Ingestion of hazardous substances.

3.0 Material Safety Data Sheets

- 3.1 MSDS must comply with the more comprehensive of the 'Globally Harmonised System' for MSDS or local regulatory requirements. They must be revised, as necessary, every 5 years.
- 3.2 MSDS, or a computer database containing MSDS, must be readily available to employees, contractors and other affected parties (eg. local community, emergency services), and be in the language(s) commonly used on site.

4.0 Controls

- 4.1 Hazardous substances must be prioritised and controlled in a manner consistent with the A2 Standard, to ensure employee exposure to these substances is minimised.
- 4.2 There must be written procedures for the use, storage and disposal of identified high priority hazardous substances. These must be audited every 12 months.
- 4.3 Storage facilities must be secure and protected from damage. They must also be designed for easy access for fire fighting. Where applicable, the storage facility must protect chemical containers from physical damage due to temperature extremes, moisture, corrosive mists or vapours and vehicles.
- 4.4 Stored hazardous substances must be adequately segregated based on:
 - (a) Quantity of materials stored;
 - (b) Physical state of the chemicals (solid, liquid or gas);
 - (c) Degree of incompatibility; and
 - (d) Known behaviour of the materials.
- 4.5 All containers must be adequately and clearly labelled to indicate identity, precautionary requirements and date for expiry, where relevant.
- 4.6 Prior to disposal, empty containers / equipment must be properly decontaminated.
- 4.7 There must be a programme to assess safer alternatives to current hazardous chemicals / substances, and to limit worker access to, and stored quantities of, hazardous substances.
- 4.8 Appropriate PPE for skin and eye protection must be selected with regard to the potential hazards likely, permeability, penetration, resistance to damage and compatibility with the work tasks.
- 4.9 Emergency showers and eye-wash stations must be available where required by law, or where their need is indicated by risk assessment, and then appropriately located and sign posted. Workers must be trained as to their location and use.

5.0 Asbestos and Non-asbestos Fibrous Silicates

- 5.1 This section applies to asbestos and bio-persistent non-asbestos fibrous silicates that may display asbestos-like toxicity, related to fibre diameter and length. Where required, local regulations must be followed as a minimum. In any case the following requirements must be met:
- (a) A management programme compliant with all relevant requirements of the A Standards must be in place and actively pursued;
 - (b) No new products containing these materials should be purchased unless there is no viable alternative giving acceptable performance. The necessity of using these products must be kept under review;
 - (c) Installed materials of this type must be identified and assessed for current safety. Where 'safe in place', it should not be removed;
 - (d) Work areas must be separated by ropes or barriers and signposted to restrict entry;
 - (e) Contaminated material must be placed in marked plastic disposal bags or covered containers promptly for disposal to an approved landfill; and
 - (f) Work areas must be kept clean.
- 5.2 All workers exposed to these materials must be on a register. "Exposed" means working on or near such material that has been disturbed, abraded or cut. The register must contain details of their annual medical examination and the results of occupational hygiene monitoring.
- 5.3 Contractor bid specifications must be reviewed and an individual identified who is responsible for overseeing contractor performance. Asbestos contractors must be competent, registered and have adequate equipment, procedures and monitoring.
- 5.4 Where required, the asbestos / bio-persistent non-asbestos fibrous silicates management programme must cover work practices, training, monitoring, medical surveillance, waste handling and disposal, and the above noted detail.
- 5.5 Maintenance operations must be made aware of potential cristobalite exposure hazards when disturbing non-asbestos fibrous silicates that have undergone high temperature conditions.
- 5.6 The potential for occurrence of naturally occurring asbestiform materials in exploration or mining production activities must be assessed, the risk of exposure determined and appropriate control measures implemented where required.