



CORPORATE PROCEDURE FOR

**MANAGEMENT OF HAZARDOUS SUBSTANCES,  
DANGEROUS GOODS, COMBUSTIBLE LIQUIDS &  
REGULATED WASTE**

**CS-OHS-8**

Responsible Officer: Health and Safety Manager

Approved : General Manager Production

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## **1. Purpose**

To outline all aspects associated with the safe use, storage, transportation and disposal of hazardous substances, dangerous goods, combustible liquids, regulated (including trackable) waste and controlled substances.

To ensure compliance with the relevant requirements of the Workplace Health & Safety (WH&S) Regulation and Advisory Standards, Dangerous Goods Safety Management (DGSM) Act & Regulation, Environmental Protection Regulations, Site Environmental Licences and Australian Standards.

## **2. Scope**

This procedure applies to all substances that meet the definition of a hazardous substance, dangerous good, combustible liquid, regulated waste or controlled substance that are stored, handled, transported, used or created as a result of processes at CS Energy workplaces.

## **3. Actions**

Each site must nominate a Site Chemical Coordinator (or persons) responsible for the coordination of the management of substances. The Coordinator (or persons) will have expertise in hazardous substances, dangerous goods, combustible liquids and dangerous goods, regulated waste and controlled substances or will undertake suitable training.

Where possible substances will be eliminated from use or production.

### **3.1 New / Test Substances**

Prior to any new substance being allowed on site, the person requesting the substance must submit the Chemical Approval Request (S0004) to the Site Chemical Coordinator for approval. As a minimum, the form must be submitted 7 days prior to purchase.

The Material Safety Data Sheet where relevant and risk assessment must accompany the form.

All newly approved substances must be entered into Chem Alert and the catalogue.

### **3.2 Obsolete Substances**

Where a substance is no longer required, the substance must be disposed of appropriately, the Chemical Request Approval (S0004) must be completed and the substance deleted from Chem Alert, manifests / registers and the catalogue.

### **3.3 Chem Alert**

Chem Alert is available at all sites and is accessible to workers required to handle hazardous substances, dangerous goods and combustible liquids. All chemicals used on site must be entered into Chem Alert.

### **3.4 Material Data Safety Sheets**

Current dangerous goods / hazardous substance MSDS must be made available to workers.

When CS Energy orders a dangerous good / hazardous substance for the first time, a MSDS must be provided by the supplier prior to or on receipt of the dangerous good / hazardous substance.

CS Energy must prepare a MSDS for dangerous goods / hazardous substances created by CS Energy processes. The MSDS must comply with the requirements of the DGSM Regulation, contain current information, be reviewed at least once every 5 years and be made available to workers and users / purchasers of the substance.

### 3.5 Classification of Facilities

Each site must undertake an assessment using the DGSM Regulation criteria to ascertain the classification of the site. A record of the dated written assessment must be kept on file.

The outcome of the assessment will dictate notification and other requirements – refer DGSM Act and Regulation.

The assessment must be reviewed when the quantities and type of substances change.

### 3.6 Registers

Each site must have:

- a dangerous goods / hazardous substance register available to workers. The register must contain a list of dangerous goods / hazardous substances used at the site and the manufacturer's MSDS. Chem Alert / area specific folders may be utilised. MSDS's must be inserted into the dangerous goods / hazardous substance register immediately on receipt. Reasonable steps must then be taken, to ensure the contents of the MSDS are not changed other than in accordance with an amendment of the MSDS by the manufacturer or importer of the dangerous goods / hazardous substance. A dangerous goods / hazardous substance register must be kept at the first aid office. This copy should list each work area, a list of the substances used in the work area, and the relevant MSDS's for those substances;
- a dangerous goods / combustible liquids manifest to be kept in a red weatherproof container inside, and as close as practicable to the main entry so that it's easily accessible to Emergency Services. Refer Schedule 4 of the DGSM Reg for the content of the manifest; and
- a regulated waste and controlled substance register containing a list and quantity of all regulated waste produced on site or transported off site and facilities licensed to receive regulated waste (Schedule 7 Environmental Protection Regulation 1998).

### 3.7 Risk Assessment

A risk assessment must be undertaken for a substance

- every 5 years;
- when a new MSDS is issued or new information becomes available;
- if there is a significant change to a process, system or procedure ;
- health surveillance, monitoring or an incident report show control measures need reviewing; or
- new or improved control measures are implemented.

The risk assessment (including health, safety and environmental risks) will be carried out to determine potential risks associated with the use, storage, transportation and disposal of the substance. The risk assessment must be undertaken by a person/s who has sufficient knowledge and skills to evaluate the risks. The risk assessment is to be made available to workers.

When controlling the risks associated with the substance, the hierarchy of controls will be used, with engineering and substitution the preferred options.

Refer S0007 Risk Assessment Checklist.

### 3.8 Training

All personnel involved with the handling and use of a substance will receive appropriate training. The level of training should reflect the level of association and responsibility in regard to the substances and should encompass such areas as:

- terminology;
- MSDS's and other information resources;
- health effects;
- environmental effects;
- labelling & signage;
- risk assessments;
- monitoring;
- use and maintenance of PPE;
- health surveillance; and
- specific site procedures.

Refer *CS-OHSTRAIN-4 Hazardous Substance Management*.

### 3.9 Labelling & Containers

Where substances are delivered to site and labelling does not comply with the ADG Code, the substance should not be accepted or should be relabelled as per the ADG Code.

All containers and enclosed systems (refer *AS 1345:1995 Identification of the Contents of Pipes, Conduits and Ducts*) on site must be appropriately labelled.

Containers used for decanting of hazardous substances must also be labelled unless the entire contents of the container are used immediately and has been cleaned of any residue. The label must state the substance product name and the substance risk & safety phrases. Labelling should be applied such that the contents of the container will not remove or damage the label when being decanted.

For further information regarding the labelling of hazardous substances consult *National Code of Practice for the Labelling of Workplace Substances [NOHSC: 2012(1994)]*.

Decant containers must be designed for the purpose for which they are being used eg. soft drink bottles are not to be used.

### 3.10 Storage

New storage and handling systems must be designed, constructed and installed to minimise risks associated with the substances being stored / handled.

Storage / handling systems must be protected against damage from impact with vehicles, mobile plant or other things.

Substances must be stored in accordance with the *Australian Dangerous Goods Code* and *AS/NZS 3833:1998 The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers*. Special note is to be taken of requirements in regard to storage, and segregation of incompatible substances. Bulk storage of corrosives at individual sites should comply with *AS 3780:1994 The Storage and Handling of Corrosive Substances*. Storage of gas cylinders should comply with *AS 4332:1995 Storage and Handling of Gases in Cylinders*. Ignition sources in hazardous areas must be eliminated. Where they are unable to be eliminated, the risks associated with the ignition sources must be minimised as far as reasonably practicable.

Decommissioned storage / handling systems must be thoroughly cleaned so that the system is free from dangerous goods / combustible liquids.

Sites storing flammable and combustible liquids must hold a local government license, renewable annually

### 3.11 Placarding

Warning and information placarding must be in accordance with the DGMS Regulation. Placards required may include:

- HAZCHEM outer warning placards (at every entrance to site); and
- Information placards for locations with substances stored in tanks / packages.

When bulk containers are no longer used, placarding must be removed immediately unless residue remains in the container.

### 3.12 Use

Where hazardous substances, dangerous goods, combustible liquid or potentially environmentally damaging substances are required to be used for a task, a risk assessment must be undertaken and all effort be made to identify an alternative less hazardous product to be used in its place. Where this is impractical the hierarchy of controls will be utilised to ensure risks are reduced to an acceptable level.

It is important that all personnel using the product are made aware of the hazards, have access to the MSDS, use the product only for the purpose for which it has been manufactured for, are given the appropriate training and any personal protective equipment required is made available.

### 3.13 Transportation

All hazardous substances and dangerous goods must be transported in packaging as outlined in the Australian Dangerous Goods Code. Refer *CS-OHS-15 for Dispatch for Transport of Dangerous Goods*.

Regulated waste must be transported in accordance with regulatory requirements and Site Environmental Licences.

### 3.14 Disposal

Disposal of substances must be in accordance with local government regulations and environmental regulations. Where on-site disposal is applicable, prior advice must be obtained from the Environmental Risk Adviser and/or the Corporate Environmental Manager. Transport of substances for external disposal must be via an approved disposal carrier and the disposal company must be registered and supply a certificate of disposal to ensure the substances were disposed of appropriately.

### 3.15 Inspections

Substance storage containers must be inspected on a regular basis to ensure:

- the integrity of the packaging or storage vessel and associated pipe work is maintained;
- contents of the store are updated on the register;
- non-approved substances are not in use;
- correct segregation is maintained;
- signage and placarding does not require modification; and

- all containers are correctly labelled.

Dated written records of tank inspections are to be kept while the tank remains in service.

### **3.16 Personal Protective Equipment**

Where application of the hierarchy of controls has determined that personal protective equipment is the most appropriate form of control or where it is required as a short-term measure whilst more permanent controls are adopted, the following conditions will apply.

The PPE must be:

- selected for the containment, task and, the operator in accordance with the appropriate standards;
- readily available;
- clean and functional;
- checked before use;
- correctly used; and
- appropriately maintained.

In all circumstances where personal protective equipment is being utilised, training will be provided to ensure it is properly used and maintained.

### **3.17 Fire Protection**

Fire protection systems designed and constructed for the types and quantities of the stored and handled dangerous goods / combustible liquids must be installed, tested and maintained.

Dated written records of the testing must be kept.

For unserviceable or inoperative fire protection systems:

- alternative measures must be taken to control, to the same level of effectiveness, those risks that were controlled by the system when functioning fully; and
- the system must be returned to full operation as soon as possible.

### **3.18 Spill Containment / Spill Control Equipment**

Provision must be made for spill containment in each dangerous goods / hazardous substance / combustible liquid location.

Where a risk assessment identifies the need for spill control equipment, site procedures are to be followed. The equipment should be:

- checked and on hand prior to commencement of the task; and
- correctly used.

Training in the use and maintenance of spill control equipment will be provided to those personnel identified as having to use the equipment.

### **3.19 Emergency Procedures.**

Emergency procedures must be prepared in accordance with the DGSM Regulation (Refer Attachment A)

### 3.20 Incident Investigation

Incidents involving substances must be investigated as per CS-IM-1. The dated written investigation must be kept for incidents involving material harm for the life of the facility.

### 3.21 Health Surveillance

Health surveillance of a worker must be arranged:

- where a risk assessment shows exposure to a hazardous substance has occurred and the substance is listed in Schedule 6 of the WH&S Regulation and the degree of risk to health is significant; or
- an identifiable adverse health effect has occurred, or may occur as a result of exposure to substance.

### 3.22 Records

Certificates of disposal must be kept in accordance with the Site Environmental Licence and the Environmental Protection (Waste) Policy 2000.

Dated, written records of;

- classification assessment (refer 3.5);
- risk assessments that identify a hazard or significant degree of risk to health are to be kept for 30 years. Monitoring results and health surveillance reports must also be kept for 30 years (refer 3.7);
- risk assessments identifying no hazards / significant degree of risk to health must be kept for 5 years (refer 3.7);
- training are to be kept for at least 5 years (refer 3.8);
- tank inspections are to be kept while the tank remains in service (refer 3.15);
- fire protection system testing are to be kept (refer 3.17);
- incident investigations involving material harm must be kept for the life of the facility (refer 3.20).

## 4. Definitions

Chem Alert – computerised database

Combustible Liquid – means a combustible liquid under the flammable and combustible liquids standard. If a standard is prescribed under a regulation – that standard or AS1940.

Controlled Substance – an Ozone depleting substance (whether existing alone or mixed with another substance), and includes the refrigerants R500 and R502, but does not include a substance containing less than 1% of an ozone depleting substance.

Dangerous Goods – A substance that presents a hazard when transported or stored. Specifically, a substance that belongs to a specific category of hazardous materials that are given distinction because of the acute nature of their hazards. These hazards are such that a single incident may threaten life, health, property or the environment and have been classified under the Australian Code for the Transport of Dangerous by Road and Rail.

DGSM – Dangerous Goods Safety Management

Enclosed system – includes systems such as piping, conduits and ducts.

Environmentally Damaging Substance - a controlled substance or a regulated waste.

Hazardous Area –an area in which an explosive atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of potential ignition sources.

Hazardous Substance - a substance that has the potential to cause harm to the health of people and that:

is listed on the National Occupational Health and Safety Commission's *List of Hazardous Substances [NOHSC:10005(1994)]*; or

as classified by either the manufacturer or importer in accordance with the National Occupational Health and Safety Commission's *Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1994)]*; and

includes any substance or article listed in the *Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code)*

Health Surveillance – is the monitoring of a person's health to identify changes caused by exposure to a hazardous substance.

Hierarchy of Control – a list of control options placed in the preferred order of:

- initial design
- elimination
- substitution
- isolation
- engineering
- administrative
- PPE

Material Harm – is harm that causes or has the potential to cause harm to a person that requires or may require treatment by a doctor or results in costs of more than \$1000 being incurred to prevent minimise or repair harm to property or the environment.

MSDS - material safety data sheet.

PPE – personal protective equipment.

Regulated Waste – includes trackable waste and means non-domestic waste mentioned in Schedule 7 (of Environmental Protection Regulation 1998) (whether or not it has been treated or immobilised), and includes:

- (a) for an element – any chemical compound containing the element; and
- (b) anything that has contained the waste.

Substance – refers to hazardous substances, dangerous goods, combustible liquid and regulated waste.

Trackable Waste - a substance that is a regulated waste of the type mentioned in Schedule 1 of the Environmental Protection (Waste) Policy 2000.

WH&S – workplace health and safety.

## 5. Responsibilities

### Site Manager

- Ensure compliance with the requirements of this procedure.
- Ensure appropriate training requirements are implemented.
- Ensure the responsibilities of the Site Chemical Coordinator are undertaken.

### Site Chemical Coordinator

- Coordinate management of hazardous substances, dangerous goods, combustible liquids and regulated waste on site.
- Maintain a copy of completed Chemical Approval Requests (S0004) and associated material.
- Liaise with relevant legislative authorities and emergency services on the site's emergency plan.
- Maintain Chem Alert, registers and records.
- Ensure MSDS for CS Energy hazardous substances are current.

#### **Environmental Risk Adviser**

- Provide advice on disposal of substances.

#### **Procurement**

- Ensure the catalogue is kept up-to-date.

#### **Worker**

- Complete Chemical Approval Form prior to the purchase of new substances and for obsolete substances.

## 6. Reference Documentation

### 6.1 CS Energy Documentation

CS-IM-1 Incident Management  
CS-IM-2 Crisis Management  
CS-OHS-15 Dispatch for Transport of Dangerous Goods  
CS-OHSTRAIN-4 Hazardous Substances Management  
S0004 Chemical Approval Request  
S0007 Risk Assessment Checklist  
Site Environmental Licences  
Site Red Manuals

### 6.2 Other

Advisory Standard for Hazardous Substances  
AS 1345:1995 Identification of the Contents of Pipes, Conduits and Ducts  
AS1692: 1989 Tanks and Flammable and Combustible Liquids  
AS1940: 1993 Storage and Handling of Flammable and Combustible Liquids  
AS 2430: Classification of Hazardous Areas  
AS 3780:1994 The Storage and Handling of Corrosive Substances  
AS/NZS 3833:1998 The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers  
AS 4332:1995 Storage and Handling of Gases in Cylinders

Dangerous Goods Safety Management Act 2001

Dangerous Goods Safety Management Regulation 2001

Environmental Protection Regulation 1998

Environmental Protection (Waste) Policy 2000

Model Regulations [NOHSC:1005(1994)] and Model Code of Practice [NOHSC:2007(1084)]

National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC 2011(1994)]

National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]

National Guidance Note for Emergency Services Manifest [NOHSC:3010 (1990)]

National Standard for Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1994)]

National Standard for Control of Hazardous Substances

Workplace Health & Safety Regulation 1997 Part 13

Workplace Health & Safety (Miscellaneous) Regulation 1995 Part 17

## 7. Attachments

Attachment A: Emergency Plans and Procedures

## 8. Document History

Issue Date	Nature of Changes
20/09/2000	Draft
27/11/2000	Original
15/02/2002	To comply with Dangerous Goods Safety Management legislation – changes throughout.

## Attachment A: Emergency Plans and Procedures

Must include the following:

- a) dangerous goods and combustible liquids stored or handled at the site;
- b) potential credible emergencies for the goods and liquids;
- c) organisational structure in place to deal with a credible emergency, including roles and responsibilities of persons holding positions;
- d) resources and equipment available to deal with a credible emergency;
- e) the procedures that must be followed;
- f) site layout showing where the dangerous goods and combustible liquids are stored or handled; resources and equipment available;
- g) telephone or other contact details of emergency services and other persons.