

Chemical Management Standard

1.0 Purpose

This standard describes a method for identifying, evaluating and controlling environmental, health and safety (EHS) hazards associated with chemicals used at Cenovus worksites.

2.0 Application

This standard applies to all Cenovus worksites and encompasses contracted work activities which involve chemicals.

3.0 Chemical Management

Effective management of chemicals proposed or acquired for worksite use involves the development and implementation of processes for:

- purchasing and risk assessment;
- hazard control, as necessary, during handling, using and storing;
- receiving and maintaining an inventory; and
- chemical stewardship.

Specific guidelines for each process are listed under internal references.

3.1 Purchasing and Risk Assessment

A process for review and approval of chemical purchase and acquisition will be developed and maintained for each Cenovus worksite. This process will include hazardous chemicals brought to the worksite by contractors.

When hazardous chemicals are initially selected for use, or changes are made to the chemicals used in existing processes, a chemical Management of Change (MOC) must be initiated through the Cenovus MOC process. The MOC process will prompt a full review of the chemical, including technical suitability and safety components. The potential for replacement of the chemical with a less hazardous chemical will also be considered.

The MOC process will engage the appropriate stakeholders, and may include design and process engineers, operations and maintenance staff, Operations Health and Safety representatives, process safety engineers, the chemical safety advisor, an occupational hygienist, shipping / receiving personnel, and any other subject matter experts deemed necessary (vendors, etc).

Chemical risk assessments provide evidence that environmental, health and safety hazards have been identified and evaluated. Supervisors shall ensure that all hazardous chemicals located in their area of responsibility have a chemical risk assessment completed prior to use. The depth/complexity of the chemical risk assessment will be determined by:

- the properties and the associated risks of the chemical;
- the environment in which the chemical will be used; and
- the activities in which the chemical will be applied.

3.2 Hazard Control

Hazard controls will be implemented, as appropriate, for the potential risks associated with the chemical usage, handling and storage. The chemical risk assessment and the Material Safety Data Sheet (MSDS) will be consulted for risk-specific handling instructions and required personal protective equipment. The Chemical Safety Advisor can be contacted for detailed advice regarding hazard controls as necessary.

An exposure control plan will be developed and implemented for high-risk hazardous chemicals. An exposure control plan documents:

- purpose and responsibilities;
- risk identification, assessment and control;
- education and training;
- written work procedures, when required;
- hygiene facilities and decontamination procedures, when required;
- health monitoring, when required;

Exposure control plans should be reviewed at least annually and updated as necessary.

Supervisors shall ensure emergency preparedness and response procedures are developed and maintained that take into account the physical properties of chemicals including, fire and explosion, environmental damage and the likely health effects if exposure occurs. Emergency preparedness and response procedures shall include:

- managing spills and leaks;
- liaising with the Emergency Management Group; and
- supporting Cenovus emergency procedures.

The worker shall ensure that chemical spills and releases are promptly reported to their supervisor and/or their Cenovus contact. Refer to the MSDS for specific information on managing spills, leaks and releases.

Supervisors shall ensure, so far as is reasonably practicable, that chemicals are acquired in minimum quantities that mitigate or reduce waste.

When an existing process is reviewed, the same considerations will be applied.

3.3 Receiving and Inventory

Receivers and worksite personnel must review a chemical's associated hazards before allowing it to be used.

An online MSDS management system will be used to maintain an inventory of site-specific hazardous chemicals.

Site-specific chemical inventories shall be generated from the online MSDS system and reviewed at regular intervals to ensure that they remain current. Once a hazardous chemical is no longer used at a worksite, the site supervisor responsible for the chemical should contact their MSDS administrator to ask for the chemical to be archived for their worksite.

4.0 Chemical Stewardship

Hazardous chemicals will be identified and tracked from arrival at the worksite to eventual consumption in the process or disposal.

Supervisors will ensure that chemicals are disposed of in accordance with Cenovus and regulatory requirements. Chemicals disposed of as hazardous waste will be manifested.

Disposal records will be maintained as per applicable hazardous waste management regulations.

5.0 Training

This standard is posted on the Cenovus Health & Safety website, and the eLearning System. Each worker will be required to read the standard and indicate an understanding of chemical management as presented.

6.0 Roles and Responsibilities

Roles and responsibilities for safety documents are described in the following link:

Cenovus CEN-EHS234, Roles and Responsibilities

Roles and responsibilities specific to the Chemical Management Standard are described below:

6.1 Leadership

Cenovus Leadership is responsible for:

- a) Developing, documenting and implementing a management program to control potential hazards associated with worksite chemicals.
- b) Reviewing and updating the program approximately every 2 years or when new information warrants.
- c) Ensuring relevant training has been provided to site staff regarding the chemical management standard.
- d) Ensuring workers understand potential environmental, health and safety hazards associated with chemicals.
- e) Providing appropriate resources to minimize chemical hazards.

6.2 Health and Safety Representatives

The Cenovus Health and Safety Representatives are responsible for:

- a) Working with Site Leadership to implement the chemical management standard.
- b) Assisting Site Leadership and supervisors to mitigate the risks associated with chemical hazards.
- c) Engaging appropriate subject matter experts (e.g., Chemical Safety Advisor, Environmental Analyst, Occupational Hygienist, Process Safety, vendor support), as required.

6.3 Site Leadership (Superintendent, Drilling Coordinator)

The Cenovus Site Leadership is responsible for:

- a) Being familiar with this standard.
- b) Reviewing each hazardous chemical used or created on the worksite using the method described in this standard.
- c) Identifying potential chemical hazards in the workplace.
- d) Assisting workers to minimize chemical hazards.
- e) Engaging Health and Safety Representatives, as required.

6.4 Supervisors (Immediate Supervisors of work)

Each supervisor is responsible for:

- a) Reviewing the hazardous chemicals handled or encountered by their employees and contractors using the method described in this standard.
- b) Identifying potential chemical hazards in the workplace.
- c) Ensuring that their employees and contractors have the skills and knowledge required to perform their activities in a manner that is safe and without risk to health.
- d) Ensuring that their employees and contractors have the appropriate equipment necessary to minimize chemical hazards.
- e) Contacting the Site Leadership or a Health and Safety Representative with questions or concerns regarding chemical hazards.

6.5 Workers

Workers are responsible for:

- a) Being aware of the potential hazards of the chemicals at their worksite.
- b) Taking appropriate measures to minimize chemical hazards, as applicable to their situation.
- c) Using engineering controls, standard operating procedures and personal protective equipment.
- d) Contacting their supervisor when they have questions or concerns regarding chemical hazards.

6.6 Contractors

Contractors are responsible for:

- a) Developing their own policy and standards to identify and control chemical hazards they bring to the worksite.
- b) Taking appropriate measures to minimize chemical hazards, as applicable to their situation.
- c) Providing Purchasing or Site Leadership with a list of controlled products that they intend to bring onto a Cenovus worksite and a copy of each MSDS.

6.7 Visitors

Workers supervising visitors are responsible for:

- a) Making visitors aware of chemical hazards present at the worksite they are visiting (e.g., H₂S, benzene).
- b) Ensuring that visitors are adequately protected from the chemical hazards on the worksite.

7.0 Governing and Reference Documents

Before introducing chemicals into use, Cenovus site representatives will identify potentially hazardous or regulated chemicals.

7.1 Governance

Document Type	Governance Documents
Policy	Corporate Responsibility Policy
Framework	Cenovus Operations Management System (COMS)
Policy	Enterprise Risk Management Policy
Regulatory	Workplace Hazardous Material Information System
Regulatory	Transportation of Dangerous Goods
Regulatory	CEPA 1999 Toxic Substances List - Schedule 1
Regulatory	CEPA 1999 Section 71 Challenge List
Regulatory	Alberta OHS Code (2009) – Part 4
Regulatory	Saskatchewan OHS Regulation – Part VI and XXI

7.2 Internal References

Document Ref. #	Internal Reference Documents
CEN-EHS022	EH&S/Operations Risk Management Practice
CEN-EHS019	Hazard Assessment and Control Practice
CEN-EHS146	Occupational Health Risk Assessment Standard
CEN-EHS147	Occupational Health Risk Assessment Procedure
CEN127	Risk Assessment Worksheet
CEN-EHS-ENV2414	Alberta Waste Management Chart
CEN-EHS-ENV2416	Saskatchewan Waste Management Chart
CEN-EHS-ENV385	Alberta Release Reporting Requirements
CEN-EHS-ENV412	Saskatchewan Release Reporting Requirements
CEN-EHS-ENV2718	Field Alberta/Saskatchewan Release Chart

8.0 Change Management

Proposed changes to this standard can be directed to H&S Programs & Projects.

9.0 Definitions and Acronyms

Definitions and acronyms for safety documents are described in the link below:

Cenovus CEN-EHS243, Definitions and Acronyms

The following definitions and acronyms are specific to the Chemical Management Standard.

Hazardous Chemical – any chemical that has the potential to harm the environment or the health or safety of workers.

Controlled Substance – under federal and provincial legislation, a compressed gas, oxidizing material, or a substance that is poisonous, infectious, flammable, combustible, corrosive or dangerously reactive and meets specific criteria in The Controlled Products Regulation.

Material Safety Data Sheet (MSDS) – in federal and provincial legislation, a mandated summary of information pertaining to identification, composition, EHS hazards, first aid, hazard controls for a specific controlled product. (MSDS may also be available for non-controlled products.)