

Standard

Department:	ENVIRONMENT HEALTH AND SAFETY	Number: LMS0037A
Subject:	CONFINED SPACE ENTRY	Reference:

1. Purpose

To ensure the safety of personnel required to enter &/or work within confined spaces.

To align Suncor Energy Inc. Oil Sands with the Oil Sands Safety Association (OSSA) Confined Space Entry Regional Code of Practice.

This standard applies to all Suncor employees, contractors, vendors and visitors hereafter referred to as *personnel* required to perform work or to enter a confined space area. Confined Space Entry is defined by this standard and in accordance with the Alberta Occupational Health and Safety Code and the OSSA Regional Code of Practice.

2. Standard

- 2.1 **Confined Space** is an enclosed or partially enclosed space that is not designed or intended for continuous human occupancy, having restricted means of entry or exit that may become hazardous to a worker entering it because:
- (a) of its design, construction, location or atmosphere,
 - (b) of the work activities, materials or substances in it,
 - (c) the provision of first aid, evacuation, rescue or other emergency response service is compromised, or
 - (d) of other hazards relating to it;

Examples of confined spaces are:

- Crawlspace
- Ducts
- Excavations
- Exchangers
- Pipelines
- Piping Systems
- Sewers
- Some components of major equipment
- Tanks
- Utility manholes
- Vessels

Note: A worker is considered to have “entered” a confined space when the worker’s breathing zone crosses the plane of the confined space access. In situations where the confined space content or atmosphere may present additional hazards to workers i.e. presence of inert purge gas or hazardous chemical (caustic), an extended radius outside of the confined space access may be required.

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- 2.2 Business Area Management is responsible for assigning a risk assessment team to perform and document the risk assessment and develop a safe, confined space entry safe work plan. Where reasonably practicable, plans will be executed to mitigate all risks to the lowest level.
- 2.3 Department Managers/Directors will ensure that the relevant area-specific standards, rules, procedures and work practices are developed and implemented to meet or exceed the requirements of this standard.
- 2.4 Department Managers/Directors will ensure that a worker assigned duties related to confined space entry is trained by a competent person in:
 - Recognizing the hazards associated with working in confined spaces, and
 - Performing the worker's duties in a safe and healthy manner.
- 2.5 Department Managers/Directors will ensure that the details, as outlined in Appendices I to VII, are followed.
- 2.6 The Business Area will be responsible for implementing reviews of their areas of responsibility to determine and classify confined space environments. Where practical the confined space should be labelled to identify the hazardous level criteria (see Appendix 1).
- 2.7 The Business Area is accountable for record keeping. Records will be kept with respect to entry and work in a confined space, including entry permits, safe entry tags, Task Hazard Analysis (THA), Field Level Risk Assessments (FLRA), gas testing logs, and entry/exit logs for not less than:
 - a) 1 year if no incident or unplanned event occurs during the entry,
 - b) 2 years if an incident or unplanned event occurs during the entry, or
 - c) 7 years for WCB if an incident or unplanned event occurs during the entry and an employee is injured.
- 3. **IMPLEMENTATION:** The Oil Sand's Areas Cross Functional Management Team is responsible for the implementation of this document.
- 4. **INTERPRETATION AND UPDATING:** The EHS Program Manager shall ensure interpretation and updating of this standard.

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APPENDIX I

HAZARDOUS LEVEL CRITERIA

Confined space entries have been classified into Level 1, Level 2, and Level 3. The classification of entry shall be based on the conditions present at the time of entry with consideration for potential changes of conditions as identified in the risk assessment.

Note: A worker is considered to have “entered” a confined space when the worker’s breathing zone crosses the plane of the confined space access. In situations where the confined space content or atmosphere may present an additional hazard to workers i.e. presence of inert purge gas or hazardous chemical (caustic), an extended radius outside of the confined space access may be required.

Level 1 Entry

A confined space will be considered **Level 1** if the entry is either the first or initial entry, if the confined space presents a situation that is immediately dangerous to life or health (IDLH) or if **any one** of the following conditions exist and supplied breathing air will be required:

1. If the hazards in the confined space or in its proximity are either not known or have not yet been determined.
2. The area atmosphere is beyond the limits of air purifier respiratory equipment protection for substance(s) present in the confined space.
3. Oxygen content is less than 19.5%.
4. Oxygen content is greater than 23.0%. Conditions where oxygen content is greater than 23.0% will require re-assessment prior to entry. Additional action(s) may be required such as washing, neutralizing or inerting.
5. Flammability is greater than 10% but less than 20% of the Lower **Explosive** Limit (LEL). Conditions where the LEL is greater than 20% will require re-assessment. Additional action(s) may be required such as steaming, washing, venting or inerting.

Note: A worker must not enter or work in an area if more than 20% of the LEL of a flammable or explosive substance is present in the atmosphere.

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The following are examples of Level 1 Entries:

- Spaces containing free flammable liquids, where the LEL is equal to or less than 20% but greater than 10%.
- Vessels containing inert purge gases.
- Excavations in hazardous areas where the atmosphere is or likely to become IDLH.
- Sewers containing hazardous effluent.
- Tanks containing poisonous gases, or deficient in oxygen.
- Confined spaces where the limits of air purifying respirator equipment has been exceeded.

Level 1 Entry Control Requirements:

1. An approved, written and dated risk assessment, including plans to mitigate identified hazards.
2. Supplied breathing air.
3. Qualified Confined Space monitor at all time.
4. Specific and documented Rescue Plan that is reviewed by all effected.
5. A valid Confined Space entry permit.
6. A valid Level 1 Entry Tag hung at each entrance.
7. An evacuation procedure.
8. Continuous atmospheric monitoring in the confined space during entry
9. Any additional controls as identified by the risk assessment.

Level 2 Entry

If the entry is not immediately hazardous to life or health, but has the potential for causing injury and illness and all identified hazards are controlled, but **any** of the following conditions exist, then the entry shall be considered a Level 2 Entry:

1. Oxygen content is between 19.5% and 23.0%.

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2. Flammability is equal to or greater than 0% but less than 10% of the Lower **Explosive** Limit (LEL). Conditions where the LEL is greater than 0% will require assessment prior to entry as to the need of an Air Purifying Respirator (APR).
3. Hot work is not permitted in any confined space where the LEL exceeds 10%.

Note: A worker must not enter or work in an area if more than 20% of the LEL of a flammable or explosive substance is present in the atmosphere.

The following are examples of Level 2 Entries:

- Ventilated sewers or shafts.
- Empty and clean vessels in a hazardous area.
- Excavations in areas where the atmosphere has been tested and proven safe, but is in the proximity of processes that have the potential to change pre-existing conditions.

Level 2 Entry Controls Requirements:

1. An approved, written and dated risk assessment, including plans to mitigate identified hazards.
2. Qualified Confined Space monitor at all time.
3. A valid Confined Space entry permit.
4. A valid Safe Entry Tag hung at each entrance.
5. An evacuation procedure.
6. A valid Rescue Plan that is reviewed by all effected.
7. Adequate ventilation.
8. Any additional controls as identified by the risk assessment.
9. Subsequent type and frequency of testing identified and documented.

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A confined space in which the potential hazard would not require any special modification of the work procedure (all identified hazards are controlled and the potential for change is unlikely) but **all** of the following conditions exist, then the entry shall be considered a Level 3 Entry:

1. The area is considered non-hazardous and there is a low potential of change that would require immediate egress or rescue.
2. Oxygen content is between 19.5% and 23.0%.
3. Flammability is 0% of the Lower **Explosive** Limit (LEL).
4. Airborne concentration of toxic substances is less than 50% of OEL.
5. Normal rescue operations apply.

The following are examples of Level 3 Entries:

- Empty and clean vessels in a non-hazardous area.
- Open excavations in an area where there is minimum risk of atmosphere contamination by a hazardous substance.
- Elevator shafts in office buildings.

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Level 3 Entry Control Requirements:

1. An approved, written and dated risk assessment, including plans to mitigate identified hazards
2. Qualified Confined Space monitor *
3. A valid Confined Space entry permit
4. A valid Safe Entry Tag hung at each entrance
5. An evacuation procedure
6. A valid Rescue Plan that is reviewed by all effected
7. Adequate ventilation
8. An additional controls as identified by the risk assessment
9. Subsequent type and frequency of testing identified and documented.

*** Note:** If a risk assessment determines that a Confined Space Monitor is not required at the point of entry, a competent worker must be designated to be in communication with worker(s) in the confined space. The entry log must still be maintained.

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APPENDIX II

MANDATORY ACTIVITIES

Level 1, Level 2, and Level 3 Entries - Requirements

1. Line Management shall ensure that relevant OH&S Regulations regarding hazard assessment and confined space entries shall be complied with. Where it is likely that a worker will enter a confined space to perform work, a competent person must:
 - a. Not enter a confined space at a work site without a valid entry permit and associated training.
 - b. Not enter or stay in a confined space unless an effective rescue can be carried out
 - c. Prepare a written assessment of the hazards to which the worker is likely to be exposed while in the confined space.
 - d. At a minimum, a field level risk assessment (FLRA) will take place at the work site prior to the commencement of work.
 - e. Specify the type and frequency of inspections and tests necessary to determine the likelihood of worker exposure to any of the identified hazards.
 - f. Perform the inspections and tests identified in b.
 - g. Record all tests in writing and retain these records.
 - h. Specify the safety and personal protective equipment required to perform the work, and
 - i. Identify the personnel and personal protective equipment and emergency equipment to be used by the worker who undertakes rescue operations in the event of an accident or other emergency.

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2. Department Managers/Directors shall ensure that procedures are developed, implemented and documented to address the following:
 - Qualifications and training for workers who may be required to enter or work in the confined space.
 - Mandatory training or confined space awareness for anyone entering a confined space as per OH&S code, Part 5, section 46.
 - The means of isolating the confined space.
 - The means of ventilating the confined space, if applicable.
 - The means of protecting workers from drowning, engulfment or entrapment while inside the confined space.
 - Ensure appropriate monitoring, determined by a hazard assessment completed prior to the commencement of work in the area, is in place to detect any change in the established and/or expected atmosphere and that such changes are immediately known.
 - Tests or measurements that shall be taken to determine the presence of, or change in, the concentration of harmful substances or oxygen deficiencies and will dictate the frequency at which these tests or measurements are undertaken.
 - Information on the availability and proper use of personal protective equipment.
 - Identification, communication and documentation of other hazards that may be present or introduced in the confined space and which may compromise the safety of the workers.
 - The maximum number of workers who will be allowed access for the purpose of executing work within the confined space at any one time.

3. A documented Emergency Response/Rescue Plan shall be developed and in place. The plan will address:
 - How the response will be initiated

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- Who will respond
 - What equipment is required
 - Who will perform the rescue
 - Whether a rescue person(s) needs to be stationed at the entrance to the confined space.
4. All workers involved in the entry shall review the Emergency Response/Rescue Plan and become familiar with the tasks and hazards involved.
 5. All specified and/or applicable safety equipment shall be in place, have been inspected and be operational.
 6. The area shall be properly prepared, including appropriate barriers and signs.
 7. Gas testing shall be performed using calibrated test instruments appropriate for the atmosphere being tested, used in accordance with the manufacturer's specifications and carried out as follows:
 - Level 1 Entries: Appropriate continuous testing for the duration of the job.
 - Level 2 Entries: Appropriate continuous testing or testing at a frequency determined appropriate for the hazards identified in the hazard analysis, for the duration of the job.
 - Level 3 Entries: Frequency shall be established and adhered to for the duration of the job.
 8. All test results must be recorded in writing.
 9. All entry logs, test results and all other associated confined space documents shall be returned to the permit issuer after final closure of the confined space has been completed.
 10. Isolation procedures shall be in place to ensure the safety of all personnel. Acceptable means of isolation are:
 - Blanking or blinding
 - Misaligning or removing sections of lines, pipes or ducts
 - Locking out and tagging all sources of energy (including nuclear gauges), and

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- Immobilizing or disconnecting all mechanical linkages

The above procedures shall comply with the standard, "Locking/Tagging of Equipment Systems", RGP0005A and Business Area isolation requirements.

Level 1 and Level 2 Entries – Requirements

- a. Designate a competent Confined Space monitor at each point of access or egress in use to be in communication with a worker in the confined space. This worker must
 - Have a suitable system for summoning assistance in case of emergency
 - Remains in constant communication with the workers inside the confined space
 - Maintains a Confined Space Entry and Exit log for the duration of the job. This log must remain at the job site until the closure of the confined space.
 - Keep track at all times of the number of workers inside the confined space, and
 - Does not leave the area until all workers have left the confined space or another competent worker is in place.
- b. Ensure that a competent worker is trained in the evacuation procedures in the emergency response plan and is present outside the confined space, at or near the entrance if:
 - The oxygen content within the confined space is less than 19.5% or greater than 23.0% by volume
 - The concentration of a substance listed in Schedule 1, Table 2 of the Alberta Occupational Health and Safety Code is greater than 50% of its occupational exposure limit, or
 - Other hazards, identified by the hazard assessment, are present and cannot be eliminated or controlled effectively.

Level 1 Entry

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1. A task listing and analysis shall be completed for all critical tasks involved in the entry.
2. A field level risk assessment (FLRA) will take place at the work site prior to the commencement of work.
3. All rescue equipment capable of affecting a rescue that has been identified in the rescue plan shall be immediately available at the entry site.
4. All personnel on the rescue team shall be familiar with the rescue plan and have completed a review to ensure its effectiveness.
5. Worker(s) in a confined space shall be in continuous communication or in visual contact with people outside of the confined space to ensure that if any trouble is experienced it will be immediately noted.

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APPENDIX III

CONFINED SPACE ENTRY PERMIT SYSTEM AND ENTRANT TRACKING

1. Personnel will not enter a confined space without a valid entry permit.
2. The entry permit system must:
 - Maintain the names of each worker entering the confined space,
 - Gives the location of the confined space,
 - Specifies the time period for the permit to be valid
 - Takes into account the work to be done within the confined space
 - Takes into account the code of practice requirements for entering, being in and leaving the confined space,
 - Ensures all required documents are collected and maintained for retention.
3. Before entry into a confined space, the entry permit will be properly completed, signed by a competent person and a copy kept and readily available at the confined space location.

ENTRANT TRACKING

For all LEVEL 1 and 2 confined space entries and when there is a Confined Space Monitor on a Level 3, all personnel who enter the confined space will leave their Employee Identification (ID) cards (or equivalent) outside, at the entrance to the confined space. Personnel are expected to enter and exit the confined space at the same entrance or return to that entrance as soon as possible upon leaving from another location to retrieve their ID cards.

***NOTE:** This tracking method is not required for excavations when all personnel are visible at all time.

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APPENDIX IV

ENTRY TAGS AND SIGNAGE FOR CONFINED SPACE ENTRY ENTRY TAGS

Before any permit is issued for confined space entry, and **Entry Tag** must be completed.

The **Entry Tag** must contain the following information:

- Equipment number, identification or description,
- Entry level,
- Checks completed (gas tests, temperature, cleanliness, etc.),
- Frequency of subsequent tests,
- Personal protective equipment required for entry,
- Name and signature of tester,
- Date and time of initial test,
- Signatures and times of subsequent tests will be recorded on the reverse of the tag.

Level 1 entry tag

- Visually distinguishable to identify the space as IDLH
- White with **salmon pink** (Pantone 805)

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LEVEL ONE ENTRY TAG

EQUIPMENT # _____

DANGER		
THE ATMOSPHERE IN THIS SPACE WILL NOT SUPPORT LIFE. SUPPLIED BREATHING AIR IS REQUIRED!		

CHECKS COMPLETED	RESULT	INITIALS
FLAMMABLE / EXPLOSIVE VAPOURS		
TOXIC / IRRITANTS		
NOXIOUS SUBSTANCE		
UNOXYGENATED LIQUID		
UNOXYGENATED GAS		
NOISE		
SLIP / TRIP / FALL		
HAZARDOUS MATERIALS		
OTHER		

FREQUENCY OF TESTS _____
(Record results as follows)

PERSONAL PROTECTIVE EQUIPMENT:

Hard Hat: __ Safety Boots: __ Safety Glasses: __

Hearing Protection: __ Goggles: __ Face Shield: __

Respiratory Protection (specify type and cartridge): _____

Fall Protection (specify): _____

Fire Resistant Workwear: __ Breathing Air: __

This Confined Space may be entered providing Permit and PPE criteria are met.

_____ (print) _____ (signature)

Date: _____ Time: _____

LEVEL ONE ENTRY TAG

ACTS FOR CONDITIONS ON FRONT OF TAG

SIGNATURE (Print Name / Accessible)	DATE / TIME

COMMENTS:

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Level 2 & 3 entry tag

- Green and yellow



SIGNAGE

There are three (3) types of signage available when an entrance to a confined space is left unattended to indicate the status of the confined space and the entry requirements.

- 1. DANGER, DO NOT ENTER:**

- This sign overrides all other signs and when in place, no one is to enter a confined space under any circumstances.
- If entry is required, a re-evaluation of the conditions of the confined space is necessary and to be performed by **Operations personnel only**
- Only **Operations Personnel** can remove this sign.

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2. **CONFINED SPACE MONITOR AND PERMIT REQUIRED FOR ENTRY:**

- This sign signifies that only authorized personnel are allowed to enter a confined space under the conditions that they poses a valid permit to work in that confined space and that there is a Confined Space Monitor present at the entrance when they enter.
- The Confined Space Monitor can remove this sign only when the permit criteria are met and a Safe Entry Tag is valid and current.
- The confined Space Monitor may hang the sign at the entrance to a confined space when leaving only if the status of the confined space had not changed.

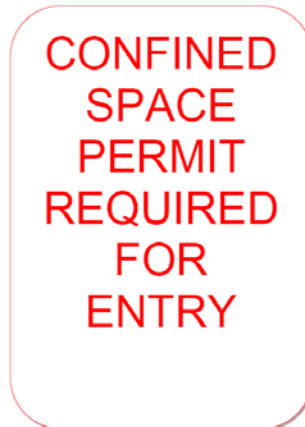


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3. **CONFINED SPACE PERMIT REQUIRED FOR ENTRY:**

- This sign is to be used on a Level 3 entry where a Confined Space Monitor is not required,
- This indicates that although there is a safe entry tag on it, the space can only be entered with a valid permit.



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APPENDIX V

VENTILATION

1. The environment within a confined space shall be controlled for the duration of the entry.
 - This control is to be effected by ventilation and/or purging of the space to remove any harmful gases, vapours, fumes, excessive heat or other airborne contaminants.
2. Conditions within the confined space shall be maintained below the applicable Occupational Exposure Limit (OEL) where possible to do so. Where it is not possible to do so, the personnel shall be equipped with approved respiratory equipment.
3. The space shall be thoroughly ventilated, preferably by positive method of mechanical equipment so located as to introduce sufficient fresh air to the space to remove all contaminants from all pockets or corners.
4. All ventilation devices shall be positioned such that they will prevent the re-circulation of contaminated air, or the drawing in of contaminated air from other sources.

The positioning of mobile and auxiliary equipment must not compromise confined space atmosphere conditions.

Where work practices allow, the ventilation equipment shall be kept operating continuously, even after the atmosphere inside the confined space has been effectively cleaned in order to provide secondary protection in case of the accidental introduction of harmful substances, or heat build-up due to welding, cutting etc.

Electrical ventilation devices must meet or exceed the electrical classification for the area where they are to be used.

Industrial Hygiene may be requested to complete Heat Stress Surveys if ambient temperatures warrant action.

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5. If a ventilation system fails, workers are to be warned immediately and are expected to be trained in the correct use of the ventilation system, participate in the training and use the ventilation system properly.
6. If mechanical ventilation is required to maintain a safe atmosphere in the confined space, the ventilation system must incorporate a method of alerting workers to a failure of the system so that workers have a sufficient time to safely leave the confined space and that all workers within the confined space have received training in the evacuation procedures to be used in the event of a ventilation system failure.

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APPENDIX VI

TESTING AND MONITORING

Level 1 and Level 2 Entries

1. All Level 1 and Level 2 entries shall be tested for oxygen deficiency, combustible gases, toxic or other airborne contaminants.
2. A competent worker using the appropriate, calibrated, testing devices shall conduct the tests. All monitors will be functionally bump tested prior to use and results of the bump test will be recorded.
3. When it is necessary to enter a confined space for testing, prior to the issue of the Confined Space Entry Authorization, the tester shall be equipped with self contained breathing apparatus (SCBA) or remote supplied air apparatus (RSAA), and the testing equipment shall be intrinsically safe (explosion proof).
4. All Level 1 Entries shall be monitored on a continuous basis for oxygen content and flammability as well as any toxic gases identified through prior risk assessment.
5. After the initial entry testing for Level 2 Entries, the confined space will be tested at a frequency determined by qualified personnel as defined in area-specific procedures based on hazard assessments to control the environment to within the OEL. Records of testing will be logged.
6. All subsequent gas test results will be documented on the appropriate entry tag.

Level 3 Entry

1. All Level 3 Entries shall have their environment proven and be situated in a location sufficiently remote from potential sources of flammable or toxic materials.

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2. After the initial entry testing, the confined space shall be tested at a frequency determined by competent worker as defined in area-specific procedures, to ensure that the environment is controlled within the OEL.

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APPENDIX VII

CLEANING & INERTING

1. Where possible and practical to do so, confined spaces shall be cleaned prior to entry.
2. The degree and manner of cleaning of the equipment and/or system shall be established jointly by Area Supervisors Operations and Maintenance.
3. To reduce the possibility of an electrical spark due to a build up of static electricity during the cleaning process, proper grounding procedures shall be used.
4. Where a neutralization or chemical cleaning process has been used to clean a confined space, consideration shall be given for additional personal protective equipment as recommended by the MSDS of the cleaning agent used.
5. If it is not reasonably practicable to eliminate an explosive or flammable atmosphere within the confined space, the confined space must be inerted.
6. If a confined space is inerted, every worker entering the confined space or the defined entry zone must be equipped with supplied air respiratory protection equipment, all ignition sources must be controlled and the atmosphere within the confined space must stay inerted while workers are inside.

Note: A worker is considered to have “entered” a confined space when the worker’s breathing zone crosses the plane of the confined space access. In situations where the confined space content or atmosphere may present additional hazards to workers i.e. presence of inert purge gas or hazardous chemical (caustic), an extended radius outside of the confined space access may be required.

7. The risk assessment will address a safe area from access/egress to outside workers when a confined space is deemed inert.

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APPENDIX VIII

PERSONAL PROTECTIVE EQUIPMENT

1. The personal protective equipment required for the entry of a confined space can vary greatly dependent on the nature and contents of the confined space. The level of personal protective equipment required (e.g. clothing, footwear, hand, head, face, eye, ear and respiratory protection) shall be determined by Area Supervisors, Operations and Maintenance with the assistance of qualified personnel who are thoroughly familiar with the hazards that may be encountered. Personal protective equipment requirements must be addressed as a part of the risk assessment of each confined space.

2. Where respiratory protection is required, the following minimum standards shall be adhered to:
 - Self-contained breathing apparatus (SCBA): a portable unit with a pressurized air cylinder which contains at least a nominal 30 minute supply of respirable air, a full face piece and capable of operating in the positive pressure/pressure-demand mode. The SCBA must be equipped with a low pressure warning alarm.
 - Remote supplied air apparatus (RSAA): a unit with a full-face piece, equipped with an auxiliary self-contained air cylinder for escape purposes and capable of operating in the positive pressure mode. This apparatus normally draws it respirable air through an air hose connected to either:
 - one or more large pressurized air cylinders
 - an air compressor equipped with suitable filters to ensure air purity
 - Air-Purifying Respirators (APR): a portable unit which absorbs or filters dust, fibres, mists, fumes, vapours or gas from the ambient air.

Refer to:

- LMS0052A - Respiratory Protection Standard.
- LMP0005A - Respiratory Protective Equipment Procedure.
- LMS0068A - Fall Protection Standard.



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***Note:** Training and certification in the use of supplied breathing air equipment must be obtained through either Suncor or Syncrude training departments. Other training qualifications will not be recognized on the Suncor sites. Exceptions will be considered for contractors that supply their own specialized supplied breathing air equipment. (e.g. Catalyst handling contractors for inert atmosphere entry or underwater specialists).

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APPENDIX IX

CONFINED SPACE MONITORS AND RESCUE PERSONNEL

General Confined Space Monitor Duties

1. The monitors will:
 - Hold a valid Monitor Certificate.
 - Be trained in the use of appropriate PPE and any extra training requirements for the assigned task.
 - Be capable and equipped to summon rescue personnel, if required. Radio communication is mandatory.
 - Be in communication or visual contact with personnel inside the confined space at all times.
 - Be equipped with a means to alert entrants (air horn or similar device) of the need to evacuate the confined space should it be required.
 - **NEVER** enter the confined space unless properly relieved at the entry point by another certified monitor
 - **NEVER** leave the entry to the confined space with people inside.
 - **NEVER** leave their post unless properly relieved by another certified monitor.
 - **NEVER** leave the entry to the confined space unattended unless proper signage has been posted at the entrance.
 - Maintain a Confined Space Entry and Exit log for the duration of the job.
 - Control Entrant identification cards left by entrants.
 - Ensure only authorized entrants are allowed to enter the confined space.
 - Initiate evacuation if necessary and ensure the “DO NOT ENTER” sign is posted at the entrance to the confined space.
 - Ensure entry related documentation is controlled and adequately protected from adverse weather conditions when at the entry access locations.
 - Ensure the turnover of related documentation during the permit sign off process to facilitate the retention requirements of section 2.7 of this standard

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- Be identified as a Confined Space Monitor by wearing a blue vest.

Level 1 Entry

1. A certified monitor shall be stationed at each location being used for access/egress to the confined space.
2. If dictated by the rescue plan, a competent rescue person(s) fully equipped to enter the confined space shall be stationed at the entrance to the confined space while there are any personnel inside.
3. At least one member of the identified rescue team must be trained in:
 - First Aid
 - CPR
 - The use of appropriate emergency response equipment, and
 - The procedures appropriate to the confined space.
4. For all Level 1 Entries where a Bottle Watch is required, the Bottle Watch shall:
 - Be fully trained to carry out the duties of a Bottle Watch by having successfully completed, within the past 12 months, the Respiratory Protective Equipment course offered by the Risk Management Learning Centre.
 - Perform the sole function of a Bottle Watch, when assigned to this duty.
 - Ensure that there is a sufficient supply of bottled air for all workers within the confined space for the duration of the job.
 - Identify the bottles and airlines for each worker under his/her control.
 - Ensure that the airlines are not kinked or obstructed in anyway while in service.
 - **NEVER** leave the post unless the job is stopped and all workers are out, or unless properly relieved by another qualified Bottle Watch.
 - Notify the Certified Monitor to recall anyone whose bottle pressure is approaching 500 psi.

Level 2 and Level 3 Entries

Standard

Department:	ENVIRONMENT HEALTH AND SAFETY	Number:	LMS0037A
Subject:	CONFINED SPACE ENTRY	Reference:	

1. For a Level 2 Entry a Certified Monitor shall be stationed at each location being used for access to the confined space and comply with and perform duties as described in the general duties section of this appendix .
2. Level 3 Entries may or may not require Certified Monitors determined by the hazard assessment. If determined as a requirement the Certified monitor shall comply with and perform duties as described in the general duties section of this appendix.
3. If a Certified Monitor is not required as determined by the hazard assessment, a competent worker must be designated to be in communication with the workers entering the confined space. The designated competent worker need not be stationed at the confined space access locations but must have a suitable system for communicating with the worker and summoning assistance in the event of an incident or emergency.

Standard

Department:	ENVIRONMENT HEALTH AND SAFETY	Number: LMS0037A
Subject:	CONFINED SPACE ENTRY	Reference:

APPENDIX X

REFERENCES

- 2004 **Oil Sands Safety Association Confined Space Entry Regional Code of Practice**
- 2006 **Alberta Occupational Health & Safety Code**
- LMS0005A **Safe Use, Handling and Storage of Compressed Gas Cylinders**
Standard.
Compressed gas cylinder restrictions, e.g. no fuel gases in a confined space.
SCBA and pressurized fire extinguishers are allowed when so indicated by the safe work permit or in the case of rescue/emergency response.
- LMS0052A **Respiratory Protection** Standard.
- LMP0005A **Respiratory Protective Equipment** Procedure
- RGP0005A **Control of Hazardous Energy (CHE)**
LMS0068A **Fall Protection** Standard.



The following individuals have approved and signed this document.

UserName: Timothy Gondek (tgondek)

Title:

Date: Wednesday, 04 July 2012, 02:57 PM Mountain Time

Meaning: Approver 1 Signed

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