

Oil Sands Safety Association (OSSA)

Fire Watch
Safety Training Standard
FW2008-03
Draft



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1.0 PURPOSE

The purpose of this Standard is to clearly establish the minimum acceptable content requirements for Fire Watch training programs, provided by Training Providers who have received Accreditation Status from the Oil Sands Safety Association (OSSA). This Standard is intended for end-users (workers required to use) of Fire Watch.

For definitions referencing this Standard, see Appendix I.

Exceptions to this Standard must be approved by the Board of Directors of the OSSA.

1.1 Disclaimer

The information in this publication is solely for general illustration and instructional purposes and does not, in any way, create a business or professional services relationship between the OSSA Members and Employees and the Training Providers, Instructors, Contract Instructors, employees trained by Accredited Training Providers, or any other Organization. This Standard will not apply to every circumstance. This Standard is not (and is not intended to be) a definitive guide to the OH&S Act or the accompanying regulations and regardless of the Standard set out herein, each reader and user is solely responsible for their own compliance with all applicable Legislation, including the OH&S Act. The OSSA assumes no obligation to update the Standard set out herein or advise on further developments concerning the topics mentioned herein.

The occupational health, safety and training of Organizations and their respective employees in the workplace remain the responsibility of each employer and employee.

The OSSA and its employees, agents and contractors, and the Members of the OSSA (collectively the “OSSA Members and Employees”), as well as any Organization (or member thereof) who accepts or acknowledges this Standard, are not responsible for the contents of this Standard, for any errors or omissions herein, or for the results obtained from the use of the information contained in this Standard or for any training or safety programs that may be developed from the use of the information in this Standard. Each Training Provider is completely responsible for its own training programs, whether or not they are training programs approved by the OSSA. All information set out in this Standard is provided “as is”, with no guarantee of completeness, accuracy, timeliness or of the results obtained from the use of this Standard. There is no warranty of any kind, express or implied, including, without limitation, warranties of performance, merchantability and fitness for a particular purpose. In no event will the OSSA Members and Employees, or any Organization (or member thereof) who accepts or acknowledges this Standard, be liable to the reader, user or anyone else for any decision made or action taken in reliance on the information in this Standard or for any consequential, special, or similar damages (including, without limitation, personal injury), even if advised of the possibility of such damages, arising or resulting from the information contained in this Standard or for any violation by such user, reader or other person of any Legislation.

Certain words, phrases, names, designs or logos used in this Standard may constitute trademarks, service marks or trade names of the OSSA and its Member Organizations. The display of any such marks or names in this Standard does not imply that a license has been granted by the OSSA or any of its Members to use such marks or names.

1.2 Introduction

This Fire Watch Safety Training Standard has been established to increase the knowledge, understanding and comfort level of course participants, surrounding workers and the Organizations utilizing Fire Watch.

This Standard has been established to guide the Training Provider by providing direction on the minimum content requirements for meeting the needs of the OSSA Member Companies.

A training program meeting this Standard would typically require 3 to 4 hours to complete depending on class size and number of instructors.

It should be noted that the training required to meet this Standard focuses on the needs of the “end-user”. Additional training may be required for supervisors and engineers to reflect their responsibilities for this critical safety work.

This is the minimum Standard that must be met in order to receive Accreditation from the Oil Sands Safety Association (OSSA) as a Fire Watch Training Provider.

1.3 Scope

End-users (workers) required to perform Fire Watch must be trained and competent in their responsibilities and in the proper use, care and maintenance of equipment they are required to operate.

The purpose of the OSSA Fire Watch Standard is to ensure that workers are trained in theory and in practical exercises to demonstrate a basic level of knowledge and proficiency while performing Fire Watch duties and in the use of extinguishing equipment.

Subject to the previous sentences, all programs submitted for Accreditation must, at a minimum, meet the requirements specified in each section of this Standard.

1.4 Training Material Requirements

The program content for Accredited Safety Training Programs for Fire Watch must ensure that **all references to weight and measures** are expressed **in both imperial and metric units**. The programs are also expected to have available, at a minimum, the material listed below for use by the participants:

- 1) Participant’s user guides and/or workbooks to be kept by the user upon successful completion of the program.
- 2) Access to applicable sections of the OH&S Act, its Regulations, and Alberta Fire Code (1997) regarding Fire Watch.
- 3) A 20 lb. (9kg) or larger dry chemical fire extinguisher, 2.5-gallon (11L) or larger water extinguisher and a 10 lb. (4.5kg) or larger carbon dioxide extinguisher to be used for the purpose of inspection and demonstration purposes. *(For demonstration exception see Note 3.2 Proficiency Testing)*
- 4) UL approved Fire Blanket for demonstration purposes.

- 5) Sample of “Caution” flagging.
- 6) A device (prop) that allows the student to extinguish a live fire. (*see Note 3.2 Proficiency Testing*)
- 7) Additional training aids as determined by the provider (e.g. videos).

Note: Training providers must comply with all Municipal, Provincial, and Federal Legislation (ie: environmental, etc.).

2.0 FIRE WATCH BASICS

2.1 Legislation and Standards

- 1) Overview of the current OH&S Act, its **2003 Regulations and Alberta Fire Code (2006) Part 5.0.**
- 2) Development of training materials or instruction must at a minimum use, but not be limited to, as references, the following:
 - a) Alberta Fire Code **(2006)**; Part 5.0 - Hazardous Processes and Operations
 - b) National Fire Protection Association (NFPA) – 51B

2.2 Why Fire Watch

The training program must be personalized by providing an overview and introduction to Fire Watch and its Legislation that clearly reinforces the Fire Watch responsibilities and the need to correctly utilize the Fire Watch equipment in the field. The content must include, but not be limited to, the following:

- 1) Identification, and where possible elimination, of fire hazards.
- 2) Where elimination of fire hazards is not possible, the minimization of fire hazards by the use of Fire Blankets, Hoarding, etc.
- 3) Overview of the types of fire extinguishing equipment, Extinguishing Agents, and their classifications.
- 4) Overview of the various classes of fires and their phases of burning.
- 5) Overview of the Fire Watch responsibilities.
- 6) Instructor demonstration and explanation of the safe activation and operation of fire extinguishers.
- 7) Student demonstration of the safe activation and operation of fire extinguishers on a live fire **or use of an approved simulator.**
- 8) Overview of the Legislative requirements of the Alberta Fire Code **(2006)** including the responsibilities of the Worker and Employer.

2.3 Fire Watch Planning

- 1) The training program must include methods of analyzing, eliminating, preventing, and controlling fire hazards and provide opportunities for all participants to participate in practical examples. This should include, but not be limited to: engineering and/or administrative controls rescue and escape planning, workplace hazards identification and controls. (e.g. field level risk assessments)
- 2) Participants must understand the need for rescue and escape plans. This should include, but not be limited to: identifying an emergency contact, emergency meeting/muster points, methods of communication, and protocol for reporting emergencies.
- 3) Participants must discuss the importance of pre-use, visual inspection and reporting of deficiencies with respect to all associated Fire Watch equipment and materials.

2.4 Types of Extinguishers, Agents and Classifications

To ensure the participants are familiar with the different types of extinguishers, Extinguishing Agents, and classifications, the course must cover at a minimum:

- a) Stored pressure dry chemical. (Ansul Sentry)
- b) Cartridge activated Dry Chemical. (Ansul & General)
- c) Carbon dioxide. (Ansul Cleanguard & General)
- d) Water extinguishers. (stored and pump) (Flag)
- e) Pressured water hoses or steam hoses

2.5 Types of Fires, Classifications and Behaviors

All participants must be able to identify the types of fires, classifications and behaviors. The course must cover at a minimum:

- a) The five classifications of fires.
- b) The Fire Triangle and the Fire Tetrahedron.
- c) Physical States of fuel (e.g. liquid, gas and solids).
- d) Types of heat (e.g. radiant, mechanical, chemical etc).
- e) Methods/types of heat transfer (conductions,convection,radiation)

2.6 Operation of Fire Extinguishers

All participants must be familiar with the pre-use inspection, safe activation and operation of portable extinguishers. This should cover, but not be limited to:

- a) Pre-use Inspection.
- b) Extinguisher shell.
- c) General condition.

- d) Plunger. (expand on the requirements of a plunger w/operation information of the (modern extinguisher)
- e) Safety pin.
- f) Safety seal.
- g) Pressure gauge.
- h) Hose and nozzle.

2.7 Duties and Responsibilities

Participants must be aware of their Fire Watch responsibilities, which include, but are not limited to:

- a) Being familiar with site specific emergency protocol.
- b) Base PPE requirements.
- c) Understanding the need for a qualified Fire Watch to be available for relief.
- d) Reviewing work permit(s) for limitations.
- e) Remaining at the work site for the duration of work, including one (1) hour standby after work has been completed.
- f) Knowing and being able to describe their training and the limitations of available fire fighting equipment.
- g) Recognizing the areas that may be affected by the hot work and be on alert for any signs of fire.
- h) Correct or stop any conditions that may lead to a fire and report any conditions to appropriate personnel.
- i) Informing appropriate personnel after extinguisher discharge.

3.0 PROFICIENCY TESTING

Although described under each of the previous sections of the Standard, it is important that the following practical and knowledge evaluation/test topics are covered to ensure participants are proficient in the Standard upon completion of the Fire Watch training program.

3.1 Knowledge Evaluation

The participant must demonstrate knowledge and proficiency by individually answering questions on the following topics:

- 1) Legislation as it applies to Fire Watch.
- 2) Pre-use inspection of a fire extinguisher.
- 3) Types of fires and fire behavior.
- 4) Types of extinguishers and uses.
- 5) Classification of fires.

- 6) Rescue and escape planning.

- 7) Extinguishing Agents.
- 8) Duties and responsibilities of Fire Watch.
- 9) Proper sequence for extinguishing a fire.

3.2 Practical Test

The participant, at a minimum, must successfully demonstrate the following:

- 1) Safe activation, operation and technique used during extinguishment in a live fire exercise or use of an approved simulator.

NOTE: Training providers must ensure that participants wear the appropriate PPE during practical exercises in live fire training.

NOTE: The OSSA Accredited Training Provider may contract with a qualified, third party provider to deliver the practical training required under this Section 3.2. However, it is the responsibility of the OSSA Accredited Training Provider to ensure that the training delivered includes, at a minimum, all the requirements set out in sections 2.4, 2.5 and 2.6 of this Standard. The OSSA Accredited Training Provider must also, in advance, notify the third party provider that the OSSA may complete a program review and/or audit at any time.

A participant cannot receive their credential until both the theory and practical portions of the program are successfully completed.

4.0 RE-CERTIFICATION PROCESS

The OSSA does not currently require re-certification. However, it is the policy of the OSSA to review each Standard every three years following its endorsement by the Members and the OSSA reserves the right to revise the re-certification requirements at any time.

5.0 APPENDIX I - DEFINITIONS

- 1) **“Accreditation” or “Accredited”** means authorization, in writing, from the O SSA that a Training Provider’s Program meets the minimum requirements of a particular Safety Training Standard. Accreditation may be withdrawn by the O SSA at any time. In order to be a Safety Training Provider of a Standard, an Organization’s Accreditation status must be current.
- 2) **“Board of Directors”** means the Owners of the O SSA that provide, in writing, endorsement for initial documents and approval for any revisions or exceptions to a Safety Training Standard and/or a Regional Code of Practice.
- 3) **“Contract Instructor”** means an individual or organization, independent of an Accredited Training provider, that has completed a “Train-the Trainer” program with an Accredited Training Provider, signed all legal agreements, and has otherwise met the requirements set out in this Standard.
- 4) **“Dry Chemical”** means chemical (monoammonium phosphate) used in fire extinguishers to extinguish fire.
- 5) **“Extinguishing Agents”** means substances used to extinguish fires such as water, dry chemical, carbon dioxide (CO₂), foam, etc.
- 6) **“Fire Blanket”** means an approved fire proof material such as woven glass used to aid in confining the slag, sparks and flames created during any hot work process.
- 7) **“Fire Watch Safety Training Standard” or “Standard(s)”** means the minimum training standards set out in O SSA document FW2005 - 10, as amended by the O SSA from time to time.
- 8) **“Fire Tetrahedron”** means the depiction of the chemical and kinetic components of the combustion process. Specifically, “Fire Tetrahedron” refers to the depiction of oxygen, heat, fuel and the uninhibited chemical chain reaction which produce flame.
- 9) **“Fire Triangle”** means the depiction of the chemical elements required for combustion: oxygen, heat and fuel.
- 10) **“Hoarding”** means a structure used to aid in confining hazards created during a work process.
- 11) **“Instructor”** means individuals that are employees of the Accredited Training Provider and are providing training under an Accredited Training program.
- 12) **“Legislation”** means all municipal and local laws, statutes, ordinances, by-laws and regulations, orders, directives and decisions rendered by any ministry, department or administrative or regulatory agency relating in any way to the health and safety of workers in the Province of Alberta.

- 13) **“Members”** means the member or subscriber Organizations of the OSSA and includes their respective employees, officers, directors, shareholders, ownership groups and successors and assigns, including, without limitation, Syncrude Canada Ltd., Suncor Energy Inc., and Albian Sands Energy Inc.
- 14) **“OH&S Act”** means the *Occupational Health and Safety Act*, R.S.A. 2000, Chap. O-2, as amended, and includes all regulations passed under the OH&S Act from time to time.
- 15) **“Organization(s)”** means and includes any individual, corporation, partnership, firm joint venture, syndicate, association, government, governmental agency or board or commission or authority, and other forms of entity or organization.
- 16) **“OSSA Members and Employees”** means the OSSA and its employees, agents, contractors, and Members of the OSSA.
- 17) **“Physical State”** means the state at which a substance takes solid, liquid or gas form.
- 18) **“PPE”** means personal protective equipment.
- 19) **“Re-certification”** means a process to verify that a worker continues to maintain the proficiency requirements as specified in the original accredited training program. This process includes re-testing of knowledge requirements and/or challenging a proficiency exam.
- 20) **“Regional Code of Practice (RCOP)”** means a Code of Practice, endorsed by the OSSA, governing the practices, procedures and safety training standards, to be followed at each OSSA owner site. These Codes may be amended by the OSSA at any time.

Note: Any new Legislative requirements shall take precedent over the Regional Code immediately upon the coming into force in Alberta of the new requirements.
- 21) **“Standard”** means the minimum acceptable content requirements for a Training Provider’s safety training program that is set out in an OSSA Safety Training Standard, as amended by the OSSA from time to time.
- 22) **“Training Provider(s)”** means those Organizations that have received Accreditation status, in writing, from the OSSA to provide a Fire Watch safety training program.