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Safety Health and Environment Standards

SCL – SH&E – 107

Personal Protective Equipment

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Section 1.0 Introduction

1.1 Purpose

The purpose of this standard is to provide mandatory minimum requirements for use of personal protective equipment (PPE) during specific work conditions when engineering and/or administrative controls do not provide adequate protection from hazards. Use of personal protective equipment is to be viewed as a last resort and is not to be considered as an alternative to following proper rules, standards, or procedures in performing work.

Syncrude's Purchase Product Standard A29 sets out minimum standards for selection of Personal Protective Equipment.

1.2 Applicability

This standard applies generally throughout Syncrude to all employees of Syncrude, contractors, subcontractors and vendors. However, implementation practices may differ slightly from department to department as long as the minimum requirements are maintained. *It is the responsibility of each department to clearly communicate requirements for personal protective equipment to those affected by the standard.*

1.3 References

- Alberta O.H. & S. Act (Chapter 0-2, 2003)
- Alberta Occupational Health and Safety Code
- Syncrude SCL-SH&E-101 Safe Work Plans
- Syncrude SCL-SH&E -102 Work Authorizations and Permits
- Syncrude SCL-SH&E -103 Confined Space Entry
- Syncrude SCL-SH&E -104 Excavation Permit Procedure
- Syncrude SCL- SH&E-105 Isolations
- Syncrude SCL- SH&E-108 Above Ground Work
- Syncrude SH&E Standards System
- Purchase Product Standard A-29

1.4 Definitions and Abbreviations

The following definitions are specific to this standard. Other, more general definitions are addressed in Section E of the SCL-SH&E -00 Management and Administration of SCL SH&E Standards.

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“ANSI” – The American National Standards Institute.

“Administrative Controls” – Controls which reduce worker exposure to Hazards using methods such as safe work procedures, scheduling changes and job rotation.

“Air-purifying Respirator” – A Respirator that removes contaminants from the atmosphere by filtration, absorption or adsorption. See also "Respirator".

“Air-supplying Respirator” – A Respirator that provides breathing air from a source other than the surrounding atmosphere. See also "Respirator".

“Anchor” – A secure point of attachment for a lifeline or lanyard.

“Audiogram” – A chart showing the status of an individual's hearing as indicated by the ability to hear sounds and to distinguish different speech sound.

“Barrier Cream” – A hand cream which, when applied to exposed skin, provides a measure of protection against certain chemical exposures. These creams may be water resistant, chemical resistant or both.

“Biological Monitoring” – Assessment of a person's exposure to specific airborne Hazards by examining samples of that person's urine, blood or breath.

“Chemical Cartridge” – A small container filled with absorbing media used with Air-purifying Respirators for removing low concentrations of specified Vapours and Gases.

“Chemical Hazards Regulation” – Alberta Regulation 393/88 with amendments up to and including Alberta Regulation 15/89, under the Alberta O.H. & S. Act.

“Contact Lenses” – A vision improvement or corrective device fixed directly on the eye.

“CSA” – Canadian Standards Association.

“Corporate Designated Walkways” – Pedestrian through ways always located outside of building structures and process unit boundaries. They are identified by signs, yellow lines, retaining blocks and/or fencing and generally run along main roadways. The purpose of these walkways is to permit access to or from areas at the beginning and end of the workday by the safest route possible, thus minimizing exposures to hazards, e.g. excessive noise.

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“Dusts” – Fine particles generated by the breakdown of solid material through mechanical processes such as grinding, crushing, drilling, blasting, sanding, milling.

“Emergency Use Respirator” – A Respirator worn either for escape from a Hazardous atmosphere or for entry into a Hazardous atmosphere to perform rescue or emergency operations. (See also "Respirator")

“Engineering Controls” – Controls which reduce worker exposure to Hazards using engineering methods that may include ventilation, enclosure or isolation of the process, and substitution with a less Hazardous material.

“Eye and Face Protection” – Safety glasses with side shields, goggles, and face masks and shields.

“Face Shields” – Devices designed to provide protection to the face and neck from flying particles and sprays of Hazardous liquids, and to provide anti-glare protection.

“Face piece” – The tight fitting portion of a Respirator which covers the wearer's nose and mouth (half-mask Face piece), or which covers the nose, mouth and eyes (full Face piece).

“Fireball” – A type of Flash Fire which forms when ignition occurs momentarily upon rapid release of flammable gas or vapour. It is a cloud inside which a concentration is initially above the upper explosive limit. Flame exists at the boundary between fuel and air and propagates with the air/fuel mixture as it diffuses inward.

“Flame Resistant Clothing” – Clothing which offers protection against flash fires. It is either self-extinguishing where the flame will die upon removal of the ignition source or it is inherently non-flammable where it will char without bursting into flames. It is not considered to be fireproof.

“Flash Fire” – The rapid propagation of flame through a cloud of flammable mixture of uniform concentration in an unconfined and/or unobstructed space. This usually occurs when ignition takes place sometime after the initial gas release, when the gas has had a chance to mix and the gas/air mixture is more evenly distributed.

“Fit Test” – A test directed by competent personnel to measure the effect of the Face piece-to-face seal. Includes Quantitative and Qualitative Fit Tests.

“Foot Protection” – Footwear which has been designed and constructed to protect feet against a variety of injuries such as, impact, compression, and puncture.

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“Fumes” – Extremely small particles formed when solid materials are heated and then quickly cooled such that the vaporized metal oxidizes and condenses. Operations such as welding, smelting, and pouring of molten metal produce Fumes.

“Gases” – Substances that are found in their gaseous state at room temperature. They spread freely through a container or area to occupy the entire space available. Examples include oxygen, carbon monoxide, carbon dioxide, nitrogen, helium and air.

“Hand Protection” – Any protective equipment such as gloves, mitts or Barrier Creams which offer protection against injury or illness (dermatitis) to a worker's hands.

“Hard Hat (C.S.A. Grade 1)” – A head protection hat that offers protection from penetration, electrical shock and impact. Grade "1" will withstand 125 joules or 93 ft. lbs. which would be generated by a 50 pound weight dropped from a height of 22 inches.

“Hearing Conservation Program” – A program at Syncrude involving the measurement and control of noise, employee education and a schedule of audiometric assessment.

“Hearing Protection” – Protective equipment such as ear muffs, ear plugs/moulded ear plugs which offers protection against hearing loss.

“Horizontal Lifeline System” – A system composed of a synthetic or wire rope, installed horizontally between 2 anchors, to which a worker attaches a personal Fall Protection system.

“IDLH” – Immediately Dangerous to Life or Health.

“Lanyard” – A flexible line of webbing, or synthetic or wire rope, that is used to secure a safety belt or full body harness to a lifeline or anchor.

“Lifeline” – A synthetic or wire rope, rigged from one or more anchors, to which a worker's lanyard or other part of a personal Fall Protection system is attached.

“Manufacturer’s Rated Capacity” – The maximum capacity, speed, load, depth of operation or working pressure, as the case may be, recommended by the specifications of the manufacturer of equipment for the operation of the equipment under the circumstances prevailing at the time of operation.

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“Manufacturer’s Specifications” – The written specifications, instructions or recommendations, if any, of the manufacturer of equipment, which outline the manner in which the equipment is to be erected, installed, assembled, started, operated, used, handled, stored, stopped, adjusted, maintained, repaired or dismantled, and includes a manufacturer’s instruction, operating or maintenance manual or drawings for that equipment.

“Mechanical Field Check” – Field verification of the seal of a Respirator to the wearer’s face.

“Mechanical Filters or Pre-Filters” – A fibrous media used with an Air-purifying Respirator to remove particulate matter from the air.

“Metatarsal Protection” – An additional protective pad attached to the boot designed to protect the top of the foot between the toes and ankle.

“Mists” – Fine particles or liquid droplets formed when liquid materials are atomized or when Vapours condense. Operations such as spraying, plating, mixing and cleaning may produce Mists.

“Noise exposed worker” – A worker who is, or may be, exposed to noise, measured as a time-weighted average, that exceeds the Occupational Exposure Limits.

“OEL” – "Occupational Exposure Limit", in respect of a substance, means the Occupational Exposure Limit(s) established by Schedule 1 of the "Chemical Hazard Regulation" for that substance. This schedule refers to average concentrations of airborne substances to which Workers may be exposed to, for specific time periods. It also includes ceiling OEL's which represent the maximum instantaneous concentration of the air borne substance acceptable.

“Oxygen Deficiency” – A lack of oxygen in air caused by a chemical reaction, fire, or a gas that displaces (or "pushes out") oxygen. Defined as less than 19.5 percent oxygen in air.

“Particulate” – A particle of solid or liquid matter. Includes Dusts, Fumes and Mists.

“Permanent” – Any structure, process, or action that is intended to exist, and continue to exist, after the activities involving its construction, preparation or introduction are completed.

“Professional Engineer” – A person who holds a certificate of registration to engage in the practice of engineering, geology, or geophysics, as the case may be, under the Engineering, Geological and Geophysical Professions Act and is a member or licensee in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

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“Qualitative Fit Test” – A test where a person wearing a fitted Air-purifying Respirator equipped with a suitable cartridge is exposed to a specific substance. The Respirator wearer uses the sense of smell to detect any leakage of the test agent into the Face piece. Also see "Fit Test".

“Quantitative Fit Test” – A test where a person wearing a fitted Respirator is exposed to a test atmosphere containing a known concentration of a chemical agent. Instrumentation compares the agent concentration in the test atmosphere and inside the Face piece.

“Respirator” – A device to protect the wearer from inhalation of harmful contaminants; includes Air-purifying Respirators and Air-supplying Respirators.

“Respiratory Protection” – Any method used to protect the worker from inhalation of harmful airborne contaminants.

“Safety Belt” – A body support device consisting of a strap with a means for securing it about the waist and attaching it to other components.

“Safety Cap or Bump Cap” – A type of hard hat which does not meet CSA specifications and only provides limited protection against striking objects with the head.

“Safety Glasses” – Glasses having CSA approved frames and side shields and designed to prevent eye injury from flying objects.

“Safety Goggles” – Devices which consist of a flexible frame and lenses, which fit to the face. They are available in different classes and can be worn with or without glasses.

“Safety Strap” – A pole strap or similar support strap, used with a work positioning suspension belt, for climbing trees or structures such as utility poles.

“Self Contained Breathing Apparatus (SCBA)” – A Respirator with an independent source of compressed air attached by a harness to the worker's back.

“Specialized Respiratory Protective Equipment” – Respiratory Protection used to perform specialized tasks. Examples include totally encapsulating suits, underwater breathing apparatus, and other special application Respirators.

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“Specifications” – In relation to a professional engineer or an employer, includes the written instructions, procedures, drawings or other documentation of a professional engineer or employer or certified by a professional engineer and relating to equipment or a work process or operation.

“Supplied Air Respirator” – A Respirator with an independent source of compressed air supplied from a stationary source.

“Vapours” – The gaseous state of substances normally found as liquids or solids at room temperature. These liquids and solids have very low vapour pressures and consequently evaporate or vaporize readily. Examples include gasoline, solvents, and mothballs.

Section 2.0 Responsibilities

This section describes the responsibilities for implementing this standard.

2.1 Department Heads are responsible for ensuring that:

- 2.1.1 All aspects of this standard are implemented and followed.
- 2.1.2 All managers, team leaders and workers fully understand the requirements of this standard and applicable Alberta OH&S requirements addressing personal protective equipment.
- 2.1.3 All workers exposed to hazards in their work area are informed of the requirements of this standard and appropriate personal protective equipment necessary to manage their exposures.
- 2.1.4 Appropriate personal protective equipment is identified and designated for specific situations (jobs, tasks, activities, areas, etc.)
- 2.1.5 Training is provided to exposed employees in the use of personal protective equipment applicable to their jobs.
- 2.1.6 All workers who are potentially exposed to Hazards are identified based on knowledge of the work area and associated task as well as on information provided by Environmental Services.
- 2.1.7 Determining the feasibility of engineering or administrative controls to alleviate the need for PPE.
- 2.1.8 PPE is adequately maintaining and inspecting to ensure ongoing functionality.
- 2.1.9 Consulting with PPE users to identify factors that contribute to the overall acceptance and use of PPE including comfort, resistance, fatigue, interferences (vision, communication, restriction of movement, job performance, etc.), and confidence in PPE effectiveness.
- 2.1.10 Assessing medical and biological monitoring data to determine the effectiveness of PPE within the department.

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- 2.2 In accordance with the Alberta O.H. & S. Act, all workers are responsible for protecting the health and safety of themselves and other workers. Specific responsibilities include:
- 2.2.1 Using and maintaining PPE in accordance with the instruction and training received.
 - 2.2.2 Taking all precautions to prevent damage to PPE and replacing damaged equipment.
 - 2.2.3 Bringing any health problems that may interfere with the wearing of PPE to the attention of the immediate supervisor and reported to Syncrude Health Services where it will be recorded on the worker's medical record.
 - 2.2.4 Identifying to their supervisor any additional PPE that they may need to safely perform their work.
- 2.3 All contractors and subcontractors working at Syncrude locations are responsible for ensuring:
- Every Worker under their direction, supervision or control is properly trained and qualified and is working in a safe and dependable manner.
 - That their personnel are aware of and comply with the personal protective equipment requirements applicable to the area in which they are working and to the type of work they are performing.
 - That equipment used or owned by them is operating in a safe and reliable manner.

Section 3.0 Specifications for Personal Protective Equipment

Syncrude's Purchase Product Standards Personal Protective Equipment Subcommittee establishes the specifications for all PPE used at the Syncrude Site. These specifications are documented in Syncrude's Purchase Product Standard A29. All PPE used at Syncrude, including that provided by Contractors to their personnel, must meet these specifications. Where PPE is cleaned to enable re-use, strict procedures must be followed to maintain the equipment's integrity and protective qualities.

Section 4.0 Procurement of Personal Protective Equipment

- 4.1 Syncrude employees shall obtain the required PPE using procedures defined by the Central Maintenance and Supply Services Department. Prescription and Non-Prescription Safety Glasses are to be obtained by the employee following the approved Syncrude Corporate Procedure contained in the Safety Glasses - Application Guidelines. Foot Protective Equipment, excepting rubber boots, must be individually purchased by the employee following the approved Syncrude Corporate Procedure contained in the Safety Footwear Subsidy - Application Guidelines. Other company supplied work clothing shall be obtained by the employee following the approved Syncrude Corporate Procedure contained in the Company Supplied Work Clothing – Application Guidelines.

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- 4.2 Contractors are responsible for ensuring that their employees have the approved PPE necessary for the tasks, occupations and work areas to which their employees are assigned. The equipment provided will satisfy the provisions of this standard, Syncrude's Purchase Product Standard A29 and any additional requirement specified by individual Syncrude departments.

Section 5.0 General Requirements for Personal Protective Equipment

- 5.1 Personal Protective Equipment is to be used as additional protection only and is not to be considered an alternative to precautions taken under potentially hazardous conditions. Every possible precaution must be taken to reduce or eliminate hazards by applying engineering, administrative and/or work practice controls.
- 5.2 The requirements contained within this standard are minimum requirements and apply to all workers at the Syncrude Site. Each department is then responsible for determining if the level of PPE required is beyond that stated in this standard.
- 5.3 Minimum site-wide and departmental-specific personal protective equipment standards are contained in the Appendix.
- 5.4 Additional PPE must be provided and worn as required by the following:
- Any and all other Syncrude SH&E standards
 - Syncrude departmental rules and regulations
 - Safe work permits
 - Safe work plans
 - Work procedures and practices
 - Material Safety Data Sheets
- 5.5 In identifying potential hazards departments must take into account the tasks that their employees perform. In addition, hazards must also be assessed for tasks assigned to infrequent visitors such as office personnel, contractor and subcontractor representatives, vendors and government officials. Additional support in performing the hazard assessments will be provided by Environmental Services, Emergency Response, EHS managers and specialists, Syncrude's Senior Risk Associate and Senior Fire Protection Specialists.
- 5.6 To assist in performing hazard assessments, the PPE Hazard Assessment form contained in the Appendix A may be used.

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- 5.7 Specific PPE requirements are detailed in the following sections. Each section contains requirements and responsibilities, followed by specific exemptions, use and maintenance requirements.

Section 6.0 Respiratory Protection

6.1 General

- 6.1.1 Departments must take reasonable measures to institute engineering controls, work practices or administrative controls to eliminate or reduce potential respiratory hazards to acceptable levels.
- 6.1.2 Respiratory protection shall be used when engineering or administrative control measures are not practical, or while such controls are being instituted, or during shutdown for maintenance, repair or emergency.
- 6.1.3 All workers at the Syncrude site shall use respiratory protection when they are engaged in activities that expose them to respiratory hazards or when they are entering areas where respiratory hazards are present.

6.2 Exemptions

There are NO exemptions to the use of respiratory protection when a worker is potentially exposed to respiratory hazards. **6.3**

Responsibilities

- 6.3.1 Departments are responsible to:
 - 6.3.1.1 Have processes in place to identify all the potential respiratory hazards under their jurisdiction, evaluate the need for respiratory protection against these hazards, prescribe the appropriate respiratory protective equipment, and conduct regular monitoring for compliance.
 - 6.3.1.2 Ensure all workers who are required to use respirators receive annual refresher training.
 - 6.3.1.3 Ensure all workers who are required to use respirators are mask fit tested at least once every two years.
 - 6.3.1.4 Ensure appropriate respiratory protection is available for all Syncrude employees.

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- 6.3.1.5 Ensure respiratory protective equipment is:
 - (a) Stored in a readily accessible location in a manner that prevents its contamination;
 - (b) Maintained in a clean and sanitary condition;
 - (c) Inspected before and after each use; and
 - (d) Serviced and used in accordance with the manufacturer’s specifications.
- 6.3.1.6 Ensure respiratory protective equipment that is not used routinely but is kept ready for emergency use, is inspected at least monthly to ensure it is in satisfactory working condition.
- 6.3.1.7 Post warning signs at the hazardous areas where respiratory protection is mandatory.
- 6.3.1.8 Inform all contractors, visitors and vendors of potential respiratory hazards in areas that they will be accessing.
- 6.3.1.9 Ensure qualified individuals are assigned the responsibility of Respiratory Protection Selection Designates.
- 6.3.1.10 Provide formal training on selecting respiratory protective equipment for field applications to their Respiratory Protection Selection Designates. An example of formal training is CSA Z94.4-02: “Selection, Care and Use of Respirators” training course or equivalent.
- 6.3.1.11 Maintain respiratory protective equipment training records for Syncrude employees.
- 6.3.1.12 Ensure that each employee requiring mask fit testing has the Mask Fit Testing Surveillance Program identified on their JAR.
- 6.3.1.13 Ensure systems are in place such that critical parts of the air-supplying respiratory systems - including regulators, alarms and warning systems - are working properly. As a minimum, a visual inspection of the equipment must be performed once per shift, a comprehensive check once per week, and a formal documented inspection once per month.

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6.4.2 Syncrude supervisors/team leaders are responsible to:

- 6.4.2.1 Ensure Syncrude workers are trained and then fit tested prior to being assigned any task that requires the use of a respirator.
- 6.4.2.2 Ensure proper respirators are used by the workers to protect against respiratory hazards.
- 6.4.2.3 Ensure that respirators are used in accordance with the training received and the safe operating procedures established for the workplace, and ensure that respiratory protective equipment is:
 - (a) Stored in a readily accessible location in a manner that prevents its contamination;
 - (b) Maintained in a clean and sanitary condition;
 - (c) Inspected before and after each use; and
 - (d) Serviced and used in accordance with the manufacturer's specifications.
- 6.4.2.4 In the case of a tight fitting face-piece, ensure respirator users maintain their required clean-shaven condition, and do not have any object or material that would interfere with the seal or operation of the respirator.
- 6.4.2.5 Ensure that systems that are in place are applied such that critical parts of the air-supplying respiratory systems - including regulators, alarms and warning systems - are working properly.

6.4.3 Workers are responsible to:

- 6.4.3.1 Ensure respiratory protective equipment in their care is:
 - (a) Stored in a readily accessible location in a manner that prevents its contamination;
 - (b) Maintained in a clean and sanitary condition;
 - (c) Inspected before and after each use.
- 6.4.3.2 Perform a mechanical field check (user seal check) on respiratory equipment to ensure a proper facial seal each and every time a respirator is worn. (Note: A user seal check shall not be used as a substitute for a qualitative or quantitative fit test.)
- 6.4.3.3 Maintain their required clean-shaven condition and refrain from having any object or material that would interfere with the seal or operation of the respirator. (See Section titled "Use of Respiratory Protection Equipment, below".)
- 6.4.3.4 Notify the Syncrude Health Centre of any health status or physical changes that may necessitate reassessment or fit testing.

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6.4.4 Syncrude Health Centre is responsible to:

- 6.4.4.1 Ensure personnel conducting mask fit testing are trained in respirator use.
- 6.4.4.2 Conduct health surveillance - which includes health assessments, quantitative mask fit testing and record maintenance - on all Syncrude respirator users.
- 6.4.4.3 Conduct mask fit testing as per CSA Z94.4-02.

6.4.5 Syncrude Emergency Response is responsible to:

- 6.4.5.1 Provide Self Contained Breathing Apparatus (SCBA) and Remote Supplied Breathing Air (RSBA) training to Syncrude and contractor employees.
- 6.4.5.2 Ensure training records are updated after successful SCBA/RSBA course completion.
- 6.4.5.3 Ensure all SCBA/RSBA equipment is inspected and maintained as per CSA Z180.1-00.
- 6.4.5.4 Ensure all SCBA/RSBA equipment is audited as per Syncrude Emergency Response Standards.
- 6.4.6.5 Manage the loan out process for SCBA/RSBA equipment loan.

6.4.6 Syncrude Environmental Services and Regulatory Approvals is responsible to:

- 6.4.6.1 Administer SCL-EHS-107 Personal Protective Equipment Section 6: Respiratory Protection.
- 6.4.6.2 Identify potential respiratory hazards and recommend the appropriate respiratory protection for these hazards through Health Hazard Assessments on existing and new equipment or plants.
- 6.4.6.3 Provide advice on the selection of respiratory equipment.

6.4.7 Contractors are responsible to:

- 6.4.7.1 Ensure their employees who are required to use respiratory protection are properly trained and fit tested – either qualitative or quantitative - as per CSA Z94.4-02.
- 6.4.7.2 Maintain respiratory protective equipment fit testing and training records for their employees.
- 6.4.7.3 Conduct health assessments for respirator users.
- 6.4.7.4 Ensure refresher training and fit testing frequency as per CSA Z94.4-02.

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6.4.7.5 Ensure respiratory protective equipment is approved by NIOSH or by another standards setting and equipment testing organization, or combination of organizations, approved by a Director of Occupational Hygiene.

6.5 Respirator Selection

6.5.1 Department Respiratory Protection Selection Designates are trained in the respiratory protective equipment selection process and should be consulted to determine the correct respiratory protection.

6.5.2 The parameters listed below must be considered prior to the selection of respiratory protective equipment:

- The nature of any combination of contaminants;
- The concentration, or likely concentration, of any airborne contaminants;
- The duration, or likely duration, of the worker's exposure;
- The toxicity of the contaminants;
- The partial pressure of oxygen;
- The warning properties of the contaminants;
- The need for emergency escape;
- Specific regulations or guidelines associated with the hazards;
- Immediately Dangerous to Life and Health (IDLH) concentration and Occupational Exposure Limit (OEL);
- Characteristics of the operation, activity, or process;
- Respirator characteristics, capabilities, and limitations; and
- Respirator protection factors.

6.5.3 The Environmental Services and Regulatory Approvals department should be consulted on unusual situations, such as multiple chemical exposures.

6.5.4 Particulate and chemical cartridge filter respirators shall not be used in environments that are IDLH or in atmospheres containing less than 19.5 % oxygen. Chemical cartridge respirators shall not be used for protection against hydrogen sulfide.

6.5.5 Air-supplying Respiratory Equipment

6.5.5.1 All SCBA and RSBA equipment must:

- Be capable of maintaining positive pressure in the face piece;
- Have a capacity of at least 30 minutes;

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- In the case of SCBA, be fitted with an audible alarm warning of low pressure; and
- In the case of RSBA, be fitted with an auxiliary supply of respirable air of sufficient quantity to enable the worker to escape from the area in an emergency.

6.5.5.2 Contractors who bring SCBA or RSBA equipment on site must obtain prior approval from Syncrude Emergency Response.

6.5.5.3 Quality of Air

- The quality of air supplied to SCBA and RSBA equipment shall comply with Table 1 of CSA Standard Z180.1-00: Compressed Breathing Air and Systems as a minimum. The air used for this type of equipment must not contain a substance in a concentration greater than 10 percent of its Occupational Exposure Limit.
- Ambient air systems used to supply respiratory air to abrasive blasting hoods should meet CSA Z180.1-00, Appendix B.

6.5.6 Firefighter and Underwater Diving Requirements

6.5.6.1 Firefighters and their equipment are required to meet NFPA Standards for respiratory protection.

6.5.6.2 Self Contained Underwater Breathing Apparatus (SCUBA) use must meet CSA Standard Z275.2-92: Occupational Safety Code for Diving Operations. Underwater diving is considered a Level I confined space and requires a safe work plan as per SCL-EHS-103 Confined Space Entry.

6.6 Use of Respirators

6.6.1 Workers must don the respirator properly and ensure that there is no obstruction between the sealing surface of the mask and the face, i.e. excessive facial hair, piercing, eyeglasses, etc.

6.6.2 Workers who are required to use respirators shall be clean-shaven which is defined as **no facial hair below the earlobe except mustaches that must be trimmed to the corners of the mouth**. Respirators that require a tight fit in order to perform effectively must not be used when an effective seal cannot be achieved and maintained.

6.6.3 Cold Temperature Procedure

6.6.3.1 Cold temperature operating procedures developed by Syncrude Emergency Response must be followed at ambient temperatures between 5°C to -25°C.

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- 6.6.3.2 SCBA or RSBA equipment is not permitted at ambient temperatures below -25°C unless safe work plans have been developed. (Note: Wind chill does not affect equipment.)
- 6.6.3.3 Refer to SCBA/RSBA Cold Weather Use Rules (section 6.10) for details.
- 6.6.3.4 Upgrading has developed and maintained a work procedure for using SCBA or RSBA while taking sour temperatures colder than -25 °C.
- 6.6.4 Abrasive Blasting Operations - Abrasive blasting hoods shall be supplied with air that is at a positive pressure not exceeding 140 kPa (20.3 psi).
- 6.6.5 Safe Work Plans and Safe Work Permits - When Safe Work Plans or Safe Work Permits apply to a task, they must specifically reference any required respiratory protective equipment.

6.7 Training

- 6.7.1 Syncrude employees who use air-purifying respirators must receive initial training, and subsequent annual refresher training.
- 6.7.2 Training should cover such topics as:
 - Nature, extent, and effects of the respiratory hazards to which a Worker may be exposed;
 - Explanation of the operation, limitations, and capabilities of selected respirators;
 - Knowledge of the elements of this standard;
 - Procedures for mechanical field checking (user seal check), inspecting, wearing, donning and doffing;
 - Maintaining, cleaning and sanitizing, and storing respirators;
 - Disposal of used cartridges and filters, and change out frequency; and
 - Use under failure or emergency situations.
- 6.7.3 Annual refresher training should include a brief overview of the regular training topics with emphasis on:
 - Effective use of equipment;
 - Mechanical field check (user seal check); and
 - Changes to this Respiratory Protection section.
- 6.7.4 Syncrude Emergency Response is responsible to provide SCBA and RSBA training to Syncrude employees and contractors. Alternatively, contractors can obtain equivalent training from the Suncor Training Center.

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6.7.5 SCBA and RSBA users must be trained annually.

6.7.6 SCBA and RSBA trainers must meet Syncrude Emergency Response training standards.

6.7.7 Departmental Respiratory Protection Selection Designates must be formally trained so that they can recommend the proper respiratory protective equipment to the workers.

6.8 Fit Testing

6.8.1 Workers who are required to use air-purifying respirators, SCBA, or RSBA must be fit tested at least once every two years to ensure a proper seal between the face piece and the face.

6.8.2 The Health Centre relies on the JAR database to identify employees who require mask fit testing and departments must ensure the correct surveillance information of each employee is entered into the system.

6.8.3 Refer to Training and Mask Fit Testing Certification Procedures (6.11 below) for details regarding Syncrude employees obtaining training and mask fit testing certification.

6.9 Maintenance

6.9.1 Respirators must be properly maintained to retain their original effectiveness. Departments and Workers are responsible to ensure that respiratory protective equipment is working properly.

6.9.2 Maintenance should include:

- Cleaning and sanitizing;
- Inspection, testing, and repair; and
- Storage.

6.9.3 Syncrude Emergency Response will ensure processes are followed so that SCBA and RSBA equipment is cleaned, sanitized, inspected, maintained, repaired, and stored in accordance with the manufacturer's specifications.

6.9.4 Syncrude Emergency Response serves as a central maintenance facility for all emergency use respiratory equipment, i.e. SCBA, in active use on site.

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6.10 SCBA and RSBA Cold Weather Use Rules

SCBA (Self Contained Breathing Air) Scott Models 2.2 & 4.5

When using SCBA with ambient temperatures between plus 5°C and minus 25°C the following controls must be put in place:

- SCBA cylinders and equipment must be stored in temperatures of plus 5°C or warmer for a minimum of 20 minutes prior to use.
- SCBA equipment is to be donned and doffed in a warm location.
- The mask and regulator must be kept warm, e.g. tucked inside a coat, when removed to prevent ice forming in the exhalation valve
- SCBA equipment must not to be left exposed to freezing temperatures when not in use.

RSBA (Remote Supplied Breathing Air) – SKA Work Paks

When using RSBA with ambient temperatures between plus 5°C and minus 25°C the following controls must be put in place:

- A heated location must be supplied for the Breathing Air Cylinders. Storage temperatures must be maintained above plus 5°C for the duration of the work.
- Breathing Air Cylinders must be stored in temperatures of plus 5°C or warmer for a minimum of 20 minutes prior to use.
- Standby SCBA and RSBA equipment is to be donned and doffed in a warm location.
- RSBA work line hose length must not exceed 150 feet.
- RSBA equipment must not to be left exposed to freezing temperatures when not in use.

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When **responding to an emergency** at ambient temperatures **colder than minus 25°C**, Emergency Response personnel and process operators may use SCBA that has been stored in a warm location for emergency response use. **Otherwise a Safe Work Plan is required before SCBA or RSBA work of any kind is performed at ambient temperatures colder than minus 25°C.**

Note: Temperatures referred to above are ambient air temperatures. Wind chill does not affect equipment.

6.11 Training And Mask Fit Testing Certification Procedures

6.11.1 Mask fit testing must be completed within 60 days of completion of training.

6.11.2 When Syncrude and contractor employees have completed the SCBA or RSBA training, the instructor will provide a card containing the expiry date and instructor’s signature.

<u>Certificate of Proficiency</u>	
This certifies that	

Has successfully completed training on	
Respiratory Protective Equipment	
2.2 <input type="checkbox"/>	4.5 <input type="checkbox"/>
Scott SKA Pak <input type="checkbox"/>	
_____	_____
Expiry Date	Instructor

6.11.3 When Syncrude employees have completed the Air-purifying Respiratory training, the instructor will provide the Training/Refresher Training Validation Form to certify that valid training has been received. When Syncrude employees have completed the refresher training, the supervisor will provide a Training/Refresher Training Validation Form to indicate that valid refresher training has been received.

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6.11.4 The employee must be fit tested within 60 days following completion of training and present the signed training card or form at the time of testing. The Health Centre will only do mask fit testing if a signed form is provided.

6.11.5 A laminated mask fit testing card will be issued to the employee by the Health Centre to identify the mask(s) that have successfully been fit tested. The card must be presented to the tool crib attendant in order to obtain a mask(s).

6.11.6

<u>MASK FIT TEST</u>			
_____ Employee ID #		_____ Employee Name	
	Manufacturer	Model	Size
Half Face	_____	_____	_____
Full Face	_____	_____	_____
SCBA	_____	_____	_____
_____ Expiration Date		_____ Test Conductor	



**Air-purifying Respiratory Protection
Training/Refresher Training Validation Form**

This is to certify that

EMPLOYEE NAME: _____

EMPLOYEE NUMBER: _____

Has completed the required training for air-purifying respiratory protection.

Initial Training ()

Refresher Training ()

DATE COMPLETED: _____

INSTRUCTOR NAME: _____

INSTRUCTOR SIGNATURE: _____

For Air Purifying Respirators, mask fit testing must be completed within 60 days of initial training, and within 12 months of annual Refresher training.

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Section 7.0 Flame Resistant (FR) Clothing

7.1 Purpose

The main purpose of flame resistant (FR) clothing is to prevent ignition of a persons work wear, from hazards such as flash fire, electric arc flash or welding slag. In flash fire situations FR clothing is designed for resisting short duration exposures without the fabric igniting (e.g. 4 seconds for a flash fire). For protection from electrical arc flash the level of FR clothing protection must be predetermined according to the potential exposure and the specific equipment’s electrical arc rating. Protection against a higher heat flux over a longer time period requires FR clothing specifically designed for that hazard (i.e. FR rated welding coveralls).

FR clothing types include but are not limited to:

- Coveralls, pants, shirts
- Parkas, fleece vests & liners, hoods
- Rainwear, Jackets, switching coats
- Leather jackets, gloves & aprons

7.2 Exemptions

The requirement for use of FR clothing may change in instances where the fire hazard has been removed, typically for short periods of time. The decision for changing the requirement for the use of FR clothing must be supported by the department’s Management of Change Process and must include a reevaluation using the Flame Resistant Clothing Needs Assessment Form contained in Appendix B. Examples of this could include construction areas, shutdowns, plant turnarounds, changes to process, etc.

7.3 Use

- 7.3.1 To maximize the protection provided by FR clothing, it must be worn as the outer garment. The underclothing is also of great importance in maintaining proper protection. It is essential that fusible materials (nylons, polyesters) are not worn because heat causes synthetics to melt and burn to the skin. Cotton, high percentage cotton blends or wool fabrics are recommended. Undergarments consisting of long sleeve shirts or T-shirts and long pants of at least 4-oz/sq. yd, cotton or wool should be worn under a single layer of flame resistant clothing, i.e., coveralls, trousers, shirts, jackets, rainwear and reflective vests. Flammable items that could result in ignition of clothing (i.e. permanent markers, etc.) must not be kept in the pockets of FR clothing.
- 7.3.2 The use of flammable substances such as insect repellent, sprayed directly on the clothing, must be avoided, as it is flammable and will ignite. Alternate non-flammable insect repellants are available as recommended by the clothing manufacturer.

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- 7.3.3 FR clothing should provide a good functional fit for maximum protection and comfort on the job. Users should be aware that the fit of the garment (that is, too tight or too loose) could have a direct influence on how much protection can be provided by the garment. For maximum protection, the clothing must be worn properly. The neck should be worn closed and the sleeves should be worn down. The clothing must be kept clean as soiling will reduce the protective qualities and increase the risk of serious burns.
- 7.3.4 Workers performing tasks such as welding, cutting with an oxy-acetylene torch or gouging, must wear FR clothing specifically designed to protect them from welding hazards, including resistance to molten metal slag.
 - Syncrude workers performing these tasks are required to wear the FR welding clothing supplied by Syncrude’s clothing provider (i.e. currently Tuffweld® brand).
 - Contractor/Subcontractor workers performing these tasks are required to wear flame resistant clothing designed to protect from welding hazards.
Examples include but are not limited to Tuffweld®, Indura UltraSoftFR® Safeweld®, etc.

When the task requires additional protection from molten metal slag and splatter, leather welding gloves, leather jackets and/or leather aprons should be worn over the FR welding clothing.

- 7.3.5 To determine FR clothing requirements for all other tasks and work locations, each department is responsible to conduct a FR clothing needs assessment utilizing the Flame Resistant Clothing Needs Assessment form contained in Appendix B. To assist in the completion of the assessments, the department should refer to their work procedures and practices, Material Safety Data Sheets and the two Flame Resistant Clothing Needs Assessment examples contained in Appendix B.

Once each department has completed their Flame Resistant Clothing Needs Assessment, they will establish and communicate their standards, identifying personnel and/or locations where FR clothing must be worn. The departments are encouraged to share the results of any assessments with each other to gain knowledge and establish consistency across site in the use of FR clothing.

- 7.3.6 Contractors are responsible to:
 - Provide their employees with approved FR clothing that meets this standard and the requirements in Syncrude Purchase Product Standard A-29
 - Provide for the clothing’s maintenance and cleaning.
 - Ensure FR clothing is cleaned and well maintained.
 - Provide the training of their employees regarding FR clothing use and maintenance.

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7.3.7 FR clothing worn at Syncrude Canada Ltd. will meet the Canadian General Standards Board standards as per Syncrude Purchase Product Standard A-29.

7.4 Maintenance

7.4.1 It is imperative that all employees treat their FR clothing with the appropriate care and handling, especially in regard to its cleaning and daily use. All Syncrude FR clothing will be maintained, cleaned and cared for as per the specific manufacturer’s instructions.

7.4.2 Departments will ensure workers are aware of cleaning instructions, and will post descriptive signage at the site laundering facilities. All repair work shall be made according to specifications to ensure the continuing quality of clothing.

The Central Maintenance and Supply Services Department is responsible to ensure that adequate cleaning and maintenance is provided for Syncrude work clothing.

Section 8.0 Hearing Protection

8.1 Responsibilities

8.1.1 Department Responsibilities – Departments shall:

8.1.1.1 Take all reasonable and practical steps to reduce a worker's exposure to noise. When reducing noise exposure, preference should be given to engineering controls, then administrative controls, and finally appropriate personal hearing protection.

- Engineering controls are used to minimize or eliminate exposure by altering or removing the source.
- Administrative controls are used to control exposure by modifying the circumstances of the worker's exposure.
- Personal hearing protection reduces exposures when the other approaches have not reduced the hazard to an acceptable level.

8.1.1.2 Educate workers in the hazards of excessive exposure to noise and communicate guidelines for the use and maintenance of hearing protectors.

8.1.1.3 Identify all areas where noise levels are over 85 dBA and post areas with warning signs stating the required hearing protection.

8.1.1.4 Identify noise-exposed workers for inclusion in the Hearing Conservation Program.

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- 8.1.1.5 Conduct an annual review of the:
 - effectiveness of the education and training
 - the need for further noise measurement
 - adequacy of noise control measures
- 8.1.1.6 Request Environmental Services to update noise measurement if a change in equipment or process affects the noise level or the exposure duration.
- 8.1.1.7 Ensure appropriate hearing protective equipment is worn by affected workers according to Table 8-2, Selection of Hearing Protectors.
- 8.1.1.8 Ensure only approved hearing protective equipment is being used by all workers
- 8.1.2 Health Center Responsibilities
 - 8.1.2.1 In conjunction with departments, implement audiometric testing of identified workers as per the Alberta Noise Regulation.
 - 8.1.2.2 Ensure hearing tests are administered by an audiometric technician as per the Alberta Noise Regulation.
 - 8.1.2.3 Provide a copy of the test results to the worker.
 - 8.1.2.4 Retain audiometric testing records for a minimum of 40 years.
 - 8.1.2.5 Ensure audiometric equipment is calibrated and maintained.
 - 8.1.2.6 Audiometric testing will be performed as part of Syncrude’s Health Surveillance Process Standard.
- 8.1.3 Environmental Services Department Responsibilities
 - 8.1.3.1 Establish criteria to identify noise exposed workers in each department for inclusion in the Syncrude Hearing Conservation Program. This will be done in conjunction with the Syncrude health Center and other stakeholders.
 - 8.1.3.2 Perform noise exposure measurement in accordance with CSA Standard Z107.56-94.
 - 8.1.3.3 Ensure equipment used in noise measurement meets the requirements according to the Alberta Noise Regulation, and is calibrated, maintained and operated according to the manufacturer's specifications and instructions.
 - 8.1.3.4 Keep measurement records indefinitely.
 - 8.1.3.5 Review noise hazards in each department every 3 years.

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8.1.4 Worker Responsibilities

8.1.4.1 All workers on the Syncrude site shall meet the requirements of this standard and the Alberta Noise Regulation. Use of hearing protection is mandatory when workers are engaged in activities that may expose them to noise hazards, or when entering areas where noise hazards may be present.

8.1.4.2 Workers will wear approved hearing protective equipment in areas posted as requiring hearing protection or when exposed to noise exceeding the limits set out in Table 8-1.

8.1.4.3 All workers will use hearing protective equipment when they are potentially exposed to excessive noise.

8.1.4.4 Workers will ensure that their hearing protective equipment is maintained to retain its effectiveness.

8.1.5 Contractors, Sub-contractors, and Vendors Responsibilities

8.1.5.1 Ensure their employees are properly trained to use the required protective equipment if there is potential to be exposed to noise hazards.

8.1.5.2 Ensure their employees receive audiometric testing per the Alberta Noise Regulation, if they could be required to use hearing protection.

8.2 Audiometric Testing Program

8.3

8.2.1 For any noise exposed worker:

8.2.1.1 An initial baseline test must be conducted within 6 months from the start of employment, or within 6 months of becoming newly noise exposed due to a change in activities or duties; and

8.2.1.2 A follow-up test must be conducted within 12 months after the initial audiometric testing; and

8.2.1.3 Tests must be conducted at least every 2 years thereafter.

8.2.2 Criteria to Identify Syncrude Workers for Audiometric Testing

8.2.2.1 All Syncrude Occupational and APT employees who work in, or visit at least once a year, an area of the operation where hearing protection is required, must be on the audiometric testing program.

8.2.2.2 Syncrude Occupational and APT employees, who never go to an area of the operation where hearing protection is required, are exempt from the audiometric testing program.

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8.3 Noise Hazard Training

8.3.1 Initial Noise Hazard training shall be provided by a competent person and will include:

- Health effects of exposure to excessive noise
- Proper fitting technique of selected hearing protectors
- Responsibilities under Alberta Noise Regulation
- Syncrude Hearing Conservation Program

8.4 Occupational Exposure Limits

Occupational Exposure Limits (OELs) define a worker's maximum permitted daily exposure to noise without hearing protection. OELs take into consideration the loudness of the noise -- measured in decibels (dBA) -- and the duration of exposure of that noise -- measured in hours per day.

8.4.1 Departments are responsible for making sure that workers are not exposed to noise that exceeds the OELs listed in Table 8-1.

Table 8-1: Occupational Exposure Limits for Continuous Noise Without Hearing Protection

Sound Level (dBA)	Maximum Permitted Duration of Exposure Without Hearing Protection (per 24 hour period)
82	16 hours
83	12 hours
84	10 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hours
97	30 minutes
100	15 minutes
103	8 minutes
106	4 minutes
109	2 minutes
112	1 minutes
Greater than 115	0 minutes

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8.4 Selection of Hearing Protection

8.4.1 Where noise levels cannot be reduced by the use of engineered noise controls or by the use of administrative controls, departments shall take steps to reduce exposure to those noise levels by providing individual hearing protective equipment in accord with Table 8-2.

Table 8-2: Selection of Hearing Protectors

Noise Level (dBA)	CSA Class of Hearing Protector
85-95 dBA	Class B
96-105 dBA	Class A
106-110 dBA	Class A plug + Class A Muff
Greater than 110 dBA	Class A plug + Class A Muff and limited exposure

8.5 Exemptions

There are NO exemptions to the use of hearing protection when a worker is exposed to noise over the Occupational Exposure Limit set in Table 8-1 or when they are in an area posted as requiring hearing protection.

8.6 Use of Hearing Protection

- 8.6.1 For maximum protection, a hearing protector must make a tight seal within the ear canal or against the side of the head.
- 8.6.2 Modifying hearing protectors to reduce wearer discomfort (e.g. by drilling holes in ear cups, by reducing headband tension of earmuffs, or by trimming or removing flanges on pre-molded plugs) seriously compromises their effectiveness.
- 8.6.3 The compatibility of a hearing protector with other equipment (e.g. hard hats, goggles, glasses, and masks) must be checked to ensure that interference with the hearing protector does not reduce its effectiveness.

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8.7 Maintenance of Hearing Protection

Hearing protection should be maintained so that it retains its integrity. Manufacturer’s instructions should be followed for all maintenance and cleaning.

Section 9.0 Head Protection

9.1 Requirements for Head Protection

- 9.1.1 Workers will wear approved head protective equipment as designated in that area to protect the wearer from potential injury when exposed to hazardous conditions. Departments are responsible to determine the areas where head protection is required, and to also determine the level of head protection appropriate to the risks normally encountered.
- 9.1.2 There are two levels of protection: *General Usage*, and *Lateral Impact*. The majority of tasks performed on the Syncrude site require *General Usage* head protection. For tasks where there is a significant potential risk of a lateral blow to the side of a worker’s head, a hard hat designed with *Lateral Protection* must be used.

9.2 Color Coding of Head Protection

- 9.1 Head protection will be color coded by personnel as follows:
 - Orange All Syncrude personnel excepting black and white hat users
 - White Emergency Response personnel and field safety specialists
 - Black Emergency Rescue Team.
 - Light Green Visitors
- 9.2 Others (e.g. contractors and vendors) may wear a Hard Hat of any color other than those listed above.

9.3 Exemptions

- 9.3.1 A “Bump Cap” may be used in designated areas where the danger of injury is limited to a worker striking the head against a stationary object. A “Bump Cap” offers minimal protection and is not CSA / ANSI approved for head protection.
- 9.3.2 Head Protection is not required in offices, cafeterias, rest rooms, locker rooms and on corporate designated walkways, unless otherwise indicated.

9.4 Use of Head Protection

- 9.4.1 The fit of the hard hat must be adjusted so that it is comfortable. A hard hat must never be worn in a tilted or backward position on the head, unless it is a welding helmet.

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9.4.2 The suspension can be adjusted in many ways to ensure comfort and the ability to remain on the user's head during normal tasks. Two types of suspension are available with different adjustment features to help prevent a hard hat from falling off. workers should choose the type of suspension appropriate to their level of risk.

9.5 Maintenance of Head Protection

9.5.1 *Shell* - For maximum head protection, the shell of a hard hat should be checked by the wearer for any visible damage before each use. If the shell is found to have a crack, dent or penetration, the hard hat must be discarded or the particular part replaced with an identical part from the original manufacturer. Manufacturers do not recommend the application of stickers to a shell as a reaction between adhesives and sunlight may weaken the shell.

9.5.2 *Suspension* - The suspension forms a barrier between the head and the shell of a hard hat. The suspension should be inspected frequently for loose or broken threads, broken retainer clips, and overall cleanliness. The suspension and shell should be cleaned regularly by using a wet sponge with mild soap.

9.5.3 *Replacement* - It is recommended that the shell be replaced every 5 years, and the suspension replaced annually. Replacement should occur immediately if inspection reveals obvious damage.

9.5.4

Section 10.0 Eye and Face Protection

10.1 Requirements for Eye Protection

Workers shall wear appropriate eye and face protection. The minimum eye protection required is CSA approved safety glasses with side shields or CSA approved safety goggles, per Syncrude Purchase Product Standard A29. Contact lenses shall not be permitted in areas where safety glasses must be worn, except as stated in the exemptions section.

10.2 Exemptions

Eye and face protection is not required in offices, cafeterias, rest rooms, locker rooms and on corporate designated walkways, unless otherwise specified by a hazard assessment.

10.3 Use of Eye Protection

10.3.1 Workers must ensure that the appropriate type of eye and face protection is worn for the task they are performing. (See Table 10.5) Material Safety Data Sheets, Health Hazard Assessments and work procedures and practices should identify the specific PPE which is required. These requirements must be identified on the safe work permit.

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- 10.3.2 To maximize effectiveness, eye and face protection must always be used for its intended purpose and in the proper manner.
- 10.3.3 *Contact Lenses* – If a worker must wear contact lenses in order to obtain adequate optical correction, a written statement from the worker's optometrist must be presented to the Health Center. The statement will be reviewed and, if appropriate, an “Approval for Exemption” will be granted by the Chief Medical Officer, or designate, with a copy placed in the worker's medical records.
- 10.3.4 Safety glasses with side shields, or safety goggles, must be worn where required, in addition to contact lenses, by those workers authorized to wear contact lenses. All those given approval to wear contact lenses at Syncrude must wear some indication to that effect, such as a Medic Alert bracelet or necklace.

10.4 Maintenance of Eye Protection

Individuals are responsible for the cleaning and care of eye and face protection. Safety glasses, safety goggles and face shields which are scratched or damaged should be disposed of in such a manner that others cannot use them, and be replaced immediately.

10.5 Eye / Face Protection Selection Chart

Legend:

CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5	CLASS 6	CLASS 7
						

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CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5	CLASS 6	CLASS 7
Approved Safety Glasses with side shields.	Approved Mono-goggles or rated equivalent (i.e. "fectoggles") * Rated Chemical splash goggles are required where stipulated by MSDS or other product label warning	Approved welding goggles, welding shield	Approved Hand held welder's shield	Approved Sandblaster's Hood	Approved High Impact resistant Face shield.	Approved High Impact resistant full-face respirator

Note 1: "Approved" means: As per Syncrude product purchase standard A-29 / CSA

Note 2: Refer to MSDS & other product label warnings in conjunction with this chart

**Note 3: Identify additional specific eye/face hazards & required controls through your FLRA process
Eye / Face Protection Selection Chart**

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Hazard / Group	Nature Of Hazard	Hazardous Activity Involving But Not Limited To	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
A	Flying objects	Chipping, drilling, de-scaling, grinding, polishing / buffing, riveting, shearing, hammering pneumatic nailing, punch press	In addition to Class 6 ✓					✓	
B	Flying particles / dust	Woodworking / sanding / light metal work / machining / exposure to blowing dust / sand & aggregate handling / concrete work / plastering/ material batching & mixing	In addition to Class 6 ✓ Minimum	In addition to Class 6 ✓ Recommended				✓	* Req'd for some C/space ✓
C	Hot liquids (eg. hot liquid hydrocarbons, liquid sulphur, steam / condensate)	Hot liquid / molten sampling, breaking flanges, roding vent / drains, blowing down piping to atmosphere	In addition to Class 6 ✓					✓	
D	Heat & medium/high intensity light	Firebox viewing (e.g. flame pattern checks)	In addition to Class 4 ✓			✓			

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Hazard / Group	Nature Of Hazard	Hazardous Activity Involving But Not Limited To	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
E	Chemical handling	Handling acid / alkali, de-greasing, spray type chemicals		In addition to Class 6 ✓ (Chemical rated goggles)				✓	
F	Abrasive blasting	Sandblasting	✓ In addition to Class 5				✓		
G	Welding	Torch cutting / welding, electric arc welding, plasma cutting, inert gas shielded arc welding	✓ In addition to Class 3		✓				
H									

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Section 11.0 Foot Protection

11.1 Mandatory Controls

- 11.1.1 Protective footwear will be approved to CSA – Z 195-02 (i.e. Syncrude SH&E Field safety Specialists can assist with locating this document on the Syncrude SH&E website).
- 11.1.2 Protective footwear will have a minimum 6” top.
- 11.1.3 Personnel accessing or walking through any Shop Area must wear Class 1 protective footwear that is approved to CSA – Z 195-02.
- 11.1.4 Protective footwear must be worn while working in or passing through any work areas identified as requiring protective footwear.
- 11.1.5 Personnel:
 - a) Must wear footwear appropriate to seasonal weather conditions.
 - b) Must ensure that footwear is properly fitted, laced, zippered and secured.
 - c) Are not permitted to wear footwear that is in a state of disrepair.
 - d) Are required to inspect their footwear for damage or defects on a daily basis and replace any footwear showing excessive wear (i.e. the heels or soles are worn, sides have holes or when toecaps are showing through the leather).

11.3 Exemptions

- 11.1.6 Non-Field/Office Areas (designated walkways, parking areas, etc.): Sandals or flip-flop type footwear, open toed footwear, and footwear with heels greater than 2 inches are not permitted on outdoor walkways or designated indoor walkways.
- 11.1.7 Office areas: all footwear must have adequate tread to prevent slipping and must, at a minimum, include a heel strap to ensure that it will not slip off the foot. Footwear with heels greater than 2 inches are not permitted. Open toed footwear and sling-back shoes are permitted. Entering or leaving an office area requires that these types of footwear be replaced with appropriate footwear for either field or non-office areas. Examples include going to and from: designated walkways, parking areas, smoking areas, shuttle busses, etc.

Note: In all areas footwear must offer adequate ankle stability and not pose a slipping or tripping hazard due to its design (adequate sole/tread of footwear required).

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11.4 Protective Footwear Requirements

11.3.1 In addition to ensuring all personnel meet the Mandatory Controls section of this standard, Syncrude and Contractor Management must ensure personnel required to wear protective footwear:

- a) Are made aware of the protective footwear requirements as part of their workplace orientation and/or job specific work plan.
- b) Wear only protective footwear that meets the Alberta OH&S requirement to be approved to CSA – Z 195-02 (i.e. This will apply to personnel from outside the province of Alberta whose protective footwear may not be approved to this CSA Standard).

Basic Safety Criteria

11.4.1 Theoretically, a safety shoe is a shoe that meets at least one of the five criteria set by the Canadian Standards Association (CSA). You can find out what criteria a pair of safety shoes meets by consulting CSA's alphanumeric code found inside one of the shoes. The code is made up of five numbers or letters.

1, 2, or 0	P or 0	M or 0	E, S, or C	X or 0
------------	--------	--------	------------	--------

- a) The first code indicates whether the shoe comes with a steel toe cap, which is a shell that protects toes against crushing: "0" means there is none, "2" means that it resists impacts of 90 joules and "1" means that it resists impacts of 125 joules (a 22.7 kg object falling from a height of 56 cm).
- b) The second code indicates whether the shoe has soles that protect arches against punctures. "P" means it does and "0" means it does not.
- c) The third code indicates whether the shoe has a metatarsus protector against shocks and collisions. "M" means it does and "0" means it does not.
- d) The fourth code represents the sole's electrical characteristics: "E" means it resists electrical shocks, "S" means it disperses static electricity and "C" means it conducts electricity.
- e) The last code (X) can only be found on shoes that protect the foot against chain saws and "0" means it does not.

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11.5 Personal Protective Footwear:

Injuries to the foot may be prevented by the use of appropriate protective footwear, as part of an overall foot protection program. Appropriate protective footwear must protect against the specific hazards presented, provide a comfortable and secure fit, and comply with CSA Standards Z195-02 and Z195.1-02.




11.5.1 All foot protection worn on the Syncrude site in an operating area shall be CSA Grade 1 approved.

- a) Footwear selection should be based on the type of work expected to be performed by employees. The type of work performed may also dictate the need for additional protection such as metatarsal protection, electrical protection, chemical protection, slide resistance or weather protection.
- b) Protective footwear will have a minimum 6” top.

CSA Approved Footwear

	Class 1 Protective Footwear that is approved by CSA – Z 195-02 Green Triangle Tag
---	--

Field Areas

Acceptable Footwear (CSA Approved)		
		
CSA Grade 1 Steel toe cap with puncture-resistant sole 6 “ high top	CSA Grade 1 Steel toed rubber boots are required while steaming equipment or working around caustic facilities etc.	CSA Grade 1 Steel toed winter boots.

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Note: Actual comfort range in cold temperatures varies across individuals depending upon tolerance for cold, metabolism and activity level. If you're standing still, you'll need maximum winter boot warmth.

Non Acceptable Footwear



Office Areas

Acceptable Footwear Examples



Footwear appropriate for an office environment will be closed toed (such as sneakers, dress shoes), opened toed, or sling back footwear.

Boots/dress shoes with a heel less than or equal to 2".

Non Acceptable Footwear



No sandals, flip flops, or footwear without adequate ankle stability and does not pose a slipping or tripping hazard due to its design (adequate sole/tread of footwear) are permitted in the office.

Designated Walkways

Acceptable Footwear Examples



Footwear appropriate for an designated walkways will be closed toed (such as sneakers or dress shoes). Boots/dress shoes with a heel is less than or equal to 2".

Section 12.0 Hand Protection

12.1 Mandatory Controls

12.1.1 All personnel will wear hand protection appropriate to the hazards likely to be encountered when accessing any operational or construction area within the geographical boundaries of the Syncrude site, and while handling equipment or materials or performing tasks which are hazardous to the hands.

12.1.2 Hand Protection shall be considered, and, where appropriate, specified in safe work plans, procedures, formal hazard reviews, field level risk assessments and business units safe work practices and procedures. Business units must ensure appropriate standards and safe work practices are established to reflect this requirement.

12.1.3 All hand protection must be inspected daily before use and must be in a condition to perform the function for which it was designed. Damaged or defective hand protection must be replaced. Employees should wear hand protection that protects them and is correct for the hazards identified.

Hand Protection Guideline Chart

Nature Of Hazard	Hazardous Activity Involving But Not Limited To	General Purpose Coated Cotton Liners	Leather	Rubber (chemical) Refer to MSDS or Industrial Hygiene	Welding	Synthetic (Kevlar/ Dyneema)	Impact
General Work	<ul style="list-style-type: none"> ◦ Shoveling ◦ Climbing ◦ Sweeping ◦ Operating duties ◦ Fire Watch ◦ Confine space monitoring ◦ General contact tool use 	X	X			X	
Abrasion/ Puncture	<ul style="list-style-type: none"> ◦ Sandblasting ◦ Material handling ◦ Pneumatic nailing ◦ Grinding 		X				

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Nature Of Hazard	Hazardous Activity Involving But Not Limited To	General Purpose Coated Cotton Liners	Leather	Rubber (chemical Refer to MSDS or Industrial Hygiene)	Welding	Synthetic (Kevlar/ Dyneema)	Impact
Cold Temperature	Working outside	X	X		X		X
Welding	<ul style="list-style-type: none"> ◦ Torch cutting/ welding ◦ electric arc welding ◦ plasma cutting ◦ inert gas shielded arc welding 				X		
Chemical Handling	Handling acid / alkali, degreasing, spray type chemicals, caustic			X			
Cuts/Pinch Points (Sharp Edges)	Knife use, Grinding, Shearing, Working around sharp protruding material, Working around moving machinery		X			X	
Heat	Contact of hot equipment (piping/steam tracing, process equipment etc).		X				
Vibration	Use of pneumatic tools Woodworking / sanding / light metal work / machining / exposure to blowing dust / sand & aggregate handling / concrete work / plastering/ material batching & mixing						X

Note: No single type of hand protection will offer protection in all situations. For example, gauntlet style gloves are designed to protect the wearer's wrists as well as the hands; wristlets may also be used for wrist protection. Barrier creams may provide protection from some exposures.

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The following chart identifies the strengths and weakness of each glove type.

Type	Description	Strengths	Weaknesses
<p>Leather:</p> 	<p>Leather glove are a multi purpose glove targeted for general use. Welding gloves are for additional heat protection, and welted at heavy wear seam areas for abrasion, spark, and flame protection.</p>	<ul style="list-style-type: none"> ◦ Abrasion Resistance ◦ Breathable ◦ Absorbs Shock ◦ Excellent tear resistance ◦ Good puncture protection 	<ul style="list-style-type: none"> ◦ Limited cut protection
<p>Cotton:</p> 	<p>General-purpose applications that require additional protection should consider using multi-layered styles.</p>	<ul style="list-style-type: none"> ◦ Comfortable ◦ Breathable 	<ul style="list-style-type: none"> ◦ Minimal protection
<p>Supported – Dipped</p>	<p>Polymer coatings on fabric liners to provide protection from solvents and chemicals while also extending wear ratios and providing better grip for certain applications when compared to leather or cotton offerings.</p>	<ul style="list-style-type: none"> ◦ Contoured Fit ◦ Chemical/Solvent Protection (Fully Dipped) 	<ul style="list-style-type: none"> ◦ Hands perspire with fully dipped styles ◦ Heavy styles have limited dexterity
<p>Supported – Cut/Sewn</p>	<p>Polymer coatings that are cut/sewn provide extending wear ratios.</p>	<ul style="list-style-type: none"> ◦ Excellent wear ratio to cottons ◦ Better fit than heavier dipped styles 	<ul style="list-style-type: none"> ◦ Limited liquid protection
<p>Unsupported</p>	<p>Unsupported styles offer the greatest dexterity and sense of touch, plus they provide liquid and chemical protection.</p>	<ul style="list-style-type: none"> ◦ Greater dexterity ◦ Chemical protection 	<ul style="list-style-type: none"> ◦ Minimum cut or abrasion protection

Type	Description	Strengths	Weaknesses
<p>String Knits – Basic Styles:</p> 	<p>Glove made out of cotton, polyester, acrylic, and nylon yarn either knitted separately or blended. The higher the gauge of string knit, the finer the knit and better the fit.</p>	<ul style="list-style-type: none"> ◦ General purpose 	<ul style="list-style-type: none"> ◦ No liquid protection
<p>String Knits Kevlar</p> 	<p>General cut/slash protection: Kevlar®, Twaron®, and blends of these materials with other yarns such as cotton or polyester.</p>	<ul style="list-style-type: none"> ◦ Cut resistance 	<ul style="list-style-type: none"> ◦ Decomposed with bleach
<p>String Knits – High Performance i.e. Spectra/Dyneema</p> 	<p>High-performance cut protection Spectra®, a wire-free composite yarn, offers very comparable cut protection, greater comfort, and better dexterity than stainless steel engineered yarns. Dyneema® is an ultra high-density polyethylene fiber spun to create a thin, flexible, cut-resistant, and highly abrasion-resistant product.</p>	<ul style="list-style-type: none"> ◦ Cut resistance 	<ul style="list-style-type: none"> ◦ Vary limited thermal properties

Section 13.0 Seatbelts

13.1 Seatbelt Requirements

14.1.1 Workers will wear seatbelts while operating or riding in **any Syncrude owned** vehicle or mobile equipment, both on and off the Syncrude Site.

14.1.2 Workers will wear seatbelts while operating or riding in **any** vehicle or mobile equipment on the Syncrude Site.

14.1.3 All departments will ensure appropriate standards are established to reflect this requirement.

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13.2 Exemptions

Specific exemptions will be based on formal department risk assessments.

13.3 Use

All vehicles are equipped with either a lap belt or a combination of the lap belt and shoulder strap. In all cases, the sliding buckle must be adjusted by the individual using the seatbelt to ensure a snug and comfortable fit. Seatbelts must be worn with the shoulder strap worn over the shoulder, not under the arm, and should not be twisted when buckled up.

13.3 Maintenance

Seatbelts should be visually inspected for cuts, tears or fraying prior to use. The buckles should be free of rust or burring and must lock and unlock freely. Smooth operation of the retracting device is essential.

Section 14.0 High Visibility Reflective Striping

High Visibility Reflective Striping is applied to hard hats to visually signal a worker's presence and to improve the visibility of workers in both well illuminated and low light or dark work areas. This is especially important when employees are in the vicinity of vehicles and equipment.

14.1 Exemptions

There are NO exemptions to reflective striping on hard hats.

14.2 Use

All Syncrude employees, contractors, vendors and visitors must have reflective yellow stripes on their hard hats. The stripes will be applied horizontally to the hard hat such that they are visible from the front, back and sides (see pictures), will be no closer than one half inch from the bottom or edge of the hard hat, and will be a minimum of 1inch by 4 inches.

14.3 Maintenance

As with regular hard hat maintenance, the shell and striping should be cleaned regularly with mild soap and water.



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Section 15.0 Specialty PPE

15.1 General

Specialty Personal Protective Equipment (PPE) includes those items that are used for unusual applications and may require specialized training on use, care and maintenance. The use of Specialty PPE may be required to meet specific Legislative or Syncrude standards, e.g. Personal Flotation Devices (PFDs) for work around water hazards.

Specialty Items include but are not limited to:

- PFDs
- Proximity Suits
- Cooling Vests/Suits
- Specialty Gloves, e.g. High Voltage Gloves

A Department Safety Specialist should be contacted for additional information when considering the use of Specialty PPE.

15.2 Exemptions

15.2.1 In the event that manufactures' instructions differ from Alberta OH&S Legislation, Syncrude SH&E Standards or Safe Work Practices or Procedures, a formal risk assessment must be conducted to address the differences and ensure adequate protection of personnel is provided.

15.2.2 As a minimum Alberta OH&S Statutes & Regulations must be met unless Alberta Workplace Health and Safety has issued a formal written "Acceptance" for a specific exception.

15.3 Use

15.3.1 When the requirement to wear Specialty PPE has been identified and before it's use, the affected Workers shall receive proper training and instruction on its use, care and maintenance.

15.3.2 A User of Specialty PPE will follow the manufactures' recommended practices and applicable Syncrude Safe Work Practices or Procedures, for its use and care, except as described above in "Exceptions".

15.3.3 Specialty PPE shall be worn at all times by the affected Workers while exposed to the hazard requiring its use.

15.4 Maintenance

15.4.1 Individual Users are responsible to ensure that Specialty PPE receives the proper cleaning and care. The manufactures' recommended practices for maintenance and service must be followed.

15.4.2 Damaged items are to be removed from service and tagged "**Danger Do Not Operate**" and sent for repair, or disposed of properly.

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Appendix A – PPE Hazard Assessment

PPE HAZARD ASSESSMENT

DEPARTMENT: _____

OCCUPATION: _____

DATE OF ASSESSMENT: _____

TASK _____
 AREA: _____

TASK	LOCATION	HAZARD DESCRIPTION (1)	HAZARD POTENTIAL (1)	FREQ. OF TASK (2)	DURATION OF TASK (3)	CONTROL SYSTEMS IN PLACE (4)	PPE REQUIRED YES/NO	TYPE OF PPE REQUIRED

NOTES:

Hazard potential could be high, medium or low (i.e. High may be sampling; venting; draining hydrocarbon materials; hot oiling; operating in open fumes or in confined spaces; dusty areas; high noise areas; handling hot, abrasive or reactive materials; or other areas or activities which are deemed Hazardous).

Frequency of task: Is the task carried out frequently (i.e. 4 times per shift) or periodically (i.e. once a month)?

Duration of task: How long does the task take?

Control systems in place (i.e. closed piping systems or venting system, gas detection, local exhaust ventilation, Safe Work Plans, procedures, signs, etc.)By utilizing the data above conduct a risk assessment by asking:

- a) What could go wrong?
- b) How could it effect us?
- c) How likely is it to happen?
- d) Do we need to do something about it?

Then make the decision: Is PPE required? Yes/No.

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Appendix B – Flame Resistant Clothing Needs Assessment Form

FLAME RESISTANT CLOTHING NEEDS ASSESSMENT FORM

TASK	LOCATION	PRODUCT CHARACTERISTICS (1)	HAZARD POTENTIAL (2)	FREQUENCY OF TASK (3)	DURATION OF TASK (4)	CONTROL SYSTEMS IN PLACE (5)	FLAME RESISTANT CLOTHING REQUIRED YES/NO (6)

NOTES:

1. **Product characteristics** could include vapour pressure, flashpoint, explosive limits, auto ignition temperature, reactivity data and toxicological properties including possible health effects from acute or chronic exposure to the product.
2. **Exposure (hazard) potential** could be high, medium or low (i.e. High may be sampling; venting; draining hydrocarbon materials; hot oiling; operating in open fumes or in confined spaces; dusty areas; high noise areas; handling hot, abrasive or reactive materials; or other areas or activities which are deemed Hazardous).
3. **Frequency of task:** Is the task carried out frequently (i.e. 4 times per shift) or periodically (i.e. once a month)?
4. **Duration of task:** How long does the task take?
5. **Control systems in place** (i.e. closed piping systems or venting system, gas detection, local exhaust ventilation, etc.)
6. By utilizing the data above (items 1-5) conduct a risk assessment by asking:
 - a) What could go wrong?
 - b) How could it affect us?
 - c) How likely is it to happen?
 - d) Do we need to do something about it?

Then make the decision: Is Flame Resistant Clothing Required? Yes/No.

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FLAME RESISTANT CLOTHING NEEDS ASSESSMENT FORM – Example 1

TASK	LOCATION	PRODUCT CHARACTERISTICS (1)	HAZARD POTENTIAL (2)	FREQUENCY OF TASK (3)	DURATION OF TASK (4)	CONTROL SYSTEMS IN PLACE (5)	FLAME RESISTANT CLOTHING REQUIRED YES/NO (6)
Fuel truck dispensing fuel to equipment.	Site wide	<u>Diesel:</u> Flashpoint: 40 to 65 ^o C Blue/Purple liquid hydrocarbon (dyed). <u>Gasoline:</u> Flashpoint: -40 to -50 ^o C Auto Ignition 257 ^o C. Clear to amber liquid hydrocarbon.	Low High	Daily ongoing activity	Average 6 hours per day	Grounding, auto nozzle shut-off procedures.	Yes

NOTES:

1. **Product characteristics** could include vapour pressure, flashpoint, explosive limits, auto ignition temperature, reactivity data and toxicological properties including possible health effects from acute or chronic exposure to the product.
2. **Exposure (hazard) potential** could be high, medium or low (i.e. High may be sampling; venting; draining hydrocarbon materials; hot oiling; operating in open fumes or in confined spaces; dusty areas; high noise areas; handling hot, abrasive or reactive materials; or other areas or activities which are deemed Hazardous).
3. **Frequency of task:** Is the task carried out frequently (i.e. 4 times per shift) or periodically (i.e. once a month)?
4. **Duration of task:** How long does the task take?
5. **Control systems in place** (i.e. closed piping systems or venting system, gas detection, local exhaust ventilation, etc.)
6. By utilizing the data above (items 1-5) conduct a risk assessment by asking:
 - a) What could go wrong?
 - b) How could it affect us?
 - c) How likely is it to happen?
 - d) Do we need to do something about it?

Then make the decision: Is Flame Resistant Clothing Required? Yes/No.

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FLAME RESISTANT CLOTHING NEEDS ASSESSMENT FORM – Example 2

TASK	LOCATION	PRODUCT CHARACTERISTICS (1)	HAZARD POTENTIAL (2)	FREQUENCY OF TASK (3)	DURATION OF TASK (4)	CONTROL SYSTEMS IN PLACE (5)	FLAME RESISTANT CLOTHING REQUIRED YES/NO (6)
Refuel light vehicle.	Gas Pumps	Possible exposure to gasoline. Flashpoint: 40 to 50°C Auto Ignition 257°C. Clear liquid hydrocarbon.	High	Low Twice/week	Approx. 5 mins.	Nozzle auto shutoff. Continuous liquid containment. Standard procedures (no smoking, engine off).	No
Sample Diluent Naphtha	Plant 6	Naphtha is a colourless liquid and has a hydrocarbon vapour. Auto Ignition temp. 257°C Explosive limits 1.5 to 7.5%.	High	Approx. 6 times/day	Estimated 2-3 mins. per sample	Needle valve sample procedure "Tag In" procedure.	Yes

NOTES:

- Product characteristics** could include vapour pressure, flashpoint, explosive limits, auto ignition temperature, reactivity data and toxicological properties including possible health effects from acute or chronic exposure to the product.
- Exposure (hazard) potential** could be high, medium or low (i.e. High may be sampling; venting; draining hydrocarbon materials; hot oiling; operating in open fumes or in confined spaces; dusty areas; high noise areas; handling hot, abrasive or reactive materials; or other areas or activities which are deemed Hazardous).
- Frequency of task:** Is the task carried out frequently (i.e. 4 times per shift) or periodically (i.e. once a month)?
- Duration of task:** How long does the task take?
- Control systems in place** (i.e. closed piping systems or venting system, gas detection, local exhaust ventilation, etc.)
- By utilizing the data above (items 1-5) conduct a risk assessment by asking:
 - What could go wrong?
 - How could it affect us?
 - How likely is it to happen?
 - Do we need to do something about it?

Then make the decision: Is Flame Resistant Clothing Required? Yes/No.

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Appendix C – Personal Protective Equipment Standards

PERSONAL PROTECTIVE EQUIPMENT STANDARDS

Minimum Site-wide Personal Protective Equipment standards require the wearing of:

- Syncrude Approved Hard Hats
- CSA Approved High Impact Safety Glasses with Side Shields
- Long Pants

These standards do not apply while working in office areas.

Personnel going to and from their work area at the start of and at the end of their work day, and those using the Corporate Designated Walkways, are not required to wear the minimum Personal Protective Equipment unless otherwise specified by Department Standards.

Passengers and drivers in vans, trucks (including site jitneys) and other mobile equipment with enclosed cabs are not required to wear hard hats or safety glasses, but are required to use seat belts securely fastened.

The Syncrude minimum standards are supplemented by the Departmental requirements listed below, which in most cases, require that additional Personal Protective Equipment be worn by all personnel working in, or entering into, those areas. Clarification of the Departmental requirements can be obtained by contacting the department resource at the designated phone number.

DEPARTMENTAL PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

MINIMUM REQUIRED	Mining	Extraction	Upgrading	Utilities	CM&SS	Aurora
Syncrude approved hardhats & glasses with side shields, long pants	X	X	X	X	X	X
CSA approved footwear				X		
CSA approved footwear with minimum 6" top	X	X	X		X	X
CSA approved hearing protection	X	X	X	X	X	X
Long Sleeves		X	X	X	X	X
Fire Resistant Clothing		X	X	X		X
Reflective Vest	per dept standard	per dept standard	per dept standard	per dept standard	per dept standard	X
Hard Hat Reflective Striping	X	X	X	X	X	X
Hand Protection	X	X	X	X	X	X
Resource Phone Number	5090	8294	5804	5750	7460	9710
Jurisdiction map color Code	Blue	Green	Red	Orange	Purple	NA

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Appendix D – Revision History

May 2002

General

- Replaced “SCL” with “Syncrude” throughout the document.
- Updated the Departmental Personal Protective Equipment Requirements table regarding reflective vests

Respiratory Protection

- Deleted all reference to “Hazardous Atmosphere Training System (HATS)” and replaced with “Respiratory Protective Equipment training
- Clarified that departments are responsible for keeping Fit Testing training records for Syncrude employees.
- Clarified that Fit Testing is not required for powered air supplying respirators.
- Clarified that the Fire School provides Respiratory Protective Equipment training for Syncrude and Contractor employees

Hearing Protection

- Added responsibilities for contractors, sub-contractors and vendors
- Defined the audiometric testing program
- Added criteria to identify Syncrude workers for audiometric testing

Fall Protection

- Removed “Safety Belts” and “Fall Arrestor” from the “Personal Fall Arresting System” definition

October 2004

Respiratory Protection

Significant re-write

Hand Protection

New requirements when accessing operational or construction areas

Fall Protection

Removed from this WPC and is now included in WPC #8

HIGH VISIBILITY REFLECTIVE STRIPING

New sub-Code

SPECIALITY PPE

New sub-Code

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August 18, 2005

Corrected Mask Fit Test Card and Training/Refresher Training Validation Form

Updated Department PPE Requirements Table to include reflective stripes on hard hats and wearing of gloves

Referenced Upgrading procedure for cold weather sour sampling using SCBA

Modified Health Centre responsibilities for Hearing protection to better reference audiometric testing frequency and to refer to the Health Surveillance Process.

September 30, 2005

Reformatted document with minor wording revisions that do not affect technical content. Done to bring document in line with new EHS Standards System.

February 6, 2007

Section 7 – Fire Resistant Clothing was re-written and is now titled "Flame Resistant Clothing". Appendix B was also revised.

This change requires all workers performing welding, cutting, gouging, brazing type of hot work to wear Welders rated Flame Resistant clothing. Departments and contractors have until May 1, 2007 to comply.

December 4, 2008

Section 10.5 - Eyes Wear/Face Protection has been revised to add images and charts for detailed clarification on proper PPE use.

Section 11 - Updates to Foot Protection: images of appropriate foot wear in the office environment, designated walkways and field areas.

Section 12 - Updates to Hand Protection: charts identifying the appropriate purpose with images identifying the strengths and weakness of each glove type.

January 19, 2009

Added detail (changes are in green), Foot Protection requirements.

Section 11-11.1.7 **Office areas:** All footwear must have adequate tread to prevent slipping and must, at a minimum, include a heel strap to ensure that it will not slip off the foot. Footwear with heels greater than 2 inches are not permitted. Open toed footwear and sling-back shoes are permitted. Entering or leaving an office area requires that these types of footwear be replaced with appropriate footwear for either field or non-office areas. Examples include going to and from: designated walkways, parking areas, smoking areas, shuttle busses, etc.

Note: In all areas footwear must not pose a slipping or tripping hazard due to its design (adequate sole/tread of footwear required).

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