

# OPERATIONAL SAFETY PRACTICES

## HEALTH, SAFETY & ENVIRONMENT MANAGEMENT, SGS CANADA

At SGS, we take safety very seriously. From senior management down, we are committed to ensuring our staff, operations and visitors work in safety and security. Each step in our safety practice guidelines considers the broader concept of evaluating and minimizing risk. We take a three-fold approach to safety:

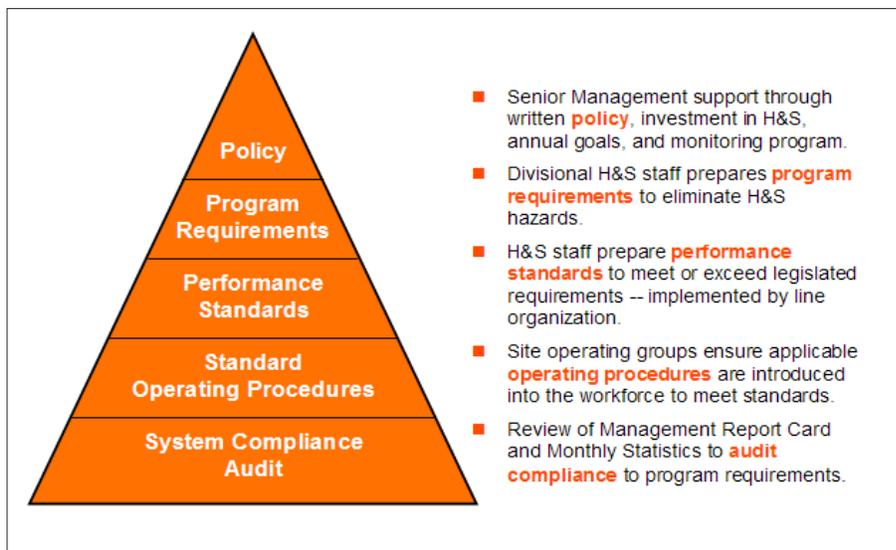
- We write safety into our operational protocols.
- We integrate safety into our operational practices.
- We engineer our site, our buildings and our equipment for safety.

### HEALTH, SAFETY & ENVIRONMENT MANAGEMENT SYSTEM

SGS Canada’s Health, Safety & Environment (HSE) Management System program has all the necessary elements to ensure safe operations. The system introduces HSE into the routine elements of the operations found in businesses globally and integrated these practices into the daily management of our activities.

The system began with the commitment from SGS senior management to a policy or philosophy. Our policy clearly outlines roles and expectations of management, supervisors and employees with respect to HSE. This policy statement is supported by “Program Requirements” which are the various elements of good business practices.

To determine an appropriate benchmark, “Performance Standards” for all programs, the core requirements were established and communicated. All employees now know who is responsible for what, when, and how often.



“Standard Operating Procedures” (SOP) are in place to help all staff achieve the performance standards. “System Audit Compliance” is achieved by reviewing leading and lagging indicators, safety statistics and auditing our compliance. At SGS these activities are completed through an HSE Management Action Report Card. The report card includes the responsibilities for various levels of management, and these were developed in accordance with the Program Requirements.

### A CLEAN SAFETY RECORD

SGS takes pride in our safety record. However, we are determined to continually improve our health and safety policies and procedures. We promote health and safety practices with proactive standard operating procedures, such as Management of Change (MOC) and Permit to Work (PTW) programs. Our combined health and safety regulations and operating standards keep our safety record above par.

## SAFETY STANDARDS

### ENTRANCE AND PROPERTY SECURITY

Anyone entering or leaving our site, no matter whether they are SGS employees, clients, contractors or delivery services, must individually sign-in and sign-out through our security gate. Fencing and barbed wire surrounds our entire property and our gate is guarded 24 hours a day, seven days a week. The guaranteed protection of our facilities, and your data and IP security, is an important consideration for us.



**SITE ORIENTATIONS**

SGS senior management is very involved in the safety program at Fort MacKay. Here our Managing Director of Canadian Operations reviews the safety orientation with our Canadian Director of Safety. Before going onsite, all visitors and staff must attend to the safety orientation protocol.



**PERSONAL PROTECTIVE EQUIPMENT**

On the plant floor, our employees and visitors must wear personal protective equipment (PPE) at all times. Mandatory personal protective equipment includes a hard hat, steel-toed boots and safety glasses. We also supply Tyveck and reflective suits, coveralls, flame retardant clothing and gloves when needed.



**ABSA INSPECTION, CERTIFICATION AND TESTING**

The SGS facilities in Alberta are certified, tested and inspected under the codes developed by ABSA (Alberta Boilers Safety Association). ABSA is the leading pressure equipment safety authority for the province of Alberta. All of ABSA's programs are implemented with strict adherence to regulations enforced by legislation.



**MANAGEMENT OF CHANGE**

SGS facilities in Fort McMurray and Fort McKay adhere to a strict code of change implementation. The Management of Change (MOC) procedure is an essential risk assessment process used to determine hazards and evaluate risks associated with changes and modifications. Management ensures that all changes and modifications are covered by an MOC review, regardless of size, cost or duration.

For any major process changes that are initiated, SGS uses a HAZOP procedure. The HAZOP procedure identifies hazards and operability problems associated with an operation or structure. This procedure ensures each project undergoes a safety review and that the minimum safety standards are built into the project design.



**PERMIT TO WORK STRUCTURE**

Our Permit to Work (PTW) structure is a management system that controls different jobs/activities preformed by controlling risk, clarity, authority and responsibility. The PTW is a standardized and audited procedure followed by all employees and contractors. The four types of work permits that SGS utilizes are general, cold-work permit hot-work permit and vehicle entry.



**FIELD LEVEL RISK ASSESSMENT PROCEDURE**

SGS has incorporated the Field Level Risk Assessment (FLRA) procedure into our Health and Safety code. This procedure is completed whenever a new procedure, or piece of equipment, is introduced to the facilities. It is designed to eliminate all possible hazards and reduce risk. All employees must complete this procedure.



**EMERGENCY RESPONSE EQUIPMENT**

In the unlikely event of a fire, Emergency and First- Response safety stations are located at all plant exits. Fire extinguishers, a fire blanket and a first aid kit are available for easy access. Self Contained Breathing Apparatus (SCBA) equipment is also on-site and ready for emergency response situations. All members of the Response Team are certified and trained in its use.



**EMERGENCY RESPONSE PROCEDURE**

Evacuation Drills are conducted on a bi-weekly basis. This is to ensure that evacuation procedures are carried out according to standard. During an evacuation drill, or an actual emergency, all staff and visitors gather at Muster Point. In order to certify that all those on-site are safe and accounted for, a roll call is performed.

Our Fort McMurray Emergency Response Team liaises with the local Fire Department and local operators. They work together to ensure security and safety in the event of an emergency. Actions outlined in the Emergency Response and Evacuation Procedure are followed directly, in order to respond to every emergency situation in a safe, effective, efficient and controlled manner.



**MANAGED FOR SAFETY**

**DAILY PROGRAM STATUS**

Keeping safety top-of-mind at all times is critical to safe performance. Joint health and safety committee meetings are held on a regular basis to verify that all operating procedures are being enforced. Members of the joint committees cover all departments, including maintenance, operations, safety and management. No component of the facilities goes unevaluated.



**SAFETY LOCK-OUT/TAG-OUT SYSTEM**

We use an industry-standard and audited isolation safety lock-out/tag-out system, to prevent injury or damage, in the event of an accidental power-up. Safety locks are tagged to provide a DANGER warning against usage. The safety locks/tags are primarily attached to electrical boxes, unsafe equipment and hazardous waste containers. This is part of our safe work-permit procedures and the field-level risk assessment.



**CAUTION TAPE**

During orientation, staff and visitors are coached on the meaning of barricades and signage. Caution tape is commonly used to designate an area as dangerous and to prevent entrance into the unsafe zone. This ensures that areas of temporarily higher safety standards are easily identified. Signs are also placed at areas surrounded with caution tape as an extra preventative measure to avoid injury and damage avoidance. We want to ensure that areas are controlled and injury is prevented.



**LABELING: MANDATORY REQUIREMENTS FOR ACCESS**

Safety and security labeling is posted at the entrance door to all our buildings. These labels outline mandatory Personal Protective Equipment (PPE) requirements needed in that area. All labeling is in bold and/or bright print to maximize appearance. Staff and visitors must observe these warning signs and related specific directions.

**ACID AND HAZARDOUS MATERIALS STORAGE CABINETS**

Corrosive and hazardous acids, such as H<sub>2</sub>SO<sub>4</sub>, are segregated into an acid storage cabinet, located at the northwest corner of the pilot plant, near an exit door. Eye protection (visor) and an eye-wash station are immediately adjacent to the cabinet. Safety documentation and protocols for safe use of these materials are appended to the door.



**CONSTANT RADIO CONTACT**

Staff on the plant floor are constantly in radio contact with the Control Room. This ensures that there is immediate response to all operational and safety needs. Clear and quick communication is vital for maintaining a high level of security. designed for Safety



**BUILDING ENGINEERING**

With all of the activity going on in each plant, it is vital that every risk for injury is avoided through preventative engineering. Our on-site buildings are strategically designed and engineered to assure that all activities operate properly and within a secure environment. We built our facility using the Plug and Play approach to piloting. Our facilities, services, utilities and equipment are designed to allow quick additions or swap-outs water availability, electrical and instrumental quick connects and services, while maximizing safety.



**METAL GRATE COVERING FOR MACHINERY**

Moving mechanical parts, such as drive shafts, are covered with metal grates to prevent accidental injury. The grates protect clothing, body parts and loose articles from becoming lodged or pulled into active machinery.

**CAGED LADDERS AND SAFETY WIRES**

Access to all of our deck-mounted equipment is protected by caged ladders. These ladders ensure that if anyone should slip, they will not fall off and risk severe injury. Furthermore, at the top of our caged ladders, the decking is grated to ensure a secure foot hold. A positive latching gate controls access to the ladder and minimizes the chance of falling down the access way. Safety wires surround the caged ladders, providing additional protection against falls, slips or injuries.



**SAFETY SHOWER MODULE AND COMPONENTS**

Our skid-mounted safety shower module is a self-contained unit; with its own quick connect water hose-reel. Inside the safety shower module, there is a shower and eyewash station with a clean temperate water supply (white tank). When pressed, the emergency alert button, visible in the lower right, activates the red flashing light shown in the top of the preceding picture, which alerts others that a serious situation requires immediate attention.

**WALKWAY OVERHEAD PROTECTION**

Oil sands ore is moved from building to building via a heavy duty conveyor belt. The conveyor belt delivers the ore material from inside the plant to outside, or from building to building. We have covered walkways between the buildings to avoid the risk of injury or damage from falling materials.



**ENVIRONMENTAL CONTROLS**

The sump system allows us to quickly dispose of plant materials, and pump them to the appropriate part of the plant. All material enters the sump system through metal grates located in the middle of the floor. The material is then filtered through an underground sump tank and disposed of according to SGS policy. Excess water is recycled for reuse in plant facilities and solid waste is treated and then disposed of as appropriate.



**CONTACT INFORMATION**

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WHEN YOU NEED TO BE SURE

