Scotford

HEALTH, SAFETY, SECURITY AND ENVIRONMENT

RULES & REGULATIONS

Revision August 2018

Shell's Golden Rules

It is your responsibility to follow the HSE Golden Rules:

- **Comply with the law, standard, and procedures**
- **Intervene in unsafe or non-compliant situations**
- **Respect our neighbours**

The Rules that Save Lives

Follow the Life Saving Rules so that everyone gets home safely.

Work with a valid Work Permit when required

Conduct gas tests when required

Verify isolation before work begins and use the specified life protecting equipment

Obtain authorization before entering a confined space

Obtain authorization before overriding or disabling safety critical equipment

Protect yourself against a fall when working at height

Do not walk under a suspended load

Do not smoke outside designated smoking areas

No alcohol or drugs while working or driving

While driving, do not use your phone and do not exceed speed limits

Wear your seat belt

Follow prescribed Journey Management Plan

Key Contact List

EMERGENCY	(780) 992-3666
SECURITY	(780) 992-8999
HEALTH CENTER	(780) 992-3946
FIRE HALL	(780) 997-6333
BREATHING AIR CENTRE	(780) 992-3933
SLIP & SLIDE HOTLINE	(780) 992-2424
SITE SHUTTLE BUS	(780) 997-4666
FACILITIES HOTLINE	(780) 992-2424
SHELL SITE SUPERVISOR	(780) 992-5884

This Handbook belongs to:

_____

My Shell Contact is:_____

Phone :_____

Passport ID: _____

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1.0 OVERVIEW

1.1 Introduction

At Shell Scotford our Goal Zero values include protecting our people and our environment - no harm, no leaks, no excuses.

Achieving Goal Zero in personal safety starts with each of us truly committing to work safe and keep our coworkers safe every day – no excuses. The Life Saving Rules and the Golden Rules presented in this handbook must be followed. These rules are key enablers for each of us to achieve Goal Zero so that we can return home to our families safely, every day.

Achieving Goal Zero in our environment starts with each of us truly committing to not harming our environment – no excuses. Our site processes and procedures provide the guidance we need to achieve our Goal Zero aspirations of no leaks so we can protect our planet for the generations to come.

Shell conducts its business in a manner that meets or exceeds legislative requirements pertaining to health, safety and the environment. All Shell employees and contractors are expected to execute their work in a similar manner. The health & safety rules and associated Safe Work Practices referenced in this handbook are consistent with regulations under the Alberta Occupational Health and Safety Act, Regulation and Code.

At Shell Scotford, protecting our people and our environment is our top priority. It is imperative that each individual owns their personal safety, the safety of their fellow workers, and the preservation of our environment.

General Manager
Scotford

1.2 Orientation

Orientation is required for all personnel entering the site.

The following table defines which level of orientation is required at the Scotford Site:

Level	Requirements	Repeat after	Training
Visitor	Visitors, Vendors, Hot Shots, Equipment/ Material Drop off/Delivery • Cannot receive or be on a safe work permit • (No Hands-on Work) • Requires an escort with full site orientation	90 Days	Available at Security
Full	• Full time Shell Employee or Contractor • Any persons performing work -Truck drivers requiring permits to off-load or to load (There may be exceptions on a case by case basis, HSSE department to evaluate)	Repeat if there has been an absence of ≥1 year.	In class training only North Hub 52 Complex

- The full orientation allows people to sign on to permits, not receive or issue.
- If a person is required to issue or receive a permit, they must also complete the Permit Issuer/Receiver training.

1.3 Shell Canada Health, Safety and Environmental Policy

Shell Commitment and policy on Health, Security, Safety, the Environment and Social Performance.

Commitment

In Shell, we are all committed to:

- Pursue the goal of no harm to people;
- Protect the environment;
- Use material and energy efficiently to provide our products and services;
- Respect our neighbours and contribute to the societies in which we operate;
- Develop energy resources, products and services consistent with these aims;
- Publicly report on our performance;
- Play a leading role in promoting best practice in our industries;
- Manage HSSE & SP matters as any other critical business activity; and Promote a Culture in which all Shell Employees share this commitment.

In this way we aim to have an HSSE & SP performance we can be proud of, to earn the confidence of customers, shareholders and society at large, to be a good neighbour and to contribute to sustainable development.

Policy

Every Shell Company:

- Has a systematic approach to HSSE & SP management designed to ensure compliance with the law and to achieve continuous performance improvement;
- Sets targets for improvement and measures, appraises and reports performance;
- Requires Contractors to manage HSSE & SP in line with this policy;
- Requires joint ventures under its operational control to apply this policy, and uses its influence to promote it in its other ventures;
- Engages effectively with neighbours and impacted communities; and
- Includes HSSE & SP performance in the appraisal of staff and rewards accordingly.

Originally published in March 1997 and updated by the Executive Committee December 2009.

1.4 Commitment to Responsible Care® Ethic and Principles for Sustainability.

As a member of the Chemistry Industry Association of Canada (CIAC), Shell Chemicals Canada Ltd. fully supports the Responsible Care® Ethic and Principles for Sustainability and the Codes of Practice under which it is implemented. These principles and codes complement and reinforce our commitment to identify and manage health, safety and environmental issues associated with our chemical business.

The Responsible Care® Ethic and Principles for Sustainability

We are committed to do the right thing, and be seen to do the right thing. We dedicate ourselves, our technology and our business practices to sustainability - the betterment of society, the environment and the economy. The principles of Responsible Care® are key to our business success, and compel us to:

- Work for the improvement of people's lives and the environment, while striving to do no harm;
- Be accountable and responsive to the public, especially our local communities, who have the right to understand the risks and benefits of what we do;
- Take preventative action to protect health and the environment;
- Innovate for safer products and processes that conserve resources and provide enhanced value;
- Engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life-cycles;
- Understand and meet expectations for social responsibility;
- Work with all stakeholders for public policy and standards that enhance sustainability, act to advance legal requirements and meet or exceed their letter and spirit;
- Promote awareness of Responsible Care, and inspire others to commit to these principles

1.5 ISO 14001

The Shell Scotford facility is ISO 14001 certified, that is, our Environment Management Systems (EMS) meet the requirements of the international standard. The significant environmental aspects at Scotford are:

- Emissions to Air
- Surface Water
- Use of Resources
- Land Issues
- Material Use
- Products/ Byproducts
- Surrounding Community
- Wildlife
- Waste
- Neighbours/ Community

1.6 ISO 9001

The ISO 9001 is the international standard for Quality Management Systems Requirements. The scope of this certification at Scotford is for the operation of process units which are Ethyl Benzene [EB]/Styrene Monomer [SM] and the Ethylene Oxide [EO]/ Ethylene Glycol [EG] plants and the storage and transfer of petrochemical products. Chemicals site is ISO 9001 certified. As per the standard, the facility:

- Needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and
- Aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to

customer and applicable statutory and regulatory requirements.

1.7 Process Safety Fundamentals

PSF 1: Always use two barriers for hydrocarbon and chemical drains & vents

PSF 2: Do not leave an open drain or critical transfer unattended

PSF 3: Take interim mitigating measures in case of failure of Safety Critical Equipment

PSF 4: For all defined high risk activities, follow the procedures and sign off after each step

PSF 5: Walk the Line – Verify and validate any line up change

PSF 6: Do not make a change without a proper MOC

PSF 7: Verify for complete tightness after maintenance work

PSF 8: Always check that equipment is pressure free and drained, and provides safe isolation before starting maintenance work

PSF 9: Perform MOC and install backflow protection when connecting utilities to process

2.0 THE RULES THAT SAVE LIVES

Rule 1: Work with a valid work permit when required

The Safe Work Permit (Permit) system at Shell Scotford (SCT) is in place to ensure safety of personnel who perform work in Production and Non-Production Zones. **Refer to Safe Work Practices 0001 and 0014**

Permit Requestor must:
Communicate to the Permit Issuer the nature and scope of the work and special equipment required.

Permit Issuer must:
Communicate to the Permit Holder the Hazards at the work site and the Controls required to manage them as detailed on the permit.

Permit Receiver must:
Communicate information on Hazards, precautions, action in the event of Emergency and changes to work conditions or work scope to the members of your work party.

Rule 2: Conduct gas tests when required

Testing for toxic contaminants, oxygen deficiency/ enrichment and lower explosive limit ("LEL") are main considerations prior to performing work. **Refer to Safe Work Practice 0007**

Permit Issuer must:
Verify that atmospheric conditions are safe before issuing a permit for work and are maintained throughout the work as detailed on the permit.

Authorized Gas Tester must:
Test for gas or hazards at the intervals specified in the work permit; and stop the work or take appropriate action to intervene if atmospheric conditions deviate from what is agreed in the work permit.

Persons carrying out work must:
Confirm with the Supervisor or person in charge of the work that the air has been tested and it is safe to start work. Stop work if gas is detected.

Rule 3: Verify isolation before work begins and use the specified life protecting equipment

Isolation separates you from dangers such as electricity, pressure, toxic materials, poisonous gas, chemicals, hot liquids or radiation to keep you safe. Life protecting equipment specified in the work permit, such as breathing apparatus, electrical arc flash protection or chemical resistant suits, protect you from danger. This equipment is a back-up if the isolation fails. Examples of isolation include process isolation, mechanical isolation and electrical isolation. **Refer to Safe Work Practices 3304 and 4404**

Permit Issuer must:
Control isolation and control placement and removal of locks and tags by using the following steps:

1. Shut equipment down and remove or drain any sources of stored energy.

2. Isolate equipment from hazards: either disconnect equipment or install or operate isolation devices as close as possible to the equipment being worked on.
3. Install blinds or place locks and completed tags at isolation points to make it clear to anyone who wants to use or work on the equipment that it is isolated.

Use locks and tags that: identify the person placing the lock and tag and the time the tag was placed; are readily identified as being only used for isolation; and are substantial, weatherproof and secure enough to prevent unauthorized or inadvertent removal.

Verify that the equipment is properly isolated and that no stored energy or hazards remain; Confirm that it is safe to start work;

Require, after the work is complete, each person to remove their individual lock, and the person(s) authorized to remove the tag or tags, following an agreed plan to remove isolation and tags;

Tell the people affected what equipment has been put back in service or energized; and when the work is complete, tell the affected people about the plans to remove isolation and put equipment back in service.

Persons carrying out work must:

Never start work before the Permit Receiver has informed you of the hazards and the precautions to take; and wear Personal Protective Equipment as per the work permit.

Rule 4: Obtain authorization before entering a confined space

A confined space such as a vessel, tank or pipe can contain explosive gas, poisonous air, or other dangers such as a lack of oxygen. Authorized access keeps you safe.

An authorization to enter a confined space ensures that the atmosphere is not flammable, the air is safe to breathe, and the physical conditions are safe. **Refer to Safe Work Practice 0002 and 0007**

Permit Issuer must:

Verify that the confined space is isolated from all potential sources of hazardous material and energy, including radiation, before issuing the work permit;

Instruct an Authorized Gas Tester to check that atmospheric conditions meet specified criteria for oxygen level, toxic and flammable substances before entry and are maintained throughout the work, before issuing the work permit;

Allow entry into confined spaces, with respiratory protection, only when the source, nature and concentration of the hazardous atmosphere are understood;

Verify that lighting in the confined space allows Entrants to see well enough to work safely and to exit the space quickly in an Emergency;

If contaminants or heat in the Confined Space can affect Entrants' health, provide a Plan for ventilation or other Controls prior to Entry, list the Controls with the permit, and verify that the Controls are put in place;

Indicate the entry points to be used and barricade or use signs at all other openings to prevent unauthorized Entry;

Include in the permit the Controls required to manage the Risks from any energy sources used inside the Confined Space; Station a-Monitor outside the Confined Space at all times while people are in the Confined Space; and

Ensure a rescue Plan is in place for recovering people from the Confined Space.

A Confined Space Monitor (safety watch) must:
Track who entered and left the confined space;

Monitor the confined space from outside at all times while people are inside;

Maintain contact with people in the Confined Space at all times;

Approve and control access to the Confined Space; and

Have means of communication with people in the Confined Space.

Persons carrying out the work must:

Confirm with the Monitor that you can enter a Confined Space;

Never start work before your Supervisor / the Permit Receiver has informed you of the hazards and precautions to take; and

follow the requirements of the work permit.

Rule 5: Obtain authorization before overriding or disabling safety critical equipment

Safety critical equipment must work correctly to keep you safe. Examples of safety critical equipment include Isolation devices/emergency shutdown valves, trip systems, relief valves, fire and gas alarm systems, certain level Controls, alarms, and crane computers. **Refer to Safe Work Practice 0001BU (Upgrader), 0011 and 0012 (Manufacturing).**

Supervisor or Person in charge of work must:

Confirm that the authorization comes from the right level.

Persons carrying out the work must:

Obtain authorization from the Supervisor or person in charge of the work before overriding or disabling safety critical equipment.

Always consult your Supervisor if in doubt.

Rule 6: Protect yourself against a fall from when working from heights

Fall protection must be in place if there is the potential to fall a vertical distance of equal to or greater than 1.8m (6.0ft) or when there is an unusual possibility of injury from a lesser height.

When personal fall protection is used, 100% tie-off is required at Scotford site. “Y” lanyards allow a worker to attach to a new anchor point, while the other is still attached to the original anchor point when transitioning.

Fall protection must be used on any pitched roof regardless of the proximity to the unguarded edge or within 2m of an unguarded edge of a flat roof or work platform. Pitched Roof is a roof with a slope greater than 4° or 7% (0.84" in 12").

Supervisor or person in charge of the work must:
Determine if work can be done in a way that better controls the risk of a fall, by applying the Hierarchy of Controls.
Confirm that it is safe to start work at height.

Workers carrying out the work must:
Be aware of what Fall Protection Equipment to use as specified on the permit and how to use it.

Tie off personal Fall Protection Equipment to an acceptable anchor point, using a fit-for-purpose harness and lanyard.

All personal fall protection equipment is required to be certified annually and inspected by the user prior to each use. Workers required to use personal fall protection must be trained to Shell standards.

Fall Distance Calculator on back inside cover of book.
Refer to Safe Work Practice 4414

Rule 7: Do not walk under a suspended load

Working or walking under a suspended load is unsafe, because the load has potential to fall on the worker. The following are exceptions that are not considered a suspended load: Nylon or Kevlar® slings alone on hook for travel to work area, and a load that is that is secured by setting the load on cribbage or blocking.

The boom and hook are not considered part of the suspended load. **Refer to Safe Work Practice 4412 and 6604**

Persons at the worksite must:
Never cross a barrier or enter an area with suspended loads without the clear agreement of the signal-person or the person in charge of the lift.
When you participate in a lift operation, make sure you:

Are in a safe position in case the load falls or swings.

Understand the signaling methods and agreed communication methods as detailed in the FLRA.

Are not under the load unless it is specifically authorized in the approved lift plan.

Signal-person or person in charge of the lift must: Make sure the lift area is controlled (mark the high-risk areas and put barriers in place 3D) and everyone is clear if the load swings or falls.

Make sure those participating in the lift fully understand the applicable lift procedure.

Rule 8: Do not smoke outside designated smoking areas

Smoking or using matches or cigarette lighters could set on fire flammable materials. Designated smoking areas such as a smoking hut or a smoking room will keep you safe from causing fire and explosion. Electronic-cigarettes constitute both an ignition source and a health hazard and are treated the same as regular cigarettes and in line with the Life-Saving Rules. **Refer to Safe Work Practice 6610**

Supervisor or person in charge of the work must:
Inform people about designated smoking areas; and ensure that designated smoking areas are clearly marked.

Persons carrying out the work must:
Always know where the designated smoking areas are; and intervene if you see someone smoking outside a designated smoking area.

Rule 9: No alcohol or drugs while working or driving

Working or driving while under the influence of alcohol, drugs, narcotics or medications could impair your performance and is unsafe.

Using alcohol or illegal drugs, or misusing legal drugs or other substances, will reduce your ability to do your job safely. **Refer to Safe Work Practice 4403**

Supervisor or person in charge of the work must:
Assign work only to employees who are fit to work;

Refer an employee who has a substance abuse problem and voluntarily comes forward to seek help to Shell Health;

Test the presence of alcohol and drugs if there are good reasons to suspect impaired performance as a result of alcohol or drug abuse; and

Ensure that all workers are aware of the Alcohol and Drugs policy.

Persons carrying out the work must:

Inform your Supervisor if you are taking medicine that may have an effect on your performance.

Note: You are not required to disclose to your Supervisor either your medical condition or the specific medication you are taking.

If in doubt, check with your Supervisor, who may seek medical advice;

Do not use, keep, sell or distribute illegal drugs;

Do not ignore a case of alcohol or drugs abuse if you witness one.

Rule 10: While driving, do not use your phone and do not exceed speed limit

Speeding or using your phone while driving increases the risk of losing control of your vehicle.

Use of a communication device includes making a call, answering a mobile phone or pager, sending or reading a text message, using a hands-free mobile device (e.g., Bluetooth) or a two-way radio.

Two-way radios and mobile phones may be used in vehicles in the following situations:

- In case of emergencies and/or personal safety or security situations;
- As part of convoy management, not including shuttle buses;
- Only in safe areas and at safe driving speeds during either an emergency or time sensitive operation, when needed to maintain safe control of equipment or processes; and the communication is of short duration during the emergency.

Refer to Safe Work Practice 4403

Drivers must:
Not use a mobile phone or pager, send or read a text message, use a hands-free mobile phone device, or use a two-way radio while driving a vehicle. This includes not using whilst waiting in traffic, e.g. at lights or in a traffic jam,

Stay below the maximum allowable speed for the road you are driving on, as indicated by road signs or instructions;

Stay below the maximum allowable speed for the vehicle you are driving and adjust your speed to the prevailing conditions.

Passengers must:
Intervene if a Driver is using a phone or other communication device during a journey.

Intervene if a Driver is exceeding the maximum allowable speed.

Rule 11: Wear your seatbelt

A seat belt protects you from injury in the event of an incident while driving, and keeps you safe. Wearing seat belts includes three-point seat belts in passenger vehicles and lap belts in cranes, forklift trucks and other four or more wheeled motorized vehicles **Refer to Safe Work Practice 4403**

Drivers and Passengers in passenger vehicles must:
Always use a three-point seat belt;

Check that your seat belt works properly;

Keep your seat belt properly fastened while in a moving Vehicle;

Check that everyone in the Vehicle is wearing a seat belt properly before starting to drive; and

Intervene when your fellow passengers are not wearing seat belts properly.

Rule 12: Follow the prescribed Journey Management plan

A Journey Management Plan (JMP) is a Plan for you as a Driver that will help you to travel and arrive safely. **Refer to Safe Work Practice 4403**

3.0 SCOTFORD SITE RULES

3.1 Clean Building Policy

At Scotford, we want to ensure that we maintain the healthiest work environment that can be achieved. One way of accomplishing this is ensuring that the generation and spread of contamination from industrial materials is minimized wherever possible. This prevents unnecessary exposure to chemicals, insulation, dusts, and other materials that may impact people's health.

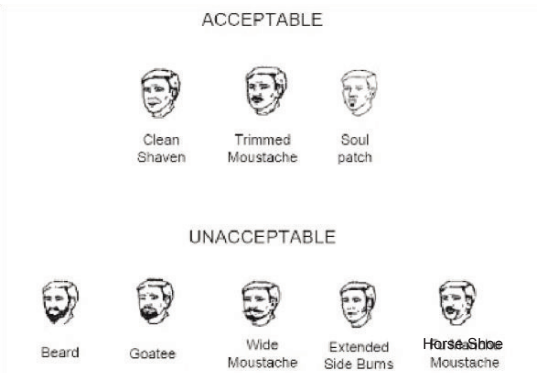
Contamination prevention at Scotford includes the following:

- No soiled and/or contaminated coveralls (or other clothing), hard hats, or gloves, footwear are permitted in any eating area or the health center.
- Mats are provided at doorways of permanent buildings. It is expected that contamination such as dried mud, etc. is wiped off on these mats.
- Boot Cleaners (straight edge and stationary bristles) are provided at some building entrances for boot cleaning.
- If personal clothing becomes excessively contaminated, it is to be removed and laundered at Scotford. Special arrangements can be made through your Shell contact.
- Contaminated skin is to be cleaned immediately. Know where your washing facilities are including emergency resources such as showers and eyewashes.
- Work clothing should be removed prior to entering a personal vehicle. Don't bring contamination home to your family/friends.

3.2 Clean Shaven

The Scotford Site has a Clean-Shaven Policy for anyone entering a Process area, anyone doing work where the use of Respiratory Protective Equipment (RPE) may be required or those located in areas where donning of RPE in an emergency (i.e. Control Room building residents) may be necessary.

- No beards
- Side burns must be neatly trimmed and cannot extend greater than ½" below the earlobe.
- Moustaches must be trimmed to the corners of the mouth
- Soul patches must be neatly trimmed and cannot extend greater than a 1" square below the bottom lip.



3.3 Hair, Body Piercings and Jewelry

Hair longer than collar length must be tied back as it may catch in or on equipment and machinery. (example maintenance shops, rotating equipment)

Body piercings that interfere with PPE (SCBA masks, etc.) must not be worn on site.

All jewelry (rings, chains, etc.) that may catch in or on equipment or machinery should not be worn.

3.4 Horseplay & Conduct

Horseplay, rowdiness, practical jokes, and fighting have absolutely no place at Scotford and are grounds for disciplinary action and/or removal from the site. Running is prohibited.

3.5 Language

English is the operational and instructional language at Scotford. When an employee or contractor employee cannot read or understand English, the supervisor is responsible for ensuring that the employee understands all Health, Safety, Security and Environment rules and regulations and emergency plans.

3.6 Smoking and Lighters

Do not smoke outside designated smoking areas, this includes the use of E-Cigarettes (Refer to section 3.7)

Smoking in personal vehicles while on the access road or parking lots is allowed.

Only safety matches and lighters with enclosed mechanisms (Zippo type) are permitted. Strike anywhere matches, open mechanism lighters and disposable butane lighters are not allowed.

"Strikers", as used by trades people to ignite cutting/ welding equipment are confined to approved Hot Work areas and must not be carried on the person. **Refer to Safe Work Practice 6610**

3.7 Portable Electronic Products (PEPs)

PEPs are devices such as: cell phones, portable computers, pagers, personal gas detectors, portable media players, laser pens, flashlights, cameras, personal medical devices, car key fob, smart watches, e-cigarettes, etc.

Non-approved PEPs such as cell phones (on or off) taken into process areas must be controlled and specifically listed on a hot work permit. The only exceptions to this are those on the list approved by the electrical department.

If you are using an intrinsically safe device, it must be approved by the Shell Electrical department and listed on the approved PEP list.
Refer to Safe Work Practice 4410

3.8 Personal Protective Equipment (PPE)

Standard PPE is required at Scotford includes Shell approved hardhat, safety footwear, safety glasses with side shields, gloves and fire-retardant clothing (FRC) with long sleeves.

FRC with reflective stripes is to be worn as the outer layer. The worker must ensure flame resistant or natural fiber clothing (e.g. cotton) is against the skin. Hardhat liners, balaclavas, and neck warmers are required to be FRC.

Boots, gloves and other specialized safety PPE are not required to be FRC rated. FRC should not be

taken or worn home due to potential for contamination.

Hearing protection (CSA Class A) is required within all process areas except for the Tank Farm areas. Additional areas may be posted to require the use of regular or double hearing protection. Hearing protection may be required in non-process areas and parts of the tank farm where noise levels are greater than 85 dB (A).

Further information and guidance on PPE is available in the Scotford PPE manual.

Standard PPE Exceptions are:

1. No PPE is required in control rooms or offices except while carrying out maintenance or project work. FRC must be worn in PU6, PU7, and PU8 control rooms.
2. No PPE is required while transiting to and from the change room and/or the parking lot at the beginning and end of the shift.
3. **Maintenance Shops:**

- No hardhats required unless working with overhead crane or imminent overhead danger exists.
- Safety glasses are the only PPE required if staying within the yellow and green lines.

4. **Warehouse:**

- Only safety glasses are required to access the issue counter.

5. Individuals may perform tasks without gloves only after performing a written risk assessment (FLRA) to justify sufficient controls are in place to prevent injury.
6. Footwear requirements outside of Production Zones.

- Safety Boots are required to be worn in trailer complex areas when performing 'work' as defined by applicable safe work practice.
- Open-toed footwear (e.g. Sandals, flip flops) and footwear exceeding 1.5” heel height is not permitted outdoors onsite including the North Hub (i.e.: when walking to/from trailer complex areas or designated smoking areas; or when walking to/from the control buildings at beginning & end of shift; to/from parking lots)
- Scotford site requires closed toe footwear with a heel less than 1.5”. The requirement for closed toe shoes and less than 1.5” heel height does not apply inside control rooms and Administration Buildings; however, it is strongly recommended that people wear suitable footwear at all times.

7. Site Shuttle Bus Requirements:

- While riding the shuttle bus on site, passengers are required to wear the standard PPE for the Scotford site.
- Exceptions: when transiting to buildings at beginning of day and when leaving site at end of work day
- The standard Scotford PPE is NOT required when taking the shuttle outside of the site (i.e. Admin North doors to North Hub, SAC, Chemicals, Admin via Range Road 214)

8. Traction Aids

- During winter weather conditions, until slip hazards (snow/ice) are removed, traction aids must be worn. This includes parking lots.
- When issuing/receiving a permit and/or completing a FLRA, under “Additional PPE Req.” section, there will be a conversation about work area ground conditions and

traction aids are required until slip hazards (snow and/ or ice) are removed.

- For all workers not working under a permit or FLRA, accountability is on the individual to wear traction aids until slip hazards (snow and/ or ice) are removed.

3.9 Visitor PPE

- Site visitors with no requirement to enter a process area standard PPE is not required if transported in a vehicle. (roadways, control rooms, trailers, etc.). This will be at the discretion of the Shell Safety department.
- Standard PPE is required in Process Areas.

3.10 Site Age Restriction

No person under the age of 14 years is permitted beyond access points controlled by Scotford Security, including the North Hub, Recreational Vehicle lot, and Quest wells. However, a person under the age of 14 years may be permitted beyond access points controlled by Scotford Security if accompanied by an employee at all times, and written authorization from such employee's responsible line manager has been obtained and provided to Scotford Security. All requests must be made to the SCT Security mailbox.

3.11 Vehicles/Spotters/Bicycles/Pedestrians

Vehicles:

The speed limit is 30 km/h unless otherwise posted.

- All parking lot speeds are 20 km/hr.
- Use of seat belts is mandatory.
- Cell phones (including hands free) or two-way radios must not be used by the driver of a moving vehicle. If you need to take a call, pull

over (where appropriate) and take the call. **Refer to SWP 4403** for exceptions.

- Park only in designated parking spots. All parking lots are park at your own risk.
- Road closures require the completion of a Fire Protection Authorization Form
- Vehicles not equipped with backup alarm must sound the horn three (3) times prior to backing up.
- Vehicles must be equipped with a B/C fire extinguisher

No one shall park vehicles in a manner that will block roads, gates, doors, fire hydrants or in any way hinder access to firefighting or other emergency equipment. Entry into operating areas by vehicles is strictly prohibited unless authorized under a Safe Work Permit.

Vehicles parked within plant areas must be left with keys in the ignition turned off.

Keys do not have to be in place for vehicles parked in Administration building parking lot and in properly marked parking spots unless otherwise posted. Unattended vehicles will only be allowed to leave their motor running in cold weather long enough to clear windows and warm up. The exception is emergency vehicles.

The following conditions must be adhered to

- The vehicle is parked in a designated parking spot (Administration building, control rooms, maintenance shop).
- Transmission is put in “park” for automatic or “neutral” for standards with parking brake applied.

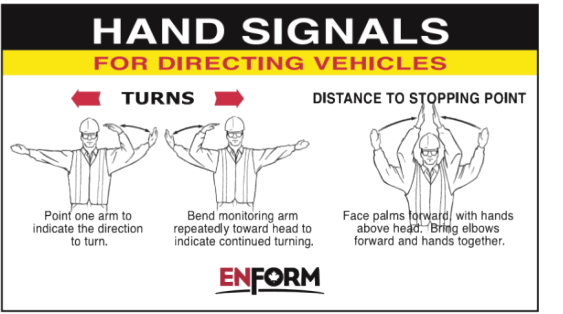
- Personnel are not permitted to sleep in parking lots or staging areas on Scotford property.
- Vehicles left idling must have park brake applied.

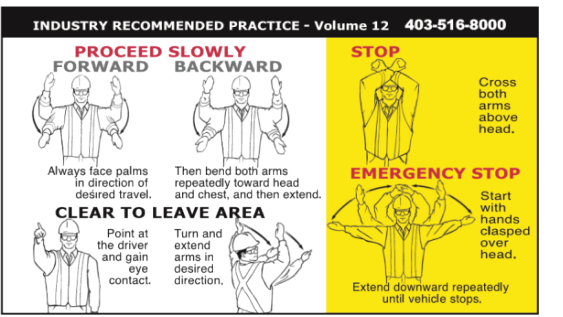
Refer to Safe Work Practice 4403

Spotters

Spotters are required when backing up if there are 2 or more people in the vehicle as per the Safe Work Practice 4403.

When operating a vehicle or powered mobile equipment within two (2) meters of production equipment, the driver will be guided into position by a spotter.





Bicycle Operation

Bicycles must be operated safely and adhere to the same traffic rules as vehicles. The bike must be inspected prior to use. Personnel riding bicycles must wear a hardhat with chin strap. Bicycles operated in Production Zones must exercise extreme caution. Light loads may only be carried in the basket. Cell phones and radios are not allowed to be operated while riding a bicycle. **Refer to Safe Work Practice 4418**

Pedestrians

When walking along roadways you must follow the below guidelines:

- Walk facing traffic unless there is a designated walkway established.

3.12 Food and Drink

Food and Drink are not permitted in Process Area (BRMs exempt). **Refer to Safe Work Practice 6608** for exceptions.

4.0 EMERGENCY PROCEDURES

4.1 Emergencies

Report all emergencies (fire, serious injury, spills, explosions, etc.) by:

- Emergency telephone number (780) 992-3666
- Radio “Emerg” channel
- In person at Security
- Emergency phones in process units
- In person to an Operator
- Emergency pull stations (if available)

Provide the following information:

- Your location (include street address, unit, equipment number if known)
- The nature and location of the emergency
- Your name

Ensure that a team member meets the emergency vehicles to direct them to the location if safe to do so.

After contacting emergency services, Operations must be notified immediately of any emergency/ incident in a process area.

Phone

Pull Station

4.2 Emergency Action

4.2.1 Site Emergency Assembly Alarm

The alarm, when sounded, is an electronic siren that changes pitch (like an emergency vehicle siren).

PERSONNEL ACTIONS

When the Site Emergency Assembly Alarm is activated:

- All work must be immediately shut down and if safe to do so, any ignition source neutralized.
- All vehicles (except for vehicles working under the direction of Emergency Services) must be pulled over to the side of the road and shut off. Keys must be left in the ignition.
- Check wind direction via wind socks, flags, smoke stacks, etc. Always walk cross wind or upwind if source is known and toward the nearest Emergency Assembly Area.
- Walk on roadways or designated pathways, and do not cut through process areas or barricaded roads.
- All site personnel must report to either an Emergency Assembly Area (identified on site map) or a Site Assembly Reader station (within buildings).

1) Swipe your site access card on a Site Assembly Reader (inside or outside)
2) One person at the Emergency Assembly Area must be assigned to answer the phone/radio. The Emergency Operations Centre will be contacting each Emergency Assembly Area.
3) Remain at the Emergency Assembly Area or within the building with the Site Assembly Reader station, unless directed by Emergency Services or the ALL CLEAR siren sounds.

- If the reader is malfunctioning or anyone at an Emergency Assembly Area is without their swipe card, the assigned person shall record those names. When contacted by the Emergency Operations Centre, provide information.

This procedure applies to Site Emergency Assembly situations and intended to help facilitate a quick efficient head count of all site personnel.

4.2.2 All Clear

The “All Clear” is a solid or flat signal that is sounded for approximately 30 seconds. When the “All Clear” is sounded, all non-process personnel must obtain permission from Production to re-enter an operating area. **All Permits (both copies) must be revalidated** before any work is continued. The “all clear” only occurs after a Site Emergency Assembly Alarm.

4.2.3 Unit Alarms (Local Alarms)

Unit alarms alert people of a hazardous event in a unit. There are many local emergency alarm systems associated with the Process Units (local

siren or horn). Alarms are activated by automated detection systems, or manually.

UNIT ALARM BEACONS

Different beacons have different meanings:


Red Beacon – fire alarm


Blue Beacon – toxic gas alarm/O2 deficient


Yellow Beacon – ventilation alarm

MEG Alarm sounds like a church bell and has red lights.

PERSONNEL ACTIONS

If you are working under a Safe Work Permit:

Upon hearing any of these unit alarms, all work must be immediately shut down and if safe to do so, any ignition sources neutralized. If ignition sources cannot be neutralized, the Permit Issuer must be notified (communicate type of ignition source, and location).

Promptly clear the area and report to the safest Unit Muster Point.
The Permit Receiver must account for their crew members signed onto the permit.

Permit Receiver must report any personnel not accounted for to Security via phone (780)-992-3666 or site radio emergency channel.

Remain at the Unit Muster Point until a Production Unit Operator has communicated that it is safe to revalidate their respective permits.

Upon the Unit Alarm being cleared, report back to the Permit Issuing location and have **Permit Re-Validated** prior to returning to work.

If you are signed into a unit:

Upon hearing any of these unit alarms, report to the Permit Center if safe to do so, and sign out. The Unit Operator will initiate a search for anyone who is not accounted for.

Once alarms have been cleared (audible and strobe lights), you may report back to the Permit Issuing location and request to sign back in to resume work (permission to re-enter the unit after a Unit Alarm is at the discretion of the Unit Operator based on the unit status). NOTE: The audible alarms may be turned off in order for operations to respond, however, the strobe lights will still flash.

4.2.4 Site Alarm Testing

Every Monday at noon security will announce an alarm test identifying which site alarm will be tested. (Emergency Assembly or All Clear)

4.3 Severe Weather

Shell Scotford has a Thorguard lightning prediction tool that predicts the probability of a lightning hazard in the area and is designed to maximize safety and productivity while limiting unnecessary shutdowns.

Thorguard evaluates the threat of lightning in a 2.5 mile radius providing warning before the first lightning strike. Should Thorguard go into red alert, the following will occur:

- Security will inform the site of any severe weather by providing an “all announce” on the radios and messaging through the site PA system.
- All applicable permits are suspended and employees are to take shelter.
- Once the red alert has cleared Security will inform the site by providing an “all announce” on the radios and messaging through the site PA system.
- Following the announcement, suspended permits must be revalidated and the job site conditions verified to be safe by the Permit Issuer prior to work crews re-commencing work activities. **Refer to Safe Work Practice 6608**

4.4 Administration/Control Building Evacuation Procedures

A Building Fire Alarm (bell) is used in the many onsite buildings. Upon hearing the fire alarm, employees must evacuate the buildings from the appropriate emergency exit as per the evacuation plan for that building.

The “all clear” must be given by the on-scene commander prior to returning inside the building. This is verbal communication

5.0 INDUSTRIAL HYGIENE

5.1 Workplace Hazardous Materials Information System (WHMIS)

All chemicals brought on site must be approved by the Shell Industrial Hygiene Department and

Environment Department prior to delivery to the site. Follow the Shell Product Approval Procedure.

All workers on the Shell site who interact with hazardous products must have completed WHMIS training or refresher training within three years. Information about hazardous chemicals (known as controlled products in WHMIS legislation) will be provided in three forms:

- Labels on the products
- Safety Data Sheets (SDS)
- Worker education

All controlled products which have been approved to be brought onsite will be labeled with a supplier label. If the supplier label is damaged or lost, a workplace label is permitted. If the SDS information is not contained in the Shell electronic database for Scotford, the owner of the material must maintain a printed copy onsite and communicate this to workers. **Please contact your Shell Contact or Industrial Hygiene if you need assistance with any SDS.** If exposure to a hazardous material is suspected, contact your Supervisor for appropriate follow-up.

Product K1 / Produit K1

Danger

Fatal if swallowed.
Causes skin irritation.

Precautions:

Wear protective gloves.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Store locked up.
Dispose of contents/containers in accordance with local regulations.

IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
Rinse mouth.

Danger

Mortel en cas d'ingestion.
Provoque une irritation cutanée.

Conseils :

Porter des gants de protection.
Se laver les mains soigneusement après manipulation.
Ne pas manger, boire ou fumer en manipulant ce produit.

Garder sous clef.
Éliminer le contenu/récipient conformément aux règlements locaux en vigueur.

EN CAS DE CONTACT AVEC LA PEAU : Laver abondamment à l'eau.
En cas d'irritation cutanée : Demander un avis médical/consulter un médecin.
Enlever les vêtements contaminés et les laver avant réutilisation.
EN CAS D'INGESTION : Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
Rincer la bouche.

Compagnie XYZ, 123 rue Machin St, Mytown, ON, N0N 0N0 (123) 456-7890

Supplier Label

Workplace Label

Pictograms and Their Hazards	
	**Gasses under pressure**
	**Flammables** (gases, aerosols, liquids, solids), **Pyrophoric** (liquids, solids, gases), **Self-reactive substances and mixtures, Self-heating substances and mixtures, Substances and mixtures which, in contact with water, emit flammable gases, Organic peroxides**
	**Oxidizing** (liquids, solids, gases)
	**Acute toxicity** (fatal or toxic)
	**Carcinogenicity, Germ cell mutagenicity, Respiratory sensitization, Reproductive toxicity, Specific target organ toxicity - single exposure, Specific target organ toxicity - repeated exposure, Aspiration hazard**
	**Acute toxicity** (harmful), **Skin irritation**, **Eye irritation**, **Skin sensitization**, **Specific target organ toxicity - single exposure** (respiratory irritation or drowsiness or dizziness)
	**Corrosive to metals, Skin corrosion, Serious eye damage**
	**Self-reactive substances and mixtures, Organic peroxides, Explosive**
	**Environment** (may cause damage to the aquatic environment)
	**Biohazardous infectious materials**

5.2 Hydrogen Sulfide (H_2S)

What is Hydrogen Sulphide?

Hydrogen sulfide is a colorless, flammable, extremely hazardous gas that is heavier than air with a “rotten egg” smell. Hydrogen Sulfide is found as a by-product in the Upgrader and Refinery processes and can be found in process systems, equipment, and sewers. The primary route of exposure is inhalation and the gas is rapidly absorbed by the lungs. Absorption through the skin is minimal. People can smell the “rotten egg” odor of hydrogen sulfide at low concentrations in air. However, a person will lose their ability to smell at higher levels (or prolonged low levels). Therefore, DO NOT rely on your sense of smell to indicate the continuing presence of hydrogen sulfide or to warn of hazardous concentrations. In addition, hydrogen sulfide is a highly flammable gas and gas/air mixtures can be explosive. It may travel to sources of ignition and flash back. If ignited, the gas burns to produce toxic vapors and gases, such as sulfur dioxide.

How can Hydrogen Sulphide harm your health?

Hydrogen sulfide is both an irritant and a chemical asphyxiant. Low concentrations can cause burning/ tearing of eyes, cough, shortness of breath. Asthmatics may experience breathing difficulties. Repeated or prolonged exposures may cause eye inflammation, headache, fatigue, irritability, insomnia, digestive disturbances and weight loss. Moderate concentrations can cause more severe eye and respiratory irritation (including coughing, difficulty breathing, accumulation of fluid in the

lungs), headache, dizziness, nausea, vomiting, staggering and excitability.
High concentrations can cause shock, convulsions, inability to breathe, extremely rapid unconsciousness, coma and death. Effects can occur within a few breaths, and possibly a single breath.

How is Hydrogen Sulphide controlled?
Exposure to H_2S is controlled below 10 part H_2S per million parts of air (10 ppm) as an 8-hour time-weighted average (TWA). Exposure may not exceed the ceiling limit of 15 ppm H_2S at any time. These limits are called occupational exposure limits (OEL). The level at which H_2S is considered immediately dangerous to life and health (IDLH) is 100 ppm.

Refer to Safe Work Practice 1102

Respiratory Protection:
>10 ppm Supplied air

How is H_2S detected?
In-plant H_2S alarms: Continuous monitoring systems for H_2S are located in various production areas at SCT. The H2S monitors are equipped with alarms. The low-level alarm activates a blue flashing light and an audible alarm when a concentration of 10 ppm H_2S has been detected. The alarm's flashing blue light is located overhead to allow for maximum visibility. The H_2S audible alarm has a high low alternating sound.

For a complete list fixed detector locations, contact the Instrumentation Team Leaders.

Personal H_2S monitors (PHM): PHM's are mandatory for all personnel in SCT's production areas except in PU6 and PU7 Utilities. PHM's are used as a warning device to indicate the presence

of H_2S, the device must be worn in your breathing zone. All Shell issued PHM's must be bump tested at least monthly.

If either the low or high alarm triggers on your PHM, exit the area immediately and contact supervision or Production personnel for further instructions. You may be asked to visit to the Health Centre for evaluation. The appropriate Permit Issuer must be notified immediately and an Incident Report must be generated in Fountain Incident Management (FIM).

The multi-head monitors with a H_2S sensor can be used in place of a PHM where needed if located in the breathing zone. **Refer to Safe Work Practice 1102**

5.3 Benzene

What is Benzene?

Benzene is both a toxic and flammable product, which has been classified as a known human carcinogen. It is a clear colourless liquid and vapour above 5 °C with an aromatic odour at high concentrations. Benzene is found in the production of Gasoline at the Refiner and in the production of styrene at the Chemical plant at Scotford.

How can benzene harm your health?

Exposure can occur by inhalation of vapours and by skin contact with liquid benzene. In addition to moderate to severe eye and skin irritation, exposure can also cause dizziness, headache, drowsiness nausea and confusion. A severe exposure can cause unconsciousness. Benzene can be absorbed through the skin and any skin contact will also involve significant inhalation exposure. Prolonged or repeated exposure to

airborne levels of benzene may cause cancers of the blood-forming organs, typically leukemia. Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Benzene is also a mutagen and may cause genetic damage.

How is benzene controlled?

Exposure to benzene is controlled below 0.5 part Benzene per million parts of air (0.5ppm) as an 8-hour time-weighted average (TWA). Exposure may not exceed the short-term excursion limit of 2.5 ppm Benzene over any 15-minute period. These limits are called occupational exposure limits (OEL). Controls must be put into place (increased ventilation, PPE, etc.) if air concentrations in the breathing zone exceed 0.25 ppm benzene. The level at which Benzene is considered immediately dangerous to life and health (IDLH) is 500 ppm.

Refer to Safe Work Practice SWP-1104

Respiratory Protection:

0.25 – 2.5 ppm Half-mask/OV cartridges

2.5 – 12.5 ppm Full-face/OV cartridges

>12.5 ppm Supplied Air

Body Protection:

Minimal, incidental splash and <60min duration work - Pyrolon CRFR suit, Hazmax boots or Pyrolon boot covers

Significant liquid splash hazard. - Tychem Thermopro(FR(, Hazmax boots

Glove material: PVA, Barrier, Viton, Silver Shield

Contact Industrial Hygiene for specific PPE recommendations when working with benzene.

How is benzene detected?

The Aromatics unit of the Refinery and the EB/Styrene units in Chemicals have fixed gas monitor systems to detect benzene at the OEL.
Operations and Industrial hygiene use specialized handheld monitors such as a PID to detect benzene in the air. Keep in mind: an LEL meter on a 4-head gas monitor will only detect benzene at the flammability limits (much higher than toxic levels).

5.4 Ethylene Oxide (EO)

What is ethylene oxide?
Ethylene oxide (EO) is a flammable, colorless gas at temperatures above 10 °C that smells like ether at toxic levels. EO is found in the production Ethylene Glycol in the Chemical Plant at Scotford.

How can ethylene oxide harm your heath?
In addition to eye pain and sore throat, exposure to EO can cause difficult breathing and blurred vision. Exposure can also cause dizziness, nausea, headache, convulsions, blisters and can result in vomiting and coughing. Both human and animal studies show that EO is a carcinogen that may cause leukemia and other cancers. EO is also linked to spontaneous abortion, genetic damage, nerve damage, peripheral paralysis, muscle weakness, as well as impaired thinking and memory. In liquid form, EO can cause severe skin irritation upon prolonged or confined contact.

How is ethylene oxide controlled?
Employee exposure is limited to one part EO per million parts of air (1 ppm) measured as an 8-hour time-weighted average (TWA). These limits are called occupational exposure limits (OELs). The

level at which EO is considered immediately dangerous to life and health (IDLH) is 800 ppm.

Refer to Safe Work Practice SWP 1105

Respiratory Protection:

>1 ppm Supplied Air

Body Protection:

Liquid splash hazard - Tychem Thermopro(FR), Hazmax boots

Glove material: Butyl Rubber, Barrier, Silver shield, Butyl-Viton.

How is EO detected?

The ethylene oxide section of the MEG unit has an Ethylene Oxide Ambient Air Fixed Monitoring System to detect ethylene oxide and will alarm at concentrations above the OEL.

Operations or Industrial hygiene may use specialized monitors to measure EO in air.

5.5 Chemical Handling

- Consult the Safety Data Sheet (SDS) prior to chemical handling. SDSs are available through all Shell personnel. For field purposes, consult the unit Operator. Hygiene, or Safety Personnel may be consulted if further clarification is required on safe handling of a chemical.
- Employees must take every precaution when working with and handling equipment or material that is in chemical service. Ensure you follow work procedures and SDS precautions. Before lines or equipment in chemical service are opened, they must be drained, flushed and tested to ensure that they are free of chemicals.

If exposure to a hazardous material is suspected, contact your Supervisor for appropriate follow-up.

5.6 Radioactive Materials

Observe warning signs of radioactive materials and stay away from areas where they are used. Radioactive materials are only to be handled by qualified personnel. A Safe Work Permit is required before work with radioactive materials can proceed. See Industrial Hygienist (Radiation Safety Officer) for additional information.

5.7 Manual Handling of Material (Push, Pull, Lift)

Do not push, pull or lift more than you can safely handle. Ask for help if necessary and use mechanical equipment to move the item whenever possible. When lifting from overhead, use a proper platform so you do not have to reach. When manually lifting a heavy object:

- Crouch as close to the object as practical.
- Keep feet apart and bend your legs.
- Lift slowly by straightening your legs. Keep back relatively straight – your leg muscles, not your back, should do the work.

To set the load down, bend your legs, not your back. Set one corner down first, then slide your hands out so they will not get pinched.

Reference SCT-IH-M-002 for more information.

Refer to the chart below for Ergonomic Risk Factors (ERFs)

Risk Factor	Type	Description/ Example(s)	ERFs
Manual Handling Forces	1) Lift, Lower Carry	Heavy lift, lower, carry any single occurrence	≥ 70 lbs, 32 kg
		Awkward lift, lower carry above the shoulders, below the knees or at arm's length	≥ 25 lbs, 12 kg and ≥ 25 times per day
	2) Push, Pull	Act of pushing or pulling any object, handle or device e.g. Opening, closing large manual valves, handling pallets, trolleys, carts	≥ 55 lbs, 25 kg
Awkward Body Posture	1) Hands above head or elbow shoulders 2) Neck or back bent more than 30 degrees 3) Squatting or Kneeling	Working in any of the given awkward body positions for a total day duration that exceeds the Ergonomic Risk Factor value, whether from repetition or holding the awkward position	2 hours / day
High Repetition	1) Highly repetitive motion	Repeating the same motion with the neck shoulders, elbows wrists or hands with little or no variation every few seconds. e.g. Manually loosening nuts with a wrench	2 hours / day
Hand Force	1) Pinching an unsupported object	Gripping refers to overall hand and wrist force required to hold, handle or operate something	10 lbs / hand and 2 hours / day

6.0 SAFETY

6.1 Safety Programs

6.1.1 STEP
(Safety Through Employee Participation)

STEP is Scotford's behavior based observation process. The most tangible impact of STEP observations is the peer-to-peer interaction creating a culture of caring and looking out for one another. The observers positively reinforce safe work behaviors, provide coaching and discuss solutions to at-risk exposures, if any. Management has committed that no disciplinary action will result from a STEP observation as it is a no name no blame process.

The observation information is analyzed to identify trends that could result in harm so that we can pro-actively create awareness of the hazards, and remove any barriers that may be preventing people from being empowered to work safely. When approached for a task observation always be respectful to observers, they are looking out for your safety. If you want to become involved as a STEP observer on site, talk to your supervisor.

6.1.2 Close the Loop

Close the loop is about honoring commitment with action. When you care enough to raise an HSSE concern which includes near miss incidents, and you (if necessary, with the help of your supervisor) are unable to resolve it yourself, the HSSE concern can be escalated using Close the Loop. Our commitment is to respond to you with an answer about what we can do to address your concern, and take action consistent with our response.

6.1.3 Stop The Drop

Scotford requires that for all work at heights, no work shall start unless hazards have been identified and controls put in place to prevent dropping/falling objects (including pre-existing materials in the work area).

The consequences of any materials, tools, or equipment falling from elevation could be fatal. Supervisors and workers are to assess their work areas prior to and throughout the job. This will identify the potential for dropping/falling objects and implement appropriate mitigation plans.

In addition, all tools and materials stored on one's person must be secured.

Radios must be secured at all times to prevent damage to the radio and the hazard of a dropped object. Radio holsters or other equivalent method must be used.

Any dropped objects from heights must be reported and entered into FIM (incident reporting system)

6.1.4 New Worker

The Scotford New Worker Program provides a means for guiding and mentoring new workers that are either new to site or new to the trade or profession. The program will set out the framework for the workers to work safely and graduate from the program with the ability to demonstrate their knowledge and understanding of the expectations and fundamentals for working safely while at Shell Scotford. For all new workers at Shell Scotford, this program is mandatory.

A New Worker is:

- A new worker is defined as having 2 years or less experience in their working trade in an industrial operating facility.

All New Workers at Shell Scotford must be identified prior to the execution of field or shop activities with:

- Avocado green hard hat,
- Hard hat sticker (New Worker)
- Worker name identification on the front of the hard hat

Refer to New Worker Program

6.1.5 Hand Injury Prevention H.I.P. Program

The Scotford H.I.P. program was put in place to focus on preventing hand injuries. A Hands Free Committee made up of Shell and Contractor Members came together to come up with this program. Together they identified 6 Key Behaviors to keep our hands safe.

It is important that everyone understands the **6 Key Behaviors** as they provide a structured approach to reducing hands and fingers injuries. Working hands free to eliminate the hazard is a primary line of defense, whereas wearing cut/impact resistant gloves is the last line of defense to hand injury and usually less effective

Refer to H.I.P. Program

6.2 Safety Practices

At Scotford all workers share the responsibility for safe and efficient operation. To prevent injury and other incidents each worker must know and understand the correct work procedures for each task to be performed. To maintain this awareness in all workers, “Safe Work Practices” have been developed as a reference source, outlining many basic procedures to be followed. These are general statements of good practices that apply under normal conditions; any deviations from these practices must only be done with proper approval. It is the expectation that all workers affected by

these practices will be completely knowledgeable of their content and adhere to them at all times. The Safety Department will serve as advisors or consultants for clarification of any items associated with Safe Work Practices. Safe Work Practices are available on the Scotford websites.

6.2.1 Injuries and Exposures

All illnesses, injuries and exposures occurring at the worksite are to be reported and recorded immediately. It is the employee's responsibility to report, as soon as possible, any occupational injury, illness or exposure to their immediate supervisor and then proceed to the Shell Scotford Health Centre, located in the Administration 1B Building. The Health Centre is open Monday to Friday from 0700- 1700 during normal workdays and 24 hours during scheduled Turnarounds and major outages.

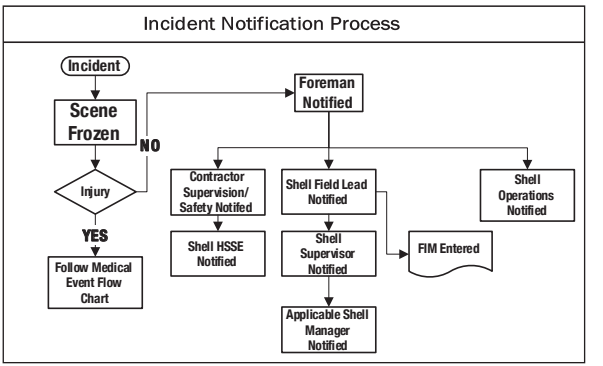
When the Health Centre is not open, Emergency Services will provide First Aid and will complete the First Aid document.

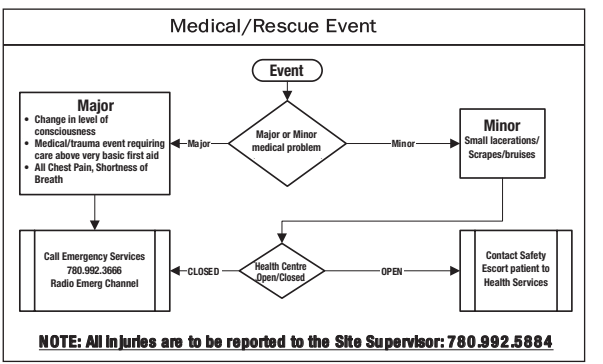
All injuries must be reported to the Shell Site Supervisor at (780) 992-5884.

6.2.2 Incident Reporting

All incidents and near misses involving people, vehicles, equipment, property and/or the environment must be reported to Supervision, Permit Issuer (as applicable), and the Shell contact immediately. Report all unsafe working conditions to your supervisor and take corrective actions if safe to do so. If you witness any suspicious activity or event, please contact security.

Incident Notification Process





6.2.3 Access into Process Areas

All person's other than the responsible Production personnel wanting to enter a Process Area shall observe the following requirements:

- Personnel, who are working in these areas, under a safe work permit do not use the unit sign-in. Any person that is not named on a safe work permit, must use the unit sign-in.
- Contact Production Shift Team Member of the unit you want to enter to request permission to enter by going to appropriate control room or permitting area.
- Write "Full" name(s) of each person who goes into the Process Areas on the unit sign-in.
- After leaving these areas, return to control room or permitting area to advise the unit Production Shift Team Member you are out of the unit and remove name(s) from the unit sign-in.
- For entry into pipe racks within a Production Zone sign-in at the responsible unit sign-in. Non- intrusive entry into pipe racks outside of Production Zones does not require a permit. **Shortcutting through units is not permitted.**

Refer to Safe Work Practice 0001

6.2.4 Emergency Equipment Locations and Use

Before the job commences, all personnel must be made familiar with the locations of emergency equipment such as fire extinguishers, fire blankets, safety showers/eyewash stations, self-contained breathing apparatus and spill kits. Supervisors are responsible for ensuring personnel are familiar with the location of emergency equipment. Access to

emergency equipment must be kept clear at all times.

Emergency equipment must not be used for non-emergency purposes.

6.2.5 Fire Protection and Road Closure

A Fire Protection Authorization (FPA) is required for all fire water use, road closures and impairments to fire protection systems as described in the safe work practice.

This must be obtained from Emergency Services Department prior to receiving a Safe Work Permit.

Refer to Safe Work Practice

0011 6.2.6 Fire Watch

A Fire Watch is required for all burning, grinding, or welding which produces sparks/slag/embers which could impact an adjacent location. The general duties of the person designated as Fire Watch are to alert the work crew to any fires or dangerous situations, which may develop. Only those who are trained to Shell standards can be a Fire Watch.

Fire Watch to remain for ten minutes upon completion of work to ensure no fires start.

Refer to Safe Work Practice 3301

6.2.7 Hazard Flagging

Any hazards associated with your work shall be clearly identified to guard against the entry of other personnel not familiar with the hazard. Flagging must be 3-Dimensional and properly tagged on all sides/access points with appropriate hazard information.

Yellow flagging means "Caution" enter area only if you are aware of potential hazards and it is safe to do so.

Red flagging means "Danger Do Not Enter" enter only with permission from the flagging owner.

Radiation flagging, when the potential for creating a radiation hazard exists the use of warning signage stating "DANGER – RADIATION – RAYONNEMENT" is required, in addition 3-Dimensional area control must be in place. The signage must include the trefoil, which is the universal radiation symbol (3 blades and central disk). For example:

6.2.8 Ground Disturbance/ Excavation

Prior to any ground disturbance or excavation at the Scotford site, the Job Owner must evaluate if an excavation permit is required.

Refer to Safe Work Practice 3306

6.2.9 Loading/Unloading Product

- Ensure there are no ignition sources in the area (e.g. lights, telephone, radios, welding, engines, etc.)

- Verify the correct product is being delivered to/ from the correct tank.
- Ensure receiving tank has sufficient free capacity (ullage) to receive quantity being loaded or unloaded.
- Load/unload/product to 95% of ullage amount.
- Transfer product to the machine/tank in approved containers or hose. Avoid physical contact with the product and avoid inhaling any vapors.
- Do not load, unload during an electrical storm or if conditions are unsafe for personnel and/or environment
- Remain in attendance at all times and closely monitor the loading, unloading, activities.
- Ensure capture of residual product when disconnecting hoses, e.g. pail or spill pan and dispose of materials as per SDS and safe work permit requirements.

ALL SPILL AND/OR LEAKS ON SITE/IN TRANSIT MUST BE IMMEDIATELY REPORTED TO OPERATIONS, JOB OWNER AND THE SHELL CONTACT.

Refer to Safe Work Practice 4402.

7.0 TOOLS & EQUIPMENT SAFETY

Inspect all equipment prior to use. Ensure equipment is not damaged, in good working order and meets original manufacturers' requirements.

If there are defects or the equipment is damaged it must be tagged with appropriate information and reported to your supervisor or shell contact.

Modified tools or equipment are not permitted on site without engineering approval.

All hoses, lifting devices and fall protection equipment must be certified yearly. The following is the Scotford Materials management main tool crib certification color coding chart used to mark year of **certification** for hoses, lifting devices and fall protection:

2018	**RED**	
2019	**YELLOW**	
2020	**BLUE**	
2021	**GREY**	
2022	**TAN OR BROWN**	
2023	**WHITE**	
2024	**GREEN**	

Contractor tools & equipment may be tagged differently.

7.1 Fire Extinguishers

A fire extinguisher of the correct type must be kept within easy reach of all cutting, welding and other open flame jobs. All mounted extinguishers are for emergency use only. They are to be not used for fire watch.

Fire extinguishers are required to have yearly inspections, in addition a monthly inspection is required by the area owner. If a fire extinguisher is discharged, an incident report must be filled out, the extinguisher tagged and returned to the Breathing Air Centre.

7.2 Powered Mobile Equipment

All powered mobile equipment must be operated by certified personnel and must be directed by an experienced signal person when required.

When operating a vehicle or powered mobile equipment within two meters of production equipment, the driver will be guided into position by a second person (spotter). When transporting material, it must be secured.

Refer to Safe Work Practice 4403

7.3 Guards and Warning Signs

Machinery guards, barriers, signs, alarms or any other device to protect employees from hazardous conditions must always be in place, except in cases where it is necessary for routine repairs. In such cases, the person making the repairs must properly safeguard the location or equipment until the repairs are complete. Ensure rotating/mobile equipment and portable tools are equipped with protective guards. Use such equipment according to the manufacturer's instructions.

7.4 Knives

Use of safer alternatives to knives such as scissors or a hacksaw must be considered first. If it is necessary to use a knife, a "knife use evaluation form" must be completed. Cut resistant gloves must be worn or a FLRA completed if not used. Nonretractable knives must be carried in a protective case.

A Shell approved competency program for use of knives may replace the requirement of the "knife use evaluation form." The competency program

must follow the guidance provided in the Contractor Competency Assurance Manual (available on the Contractor HSSE Management Webpage,) and be approved by Shell Safety.

7.5 Ladders

Inspect all ladders before use. Ladders must be equipped with non-slip devices or safety shoes at the feet. Only fiberglass and aluminum ladders are allowed on Scotford.

Wooden ladders are not allowed on Scotford site. Rope type ladders will be approved only for specific jobs by Job Owner & Safety.

Only one person should use a ladder at any time. You must wait for the person ahead of you to exit the ladder before ascending or descending yourself. Work from a ladder at 1.8m (6') or above requires personal fall protection. Personal fall protection is not required while moving up or down the ladder. All workers required to use ladders must be familiar with the applicable Safe Work Practice.

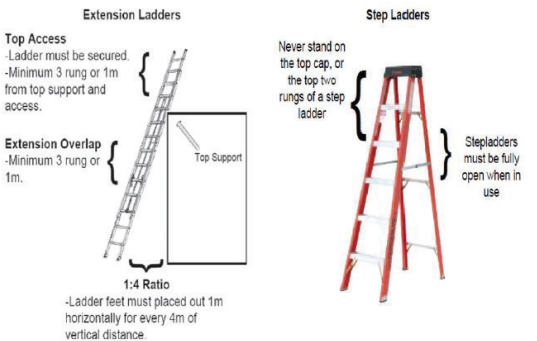
All portable ladders, including rolling step ladders, shall be visually inspected annually by a certified/ competent inspector such as a carpenter supervisor, and when approved a tag will be attached to indicate the inspection date.

Extension ladders must be secured at the top, and where necessary held to prevent accidental movement. The correct ladder angle is 1 meter out at base for every 4 m in height. Ladders shall extend 1m above the platform and be secured. When sections of ladders are extended, the overlap of ladder sections must not be less than 1m or 3 ladder rungs.

Stepladders must be fully open when in use. It is not permitted to work from either of the two top rungs of a step ladder. Do not straddle stepladders. For a step ladder, the top rung is the first rung below the top cap.

Refer to Safe Work Practice 4406

SHELL CANADA SCOTFORD HEALTH & SAFETY RULES & REGULATIONS



7.6 Lifting & Rigging Equipment

Inspect all lifting and rigging equipment before performing any lift. Never use equipment that is worn, frayed, kinked, twisted, or showing any other signs of damage or weakness.

Equipment must have annual inspection markings. Eliminate all sharp edges for slings by installing softeners. Before using a winch or come-along, ensure all workers are clear of the whip area while it is under tension.

Chain slings shall not be used for rigging on Scotford site, except for permanently installed chains on submersible pumps located in below grade sumps, or manufacturer provided chain slings required for mobilization and demobilization on larger cranes.

Refer to Safe Work Practice 4412

7.7 Scaffolds

Scaffolds shall be erected, modified, maintained and dismantled only by qualified personnel as per the Scotford Safe Work Practice. A green scaffold tag means that the scaffold was safe for use at its last inspection. A yellow scaffold tag means that the scaffold is acceptable for use, but there is a potential or unusual hazard or a restriction present. A red scaffold tag means that the scaffold is unsafe and must not be used.

Work shall only be performed on a scaffold if it has a green or yellow tag and has been inspected within 21 days (observing limitations indicated on the tag).

You must read the tag to understand the hazards prior to using the scaffold.

Refer to Safe Work Practice 4406

7.8 Tools (Electric and Pneumatic)

Before using any tools, you must be competent. Inspect the coupling and hose connections on pneumatic tools to see that they are in good condition.

Check the air supply before connecting pneumatic tools to be sure it is utility air. **NITROGEN IS TO BE USED ONLY WHEN WORKING IN AN INERT ATMOSPHERE.** All connections must have whipchecks.

Inspect all cords on power tools to ensure they are in good condition. Cords on power tools must be double insulated and grounded. Always use a grounded extension cord.

Follow manufacturer's recommendations when using tools. Remove and tag out defective tools from service immediately and repair. When using electrically powered tools in tanks, vessels and boilers, the tools or the electrical panels must be equipped with ground fault interrupters.

Refer to Safe Work Practice 4408

7.9 Tools (Powder Actuated)

Use of explosive actuated tools requires special permission from the Shell Representative and a Hot Work Permit. The operator of such tools must be competent.

Refer to Safe Work Practice 4408

7.10 Refueling and Fuel Storage

If vehicles or any running equipment have to be refueled while operating, it must be performed in accordance with manufacturer's specifications or

approved by a professional engineer in the form of a procedure.

Use only CSA and/or ULC-approved fuel storage containers (preferably metal) to store gasoline and other flammable or combustible liquids.

Keep only working quantities of flammable or combustible liquids in the immediate job area. Keep bulk or reserve quantities in proper storage areas. WHMIS label as required.

Refer to Safe Work Practice 4403

7.11 Bonding and Grounding

Sandblasting, welding units, vacuum trucks, stress relieving and line thawing equipment and all other equipment capable of generating electrical charge shall be properly bonded and/or grounded. Such bonding and grounding must meet with the approval of the Shell Electrical Department. All non-permanent facilities that transfer hydrocarbon between tanks must be bonded and grounded.

Refer to Safe Work Practice 2203

7.12 Compressed Gas Cylinders and Gas Lines

All compressed gas cylinders must be stored and transported as per Manufactures specifications. These cylinders must be secured whether they are empty or full. Cylinders should not be stored lying on their side, except permanently mounted breathing air cylinders.

All valve caps must be replaced when cylinders are not in use. All compressed cylinders MUST be secured to prevent dislodgement during

transportation. A rack shall be used in vehicles used to transport cylinders. When compressed gas cylinders are not in use, they should be removed from the operating unit or stored in designated locations.

Oxygen cylinders must be stored at least 6.1 meters away from cylinders containing combustible gases (i.e. acetylene). **Refer to Safe Work Practice 4405**

7.13 Welding and Cutting

- All precautions should be taken to prevent oil from coming in contact with hoses, regulators or fittings on the oxygen/acetylene torch equipment. Serious fire or injury may result.
- Flashback or flame arrestors are required at regulator and torch
- When oxygen/acetylene units are not in use the cylinder valves must be closed, depressurized, and bottles capped.
- The mixing barrels must not be stored in gang or toolboxes when connected to hoses
- All hoses must be bled down after work is completed.
- As per CSA Standard W117.2-06 Safety in Welding, Cutting, and Allied processes, Section 9.62 Hose colours -hose dimensions of 19 mm (3/4 inch) used in welding and cutting must be colour coded as follows:
  - o Green for Oxygen
  - o Red for fuel gases

  (Acetylene, liquefied Petroleum Gases, natural gas, hydrogen, etc)
  - o Black for Inert gases, compressed air, and water services

Appropriate spark containment must be used whenever welding, gouging, grinding or other activities which create sparks. This may include:

- Fire retardant blankets on platforms, sewer covers, Oily Contaminated Sewer (OCS) / Drain Oil (DO) cups
- Suspending fire retardant blankets or screens to contain sparks within the work area, providing protection for surrounding personnel
- Flash protection must be provided for other personnel in the area.
- Fire watch to remain for ten minutes upon completion of welding to ensure no fires start.

Refer to Safe Work Practice 3301

7.14 Transportation of Dangerous Goods (TDG)

Before handling, offering for transport or transporting dangerous goods, all workers must complete a TDG training course approved by Shell. A TDG certificate must be carried upon a person at all times when shipping or receiving dangerous goods. If unsure of requirements regarding the transportation of dangerous goods offsite, see Warehouse Personnel for details.

7.15 Rail Car and Railway Safety

At Scotford there is an active rail car and track system that requires individuals to adhere to the following rules when working in and around the rail cars and tracks. They are:

- Any work within **4.6m (15 feet)** of track must be permitted according to the applicable Safe Work Practice for Production Zone permitting.

- Any work within **4.6m (15 feet)** of a track a spotter must be supplied, and work will **stop** when Rail movement is occurring.
- Stopping distance for all vehicles including bikes at **all rail crossings is 4.6m (15 feet) from crossing.**
- At controlled rail crossing with lights flashing, Do Not Proceed until the lights/ bells have stopped, and the train has passed or has come to a complete stop.
- Any work above the tracks (i.e. pipe racks etc) Rail Operations must be notified.
- Pedestrians must only cross the tracks at Railway Crossings unless a Safe Work Permit is issued .
- Permission must be granted prior to entry to any part of the Rail Yard
- Railway Crossings must not be blocked at anytime unless there is an emergency.
- All Long or Heavy Load Traffic wanting to cross Any Rail crossing Must get permission

There are many uncontrolled rail crossings at Scotford. Care must be taken when approaching crossings. Trains have the right of way at all crossings.

Refer to Safe Work Practice 6601

7.16 Hoses

Prior to use all hoses must be inspected; damaged hoses will be tagged out and taken out of service. Hoses must be restrained if workers could be injured by its movement, if it fails or disconnects. Whip checks are used to protect workers from injury if the hose fails or disconnects. This does not

apply to fire hoses used in an emergency or vacuum hoses under a vacuum.

Hose selection must take into consideration the service it will be used for. Hoses must be rated for the pressure, temperature and the type of product. Hose Fittings/Utility Stations shall not be modified.

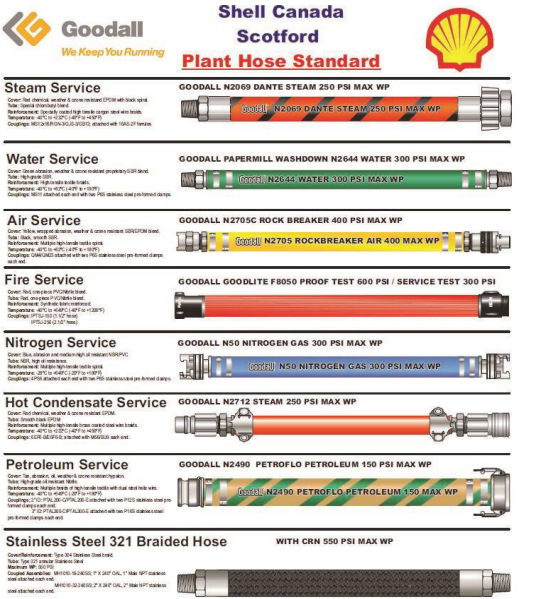
All utility hoses will have an annual recertification, and will be banded with current colour band for the year.

Refer to 7.0 Tools and Equipment Safety

Damaged and expired hoses shall be dropped off into the appropriate drop off locations.

Chicago fittings are only to be used for specialized work as approved by the Job Owner & Safety.

Reference applicable practices.



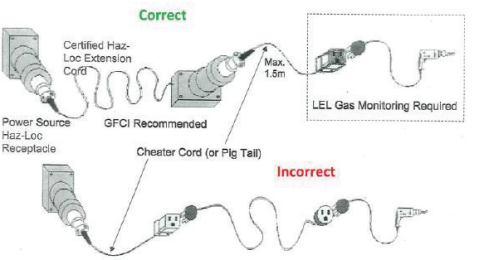
7.17 Electrical Hazards/Precautions

Report all electrical problems. Do not perform electrical tasks unless you are qualified to perform this work as outlined in equipment practices. Ensure all electrical equipment is properly grounded.

Where non-classified extension cords are used, or adaptors from explosion proof to non-classified

extension cords are used, such joints must be identified as part of the hot work permit.

Refer to Safe Work Practices 4404 and 4410



7.18 Tie-ins/Connections to Existing Facilities

Contractors shall not open or tie their work into existing Shell pipelines or equipment, including sewer systems, electrical power circuits, air lines, water, steam, natural gas lines, product lines and other process equipment without specific approval by the Shell Representative. This type of work will be done in accordance with an approved Shell Safe Work Permit, Engineer Approved Procedures and Safe Work Practices.

The use of data/USB and mobile computing devices to process equipment is not permitted without Shell authorization.

Refer to Safe Work Practice 2202

8.0 SECURITY

8.1 Security Incidents

Any Security incidents should be reported either to your Shell contact or Security immediately.

As well, if you witness any suspicious behaviour or incident, please report this to your Shell contact or Security.

8.2 Access Policy

The Shell Scotford Facility will ensure the implementation of security measures to deter the unauthorized introduction of personnel, vehicles, and dangerous substances or devices.

To control access to the facility the following is in place:

- Non-Operating employees are required to signin at all times. Personnel without an access card must check in and out at Security.
- All afterhours access to the plant site (or if you are staying past 6:30 p.m.) requires that you must contact security to sign in and out. (780-992-8999)
- If there is an emergency while you are working after hours, you must call the Security headcount board. (780-997-6008)
- All personnel should challenge any person who is not displaying valid Shell Scotford identification.
- Any lost, misplaced or damaged identification card must be reported to security immediately.
- If an access card is found, it must be returned to security immediately.
- All personnel are required to enter through a designated access point.
- All personnel shall prominently display identification cards while at the facility.
- The Rapid Site Access Program (RSAP) is accepted at the Scotford Facility. This program provides for the random testing of affiliated workers, which enhances the safety of all team members. RSAP operates within the "Canadian Model For Providing A Safe Workplace" and is thus not a stand-alone alcohol & drug (A&D) program. RSAP also provides a comprehensive and reliable program to be used as an effective alternative to site access testing and is intended to be a tool used in the execution of a company's Alcohol & Drug Policy.

- All turnstile entry point only permit one (1) individual entry per access card. Tailgating is not permitted.

8.3 Visitor Policy

A visitor to the Shell Scotford facility is defined as a sales representative, consultant, union official, employee family member, guests on an authorized tour, non-regular delivery drivers, prospective Shell and contractor new hires and federal and provincial regulatory personnel. These individuals have not been fully orientated for the site and, accordingly, visitors shall:

- Be documented by name and issued an appropriate identification card for the facility.
- Be escorted at all times by a company representative. The company representative is responsible for the safety and security of the individual for the duration of the visit.
- Obtain appropriate authorization before taking photographs.
- Follow all site standards, work practices and procedures set by Shell Scotford or identified by a Shell contact.
- Wear all the required Personal Protective Equipment (PPE) when and where required.

8.4 Search Policy

The use, possession and/or the distribution of illicit drugs, alcohol, or drug paraphernalia on any Shell worksite will not be tolerated; as such activities jeopardize the overall safety of the worksite.

Therefore, as a part of an effort to create a safe work environment, Shell will utilize detection

canines. The intent behind this strategy is to identify, deter and also eliminate illicit drugs on the Scotford site.

In addition, a property inspection which is a preliminary visual examination of a vehicle, package, bag or other container may also be utilized at any time. Cooperation with Security is mandatory.

8.5 Off-Boarding Personnel

There are a number of items that must be completed when an individual's work term is completed at the Scotford Facility:

- The contract company must complete the necessary Site Restriction System documents and forward them to Security

In accordance with this system, all contractors are required to:

- Enforce the provisions of the Site Access System with all applicable site contractors and subcontractors
- Ensure the prompt reporting of information to the Site Access System Coordinator for all contractors that either resign or are dismissed.
- Cooperate with Shell in maintaining the Site Access System Database in a timely and complete manner
- **All personnel identification cards must be returned to Security at the end of a work term.**

8.6 Alcohol, Drugs

Working under the influence, or possession of alcohol or drugs at Scotford is a Life Saving Rule

Violation. It is grounds for disciplinary action and/or removal from the site. Any worker taking a medically prescribed drug which may impair performance or judgment must advise his/her supervisor to ensure safety on the job will not be compromised. Consultation with the Health Centre may be required. **You may be tested if involved in an incident, or suspected of being under the influence of drugs or alcohol.**

8.7 Firearms

Firearms and weapons of any kind are prohibited on site.

8.8 Cameras

A hot work permit is required for use of photography or video equipment within any process unit unless the equipment is approved by the electrical department. Posting of videos or photos taken at Scotford is strictly prohibited.

8.9 Respectful Workplace Policy

Shell Canada values its employees and contractors and their individual contributions and recognizes that they are most productive in an atmosphere of mutual trust, support and respect. Shell also recognizes the inherent dignity and worth of each individual and their right to equal opportunity and treatment. Shell Canada believes that all employees and contractors, regardless of employment status, are entitled to work in a respectful workplace environment. A respectful workplace supports:

- Shell's commitment to diversity
- Shell's core values and principles in its

Employment Relationship document

- Shell's Statement of General Business Principles and Code of Ethics

Shell's policy against discrimination and harassment deals with unlawful discrimination and harassment on the basis of a prohibited ground such as gender, religion, age, disability, or other grounds as provided for by legislation. Harassment includes comments or actions which are known, or should be known, to be unwelcome, and which ridicule or demean an individual or a group on the basis of a prohibited ground of discrimination. Discrimination and harassment violate human rights legislation and are contrary to Shell corporate policy. Discrimination and harassment will not be tolerated at Shell. Each of us at Shell has the responsibility to treat others with whom we deal during the course of our work with respect, dignity, and fairness. This includes interactions on Shell premises and at non-Shell locations where Shell is represented. For complete information about the Respectful Workplace Policy and the complaint resolution process, please contact your HR rep or Shell contact.

8.10 Violence in the Workplace

Shell will not tolerate threats or physical assaults carried out by employees, temporary staff, contractors, or third parties against others on Shell property or while at work.

If you are threatened or assaulted by anyone on company property, or believe you are at risk, tell your supervisor/manager. You are entitled to make a report to police. Your supervisor/manager will report the incident to Shell Management.

8.11 Clean Desk Protocol

The Clean Desk Protocol establishes the rules for what must be removed from/secured on an employee's desk when the employee is away from their desk. This policy applies to all Shell Scotford employees and on-site contract companies. This means:

- 'Confidential' or 'Most Confidential' information, regardless of form, must not be left at any time in plain view and unattended in workstations/ offices, on walls, in meeting rooms or communal areas, or on printers etc.
- During office hours, laptops must be secured by a locking mechanism (e.g. Kensington lock). After working hours, laptops must be removed from plain view and locked away.
- If leaving the office area for more than a short period (> than 10 minutes), all mobile computing assets, regardless of content, such as PDA's, mobile phones, portable hard drives, memory sticks, software, etc, must be physically secured or retained on your person. In addition, the PC Desktop shall be locked down (e.g. password protected screen saver) or logged off
- Appropriately secure all personal belongings (e.g. Wallets, purses, etc.) in locked cabinets or desk drawers. If a locking cabinet is not available, contact Facilities to have one installed in your workspace.

9.0 ENVIRONMENT

9.1 Environmental Protection/Spills

Protecting the Environment is Everyone's Responsibility

It is important to be environmentally responsible in your work at Scotford. It is second only to your personal safety.

- Prevent all uncontrolled releases of hazardous material and products to the environment.
- Use spill containment when opening process piping, flanges, connections, etc. as appropriate.

Cleanliness - it is everyone's responsibility to manage waste material that is generated – collect all refuse from your work site, and dispose of in the proper containers.

The most effective way to be environmentally responsible is to ensure that you are adequately prepared for the job. **Prevention is the key.** Spill pans are an excellent method of preventing the uncontrolled release of materials and products to the environment.

In the event that a spill does occur, to protect the environment;

- If safe to do so, contain the spill and try to prevent material from reaching gravel areas, ditches and storm sewers
- Get appropriate instructions for cleaning up the spill.
- Report all spills to the unit operator. Follow the proper reporting procedure for spill reporting.

REMEMBER - Immediate reporting of a spill is essential!

9.2 Wildlife

Any encounter with wildlife on site, contact the Site Supervisor or the Environment department. Do not feed, disturb or harass wildlife on site.

9.3 Waste Management

Everyone who generates waste streams on site has an important role in minimizing waste streams by the proper segregation of clean recyclable, noncontaminated and contaminated material. Failure to do this increases the impact on the Environment and disposal costs. To avoid impacting the Safety of others when loading bins – Do not load above the fill line. Do not cross contaminate waste streams which could expose people to potential hazards. Do not slope load bins which could lead to partial shipments.

Across the site are specific containers at specific locations to aid in this:

Process Unit Waste streams

Red Hazardous Waste Drums – Hydrocarbon /Chemical contaminated material.

Black Drums – Spent Catalyst or Catalyst Dust

Other Colored Waste Drums –

Non-Regulated un-contaminated waste from the units.

Note: Red Hazardous Waste Drums that contain waste material must have a Waste label placed on the container.

Recycle streams:

White roll off bins- Uncontaminated metal.

Blue and Green bins- Uncontaminated, Flattened cardboard.

Blue Paper recycle bins- Non-confidential paper for shredding.

Grey paper recycle bins-

Confidential paper for shredding.

Other areas - Waste streams:

Blue Domestic waste bins - Janitorial use only.

Larger bins (15, 20, 30 and 40 yard) can be provided for Project work/larger scope and non –routine streams. For any questions, the Waste Management Team can be contacted on UPTA 14.

NOTES

10.0 INDEX

SHELL SCOTFORD TRAINING RECORDS

SHELL SCOTFORD TRAINING RECORDS

SHELL SCOTFORD TRAINING RECORDS

SHELL SCOTFORD TRAINING RECORDS

11.0 SITE MAPS & PRODUCTION UNIT LIST

Upgrader South – Production Units (PU) 1&2

- PU1 – RHC – Units 221-229
- PU1 – HMU – Units 240-244
- PU1 – Quest – Units 246-249
- PU2 – A&V – Unit 211
- PU2 – SRC – Units 213-219, 272, TK-26137/38
- PU2 – Utilities/Cogen – Units 200, 205, 250-255, 284
- PU2 – Water Block – Units 257, 259, 261, 271, 273, 457, 459, 471

Upgrader North – Production Units (PU) 3&4

- PU3 – RHC – Units 421-427, 429
- PU3 – HMU – Units 440, 441, 443
- PU4 – A&V – Unit 411
- PU4 – SRC – Units 412-415, 417-419
- PU4 – Utilities – Units 451-454, 484
- PU4 – Tank Farm – Units 261, 456, 461, 472, 482

Distribution – Production Units (PU) 5

- PU5 – Styrene Distribution – Unit 04
- PU5 – MEG Distribution – Unit 37
- PU5 – Refinery Distribution – Unit 61
- PU5 – Upgrader Distribution – Unit 261

Chemicals – Production Units (PU) 6

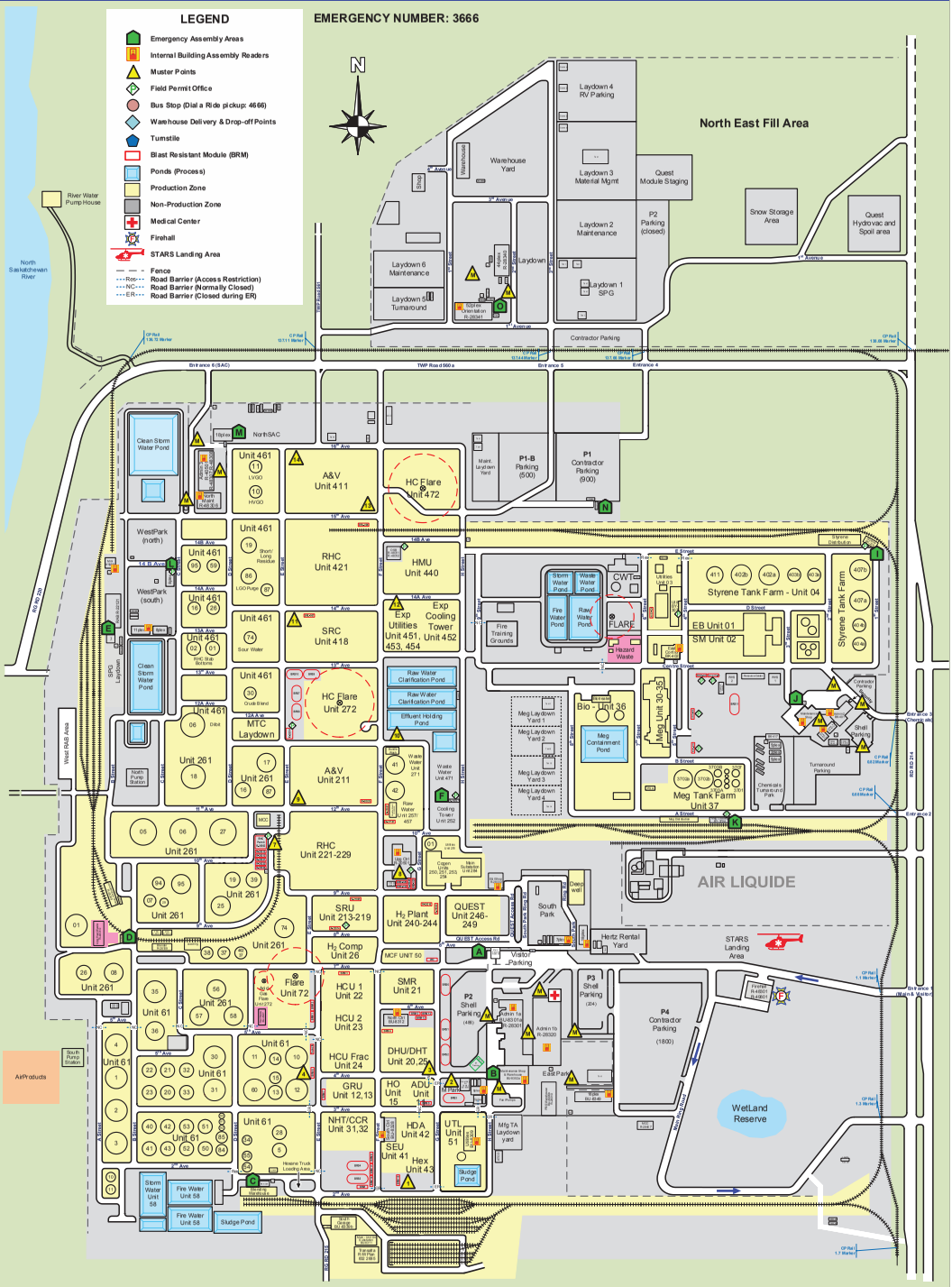
- PU6 – EB – Unit 01
- PU6 – SM – Unit 02
- PU6 – Utilities – Unit 03, 09
- PU6 – Styrene Tank Farm – Unit 04
- PU6 – MEG – Unit 30-37

11.0 SITE MAPS & PRODUCTION UNIT LIST

Refinery – Production Units (PU) 7&8

- PU7 – DHT – Unit 20 / DHU Unit 25
- PU7 – SMR – Unit 21
- PU7 – PSA 2700 / PSA 2800
- PU7 – HCU – Units 22-24
- PU7 – HCF – Unit 26
- PU7 – MCF – Unit 50
- PU7 – Utilities – Unit 51, 56 (Nitrogen), 53 (Air), 57 (Raw water)
- PU8 – NHT – Unit 31 / CCR Unit 32
- PU8 – SEU – Unit 41 / HDA Unit 42 / HEX Unit 43
- PU8 – ADU – Unit 11 / HO Unit 15
- PU8 – GRU – Unit 12 / ATU-13
- PU8 – Tank Farm – Unit 61 & 71-72

SHELL SCOTFORD

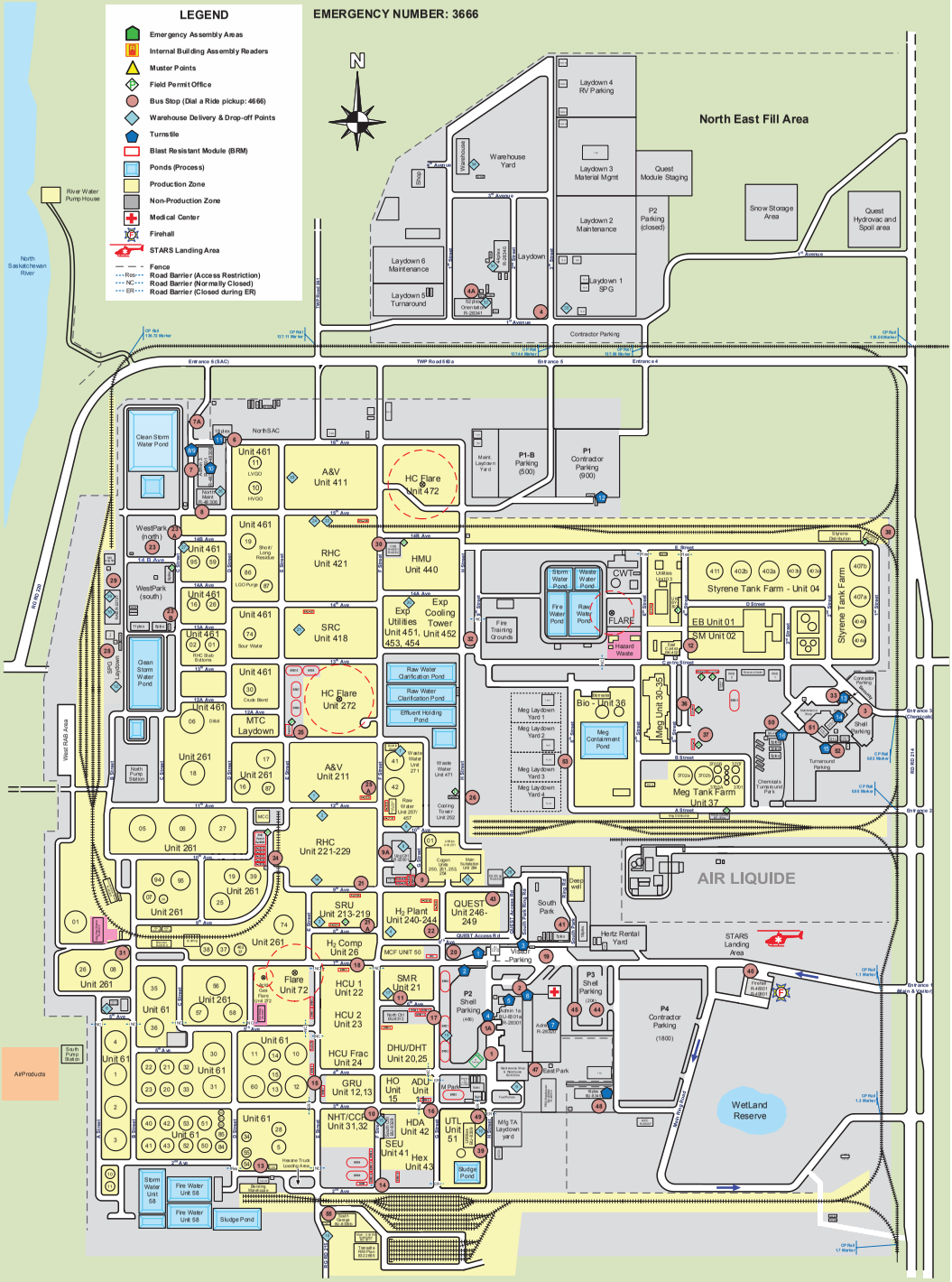


Real Estate | Asset Protection

Site Assembly with Reader locations

Effective: August 2018

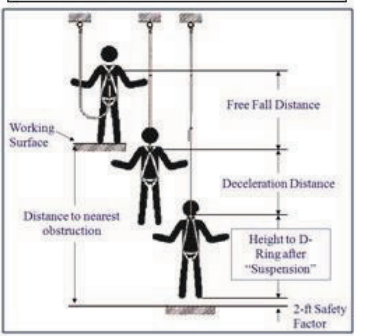
SHELL SCOTFORD



Basic Calculations of the Total Fall Distance

Free Fall +
Deceleration +
D-Ring Height =
Total Fall Distance

Must be less than the Distance to the nearest obstacle with 2-ft Safety Factor.



EMERGENCY ALARMS
PROCEDURE

STOP WORK • SHUT DOWN EQUIPMENT CHECK WIND DIRECTION • LEAVE AREA • CROSS WIND REPORT TO MUSTER POINT OR EMERGENCY ASSEMBLY AREA FOR INSTRUCTION

ALARMS	EMERGENCY ACTION
UNIT / BUILDING ALARMS	
• RED BEACON ↳ FIRE	REPORT TO MUSTER POINT
• BLUE BEACON ↳ TOXIC GAS	REPORT TO MUSTER POINT
• YELLOW BEACON ↳ VENTILATION	REPORT TO MUSTER POINT
SITE ALARM	
• ELECTRONIC SIREN THAT CHANGES IN PITCH	REPORT TO DESIGNATED EMERGENCY ASSEMBLY AREA & FOLLOW HEAD COUNT PROCEDURE

EMERGENCY PHONE
780-992-3666