

HSSE INDUCTION



STAATSOLIE MAATSCHAPPIJ SURINAME N.V.

HSSE DOWNSTREAM/REFINERY

Revision date: 18 December 2023

Safety FIRST

- Safety has an overriding commitment
- No Job is so important & no service is so urgent that we cannot take the time to perform our work safely.
- Stop Work Authority. So, if it is unsafe: STOP
- Bottom line is...



Introduction

Welcome!

The HSSE induction training covers relevant information about our safety practices and gives the trainee guidance on how to work safely within the company. This training is not all-inclusive. For certain jobs, there are specific requirements and therefore specific training is required.

It is the shared responsibility of every employee and contractor to ensure he/she completes a job safely and ensures the safety of themselves and their coworkers.

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Exam: Online Test

To pass the test a score of 80% or higher is required!

HSEQ POLICY

We are strongly committed to health, safety and the environment towards our employees, contractors and the communities in which we operate. We strive for customer satisfaction through continuous improvement of our products and services.

We will achieve this by adhering to the following principles:

1. Abide to the HSE Laws and Regulations
2. Maintain a Safe and healthy workplace
3. Demonstrate Excellent work ethics
4. Continuously Optimizing work processes
5. Provide proper Safety Training programs

Note: The Staatsolie HSEQ policy and ISO Certifications are supported by HSE procedures and an HSE Manual.



HSEQ BELEID

Wij zijn sterk toegewijd aan gezondheid, veiligheid en een schoon milieu voor al onze werknemers, contractors en de gemeenschappen waarin wij actief zijn. Voorts streven wij naar klantvredeheid door voortdurende verbetering van onze producten en diensten.

Dit zal worden bewerkstelligd door naleving van de volgende principes:

WET- EN REGELGEVING

Voldoen aan alle toepasselijke wet- en regelgeving en standaarden, rekening houdende met de behoeften van onze stakeholders en de bedrijfsomgeving waarin wij actief zijn.

VEILIG EN GEZOND WERKPLEK

Zorgdragen voor een veilige en gezonde werkplek en het beschermen van het milieu, door de kans op incidenten of onveilige omstandigheden te voorkomen of te minimaliseren. We zijn continu bezig met het identificeren, analyseren en evalueren van risico's, gevaren en milieu-aspecten, om deze effectief te beheeren door middel van eliminatie of mitigatie.

EXCELLENTE PRESTATIES

Behalen van excellente prestaties op een veilige en verantwoorde manier, waarbij de medewerkers betrokken en geraadpleegd worden bij de ontwikkeling en implementatie van de HSEQ-processen. We houden onze medewerkers en contractors verantwoordelijk voor het naleven van de kernwaarden, het beleid en de procedures van Staatsolie.

OPTIMALISATIE VAN PROCESSEN

Continu verbeteren van onze HSEQ-prestaties en -managementsystemen door het optimaliseren van processen, diensten en de productiviteit. Middels procesmonitoring, periodieke evaluaties en geplande acties, realiseren we gestelde doelen en signaleren we kansen.

TRAINING

Zorgdragen dat elke werknemer en contractor goed getraind en bekwaam is om desbetreffende werkzaamheden uit te voeren conform de vereisten van het Staatsolie HSEQ-managementsysteem.

Juni 2023

Annand Jageear

Managing Director



STAATSOLIE HSE GOALS & OBJECTIVES

1. Zero fatalities
2. Zero Illness /Injuries
3. Zero uncontrolled releases to environment
4. Zero process incidents



STAATSOLIE LIFE SAVING RULES

“Our Way of Work for all employees and contractors at all sites under Staatsolie operational control”

Rule 1 Working at Height



Personal fall arrest system shall be worn working 6 (1.8 meters) feet or higher above the work surface.

Rule 4 Confined Space Entry



Confined spaces shall not be entered unless authorized by a written permit.

Rule 7 Safety Control Bypass



Authorization shall be obtained before overriding or disabling safety-critical equipment and systems.

Rule 2 Hot Work



A written work permit is required for all hot work outside of designated safe areas.

Rule 5 Mechanical Lifting



Lifting operations shall be planned, risk assessed and performed by qualified personnel using certified equipment.

Rule 8 Work Authorization



A written Permit to Work shall be obtained as per the facility or project requirements.

Rule 3 Energy Isolation



Stored energy sources shall be identified, isolated, tested and communicated to appropriate personnel before work shall proceed.

Rule 6 Driving Safety



Identify all driving threats associated with motor vehicle or watercraft activity prior to operating it.

Rule 9 Line of Fire



Appropriate precautions shall be taken in every task to prevent potential harm from moving machinery, dropped objects and pressurized equipment.

These Rules are mandatory safety requirements to help protect our front-line workers from harm and focused on activities most frequently associated with serious injuries, fatalities, and catastrophic events.

Site Entrance

To ensure a Safe entry, the following rules will be followed:

- Upon successfully completing the exam, one must report to the guard to confirm their identity and obtain their badge.
- To enter and exit the process area, everyone must swipe at the RFID station in front of the control room(CCR).
- Per person or crew have at least one intrinsically safe radio available for communication.

SITE SECURITY RULES



Speed limit on site: 20Km/h



Periodic at random Alcohol & Drugs testing



No smoking and Vaping On Site



Forbidden to take pictures



NO FIREARMS OR WEAPONS ALLOWED ON THIS PROPERTY



No drones are allowed



Wear your badge visible

Access control for vehicles:

1. Vehicle Pass
2. Spark arrestor (for entering process area)
3. Vehicle permit (for entering process area)

SAFETY RULES ENTERING PROCESS AREAS

Hard Hat



Safety Glasses



FR Coverall



Safety Boots



Hearing protection



Multi Gas Detector



Gloves



Entry Requirement Process Area:

By phone call (62771) or Radio
 Channel 1: Area 1
 Channel 2: Area 2
 Channel 5: Maintenance and Substation

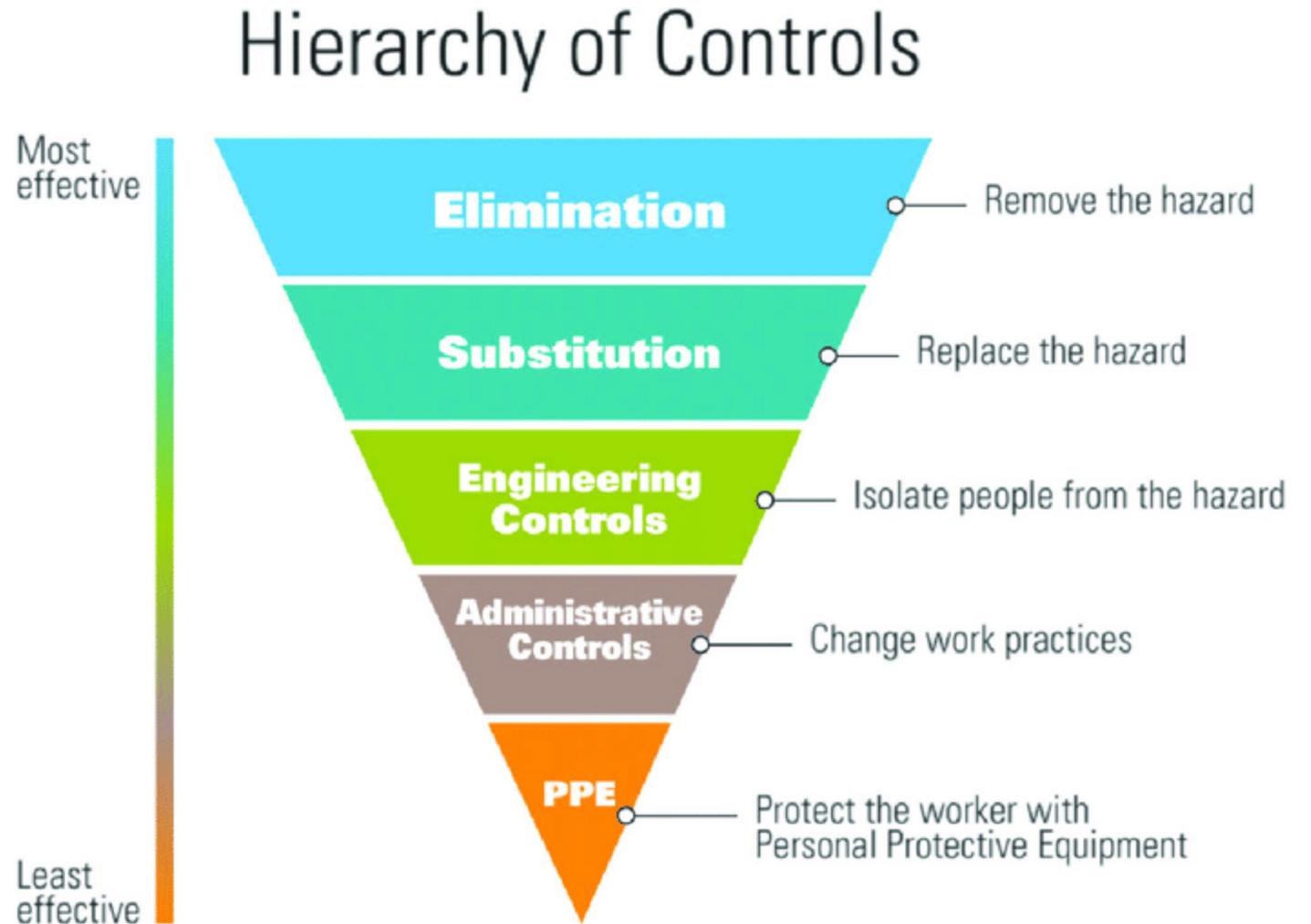
Information communicated clearly:

1. Full Name
2. Company/ Department
3. Reasons for entry
4. Specific units

HIERARCHY OF CONTROLS

Entering and working in the Refinery must be done under certain conditions.

To assure the Health, Safety and Environment is guaranteed, Hazards and Risks must be controlled



IDENTIFYING HAZARDS & RISKS

Unsafe Condition:

A condition or circumstance in the workplace that is likely to cause property damage or injury.

Unsafe Act:

Behavior that can potentially lead to or even increase the risk of accidents.

The purpose of identifying hazards is to prevent incidents and injuries from happening.



Unsafe act



Unsafe condition

Office Safety

Ensure the offices are provided with sufficient lighting.

Emergency exits must be clearly marked and not blocked.

Ensure walkways and aisles are free from tripping hazards.

Get familiar with the locations of the First aid kit, AED (Automated external defibrillator), fire extinguishers, and fire alarm push buttons.



Office Safety Continued

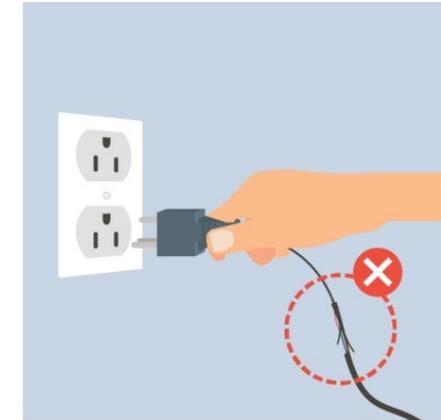
Replace frayed electrical cords and use power strips instead of extension cords to reduce fire hazards.

Be aware of wet floors during cleaning, which can result in slipping hazard. It is recommended to use wet floor signs.

Be cautious when walking and watch your step.

Be sure the work area is properly ventilated.

Set up a proper ergonomic workstation and work practices to prevent discomfort and illness.

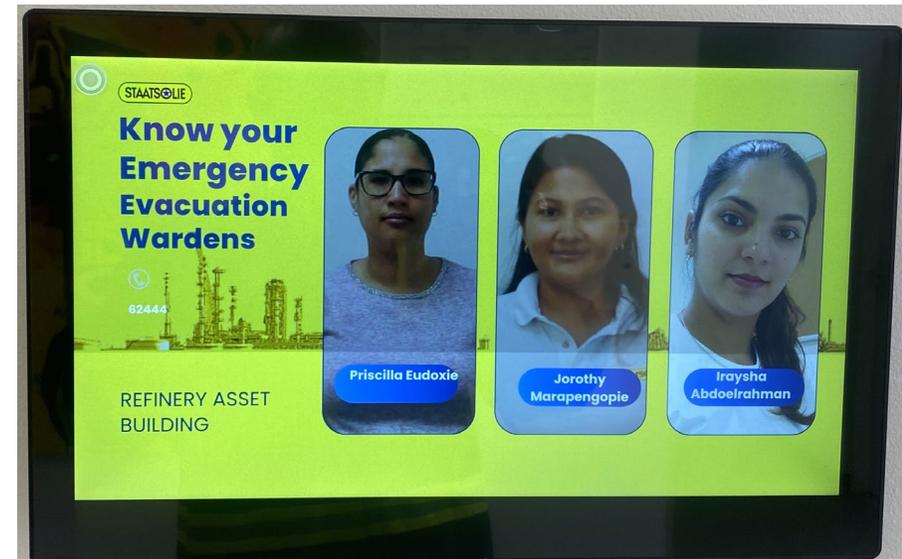


Building evacuation

Upon hearing the alarm, in a building, occupants should evacuate, according to the building evacuation procedure. Employees must follow instructions of the building wardens.

Most office building have an evacuation in assembly point in the direct vicinity.

The wardens and other relevant emergency information is displayed on electronic screens in the buildings.



Warehouse entry requirements

- Entering the warehouse yard, requires the minimum PPE: Hard hat and Safety shoes.
- Do not enter storage areas of the warehouse without a warehouse employee.
- Beware for movement of forklift trucks and other mobile equipment that may be working in the yard.



STAATSOLIE REFINERY OVERVIEW



- Refinery
- Main Gates
- Mobile Phone allowed
- Process Area
- Control Room
- PPE Freezone



**Mobile phones are forbidden
in Operational areas**

**Mobiele telefoons zijn verboden
in operationele gebieden**



**ONLY ATEX
PHONES ARE
ALLOWED**

**ALLEEN ATEX
TELEFOONS ZIJN
TOEGESTAAN**

WHAT ARE THE HAZARDS ON SITE ?

- **Hydrocarbons that can lead to:**
 - *Fire*
 - *Explosions*
- **Toxic gasses like:**
 - *Hydrogen Sulfide (H₂S)*
 - *Carbon monoxide (CO), Sulfur dioxide (SO₂), Ammonia (NH₃)*
 - *Nitrogen (N₂)*
- **High temperatures**
- **High pressures**
- **Hazardous Energy**
- **Falling from Heights**

EMERGENCY RESPONSE

- **ALARMS**



*Fire Alarm – 500 HZ
Alternating 1 sec*



*Flammable Gas– 1000 HZ
Paused 1 sec on, 1 sec off*



*Toxic Gas– 1000 HZ
Paused ¼ sec on, 1 sec off*



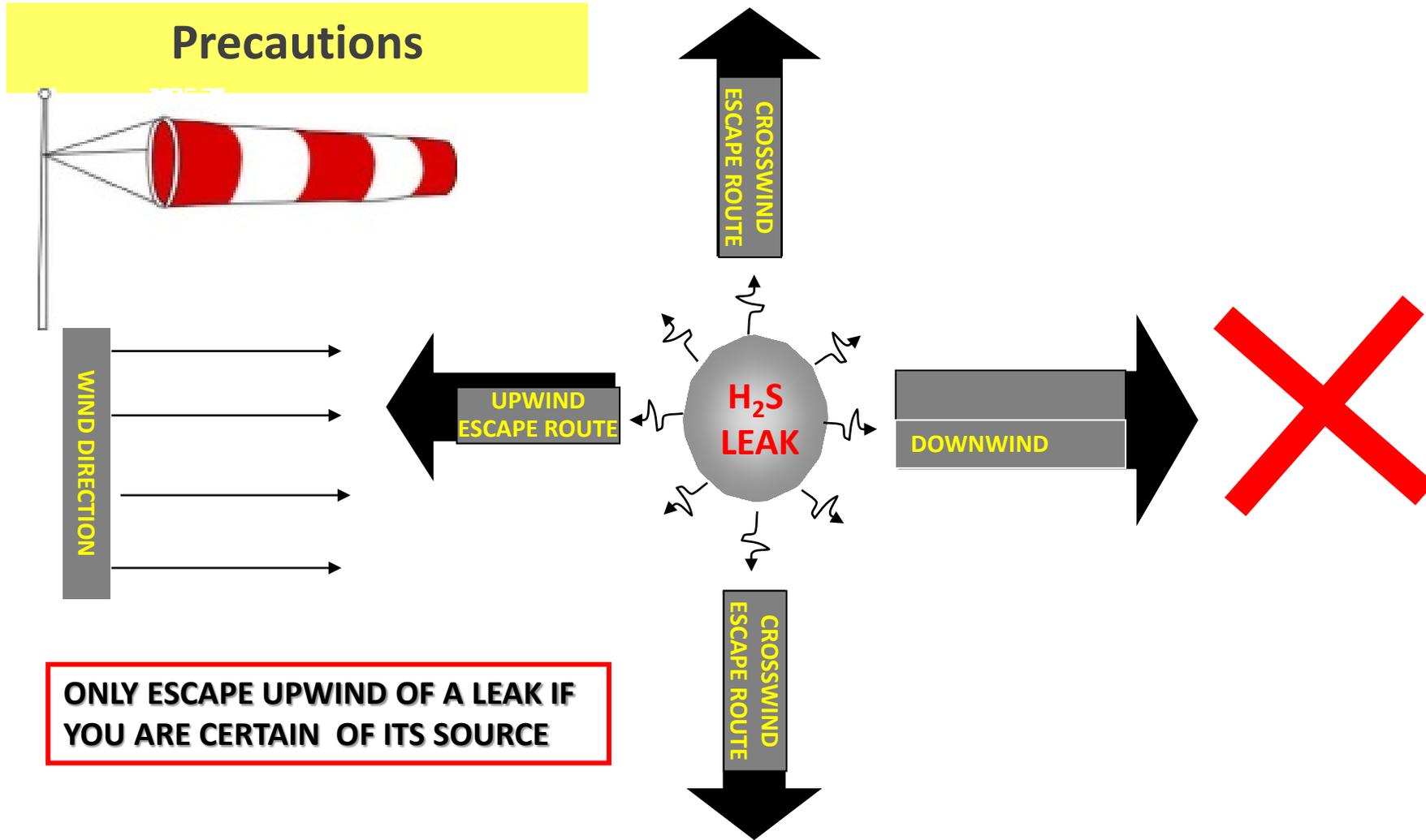
- In case of emergency call the Control Room by phone on Emergency number **62444** or **Channel 4** by Radio

saying:

- Your name
- Your company name
- Location of the accident
- Clear description of the accident



Escape routes from a Gas leak (for example H₂S)



ONLY ESCAPE UPWIND OF A LEAK IF YOU ARE CERTAIN OF ITS SOURCE

Emergency Escape Breathing Device (EEBD)

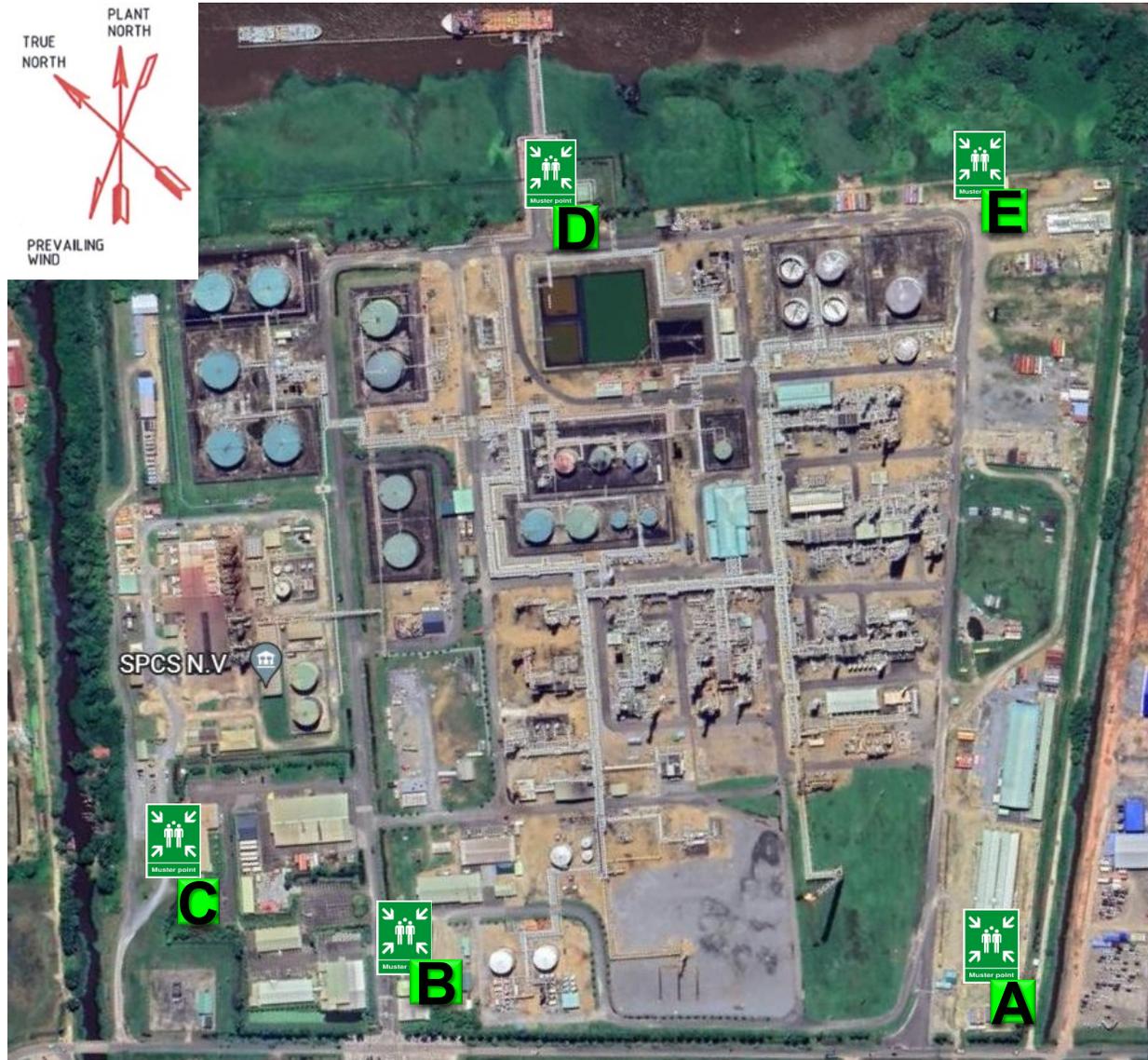
The Emergency Escape Breathing Device is a substitution of the Escape Hood

For EEBD clean shaving not required!!

- 1 Open the bag
- 2 Turn the valve on the cylinder to open the oxygen flow
- 3 Place the plastic hood over your head and breathe normally



Muster Points



Emergency shower and eye wash and EEBD



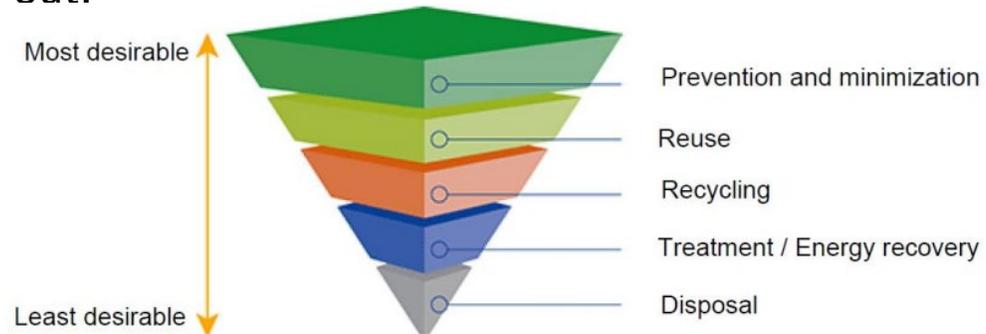
ENVIRONMENT

- Environmental monitoring that is carried out:

- Ambient air quality measurements
- Ambient noise measurements
- Wastewater quality measurements

- Waste management:

- Waste is prevented and re-used as much as possible
- Office and process waste are segregated for recycling and proper disposal
- The bins are placed in the corridors.



24 hrs air quality measurements



OCCUPATIONAL HEALTH

- Assess workers' exposure (" baseline Industrial Hygiene monitoring" after start up of the Refinery) :
 - ✓ Heat stress
 - ✓ Indoor Air quality
 - ✓ Noise
- Overexposure to hazardous agents (e.g. inhalation of chemicals) in the work environment:
 - ✓ H2S
 - ✓ CO
 - ✓ NH3
 - ✓ SO2
 - ✓ Aerosols (dust, mist, fumes)
 - ✓ Hydrocarbons (VOC)
- Respirator Fit Testing



Heat stress - T



Indoor Air quality
CO2, T, Rel.
Humidity



H2S, CO, O2,
LEL, SO2



Hydrocarbon
Vapor
BTEX



Respirator
Fit Testing



Noise

INCIDENT MANAGEMENT

- **Incident reporting**

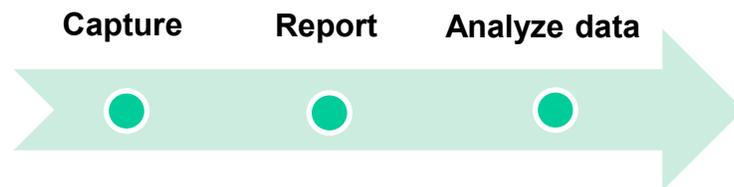
All incidents (including near misses) should be reported as soon as it is safe to do so, to area supervisor/owner.

- **Incident investigation**

All incidents are investigated to prevent re-occurrence.

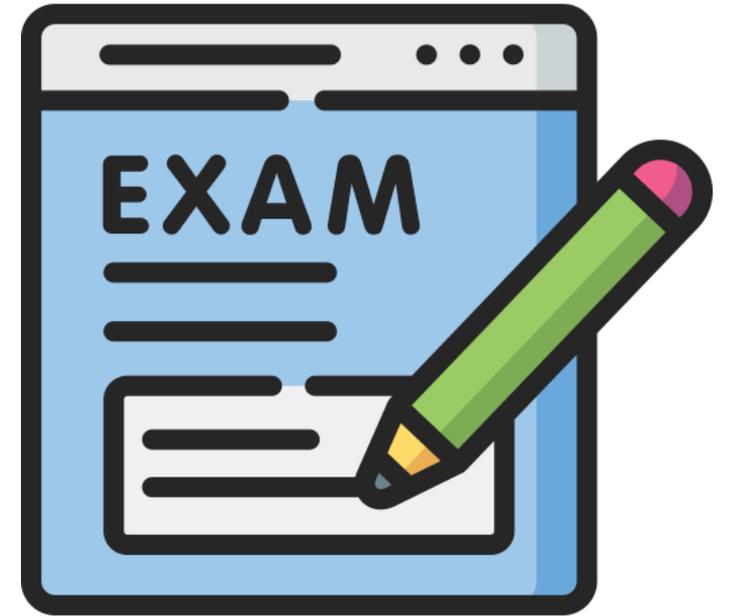
- **Tools for investigation**

Incident investigation procedure + EHS Insight



THE END

TIME FOR THE TEST



NOTE TO PASS THE TEST YOU MUST HAVE A SCORE OF 80% OR HIGHER!