



Facilitator Guide



Sector
Hydrocarbon

Sub-Sector
Midstream, Downstream

Occupation
**Management of Health,
Safety and Environment (HSE)**

Reference ID: **HYC/Q3601**, Version 2.0
NSQF Level: 4

Fire Safety Technician (Oil & Gas)



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Shri Narendra Modi
Prime Minister of India

“ Skilling is building a better India.
If we have to move India towards
development then Skill Development
should be our mission. ”

Acknowledgments

We would like to express our heartfelt gratitude to everyone, who in their own capacities or on behalf of their esteemed organisations, have contributed in various ways towards the development of this “Facilitator Guide” for Hydrocarbon Sector Skill Council (HSSC). This will go a long way in our endeavour to support the “SKILL INDIA” initiative.

The contents of this book are aligned to the Qualifications Pack - National Occupational Standards (QP NOS).

This Facilitator Guide is dedicated to the passionate trainers who are committed to quality and excellence in the “Hydrocarbon” sector.

About this Guide

This Facilitator Guide is designed to enable training for the specific Qualification Pack (QP). Each National Occupational (NOS) is covered across Unit/s.

Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS.

- **HYC/N3601:** Prepare workplace in line with fire safety rules.
- **HYC/N3602:** Perform fire safety operations at workplace.
- **HYC/N9301:** Working effectively in a team.

Symbols Used



Learning Outcomes



Objectives



Resources



Ask



Do



Explain



Activity



Facilitation Notes



Tips



Exercise




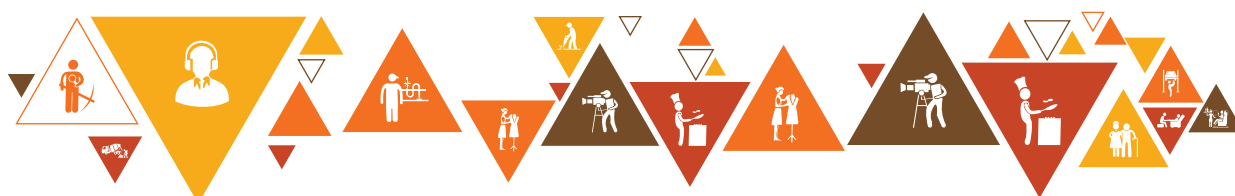
Notes



Summary

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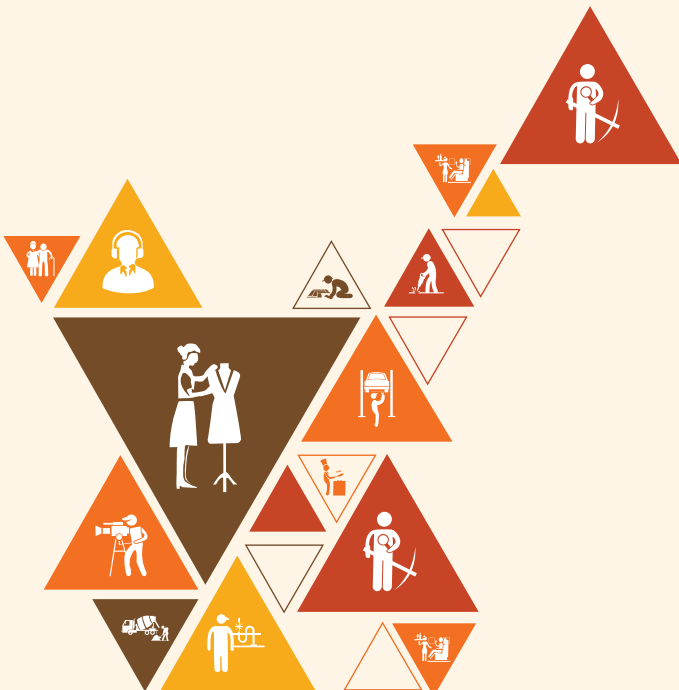




1. Introduction to Hydrocarbon Sector

Unit 1.1 - Hydrocarbon sector in India

Unit 1.2 - Roles and responsibilities of a fire safety technician



Key Learning Outcomes

At the end of this module, participant will be able to:

1. Describe the oil and gas sector and its sub-sectors.
2. List the three major segments in the hydrocarbon sector.
3. State the functions of upstream, midstream and downstream segments.
4. Describe the role of the Hydrocarbon Sector Skill Council.
5. List OISD standards.
6. List the roles and responsibilities of a fire safety technician.

Unit 1.1: Introduction to Hydrocarbon Sector

Unit Objectives

At the end of this unit, participant will be able to:

1. Describe the hydrocarbon sector in India.
2. List the three major segments in the hydrocarbon sector.
3. Identify the achievements of the hydrocarbon sector.
4. Identify and perform the roles and responsibilities of a fire safety technician.
5. Define and conduct OISD standards for fire fighting equipment and appliances in the oil and gas industry.
6. State the essential skills of a fire safety technician.
7. Demonstrate the career aspects of fire safety.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Ask

- Ask the participants to share their expectations from the program.
- Ask them to tell what they know about the Hydrocarbon sector.

Do

- Introduce yourself to the participants.
- Give an overview of the program to the participants - duration of the program, objective etc.
- Give an overview of the hydrocarbon sector in India.

Explain

- List the three major segments in the hydrocarbon sector.
- State the functions of upstream, midstream and downstream segments.
- Describe the role of Hydrocarbon Sector Skill Council.
- Describe and List OISD standards.

Notes for Facilitation

- Make sure that each participant understands the session objectives.
- Answer questions and explain what seems confusing.
- Assess each participant’s work and contributions.
- Ensure that participants have mastered the skills listed at the beginning of each session.
- Help participants identify how to apply the skills taught in the course to their work.
- Give guidance and feedback as needed during classroom and practical sessions.

Activity 1

Activity Name	Practice Public Communication Skills
Objective	Strengthen social interaction
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Social interaction is always necessary between trainers and participants. • Divide the participants into pairs and ask each pair to share their general information (name, hometown, hobbies etc.) with their partner. • Next, you may ask a question to anyone from each pair to tell about his/her partner. <p>In this exercise, the trainer and the participants get to know each other.</p>
Inference	The participant will be able to communicate clearly and build team rapport.

Activity 2

Activity Name	
Objective	Better introduction among each other within class
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Ask the participants to tell the class their favourite animal and three adjectives to describe that animal. • Next, ask participants to write three adjectives on a name tag BEFORE their name (omit the name of the animal). • At last, ask participants to mingle with the crowd, sharing why these adjectives best describe their personality. <p>EXAMPLES: Loyal, cuddly, offensive, defensive, clever etc.</p>
Inference	

Tips

- Go slow with information flow with participants.
- Observe each participant's body language.
- Keep a positive and supportive approach towards the candidates.
- Idea is to develop warmth and establish interpersonal communication and rapport and team spirit.
- Facilitate informal communication among participants.

Notes

Unit 1.2: Roles and Responsibilities of a Fire Safety Technician

Unit Objectives

At the end of this unit, participant will be able to:

1. Identify roles and responsibilities of fire safety technician.
2. Identify essential skills and knowledge required by fire safety technicians.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Ask

- Ask the participants to share their expectations from the program.

Do

- Give a brief introduction on the job description of Fire Safety technicians outlining their attributes to the participants.
- Provide the participants with a list of Roles and Responsibilities of a Fire Safety Technician.
- Talk about the skills and knowledge which are essential to becoming a Fire Safety Technician.

Explain

- Describe the Working Conditions of Fire Safety Technician.

Tips

- Go slow with information flow with participants.
- Observe each participant's body language.
- Keep a positive and supportive approach towards the candidates.

Activity

Activity Name	Team show
Objective	Better introduction to the job role of fire safety technician
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Separate the class into 2 different teams. • Each team will be assigned the topic: - Roles and responsibilities of Fire Safety Technician. • Ask them to present the given topic team after team, and state examples individually to explain.
Inference	Understand the job role of a fire safety technician.

Notes for Facilitation

- Revise the important points discussed in this unit.
- Clear the doubts of the participants, if any. Encourage them to ask questions.
- Discuss the question with the class and answer their queries satisfactorily.
- Help participants identify how to apply the skills taught in the course to their work
- Praise participants and the group for improving their performance and developing new skills.
- Encourage participants to move through the initial difficulties of learning new skills, by focusing on steps in their progress and the importance of what they are learning to do.

Summary

- The oil and gas industry includes different processes of exploring and extracting, collecting and
- The energy sector has three key areas, upstream, midstream and downstream.
- Upstream involves the search for underwater and underground natural gas fields or crude oil fields.

- Midstream entails the transportation, storage, and processing of oil and gas.
- Downstream means refining crude oil and purifying natural gas.
- The Government is planning to set up around 5,000 compressed biogas (CBG) plants by 2023.
- Crude oil consumption is expected to grow at a CAGR of 3.60% to 500 million tonnes by 2040.

Exercise

1. India's oil refining capacity was 249.9 million metric tons (MMT) as of October 1, 2020, making it the second-largest refiner in Asia (Answer: **True**)
2. In 2011, India became the fourth largest importer of Liquefied Natural Gas (LNG), after Japan, South Korea, and China. (Answer: **True**)
3. Production is another term used to describe the actual drilling and bringing of oil and natural gas to the surface, occasionally referred to as '**upstream**'.
4. Oil and natural gas products are even used to make artificial limbs, hearing aids and flame-retardant clothing to protect fire-fighters.

a) Oil and natural gas

5. The full of OISD is **Oil Industry Safety Directorate**
6. Write any two roles and responsibilities of a Fire Safety Technician.

Answer:

- Replace, repair, fill and tag all fire extinguishers and fire hoses in the facility.
- Complete electronic and/or hand-written inspection reports in a timely manner.

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<https://www.youtube.com/watch?v=oCqK7kHBpzg>

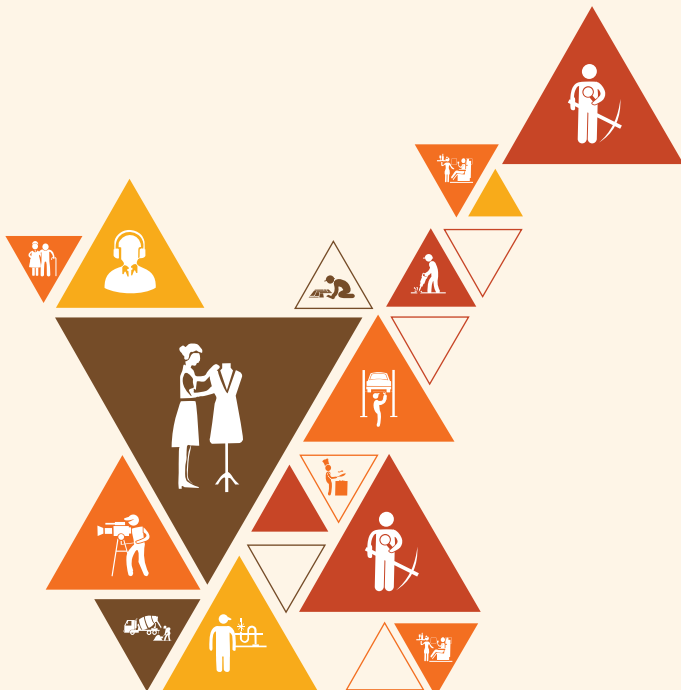
Electrical Safety Measures in Workplace



2. Prepare Workplace in Line with Fire Safety Rules

Unit 2.1 - Carryout fire safety procedures

Unit 2.2 - Safety demonstration



HYC/N3601

Key Learning Outcomes

At the end of this module, participant will be able to:

1. Carry out safety procedures as per safety rules.
2. Manage safety demonstration for fire safety awareness program.

Unit 2.1: Carryout Fire Safety Procedures

Unit Objectives

At the end of this unit, participant will be able to:

1. Gather knowledge about fire awareness.
2. Identify OISD standards for fire-fighting equipment and appliances in the oil and gas industry.
3. Monitor safety regulations around the facility.
4. Carry out checks for fire extinguishers and first aid boxes.
5. Identify proper safety and emergency signs.
6. Inspect oil and gas facility for any hazard and record near-miss events.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Ask

- Ask the participants to share their expectations from the program.
- Ask them to tell what they know about the Hydrocarbon sector.

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them if they have any doubts pertaining to the previous unit.
- Capture their responses on board and share them wherever necessary.
- Tell them that they will learn about fire safety procedures and safety demonstrations for the fire safety awareness program.

Say

- Talk about fire awareness and the causes of fire.
- Give a brief introduction to the classification of fire.
- Explain the fire safety equipment.

Explain

- Introduction to Fire Safety Procedures.
- Role and purpose of a permit- to- work system.
- Types of Permit.
- Environmental Impact of Fire and the Sources of pollution in the event of fire.

Elaborate

The facilitator shall elaborate on the elements of the Program.

- Why are fire safety signs so important.
- How is fire safety signage colour-coded
- Fire safety signage and colours with examples.
- Pre-planning to minimise the environmental impact of fire.
- Emergency Procedures.

Activity

Activity Name	Presentation game
Objective	The participant will be able to demonstrate the usage of fire safety equipment, and better understand causes and classification of fire.
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Have participants divided into groups and ask them to choose a topic from the given topics. • Fire safety procedures, causes of fire, fire safety equipment, classification of fire., Sources of pollution in the event of a fire. • Now ask each group to explain the working of any of the following systems given above.

	<ul style="list-style-type: none"> • Instruct other groups to create any 3 or more questions while the presentation is happening. • At the end, when all the groups have presented their topics, each group will present their questions prepared from the other group's presentation. • Now it is the job of the trainer to correct any mistakes in the presentation or question-answer round, and clear participants' doubts. • Once the correction round is complete announce the winner for the presentation and question-answer round.
Inference	Understand the different classifications of fire and equipment used for fire safety.

Notes for Facilitation

- Summarize the important points and terms explained in the session.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer questions, as needed, providing concrete and brief answers.
- Tell participants to complete the questions at the end of the unit.
- Ensure that every participant answers all the questions.

Exercise

1. Class A fires involve flammable liquids. Answer: **False (ordinary combustibles)**
2. If possible, hot work should be moved or performed in areas with less hazard potential.
Answer: **True**
3. Air pressurized water extinguishers (APW) are suitable for electrical fires.
Answer: **False**
4. Each exit route door must be free of decorations or signs that obscure the **visibility** of the door.
5. The three elements needed for a fire include:
d) All of the Above
6. The acronym for proper use of a fire extinguisher is:
b) PASS
7. Which of the following activities are considered "hot work"?
d) All of the Above

8. As a part of an **Emergency Action Plan**, which of the following is required in every organization to alert occupants of an evacuation?
 - a) **Employee alarm system**
9. What are two important reasons for using work permit?
 - a) **To communicate and control work.**
10. Why do we use work permits in hazardous areas?
 - c. **To identify hazards and precautions.**
11. What does the following health and safety sign indicate?
 - a) **The location of the fire alarm**
12. The following image shows which type of fire extinguisher?
 - d) **Wet Chemical Fire Extinguisher**
13. What type of permit is needed in order to carry out work that could potentially result in a fire breaking out on the worksite?
 - b) **A hot permit**
14. After using a carbon dioxide fire extinguisher, the nozzle gets extremely cold. This is a sign that:
 - a) **You should not use it**
15. Smoke alarms:
 - d) **All of the above**

Notes



Unit 2.2: Safety Demonstration

Unit Objectives

At the end of this unit, participant will be able to:

1. Identify ways to keep people safe.
2. Identify safe fire evacuation procedure.
3. Identify ways to perform first aid related to fire injury.
4. Perform CPR.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Do

- Ask participants to share their views on ways to keep people safe.
- Give participants some time to think.
- Brainstorm on the broad categories of Perception and behaviour of people in the event of a fire.
- Write down all the responses of participants on the board.
- Discuss the measures needed to overcome behavioural problems and ensure safe evacuation.
- Discuss the vital signs, four A's, degrees of burns, and First Aid Techniques for common and fire injuries.
- Give a brief overview of CPR.

Explain

- Identify and conduct ways to keep people safe.
- Identify and develop a safe fire evacuation procedure.
- Identify the ways to perform first aid related to fire injury.
- Perform CPR.

Activity

Activity Name	Be a Life Saver
Objective	The participant will be able to demonstrate the first aid techniques like CPR
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	Randomly call participants one by one and ask them to list out steps for Performing CPR.
Inference	Understand the techniques and steps used in CPR

Notes for Facilitation

- Review the objectives of the workshop.
- Give relevant information to participants and go slow in transferring it.
- Clear the doubts of the participants, if any. Encourage them to ask questions.
- Revise the important points discussed in this unit.
- Observe each participant's body language.
- Encourage participation.
- Conduct a simple test at the end of the topic to check the understanding of each topic.

Summary

- Electrical, heating Appliances, process Dangers, flammable Dust are some causes of fire.
- The aim of devising effective emergency procedures is to ensure that the occupants of a building are never exposed to fire effluent or heat.
- Sensory perception is the process by which we detect and interpret, i.e. recognise information from our environment.
- Different classes of fire are, class A, B, C, D, E, K.
- Different types of fire extinguishers, water extinguishers, dry chemical powder, foam-type extinguishers, carbon dioxide extinguishers, and special dry powder.
- The fire extinguishers are used by following the PASS technique.
- Flammable materials should be stored and used in a way that prevents exposure to ignition sources.
- Personal protective equipment (PPE) is clothing or equipment worn by workers to protect them from various hazards.
- Fire extinguishers are designed to tackle specific types of fire.

- A permit to work (PTW) system is a document that sets out the work to be done, precautions to be taken for all foreseeable hazards involved & record the state of equipment when handed over while it does not itself make the job safe.
- Evacuation can be seen as having four distinct phases, alert time, pre-movement time, travel time, flow time.
- The key to ensuring that the behavioural problems of people in an emergency are minimised is to develop a comprehensive emergency plan, which involves detection, warning signals, the layout of escape routes, emergency instructions.
- Mandatory signs indicate steps people must take to comply with fire regulations, which are designed to safeguard occupants.
- Warning signs are required to make people aware of the presence of flammable materials.
- An incident response plan (IAP) weighs the risk and benefits of emergency response and fire ground tactics to provide clear direction for effective operations while maximizing the safety of both first responders and people on the scene.
- First aid is the first assistance or treatment given to a casualty or a sick person for any injury or sudden illness before the arrival of an ambulance.
- The first aider should always remember PACT, which is Protect, Assess, Care, Transport triage.
- First degree burns recover by themselves in a few days, Second degree burns are serious but recover in a few weeks. Third-degree burns are very serious and require skin grafting, Fourth-degree burns are extremely serious and require years with repeated plastic surgery and grafting to recover.
- Cardiopulmonary resuscitation (CPR) is a lifesaving technique. It aims to keep blood and oxygen flowing through the body when a person's heart and breathing have stopped.

Exercise

1. The way an individual occupant of a building will behave to fire danger is **complex**.
2. How should you open the airway of an unconscious casualty?
 - a. **Head tilt and chin lift.**
3. How long would you check to see if an unconscious casualty is breathing normally?
 - b. **Approximately 10 seconds.**
4. You are a lone first aider and have an unconscious non-breathing adult, what should you do first?
 - c. **Call 911/112 requesting AED (defibrillator) and ambulance.**
5. Which is the correct ratio of chest compressions to rescue breaths for use in CPR of an adult casualty?
 - d. **30 compressions: 2 rescue breaths.**

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<https://www.youtube.com/watch?v=xnZZruGjKBA>
Classes of fire

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[youtube.com/watch?v=KX8LMlylf14](https://www.youtube.com/watch?v=KX8LMlylf14)
Basic Safety Rules

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<https://www.youtube.com/watch?v=1T0ll6XI0ow>
Offshore Oil Rig Safety Rules and Emergency Response

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https://www.youtube.com/watch?v=_aNY6mV6ggE
Work Permit System

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https://www.youtube.com/watch?v=aaD2jw_rh04
List fire safety signage and their usage

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<https://www.youtube.com/watch?v=L4sUQZta8Rw>
List fire safety equipment and safety signage and their usage

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<https://www.youtube.com/watch?v=dPxmpb7iiKA>
How to Inspect Fire Extinguisher

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<https://www.youtube.com/watch?v=cnM8qO9naM4>
How to Inspect Fire Extinguisher

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<https://www.youtube.com/watch?v=13YVEwpy4ec>
Ensuring the safety, security and reliability of oil & gas power equipment centers

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<https://www.youtube.com/watch?v=3RFDKpwdbEA>
Animation of April 26, 2018, Explosion and Fire at the Husky Energy Refinery in Superior, Wisconsin

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<https://www.youtube.com/watch?v=goSEyGNfIPM>
BP Texas City Explosion Animation

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<https://www.youtube.com/watch?v=3nakKzM66hk>
Fire extinguishing agents

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<https://www.youtube.com/watch?v=XmPnXzQVLQg>
Fire Suppression System

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<https://www.youtube.com/watch?v=fjOpZR6r1fM>
Environment Pollution Oil Spill

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<https://www.youtube.com/watch?v=Gtwcb5qF6SQ>
Impacts of Oil Spills

Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=JAzc_xBsnq0
Natural gas liquids, and what happens if they leak?

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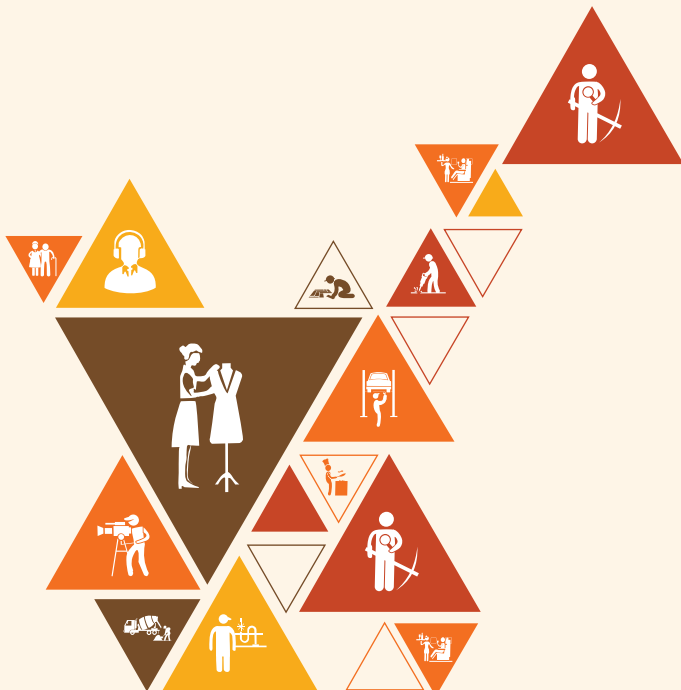
https://www.youtube.com/watch?v=APk_65bdhCM
Effects of oil spills or gas leakage



3. Perform Fire Safety Operations at Workplace

Unit 3.1 - Usage of firefighting equipment

Unit 3.1 - Fire safety measures



HYC/N3602

Key Learning Outcomes

At the end of this module, participant will be able to:

1. Identify the usage of firefighting equipment.
2. Demonstrate fire safety measures.
3. Maintain record-keeping system with respect to safety.

Unit 3.1: Usage of firefighting equipment

Unit Objectives

At the end of this unit, participant will be able to:

1. Identify sources of fire and firefighting equipment.
2. Identify firefighting procedures!
3. Identify various PPE used in fire emergencies.
4. Demonstrate an appropriate method to extinguish the fire.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them if they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they are going to learn about the Usage of Firefighting Equipment and various fire safety measures.

Say

- Give the participants a detailed overview of Firefighting Equipment.
- Talk about the Correct Use of a Fire Extinguisher.
- Explain the Methods of Starving Fire.
- Discuss Fire Emergency Procedures (Dos & Don'ts).
- Talk about Fire Evacuation Steps.
- Give a brief overview of Emergency Evacuation Procedures.
- Describe the purpose of drills, evacuation and roll-calls.

Explain

- Rescue Techniques during Fire Hazard.
- Fire Hazards, Risks and Controls relating to Hydrocarbons.
- Use and need of personal protective equipment.
- Zoning/hazardous area classification and selection of suitable ignition- protected electrical and mechanical equipment and critical control equipment.
- Fire Safety Technician's role in emergency evacuation procedures.
- Firefighting PPEs.

Activity

Activity Name	Whats your PPE
Objective	The participant will be able to demonstrate the usage of different types of PPE.
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Ask the class about what they know about PPE and what are the types of PPE used in the Hydrocarbon Sector. • Divide the class into pairs of two and ask each student to choose any PPE and Represent themselves as that PPE, say, Safety Glasses, Foot protection, Different types of gloves, Head protection. • Now ask each student to explain the function of his/her partners' PPE and their benefits to the whole class. <p>Repeat the process for the whole class and correct any mistakes at the end of the activity.</p>
Inference	Understand the usage, donning and doffing of PPE

Notes for Facilitation

- Gather and organize the supplies and other items needed for all the activities scheduled for the day.
- Encourage participants to follow all the ground rules of the activity and maintain decorum.
- While the participants are doing the activity, go around and make sure they are doing it properly.
- Assess each participant's work and contributions.
- Provide help wherever the participants are unable to understand the question.

Exercise

1. An example of two “Class B” fuels would be:
c. Grease, paint thinner
2. An APW (water extinguisher) is safe to use on an electrical fire. Answer: **False**
3. Carbon Dioxide extinguishers are designed for which types of fuels?
a. Class B and C
4. Which type of extinguisher has a hard horn on the end of a flexible hose or metal arm?
b. CO₂ (carbon dioxide)
5. As a general rule, you should not attempt to fight a fire if it is spreading rapidly. Answer: **True**
6. ABC fire extinguishers extinguish fire by cooling it down. Answer: **False**
7. Water will not extinguish most flammable liquid fires. Answer: **True**
8. You should always keep an exit or means of escape at your back when trying to fight a fire. Answer: **False**
9. The three elements of the fire triangle are:
c. Oxygen, fuel, and a heat source
10. What is starving in extinguishing the fire?
b. Removal of fuel
11. Which of the following is a chemical hazard?
d. Radiation
12. The **P.A.S.S technique** must be adopted for extinguishing the fire.
13. A **lightning strike** is a massive discharge of electricity from the atmosphere, where the electrical charge has built up, to the earth.
14. Any time a liquid is forced against a solid, such as the inside of a pipe, it generates a **static** charge.
15. What is the main purpose of hazard identification?

Answer : Hazard identification is the first step in risk assessment. The goal is to understand the concentration of toxins, spatial distribution and there movement.

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<https://www.youtube.com/watch?v=GjSoxJF3RD4&t=13s>
Types of Fire Extinguisher and Their Uses

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=mCH4zezrZdc>
Different type of Fire Extinguishers & their uses

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=7ZPRwPZ64yw>
Different Types Of Fire Fighting Equipment

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=GRD2n16onqc>
How to Deal with a Fire Emergency

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=7gHEtGY4chE>
Fire Emergency Procedures - Animated Safety Video

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=sTaXRbcu3PA>
Line-of-Fire Safety

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=a35s92-LKqY>
Sources of Ignition Fire Hazard

Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=hH4NuN_KFfi
Fire & Safety | Bina Refinery BPCL

Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=5_PlnKpuaXE
Fire Ignition Sources

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=loQ9Dbsy2ag>
An Introduction - Personal Protective Equipment (PPE)

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https://www.youtube.com/watch?v=IHH_kcaiYyg&t=71s
Using Your PPE Safely

Unit 3.2: Fire Safety Measures

Unit Objectives

At the end of this unit, participant will be able to:

1. Identify appropriate ways to manage fire caused due to oil spills or gas leakage.
2. Carry out checks for open or damaged valves in case of fire due to oil spills or gas leakage.
3. Identify fire and explosion strategy.
4. Demonstrate usage of alarms.
5. Demonstrate first aid techniques in the case of inhalation of toxic gas.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Do

- Talk about Fire and explosion strategy.
- Demonstrate usage of alarms.
- Demonstrate first aid techniques in case of inhalation of toxic gas.

Explain

- Emergency Plan.
- Measures to be considered in formulating a fire and explosion strategy for a specific installation.
- Alarms – the importance of response.
- Principles of escape, evacuation and rescue from onshore facilities and offshore platforms.
- Fires and other adverse events.
- Reporting fire-related events.

Activity

Activity Name	Group Chase
Objective	The participant will be able to understand fire and explosion strategy.
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Divide the class into three groups and give one topic to each group. • Ask each group to prepare a short presentation on the given topic and present it in front of the class. • Topics of presentation: Fire and explosion strategy. • Only one group will give a presentation at one time while the other two groups will watch the first group perform. • The trainer may ask participants from other groups to ask questions or queries to the presenting group. • The marks will be given at the end when all the presentations will be completed. • The criteria for evaluating a presentation can be— knowledge of the topic, number of the questions answered, coverage content of the topic presented, confidence during the presentation. <p>The trainer may ask participants to set the ground rules for the presentation and evaluate the criteria.</p>
Inference	Understand the topic of fire and explosion strategy better, also the participant will self-introspect themselves based on their presentation given.

Notes for Facilitation

- Gather and organize the supplies and other items needed for all the activities scheduled for the day.
- Encourage participants to follow all the ground rules of the activity and maintain decorum.
- While the participants are doing the activity, go around and make sure they are doing it properly.
- Assess each participant's work and contributions.
- Provide help wherever the participants are unable to understand the question.
- Help identify opportunities and potential.
- Summarize the discussion or ask others to do so

Summary

- Different classes of fire are, class A, B, C, D, E, K.
- Different types of fire extinguishers, water extinguishers, dry chemical powder, foam-type extinguishers, carbon dioxide extinguishers, and special dry powder.
- The method of using a fire extinguisher is to follow P.A.S.S. PASS is the acronym for, Pull the Pin (P), Aim (A), Squeeze (S) and Sweep (S).
- A lightning strike is a massive discharge of electricity from the atmosphere, where the electrical charge has built up, to the earth.
- Fire can be defined as “the rapid oxidization of a material or substance”. This is known as combustion.
- An explosion is a type of fire but one which combusts with such a rapid force that it causes an effect known as over-pressure (explosion).
- Thermal radiation is the transfer of heat from one source to another.
- Whenever a liquid moves against a solid object, such as the inside of a pipe, it generates a static electrical charge.
- Methods of controlling static charges are, anti-static additives, bonding and grounding techniques are a very effective means of minimizing the risk of spark generation from a build-up of static electricity.
- Any leak of product is regarded as highly undesirable. However, if a leak does occur there should be systems in place to detect it immediately and for appropriate action to be taken to control.
- Smoking materials, vehicles, welding, grinding, electrostatic discharge sparks are some sources of ignition.
- Hazardous areas are classified into zones.
- Zone 0 is an area in which an explosive gas atmosphere is present continuously or for long periods.
- Zone 1 is an area in which an explosive gas atmosphere is likely to occur in normal operation.
- Zone 2 is an area in which an explosive gas atmosphere is not likely to occur in normal operation but, if it does occur, will only exist for a short period.
- Fire Safety Technicians should be provided with structural firefighting PPE for use during interior structural fire suppression duties.
- An on-site emergency plan includes both onshore and offshore installations.
- Content of emergency plans include responsibilities and authority of those overseeing an emergency, types of events, alarm systems.
- A ‘fire and explosion strategy’ is a combination of measures taken to reduce the risk to personnel in the case of fire or explosion.
- Emergency Shutdown Valves (ESDVs) should be enclosed with a fireproof casing.
- All enclosures which house rotating equipment and electric drives should have Very Early Smoke Detection Apparatus (VESDA) fitted.
- Subsea Isolation Valves (SSIVs) should be fitted in sea lines and wells.

- High Integrity Pipeline Protection Systems (HIPPS) should be fitted where appropriate.
- The onshore alarm signal is conveyed by means of a warning siren which is loud enough for everybody on the site, and in the surrounding area, to hear.
- When exploring why a certain sequence of events occurred it will be necessary to consider several potential contributory factors. These factors will relate to the job, the people, the organisation, the equipment involved and the environment.
- Information relating to the immediate, underlining and root causes of any adverse event should be gathered from as wide a range as possible.
- Any personal injuries or dangerous occurrences that occur as a result of fire must of course be reported to the authorities.

Exercise



1. Who has the responsibility to ensure the siren is heard and what does it mean?
b) Site management
2. There are two types of alarms in an offshore alarm system, they are –
b) General platform alarm, Personnel onboard alarm
3. Escape routes should be marked with _____ along the entire route.
a) Signage

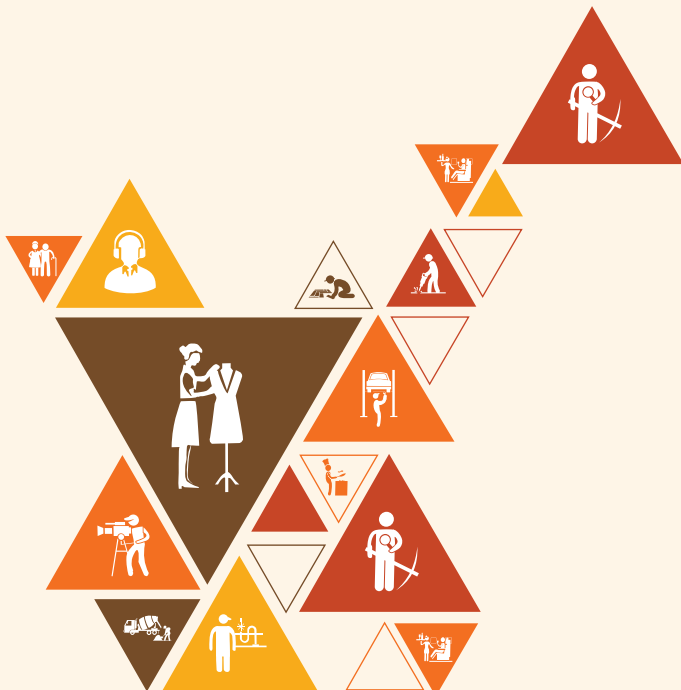
Notes





4. Working Effectively in a Team

Unit 4.1 - Working effectively in a team



HYC/N9301

Key Learning Outcomes

At the end of this module, participant will be able to:

1. Discuss the communication skills.
2. Define the teamwork and communication in handling patient.

Unit 4.1: Working Effectively in a Team

Unit Objectives

At the end of this unit, participant will be able to:

1. Identify the importance of effective communication.
2. List out essential skills required for effective communication.
3. Identify barriers to effective communication.
4. Define how to work effectively in a team.

Resources to be used

- Whiteboard pen, notebook etc.
- Flip chart
- Participant Handbook/handouts
- LCD projector
- Attendance sheet

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them if they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they are going to learn about Effective Communication and Teamwork.

Ask

- What is effective communication?
- How do you communicate with supervisor?
- What is the importance of achieving goals in the workplace?

Discuss

- Discuss the characteristics of effective communication.

- Effective Communication Skills.
- Barriers to Effective Communication.
- Barriers Involving People’s Background.
- Five important aspects to remember when communicating with your supervisor.
- Achieve Goals in the Workplace.
- How to accomplish goals.
- Working Effectively in a Team.

Activity

Activity Name	Fun-A-Day
Objective	Strengthen social interaction.
Material Required	Pen, Notebook
Time required for Activity	1 Hour
Steps of Activity	<ul style="list-style-type: none"> • Divide the class into 4 or 6 groups of an equal number of participants and ask each group to choose their contender group. (No team will select the same group). • Now each group will assign a topic to each of their choice (Limited to the chapter). • Once all the groups have their topics, each group will be asked to prepare any 5 important points related to that topic. (Give 10-15 min time to each group for the task). • Now when all groups are prepared with their points they will share their points with the team who assigned them the topic. • Now this team will cross-check their points and grade them based on each point. (Grading will be done out of 5, if correct full points otherwise 0). • The checking team will also explain at the end why they have given zero, if given. <p>In the end, the team with maximum marks will be announced as the star team.</p>
Inference	Practice teamwork

Notes for Facilitation

- Explain the learning objectives.

- Encourage and guide participants to think critically.
- Listen to the participants' comments, questions, and feedback.
- Help participants with observations and analysis.
- Help participants arrive at appropriate conclusions.
- Encourage participants to contribute to the discussion.
- Help participants reach an appropriate consensus.
- Help identify opportunities and potential.
- Summarize the discussion or ask others to do so.

Summary

- Effective communication is a process of exchanging ideas, thoughts, knowledge and information such that the purpose or intention is fulfilled in the best possible manner.
- Listening and understanding is the most crucial skill in a person he must be a good, alert and patient listener.
- Effective communication has certain characteristics such as clear, correct, precise, complete, and reliable messages.
- Non-verbal communication includes gestures, facial expressions, eye contact, postures, etc.
- Effective communication is always a two-way process and providing feedback is an essential part of it.
- Certain obstacles sometimes hinder the process of communication, language barriers, ambiguity, overuse of abstractions, and information overload.
- Physiological Barriers are the physical disability of the people involved. Some of these are hearing impairment, poor eyesight, stammering, etc.
- Goal setting gives direction and helps with time management.
- SMART goals are a methodology for setting goals that makes them easier to track and accomplish.
- Working effectively in a team can lead to more effective and innovative solutions in the workplace.

Exercise

1. The clear exchange of ideas and information is _____.
b) Communication
2. The characteristics of communication when the sender must be sure from his end that whatever he is conveying is right by his knowledge is called _____.
d) Sender's Courtesy

3. Which type of barrier to effective communication is the physical disability of the people to communicate effectively?
 - a) **Noise**
4. SMART goals are a methodology for setting goals that makes them easier to track and accomplish. What does S stand for in SMART?
 - b) **Specific**
5. _____ as a team is a great way to come up with a range of new and exciting ideas.
 - c) **Brainstorming**

Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=WTa4wvFVX_Y
How To Manage Conflict in a Team - Workplace & Office
Conflict Management

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=6fbE52YDEjU>
Teamwork can make a Dreamwork

Scan the QR codes or click on the link to watch the related videos



<https://www.youtube.com/watch?v=9MO1aY1xC80>
Motivation - leader and teamwork! animation video

Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=fUXdrI9ch_Q
good teamwork and bad teamwork

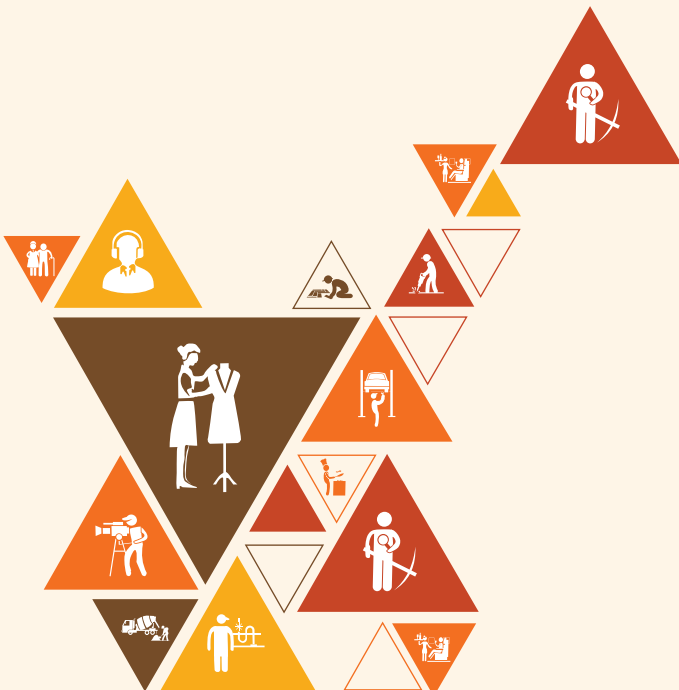
Scan the QR codes or click on the link to watch the related videos



https://www.youtube.com/watch?v=H_vOfqIpD60
Why Team Building is Important



5. Employability Skills 60 Hours



DGT/VSQ/N0102

Scan the QR code or click on the link to watch related videos



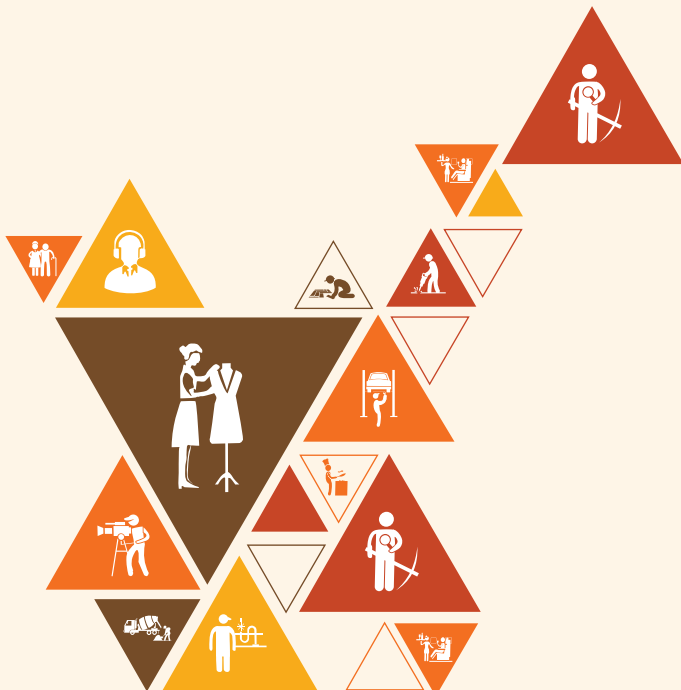
Employability Skills (<https://eskillindia.org/NewEmployability>)



5. Annexure

Annexure I: Training Delivery Plan

Annexure II



Annexure I

Training Delivery Plan

Training Delivery Plan			
Program Name:	Fire Safety Technician (Oil & Gas)		
Qualification Pack Name & Ref. ID	HYC/Q3601		
Version No.	1.0	Version Update Date	04-03-2020
Pre-requisites to Training (if any)	Class XII / ITI (two years after class 10th)		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> Carry out safety procedural checks as per safety rules and procedures specific to oil and gas installations and conduct safety demonstration Perform firefighting operations and undertake fire safety measures to ensure safety of workers and communities surrounding the oil and gas installation area Work effectively with colleagues, superiors, members of own work group, people in other work groups within or outside the organization 		

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
1.	Introduction to Hydrocarbon Sector	<ul style="list-style-type: none"> Icebreaker Objective of the Program 	<ul style="list-style-type: none"> Build rapport with fellow participants of the program State the Objectives of the Program. 	N/ A	Icebreaking Activities, Discussions, Interaction, Lectures.	PPT Slides and handouts	T: 04:00 P: 00:00
2.	Introduction to Hydrocarbon Sector	Hydrocarbon Sector in India Job Role of a Fire Safety Technician (Oil & Gas)	<ul style="list-style-type: none"> Describe about the hydrocarbon sector in India List the three major segments in the hydrocarbon sector. Identify about the achievements of hydrocarbon sector. Identify and perform about the roles and responsibilities of fire safety technician. Define and conduct OISD standards for fire-fighting equipment and appliances in oil and gas industry. State about the essential skills of fire safety technician. Demonstrate the career aspects of fire safety. Identify roles and responsibilities of fire safety technician. Identify essential skills and knowledge required by fire safety technician. 	N/ A	Discussions, Interaction, Lectures.	PPT, Projector & Screen, Participants Handbook, Audio Visual, Chart Paper, Board Marker, Pens, Pencils, etc.	T: 04:00 P: 00:00
3.	Prepare workplace in line with fire safety rules	Carryout Fire Safety Procedures	<ul style="list-style-type: none"> Identify the types and features of cooking gases 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00






S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
4.	Prepare workplace in line with fire safety rules	Prepare workplace in line with fire safety rules	<ul style="list-style-type: none"> List the points of PNG composition. State the different uses of domestic PNG. 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00
5.	Prepare workplace in line with fire safety rules	Carryout Fire Safety Procedures	<ul style="list-style-type: none"> Explain the city gas distribution in India and its benefits. 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00
6.	Prepare workplace in line with fire safety rules	Carryout Fire Safety Procedures	<ul style="list-style-type: none"> Explain the basic properties of flammable gas Describe how to store the flammable gas. 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00
7.	Prepare workplace in line with fire safety rules	Safety Demonstration	<ul style="list-style-type: none"> Identify and conduct ways to keep people safe. 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00
8.	Prepare workplace in line with fire safety rules	Safety Demonstration	<ul style="list-style-type: none"> Identify and develop safe fire evacuation procedure 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 07:00 P: 14:00





S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
9.	Prepare workplace in line with fire safety rules	Safety Demonstration	<ul style="list-style-type: none"> Identify the ways to perform first aid related to fire injury. Perform CPR. 	HYC/N3601 PC1 -PC13 KU1 – KU17 GS1 – GS19	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Fire safety equipment Portable fire pump Sprinkler systems Smoke control systems Fire Alarm Fire trays Various types of fire extinguisher Fire hose Safety shirt Safety trouser Safety jacket 	T: 08:00 P: 16:00
10.	Perform fire safety operation at workplace	Usage of firefighting equipment	<ul style="list-style-type: none"> Identify sources of fire and firefighting equipment. 	HYC/N3602 PC1 – PC12 KU1 – KU18 GS1 – GS21	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Firefighting equipment Breathing apparatus (Negative & Gas cylinders) Various types of gas detectors Water fire extinguisher Stored pressure fire extinguisher Chemical foam type fire extinguisher Mechanical foam type fire extinguisher BC type ABC type Extension ladder All type of branches and nozzles Fire Hoses PPE First aid box Safety shoe Safety helmet Safety glasses Hand gloves Safety jacket 	T: 08:00 P: 22:00
11.	Perform fire safety operation at workplace	Usage of firefighting equipment	<ul style="list-style-type: none"> Identify sources of fire and firefighting equipment. 	HYC/N3602 PC1 – PC12 KU1 – KU18 GS1 – GS21	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Firefighting equipment Breathing apparatus (Negative & Gas cylinders) Various types of gas detectors Water fire extinguisher Stored pressure fire extinguisher Chemical foam type fire extinguisher Mechanical foam type fire extinguisher BC type ABC type Extension ladder All type of branches and nozzles Fire Hoses PPE First aid box Safety shoe Safety helmet Safety glasses Hand gloves Safety jacket 	T: 08:00 P: 22:00





S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
12.	Perform fire safety operation at workplace	Usage of firefighting equipment	<ul style="list-style-type: none"> Identify various PPE used in fire emergencies. Demonstrate appropriate method to extinguish fire 	HYC/N3602 PC1 – PC12 KU1 – KU18 GS1 – GS21	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Firefighting equipment Breathing apparatus (Negative & Gas cylinders) Various types of gas detectors Water fire extinguisher Stored pressure fire extinguisher Chemical foam type fire extinguisher Mechanical foam type fire extinguisher BC type ABC type Extension ladder All type of branches and nozzles Fire Hoses PPE First aid box Safety shoe Safety helmet Safety glasses Hand gloves Safety jacket 	T: 08:00 P: 22:00
13.	Perform fire safety operation at workplace	Fire safety measures	<ul style="list-style-type: none"> Identify various PPE used in fire emergencies. Demonstrate appropriate method to extinguish fire 	HYC/N3602 PC1 – PC12 KU1 – KU18 GS1 – GS21	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Firefighting equipment Breathing apparatus (Negative & Gas cylinders) Various types of gas detectors Water fire extinguisher Stored pressure fire extinguisher Chemical foam type fire extinguisher Mechanical foam type fire extinguisher BC type ABC type Extension ladder All type of branches and nozzles Fire Hoses PPE First aid box Safety shoe Safety helmet Safety glasses Hand gloves Safety jacket 	T: 08:00 P: 22:00
14.	Perform fire safety operations at the workplace	Fire safety measures	<ul style="list-style-type: none"> Identify fire and explosion strategy Demonstrate usage of alarms. Demonstrate first aid techniques in case of inhalation of toxic gas. 	HYC/N3602 PC1 – PC12 KU1 – KU18 GS1 – GS21	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Firefighting equipment Breathing apparatus (Negative & Gas cylinders) Various types of gas detectors Water fire extinguisher Stored pressure fire extinguisher Chemical foam type fire extinguisher Mechanical foam type fire extinguisher BC type ABC type Extension ladder All type of branches and nozzles Fire Hoses PPE First aid box Safety shoe Safety helmet Safety glasses Hand gloves Safety jacket 	T: 08:00 P: 22:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
15.	Work effectively in a team	Work effectively in a team	<ul style="list-style-type: none"> Discuss the communication skills. Define the teamwork and communication in handling patient 	HYC/N3602 PC1 – PC9 KU1 – KU8 GS1 – GS8	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Communication equipment like mobile and walkie talkie 	T: 4:00 P: 6:00
16.	Work effectively in a team	Work effectively in a team	<ul style="list-style-type: none"> Discuss the communication skills. Define the teamwork and communication in handling patient 	HYC/N3602 PC1 – PC9 KU1 – KU8 GS1 – GS8	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Communication equipment like mobile and walkie talkie 	T: 4:00 P: 6:00
17.	Work effectively in a team	Work effectively in a team	<ul style="list-style-type: none"> Discuss the communication skills. Define the teamwork and communication in handling patient 	HYC/N3602 PC1 – PC9 KU1 – KU8 GS1 – GS8	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Communication equipment like mobile and walkie talkie 	T: 4:00 P: 6:00
18.	Work effectively in a team	Work effectively in a team	<ul style="list-style-type: none"> Discuss the communication skills. Define the teamwork and communication in handling patient 	HYC/N3602 PC1 – PC9 KU1 – KU8 GS1 – GS8	Discussions, Interaction, Lectures.	<ul style="list-style-type: none"> Communication equipment like mobile and walkie talkie 	T: 5:00 P: 7:00
Total Duration							450






Annexure II






Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
1	Module 1	Unit 1.1 - Hydrocarbon sector in India	1.1.4 Oil industry safety directorate (OISD) standards	8	https://www.youtube.com/watch?v=oCqK-7kHBpzg	 OISD Standards
2	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.1 Fire awareness	19	https://www.youtube.com/watch?v=xnZZ-ruGjKBA	 Classes of fire
3	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.2 Introduction to fire safety procedures	19	youtube.com/watch?v=KX8LM-LyIf14	 Basic Safety Rules
4	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.2 Introduction to fire safety procedures	19	https://www.youtube.com/watch?v=1T0I16X-IOow	 Offshore Oil Rig Safety Rules and Emergency Response
5	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.3 Permit to work	19	https://www.youtube.com/watch?v=_aNY-6mV6ggE	 Work Permit System


Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
6	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.4 Fire safety signs	19	https://www.youtube.com/watch?v=aaD-2jw_rh04	 <p>List fire safety signage and their usage</p>
7	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	19	https://www.youtube.com/watch?v=L4sUQZ-ta8Rw	 <p>List fire safety equipment and safety signage and their usage</p>
8	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	19	https://www.youtube.com/watch?v=dPxmp-b7iiKA	 <p>How to Inspect Fire Extinguisher</p>
9	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	19	https://www.youtube.com/watch?v=cn-M8qO9naM4	 <p>How to Inspect Fire Extinguisher</p>


Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
10	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	19	https://www.youtube.com/watch?v=13YVEw-py4ec	 <p>Ensuring the safety, security and reliability of oil & gas power equipment centres</p>
11	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	19	https://www.youtube.com/watch?v=3RFDKp-wdbEA	 <p>Animation of April 26, 2018, Explosion and Fire at the Husky Energy Refinery in Superior, Wisconsin</p>
12	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	20	https://www.youtube.com/watch?v=goSEyG-NfIPM	 <p>BP Texas City Explosion Animation</p>
13	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	20	https://www.youtube.com/watch?v=3nak-KzM66hk	 <p>Fire extinguishing agents</p>

Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
14	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.5 Fire safety equipment	20	https://www.youtube.com/watch?v=XmPnX-zQVLQg	 <p>Fire Suppression System</p>
15	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.6 Oil spills and gas leaks	20	https://www.youtube.com/watch?v=fjOpZR-6r1fM	 <p>Environment Pollution Oil Spill</p>
16	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.6 Oil spills and gas leaks	20	https://www.youtube.com/watch?v=Gtwcb5qF6SQ	 <p>Impacts of Oil Spills</p>
17	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.7 Environmental impact of fire	20	https://www.youtube.com/watch?v=JAzc_xBsnq0	 <p>Natural gas liquids, and what happens if they leak?</p>
18	Module 2	Unit 2.1 - Carry out fire safety procedures	2.1.7 Environmental impact of fire	20	https://www.youtube.com/watch?v=AP-k_65bdhCM	 <p>Effects of oil spills or gas leakage</p>

Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
19	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.1 Fire fighting equipment	26	https://www.youtube.com/watch?v=GjSoxJ-F3RD4&t=13s	 <p>Types of Fire Extinguisher and Their Uses</p>
20	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.1 Fire fighting equipment	26	https://www.youtube.com/watch?v=m-CH4zezrZdc	 <p>Different type of Fire Extinguishers & their uses</p>
21	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.1 Fire fighting equipment	26	https://www.youtube.com/watch?v=7ZPRw-PZ64yw	 <p>Different Types Of Fire Fighting Equipment</p>
22	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.1 Fire fighting equipment	26	https://www.youtube.com/watch?v=GRD-2n16onqc	 <p>How to Deal with a Fire Emergency</p>
23	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.1 Firefighting equipment	26	https://www.youtube.com/watch?v=7gHEt-GY4chE	 <p>Fire Emergency Procedures - Animated Safety Video</p>

Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
24	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.2 Fire hazards, risks and controls relating to hydrocarbons	26	https://www.youtube.com/watch?v=sTaXRb-cu3PA	 <p>Line-of-Fire Safety</p>
25	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.2 Fire hazards, risks and controls relating to hydrocarbons	26	https://www.youtube.com/watch?v=a35s92-LKqY	 <p>Sources of Ignition Fire Hazard</p>
26	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.2 Fire hazards, risks and controls relating to hydrocarbons	26	https://www.youtube.com/watch?v=hH-4NuN_KFfl	 <p>Fire & Safety Bina Refinery BPCL</p>
27	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.2 Fire hazards, risks and controls relating to hydrocarbons	27	https://www.youtube.com/watch?v=5_PlnKpuaXE	 <p>Fire Ignition Sources</p>
28	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.4 Fire fighting PPEs	27	https://www.youtube.com/watch?v=loQ9Db-sy2ag	 <p>An Introduction - Personal Protective Equipment (PPE)</p>

Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
29	Module 3	Unit 3.1 - Usage of fire fighting equipment	3.1.4 Fire fighting PPEs	38	https://www.youtube.com/watch?v=IHh_kcaiYyg&t=71s	 Using Your PPE Safely
30	Module 4	Unit 4.1 - Working effectively in a team	4.1.1 Effective communication	38	https://www.youtube.com/watch?v=W-Ta4wvFVX_Y	 How To Manage Conflict in a Team - Workplace & Office Conflict Management
31	Module 4	Unit 4.1 - Working effectively in a team	4.1.3 Achieve goals in the workplace	38	https://www.youtube.com/watch?v=6fbE52Y-DEjU	 Teamwork can make a Dreamwork
32	Module 4	Unit 4.1 - Working effectively in a team	4.1.3 Achieve goals in the workplace	38	https://www.youtube.com/watch?v=-9MO1aY1xC80	 Motivation - leader and teamwork! animation video
33	Module 4	Unit 4.1 - Working effectively in a team	4.1.4 Work effectively in a team	38	https://www.youtube.com/watch?v=fUXdrl-9ch_Q	 Good teamwork and bad teamwork

Sl No.	Module No.	Unit No. and Name	Topic Name	Page No.	URL	QR Code (s)
34	Module 4	Unit 4.1 - Working effectively in a team	4.1.4 Work effectively in a team	38	https://www.youtube.com/watch?v=H_vOfqIpD60	 Why Team Building is Important



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