

# Facilitator Guidebook

## Safety Auditor



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## Acknowledgments

The Facilitator Guidebook for **Safety Auditor, SSD/Q0105**, developed by the **Safety Skill Development Foundation (SSDF)**, reflects our commitment to industry requirement for the job role, best practices in the profession, quality training requirement, regulatory compliances, workplace safety, health and sustainable practices. This guide is enriched with insights from **Subject Matter Experts (SMEs), trainers, and industry professionals**, ensuring its relevance to real-world applications.

We extend our special thanks to **CORE-EHS Solutions Pvt Ltd** for their invaluable expertise and support in developing course materials, significantly enhancing the safety and quality aspects of this guide.

Our gratitude also goes to trainers, assessors, industry experts, government bodies, and sector skill councils for their contributions toward advancing occupational safety across industries, including Hydrocarbon, Iron & Steel, Mining, Power, Automotive, Construction, Chemicals & Petrochemicals, and more.

The qualification is aligned with **NSQF** and this guide supports the **Skill India** initiative and is dedicated to trainers committed to excellence in skill development. SSDF welcomes feedback for continuous improvement.

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## About this Guide Book

The increasing focus on safety across various industries is driving a surge in the demand for qualified Safety Auditors. This heightened need is resulting in a greater requirement for trained professionals in the field. As a result, there is an escalating necessity for trainers to prepare individuals with the essential skills to become competent Safety Auditors.

This Facilitator Guide is designed for providing skill training and /or upgrading the knowledge level of the Trainees to take up the job of an “Trainer” in the Cross Sectoral Sector.

This Facilitator Guide is designed based on the Qualification Pack (QP) under the National Skill Qualification framework (NSQF) and it comprises of the following National Occupational Standards (NOS)/topics and additional topics.

1. **SSD/VSQ/N0113: Concept of Safety Audit, Need, Scope and Methodologies of safety audit.**
2. **SSD/VSQ/N0130: Hazard identification, categories, and control.**
3. **SSD/VSQ/N0114: Risk Score Evaluation of Hazards.**
4. **SSD/VSQ/N0115: Safety Audit Report Preparation**
5. **SSD/VSQ/N0131: Statutes and Legislative requirements in Health and Safety.**
6. **SSD/VSQ/N0116: Plan, Organize & Monitor.**
7. **DGT/VSQ/N0102: Employability Skills (60 Hours)**

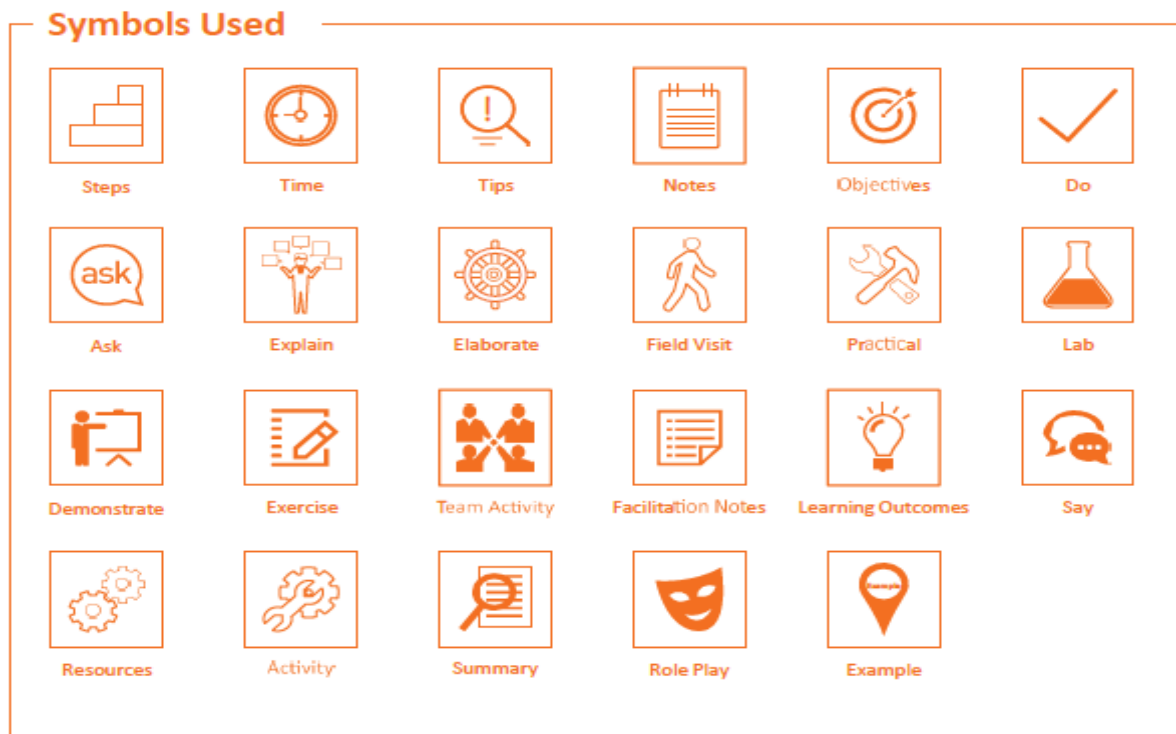
The guidebook provides detailed insights on how facilitators can engage with participants, assess their training requirements, and convey essential concepts pertaining to safety auditing. It guarantees that

facilitators address all necessary subjects effectively, achieving the training goals within the allotted time.

At the start of each unit, key learning objectives for each National Occupational Standard (NOS) are presented, assisting facilitators in navigating the training process. Additionally, the symbols utilized in this guidebook are clarified to enhance facilitators' comprehension of the materials.

This guidebook serves as an extensive resource for trainers, ensuring they are adequately prepared to conduct effective safety audit training.

### Symbols Used



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## 1. Unit 1 Introduction

### 1.1. Key Learning Outcomes

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

- Describe Hydrocarbon, Iron & steel, Mining, Power, Automotive, Construction, Chemicals & Petrochemicals
- List the roles and responsibilities of Safety Auditors

### 1.2. Unit 1.1: Overview of the Industry

#### 1.2.1. Unit Objectives

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

1. Describe about the Hydrocarbon sector in India
2. Describe about the Iron & Steel sector in India
3. Describe about the Mining sector in India
4. Describe about the Power sector in India
5. Describe about the Automotive sector in India
6. Describe about the Construction sector in India
7. Describe about the Chemicals & Petrochemicals in India
8. Describe how each sub-sector contributes to skill development
9. Compare the job potential of all sub-sectors

#### 1.2.2. Resources to be used

- Available objects such as Projection screen, whiteboard, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Attendance sheet
- Activities (role plays and games)

#### 1.2.3. Ask

- Ask the participants to share their expectations from the program
- Ask them to tell what they know about the Hydrocarbon sector, Iron & Steel sector, Mining sector, Power sector, Automotive sector, Construction sector, Chemicals & Petrochemicals
- What is the 'Make-in-India' initiative?

#### 1.2.4. 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, Iron & Steel sector, Mining sector, Power sector, Automotive sector, Construction sector, Chemicals & Petrochemicals sector in India.

#### 1.2.5. Explain

List the major segments in the Hydrocarbon sector, Iron & Steel sector, Mining sector, Power sector, Automotive sector, Construction sector, Chemicals & Petrochemicals sector

#### 1.2.6. Tips

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

#### 1.2.7. Activity: Team Spot

- Separate the class in 2 different teams.
- Each team will be assigned with 3 different sector topics
- Ask them to present the given topics team after team, and state examples individually to explain

### 1.2.8. Notes for Facilitation

- Revise the important points discussed in this unit.
- Clear the doubts of the students, 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 on 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.

### 1.2.9. Summary

- **Hydrocarbon:** The hydrocarbon sector involves the extraction, refinement, and distribution of oil and natural gas. This sector plays a crucial role in energy production and the global economy, providing fuel and raw materials for various industries.
- **Iron & Steel:** The iron and steel sector is fundamental to industrial development. It focuses on producing metal alloys used in manufacturing, construction, and infrastructure. This sector is key to building economies and supporting technological advancements.
- **Mining:** The mining industry is concerned with extracting valuable minerals and materials from the earth. It provides essential raw materials for industries like construction, energy production, and manufacturing.
- **Power:** The power sector includes the generation, transmission, and distribution of electricity. This sector is vital to economic development and daily life, powering homes, businesses, and industries through a variety of sources such as coal, natural gas, renewables, and nuclear energy.
- **Automotive:** The automotive sector involves the design, production, and distribution of motor vehicles, including cars, trucks, and motorcycles. It is a significant driver of technological innovation and economic activity globally.
- **Construction:** The construction sector is involved in the building and infrastructure development of residential, commercial, and industrial projects. It supports urbanization and economic development by creating critical infrastructure such as roads, bridges, and buildings.
- **Chemicals & Petrochemicals:** This sector deals with the production of chemicals, fertilizers, and petrochemical products derived from petroleum. It plays a crucial role in manufacturing various goods such as plastics, pharmaceuticals, and industrial chemicals.
- A Safety Auditor assesses workplace safety practices, identifies hazards, ensures compliance with safety regulations, and recommends improvements to prevent accidents and ensure a safe working environment.

### 1.2.10. Exercise

- Which of following is the most common cause of accidents in hydrocarbon sector?**
  - Equipment Failure
  - Human Error
  - Natural Disasters
  - Fire
- Routine inspections and maintenance are crucial for preventing accidents in oil and gas pipeline.(T/F)**
- Which of the following is major hazard in steel industry?**
  - Noise Pollution
  - High Temperature
  - Exposure to Hazardous Substance
  - All the above
- Proper PPE is essential for Workers handling molten metal.(T/F)**
- What is most common cause of fatalities in underground mines?**
  - Rock Falls
  - Explosion
  - Flooding
  - Electrical Hazards

**6. Which of the following is critical safety measures for open pit mines?**

- A. Slope stability monitoring
- B. Blast design and execution
- C. Dust Control measures
- D. All of the above

### 1.3. Unit 1.2: Roles and Responsibilities of a Safety Auditor

#### 1.3.1. Unit Objectives

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

1. Identify roles and responsibilities of Safety Auditor
2. Identify essential skills of Safety Auditor

#### 1.3.2. Resources to be used

- Available objects such as Projection screen, whiteboard, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Attendance sheet
- Activities (role plays and games)

#### 1.3.3. Ask

- Ask the participants to share their expectations from the program

**Do**

- Give a brief introduction on the job description of Safety Auditor outlining their personal attributes to the participants
- Provide the participants with a List of Roles and Responsibilities of Safety Auditor
- Talk about the skills and knowledge which are essential to become a Safety Auditor

#### 1.3.4. Explain

Describe about the roles and responsibility of Safety Auditor

#### 1.3.5. Tips

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

#### 1.3.6. Activity: Team Spot

- Separate the class in 2 different teams.
- Each team will be assigned with 3 topics, being: Roles and responsibilities of Safety Auditor
- Ask them to present the given topics team after team, and state examples individually to explain

#### 1.3.7. Notes for Facilitation

- Revise the important points discussed in this unit.
- Clear the doubts of the students, 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 on 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.

#### 1.3.8. Summary

- **Conducting Safety Inspection:** Safety inspection are crucial for identifying and mitigating workplace hazards to prevent accidents and injuries
- **Reviewing safety policy and procedure:** Reviewing safety policy and procedures is essential to ensure they are up-to-date ,relevant and effectively implemented to maintain a safe working environment.

- **Monitoring and evaluating safety performance:** Monitoring and evaluating safety performance is crucial for identifying areas of strength and weakness, demonstrating the effectiveness of safety program and driving continuous improvement in safety culture
- **Recommending Corrective actions:** Recommending Effective Corrective actions is crucial for addressing safety issues , preventing future incidents and continuous improvement in safety performance
- **Staying informed about safety regulations:** Staying informed about latest safety regulations And best practice is crucial for ensuring the effectiveness and compliance of safety program

### 1.3.9. Exercise

#### 1. Which of following is not a primary responsibility of safety auditor?

- Conducting safety inspection
- Developing new procedure/product
- Monitoring and evaluating safety performance
- Recommending Corrective actions

#### 2. What is Primary goal of safety audit?

- To punish employees for safety violations
- To identify and eliminate workplace hazards
- To meet legal requirements
- To increase production efficiency

#### 3. A safety auditor must have strong understanding of relevant \_\_\_ and regulations

#### 4. Safety auditor should be able to \_\_\_ their findings clearly and concisely in written reports

#### 5. Safety auditor recommendations should be practical and cost effective(T/F)

## 2. Unit 2 NOS 1: Concept of Safety Audit, Need, Scope and Methodologies of safety audit (SSD/VSQ/N0113)

### 2.1.Key Learning Outcomes

**At the end of this module, the trainees will be able to**

- Understand & perform audit with schematic approach.
- Identify and understand audit in different audit stages.
- Suggest continuous improvement cycles in the system

### 2.2.Unit 2.1: Concept of Safety Audit

#### 2.2.1. Unit Objectives

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

- Recognize the importance of safety audits in preventing accidents, injuries, and fatalities.
- Understand the difference between various types of safety audits (e.g., general, specific, compliance) and their respective scopes.
- Describe & familiarize oneself with various methodologies used in safety audits, such as checklists, inspections, interviews, and observations.

#### 2.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

#### 2.2.3. Say

- What is Audit
- Basic Process of Safety Audit
- Safety Audit Material

#### 2.2.4. Explain

- Describe Hazard Identification
- Describe Compliance Assessment
- Describe Risk Assessment

### 2.2.5. Activity

- Have trainees divided into groups and ask them to choose topic from the given topics.
- Audit and its process, Audit Material Types, Audit Equipment, Audit Methods, Work procedure of audit
- Now ask each group to explain audit process
- 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 audit each group will present their
- questions prepared from other group's presentation.
- Now it is the job of trainer to correct any mistakes in presentation or questions-answer round, and clear trainees' doubts.
- Once correction round is complete announce the winner for presentation and question
- answer round.

### 2.2.6. 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.

### 2.2.7. Summary

- **Hazard Identification:**
  - Identifying potential dangers that could lead to accidents or injuries.
  - Assessing the likelihood and severity of these hazards.
  - Prioritizing risks based on their potential impact.
- **Compliance Assessment:**
  - Evaluating an organization's adherence to safety regulations and standards.
  - Identifying areas of non-compliance and assessing their severity.
  - Understanding the legal implications of non-compliance.
- **Risk Assessment:**
  - Quantifying the likelihood and severity of identified hazards.
  - Determining the overall risk level associated with each hazard.
  - Prioritizing risks based on their overall risk level.
- **Recommendation Development:**
  - Proposing practical and effective solutions to address identified hazards and non-compliance issues.
  - Considering the feasibility and cost-effectiveness of recommendations.
  - Prioritizing recommendations based on their potential impact and urgency.
- **Reporting and Follow-Up:**
  - Documenting audit findings and recommendations in a clear and concise report.
  - Communicating the audit findings to relevant stakeholders.
  - Monitoring the implementation of recommendations and conducting follow-up audits to assess their effectiveness.

### 2.2.8. Exercise

#### 1. What is the primary objective of a safety audit?

- A) Increase profitability
- B) Identify and mitigate hazards
- C) Improve marketing strategies
- D) Train employees

#### 2. Safety audits focus on identifying and mitigating hazards that could potentially causes injuries or illness to employee(T/F)

#### 3.What is the difference between a safety audit and a safety inspection? (PC1)

- A) An audit is broader and examines systems; an inspection focuses on specific areas.
- B) An audit is informal; an inspection is formal.

- C) An audit is conducted by external parties; an inspection is internal only  
 D) There is no difference.

**4. The primary goal of safety audit is to \_\_\_ workplace safety and \_\_\_ the risk of accidents**

**5. What is the role of an auditor in promoting ethical practices?**

- A) To enforce company policies  
 B) To act as a deterrent against unethical behaviour  
 C) To report only positive findings  
 D) To develop new strategies for revenue generation

## **2.3. Unit 2.2: Safety Audit Process and Stages**

### **2.3.1. Unit Objectives**

**At the end of this unit, students will be able to**

- Understand about Planning and Preparation phase of audit
- Understand process of Conducting the Audit
- Understand Analysis and Findings process of audit
- Identify appropriate Recommendations
- Understand Reporting System
- Follow-up procedure

### **2.3.2. Resources**

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### **2.3.3. Say**

- Basic process of Planning and Preparation phase of safety audit
- Basic process of Conducting the Audit
- Basic process of Analysis and Findings phase of safety audit
- Basic process of Recommendations phase of safety audit
- Basic process of Reporting phase of safety audit
- Basic process of Follow-up phase of safety audit

### **2.3.4. Explain**

- Describe audit and its process

### **2.3.5. Activity**

#### **Safety Audit Process and Stages**

Objective: To understand the key stages and process of conducting a safety audit.

#### **Activity Setup:**

Divide the class into small groups (4-5 students per group).

Assign each group a specific stage of the safety audit process (e.g., Planning, Data Collection, Inspection, Reporting).

#### **Instructions:**

**Planning Stage:** Each group discusses and lists the steps involved in planning a safety audit (e.g., defining scope, selecting audit team, setting timelines).

**Data Collection:** Discuss and identify types of documents and records to gather (e.g., incident reports, maintenance logs, safety protocols).

**Inspection:** Role-play a safety inspection process where one group acts as auditors and others as workers, focusing on identifying hazards.

**Reporting:** Each group prepares a brief report summarizing audit findings, recommendations, and compliance levels.

**Presentation:** After 15-20 minutes of discussion, each group presents their findings for their assigned stage, followed by a class discussion on how these stages connect to form a comprehensive safety audit process.

**Conclusion:** Recap the importance of each stage in ensuring a thorough and effective safety audit.

### 2.3.6. 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.

### 2.3.7. Summary

- **Scope Definition:**
  - **Determine the Purpose:**
  - **Identify the Scope:**
  - **Set Objectives:**
- **Stakeholder Engagement:**
  - **Identify Key Stakeholders:**
  - **Communicate the Audit Purpose**
  - **Obtain Support:**
- **Resource Allocation:**
  - **Determine the Necessary Resources:**
  - **Allocate Resources:**
- **Audit Planning:**
  - **Develop a Detailed Plan:**
  - **Consider Relevant Standards:**
  - **Identify Audit Techniques:**
- **Data Collection:**
  - **Document Review:**
  - **Interviews and Surveys**
  - **Observations.**
  - **Inspections:**
- **Hazard Identification:**
  - **Identify potential hazards:**
  - **Assess the severity and likelihood of hazards:**
  - **Prioritize hazards.**
- **Compliance Assessment:**
  - **Evaluate adherence to regulations:**
  - **Identify non-conformities:**
  - **Gather evidence:**
- **Risk Assessment:**
  - **Quantify risks:**
  - **Prioritize risks**
- **Data Review:**
- **Data Analysis:**
- **Correlation Analysis:**
  - Examine the relationships between different factors to identify potential causal relationships.
- **Root Cause Analysis:** Investigate the underlying causes of identified issues.
- **Comparison with Standards:**
  - Compare the findings of the audit to relevant safety standards and regulations.
  - Identify areas of non-compliance and assess their severity.
- **Types of Findings:**
  - **Non-conformities:**
  - **Safety hazards:**

- **Areas for improvement**
- **Best practices**
- **Documenting Findings:**
  - Clearly and concisely document all findings.
  - Provide supporting evidence for each finding.
  - Use a consistent format for documenting findings.
- **Types of Recommendations:**
  - **Corrective Actions:**
  - **Preventive Actions:**
  - **Improvement Recommendations:**
- **Effective Recommendation Writing:**
  - **Clarity:**
  - **Specificity:**
  - **Measurability:**
  - **Feasibility:**
  - **Prioritization.**
- **Developing Recommendations:**
- **Prioritizing Recommendations:**
- **Key Components of a Safety Audit Report:**
  - **Executive Summary:**
  - **Introduction:**
  - **Findings and Observations:**
  - **Recommendations:**
  - **Conclusions:**
  - **Appendices:** Any supporting documentation, such as raw data, detailed findings, or references.
- **Key Elements of Follow-Up Audits:**
  - **Review of Corrective Actions:**
  - **Assessment of Effectiveness**
  - **Identification of New Hazards:**
  - **Evaluation of Safety Culture:**
  - **Documentation:**

### 2.3.8. Exercise

1. Which stage involves planning and notification of the safety audit?
  - A) Closing meeting
  - B) Pre-audit preparations
  - C) Opening meeting
  - D) Audit fieldwork
2. During the opening meeting of a safety audit, who typically participates?
  - A) Only the auditor
  - B) Management and audit team
  - C) Only employees
  - D) External stakeholders
3. Why is it important to notify employees before a safety audit?
  - A) To ensure they are not present during the audit
  - B) To prepare them for potential changes
  - C) To gather their personal information
  - D) To avoid legal liabilities
4. Safety audit should only be conducted by external consultants (T/F)
5. Effective communication is crucial throughout all stages of safety audit process(T/F)

## 2.4. Unit 2.3: Types and Scope of Safety Audit

### 2.4.1. Unit Objectives

**At the end of this unit, students will be able to**

- Understand the scope of internal and external audit, reasons & advantages.
- Understand first-party, second-party and third-party audits.
- Understand the scope of the compliance audit, program audit & management system audit.
- Understand the scope of audit for a task, program, activity, project & machinery.

### 2.4.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 2.4.3. Say

- Describe the scope of internal and external audit, reasons & advantages.
- Describe first-party, second-party and third-party audits.
- Describe the scope of the compliance audit, program audit & management system audit.
- Describe the scope of audit for a task, program, activity, project & machinery.

### 2.4.4. Explain

- Identify the different types of audit
- Describe scope of different types of audit

### 2.4.5. Activity

#### **Types and Scope of Safety Audit**

Objective: To enhance students' comprehension of the various types of safety audits and their relevance across different settings.

#### **Activity Setup:**

Organize the class into small groups consisting of 3-4 students each.

Assign a distinct type of safety audit to each group (e.g., Compliance Audit, Risk Assessment Audit, Environmental Audit, Process Safety Audit, etc.).

#### **Instructions:**

**Research: Each group will perform a concise research task on their designated type of safety audit, focusing on:**

**The definition and objectives of the audit type.**

**The scope of the audit, including the areas or processes typically involved.**

**Examples of contexts in which this audit is utilized (e.g., manufacturing facilities, construction sites, chemical processing plants).**

**Scope Mapping: Groups are to develop a mind map or flow chart that outlines the primary areas encompassed by their assigned audit type, such as equipment, personnel, environmental factors, and legal compliance.**

**Presentation: Each group will present their research findings, emphasizing the audit type, its scope, and practical applications in real-world scenarios.**

**Discussion: Following the presentations, facilitate a class discussion on the significance of understanding the scope of various safety audits. Explore how these audits contribute to risk reduction and the promotion of workplace safety.**

**Conclusion: Recap the main types of safety audits and highlight that each audit fulfils a distinct role tailored to the specific safety requirements of an organization or industry.**

### 2.4.6. 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.

### 2.4.7. Summary

- **Internal Audits** :Internal audits assess compliance, effectiveness, and risk management processes.
- **External Audits**: Conducted by external firms to ensure accuracy and transparency. Assess compliance with legal regulations, standards, and accounting practices.
- **Regulatory Audits**: Regulatory audits ensure compliance with industry-specific laws and regulations
- **Specialized Audits**
- **1st Party Audits**
- **2nd Party Audits**
- **3rd Party Audit**
- **Compliance Audits**: Compliance audits assess adherence to internal policies and external regulations.
- **Program Audits**:
- **Management System Audits**
- **Incident Investigation Audits**: Conducted to investigate specific accidents or incidents and identify root causes.
- **Risk Assessment Audits**: Evaluate an organization's risk management processes and identify potential hazards.
- **Safety Culture Audits**: Assess the organization's safety culture and identify areas for improvement.
- **Key Areas included in Safety Audits**:
- **Hazard Identification**:
- **Compliance Assessment**:
- **Risk Management**:
- **Safety Training and Education**:
- **Emergency Preparedness**:
- **Safety Culture**:
- **Incident Investigation**:
- **Safety Management Systems**:

### 2.4.8. Exercise

1. Regulatory audits are conducted to ensure compliance with legal and statutory requirements.(T/F)
2. Third Party Audit are always conducted by government agencies.(T/F)
3. A\_\_ audit focuses on a specific process or activity within an organization.
4. Types and Scope of Safety Audit
5. What are the challenges in internal audit?
  - A) Budget not permitted.
  - B) Organisation will take it very lightly
  - C) Lack of objective and internal pressure.
  - D) No challenges have been faced by any internal auditor.
6. What is the primary purpose of an internal audit? (PC8)
  - A) To provide assurance to external stakeholders

- B) To improve internal processes
- C) To evaluate financial performance
- D) To comply with legal requirements

## 2.5. Unit 2.4: PDCA Cycle for Safety Audit Process

### 2.5.1. Unit Objectives

**At the end of this unit, students will be able to**

- Understand the safety management system and the requirement of Plan-Do-Check-Act (PDCA) cycle in safety management system.
- Understand and analyse “Plan” & “Do” stages of PDCA cycle.
- Understand and analyse “Check” and “Act” stages of PDCA cycle

### 2.5.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 2.5.3. Say

- Describe safety management system and the requirement of Plan-Do-Check-Act (PDCA) cycle in safety management system.
- Describe “Plan”, “Do”, “Check” and “Act” stages of PDCA cycle

### 2.5.4. Explain

- Describe safety management system and the requirement of Plan-Do-Check-Act (PDCA) cycle in safety management system.

### 2.5.5. Activity

**PDCA Cycle for Safety Audit Process**

- **Objective:** To understand and apply the PDCA (Plan-Do-Check-Act) cycle in the context of a safety audit process.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Assign each group a stage of the PDCA cycle (Plan, Do, Check, Act).
- **Instructions:**
  1. **Research & Discussion:**
    - **Plan:** The group discusses how to plan a safety audit, identifying objectives, resources, and timelines.
    - **Do:** The group focuses on how the audit is actually conducted, including data collection, inspections, and interviews.
    - **Check:** This group analyzes how to evaluate the audit findings, comparing them with safety standards and identifying discrepancies.
    - **Act:** The group focuses on the corrective actions taken after the audit, including implementing improvements and updating safety protocols.
  2. **Scenario Application:** Each group receives a hypothetical safety audit scenario (e.g., a manufacturing plant, construction site, or office environment). They will apply the PDCA cycle to the scenario:
    - **Plan:** How will they plan the audit for this specific environment?
    - **Do:** What actions will be taken during the audit to assess safety?
    - **Check:** What criteria will be used to assess compliance and identify gaps?
    - **Act:** What corrective actions should be recommended based on the audit findings?
  3. **Presentation:** Each group presents their findings, explaining how they applied the PDCA cycle to the safety audit process for their scenario.
- **Discussion:** After the presentations, discuss how each stage of the PDCA cycle connects to improve safety management in an organization. Emphasize the continuous nature of the cycle in maintaining ongoing safety improvements.

- **Conclusion:** Recap the PDCA cycle and its importance in creating a structured, continuous improvement process for safety audits. Discuss how regular audits and the PDCA cycle contribute to long-term safety culture and compliance.

### 2.5.6. 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.

### 2.5.7. Summary

#### 1 Plan

- **Define the scope and objectives of the audit:** Clearly outline the specific areas to be examined such as hazard identification, compliance assessment, risk management, or emergency preparedness and the desired outcomes.
- **Develop an audit plan:** Create a detailed plan outlining the audit methodology, timeline, resources required, and responsibilities of team members.
- **Identify key stakeholders:** Involve relevant personnel, such as management, employees, safety professionals, and regulatory authorities, in the audit process.

#### 4.2 Do

- **Conduct the audit:** Execute the audit plan, collecting data through interviews, observations, document reviews, and inspections.
- **Analyse findings:** Identify hazards, assess compliance with regulations and standards, and evaluate the effectiveness of safety programs.
- **Develop recommendations:** Propose practical solutions to address identified issues, considering their feasibility, cost-effectiveness, and potential impact.

#### 4.3 Check

- **Review audit findings and recommendations:** Ensure accuracy and completeness of the findings and recommendations.
- **Evaluate the effectiveness of corrective actions:** Assess whether implemented changes have addressed identified issues and improved safety performance.
- **Identify any new hazards or risks:** Continuously monitor the safety environment for emerging hazards or changes in risks.

#### 4.4 Act

- **Implement corrective actions:** Take necessary steps to address identified hazards and non-compliances, following the recommendations developed in the previous stage.
- **Monitor progress:** Track the effectiveness of implemented changes and identify any areas where further action may be required.
- **Update safety management system:** Incorporate new knowledge and insights into the organization's safety procedures, policies and practices.

### 2.5.8. Exercise

#### 1. What does PDCA stand for in the context of safety management?

- A) Plan-Develop-Check-Act
- B) Plan-Do-Check-Act
- C) Prepare-Do-Check-Act
- D) Plan-Do-Confirm-Act

#### 2. Why is continuous improvement important in a safety management system?

- A) To ensure compliance with regulations
- B) To adapt to changing conditions and enhance safety performance
- C) To reduce costs
- D) To maintain employee satisfaction

**3. What is the primary purpose of a Safety Management System (SMS)?**

- A) To reduce costs
- B) To enhance safety performance and reduce incidents
- C) To increase production
- D) To improve employee satisfaction

**4. Which component of the PDCA cycle involves establishing safety objectives and plans?**

- A) Do
- B) Check
- C) Act
- D) Plan

5. Plan phase of the PDCA cycles involves only identifying the safety issues.(T/F)

### 3. Unit 3 NOS 2: Hazard Identification, categories and control (SSD/VSQ/N0130)

#### 3.1.Key Learning Outcomes

**At the end of this module, the trainees will be able to**

- Identify hazards and categories the hazards
- Implement Hierarchy of control in improvement methodologies.
- Understand hidden risk in improved methodologies.

#### 3.2.Unit 3.1: Basic Hazard Identification

##### 3.2.1. Unit Objectives

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

- Understand the basic definitions: Hazards, unsafe conditions & acts, incidents & accidents; fatal, non-fatal, near miss incidents & accidents; lost time injury & first aid injury.
- Understand hazard categories and risks
- Understand the different types of safety signs and signals.

##### 3.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

##### 3.2.3. Say

- Describe Hazards, unsafe conditions & acts, incidents & accidents; fatal, non-fatal, near miss incidents & accidents; lost time injury & first aid injury
- Describe hazard categories and risks
- Describe different types of safety signs and signals

##### 3.2.4. Explain

- Describe HIRA process

##### 3.2.5. Activity

###### Basic Hazard Identification

- **Objective:** To understand and practice identifying basic workplace hazards.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).

- Provide each group with a hypothetical workplace scenario (e.g., construction site, office, manufacturing plant, laboratory).
- Distribute hazard identification checklists or templates to each group.
- **Instructions:**
  1. **Hazard Identification:**
    - Each group reviews the given scenario and identifies potential hazards present in the workplace. These could include physical, chemical, biological, ergonomic, and psychosocial hazards.
    - Groups should categorize hazards based on their type (e.g., machinery, chemicals, poor lighting, slips, and falls).
  2. **Risk Assessment:**
    - After identifying the hazards, each group evaluates the potential risks associated with those hazards (e.g., likelihood of occurrence, severity of consequences).
    - They should assess the potential impact of these hazards on workers' safety and health.
  3. **Develop Preventive Measures:**
    - Based on their findings, groups propose possible preventive measures or controls for each identified hazard (e.g., safety guards on machinery, proper ventilation for chemicals, ergonomic workstations).
  4. **Presentation:**
    - Each group presents their hazard identification findings, risk assessment, and recommended safety measures to the class.
- **Discussion:**
  - Discuss the different types of hazards identified by each group and their proposed solutions.
  - Talk about the importance of a proactive approach to hazard identification and the role of employees in recognizing and reporting hazards.
- **Conclusion:**
  - Summarize the key concepts of hazard identification, risk assessment, and the importance of implementing safety measures to prevent accidents and injuries in the workplace.
  - Emphasize that identifying hazards early is crucial for ensuring workplace safety.

### 3.2.6. 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.

### 3.2.7. Summary

#### What is Hazard?

“A circumstance present in an environment that has the potential to cause an UNDESIRABLE event inflicting harm on people or damage to equipment or processes.”

#### Types of Hazards:

- Physical hazards e.g. fire, electricity, vibration, poor housekeeping
- Chemical hazards e.g. gas, bleach, cleaning agents, fumes, vapour
- Ergonomic hazards e.g. improper setup of workstations, repetitive movements, noise, lighting, thermal comfort
- Biological hazards e.g. animals, virus, mold, fungi, bacteria
- Psychosocial hazards e. g stress, psychology hazards

#### Steps in Risk Assessment:

1. **Identify the Hazard:** Recognize potential sources of harm.
2. **Assess the Risk:** Evaluate the likelihood of an incident occurring and the potential severity of its consequences.
3. **Determine Risk Levels:** Categorize risks based on their likelihood and severity, often using a risk matrix.
4. **Prioritize Risks:** Identify which risks require immediate attention based on their assessed level.
5. **Recommend Controls:** Suggest appropriate control measures to mitigate the risks.

**Risk Matrix:** A risk matrix is a tool used to assess and categorize risks by plotting the likelihood of an incident against the severity of its potential consequences.

### 3.2.8. Exercise

1. Lost time injury refers to:
  - A) Any injury, regardless of time away from work
  - B) An injury that requires medical treatment
  - C) An injury that results in missed work days
  - D) A minor injury that needs first aid
2. What is a hazard?
  - A) An event that causes harm
  - B) A condition that has the potential to cause harm
  - C) An action taken to mitigate risk
  - D) A regulatory requirement
3. What defines an incident?
  - A) An event that results in injury or damage
  - B) A near-miss situation
  - C) An event that does not result in harm
  - D) All of the above
4. Risks are consequence of Hazards. (T/F)
5. \_\_\_\_ are potential source of Harm

## 3.3. Unit 3.2: Hierarchy of Control

### 3.3.1. Unit Objectives

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

- Understand the hierarchy of controls in safety.
- Understanding Importance of each hierarchy of control.
- Understanding the steps in the hierarchy of control.

### 3.3.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 3.3.3. Say

- Describe the hierarchy of controls in safety.
- Describe Importance of each hierarchy of control.
- Describe steps in the hierarchy of control

### 3.3.4. Explain

- Describe the hierarchy of controls in safety.
- Describe Importance of each hierarchy of control.
- Describe steps in the hierarchy of control

### 3.3.5. Activity

#### Hierarchy of Control

- **Objective:** To understand and apply the Hierarchy of Control in managing workplace hazards.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a set of hypothetical workplace hazards (e.g., exposure to toxic chemicals, machinery operation, poor lighting, manual handling).
  - Create a large poster or board illustrating the **Hierarchy of Control** (from most effective to least effective: Elimination, Substitution, Engineering Controls, Administrative Controls, and Personal Protective Equipment).
- **Instructions:**
  1. **Hazard Analysis:**
    - Each group reviews the given hazards and determines how to address them using the Hierarchy of Control.

- For each hazard, they need to identify the most appropriate control measures, starting with the most effective (Elimination) and moving down to the least effective (PPE).
2. **Control Measure Discussion:**
- Groups should discuss why they selected certain controls for specific hazards. For example:
  - For a chemical spill, they might suggest **Elimination** (removing the chemical) or **Substitution** (using a safer alternative).
  - For a noisy environment, they may choose **Engineering Controls** (installing noise barriers) or **PPE** (ear protection).
  - They should rank their controls according to the hierarchy, justifying their choices.
3. **Present Findings:**
- Each group presents their identified hazards and the corresponding control measures they applied from the Hierarchy of Control.
  - They explain why they chose certain controls over others and highlight the most effective solutions.
- **Discussion:**
    - Discuss the importance of using the Hierarchy of Control to prioritize safety measures in the workplace.
    - Emphasize the idea that higher-level controls (like Elimination or Substitution) are always more effective than relying on lower-level controls (like PPE).
  - **Conclusion:**
    - Recap the Hierarchy of Control and how it helps in minimizing risks and improving safety in the workplace.
    - Encourage students to consider the hierarchy as a structured approach when addressing hazards in any work environment.

### 3.3.6. 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.

### 3.3.7. Summary

The hierarchy of controls is a systematic approach to managing risks by implementing control measures in order of effectiveness. This hierarchy ranges from the most effective—elimination of the hazard—to the least effective—use of personal protective equipment (PPE).

#### Hierarchy of Controls:

1. **Elimination:** Completely remove the hazard from the workplace.
2. **Substitution:** Replace the hazardous substance or process with a less dangerous one.
3. **Engineering Controls:** Implement physical changes to the workplace, such as ventilation systems or machine guards, to reduce exposure to hazards.
4. **Administrative Controls:** Change the way work is performed, such as rotating shifts or implementing safe work practices, to minimize exposure to hazards.
5. **Personal Protective Equipment (PPE):** Provide workers with protective gear, such as gloves, helmets, and respirators, to reduce the risk of injury.

### 3.3.8. Exercise

1. If a workplace hazard can be completely removed, which control should be used?
  - A) Engineering controls
  - B) Administrative controls
  - C) PPE
  - D) Elimination
2. What is the primary purpose of the hierarchy of controls?
  - A) To increase productivity
  - B) To eliminate or reduce hazards
  - C) To improve employee morale
  - D) To train new employees
3. Why is elimination the most effective control method?
  - A) It is the cheapest option.
  - B) It completely removes the hazard.
  - C) It requires less employee training.

D) It is easy to implement.

4. True or False: The Hierarchy of Control is a system used to minimize or eliminate exposure to hazards in the workplace.

5. True or False: The most effective control measure according to the Hierarchy of Control is to use personal protective equipment (PPE).

### 3.4. Unit 3.3: Basic Hazard categories and control

#### 3.4.1. Unit Objectives

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

- Understand different hazard categories & control: Electricity and Fire.
- Understand different hazard categories & control: Tools, equipment, and machinery.
- Understand different hazard categories & control: Health and workplace hazard - Work at height, confined space, working in an excavation, lone working, and slips & trips.
- Understand different hazard categories & control: Movement of workforce, Work related driving and vehicles at workplace.
- Understand different hazard categories & control: Hazardous substances.
- Understand different hazard categories & control: Musculoskeletal disorders, manual handling, and load handling equipment.
- Understand different hazard categories & control: Noise, vibration, radiation, mental ill-health, violence at work, substance abuse at workplace.
- Understand different hazard categories & control: Lifting and Rigging hazards and control.

#### 3.4.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

#### 3.4.3. Say

- Describe the different hazard categories & control

#### 3.4.4. Explain

- Describe the different hazard categories & control

#### 3.4.5. Activity

##### Basic Hazard Categories and Controls

- **Objective:** To understand and apply the different hazard categories and their corresponding control measures in the workplace.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a list of workplace hazards categorized into basic types (e.g., Physical, Chemical, Biological, Ergonomic, and Psychosocial hazards).
  - Provide each group with a set of possible control measures (e.g., engineering controls, administrative controls, PPE).
- **Instructions:**
  1. **Hazard Identification:**
    - Each group is given a set of hazards from different categories (e.g., for **Chemical Hazards**, they might have "Exposure to toxic fumes"; for **Physical Hazards**, they might have "Slippery floors").
    - Groups need to identify and categorize the hazards (Physical, Chemical, Biological, Ergonomic, Psychosocial).
  2. **Control Measure Application:**
    - For each hazard identified, groups should discuss and determine the most appropriate control measures. They should consider:

- **Elimination:** Can the hazard be removed from the workplace entirely?
  - **Substitution:** Can a safer alternative be used?
  - **Engineering Controls:** Can machines or equipment be modified to reduce risk (e.g., ventilation systems, guards)?
  - **Administrative Controls:** Can policies, procedures, or training reduce the risk (e.g., work shifts, safety protocols)?
  - **PPE:** Is personal protective equipment required (e.g., gloves, goggles, masks)?
3. **Categorize and Rank:**
    - Each group should create a table or chart that lists the hazard, its category, and the recommended control measures. They should also rank the effectiveness of these controls from the highest (Elimination) to the lowest (PPE).
  4. **Presentation:**
    - Each group presents their findings to the class, explaining:
      - The hazard identified.
      - The hazard category.
      - The control measures they selected and why they chose them.
      - The effectiveness of the controls based on the hierarchy.
    - **Discussion:**
      - Discuss the different types of controls and why certain controls are more effective than others.
      - Emphasize that eliminating the hazard or substituting it with something safer should always be the first choice, followed by engineering and administrative controls, and lastly PPE.
    - **Conclusion:**
      - Recap the importance of identifying hazard categories and applying appropriate control measures.
      - Reinforce that a combination of controls, rather than relying on just one, is often the most effective approach to ensuring safety in the workplace.

### 3.4.6. 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.

### 3.4.7. Summary

#### 1. Physical Hazards:

Includes machinery, equipment, noise, radiation, temperature extremes, and vibration.

Control: Engineering controls (guards, insulation), administrative controls (work rotation), and PPE (hearing protection, thermal wear).

#### 2. Chemical Hazards:

Includes exposure to toxic chemicals, gases, vapours, dust, and fumes.

Control: Substitution of safer chemicals, proper ventilation, PPE (respirators, gloves), and safe storage practices.

#### 3. Biological Hazards:

Includes bacteria, viruses, fungi, and other pathogens.

Control: Vaccinations, hygiene protocols, PPE (gloves, face masks), and sanitation procedures.

#### 4. Ergonomic Hazards:

Includes repetitive motion, poor workstation design, and manual handling.

Control: Ergonomic assessments, workstation redesign, job rotation, and training on safe lifting techniques.

#### 5. Psychosocial Hazards:

Includes stress, harassment, bullying, and violence.

Control: Employee support programs, clear policies, training, and promoting a positive work culture.

#### 6. Environmental Hazards:

Includes extreme weather, poor air quality, or hazardous materials in the environment.

Control: Site assessments, weather protection, and emergency preparedness plans.

#### 7. Key Control Measures:

- Elimination: Remove the hazard entirely.
- Substitution: Replace the hazard with a safer alternative.
- Engineering Controls: Modify equipment or systems to reduce exposure.
- Administrative Controls: Implement work procedures, training, and scheduling.
- PPE: Use protective equipment as a last line of defense.
- Safety auditors should assess hazards in these categories and implement controls to minimize risks in the workplace.

#### 3.4.8. Exercise

1. Which of the following is a primary electrical hazard?

- A) Exposure to chemicals
- B) Shock and electrocution
- C) Slips and trips
- D) Fire from flammable liquids

2. What does “lockout/tagout” refer to?

- A) A method to secure tools
- B) A safety procedure for hazardous energy control
- C) A method of training employees
- D) A safety gear

3. What is the purpose of fire extinguishers?

- A) To prevent fires from starting
- B) To control and extinguish small fires
- C) To provide heat
- D) To signal for help

4. True or False: Hazard identification is the first step in developing a safety program to protect workers.

5. True or False: Hazards can be categorized into physical, chemical, ergonomic, biological, and psychosocial types.

6. True or False: It is not necessary to identify hazards if the workplace has never had any incidents or accidents.

## 4. Unit 4. SSD/VSQ/NO114: Risk Score Evaluation of Hazards

### 4.1. Key Learning Outcomes

- Identify hazard and carry out risk assessment of the hazard.
- Gather information as per existing HIRA (HAZARD IDENTIFICATION & RISK ASSESSMENT).
- Analyse and suggest risk control for different categories of hazards.

### 4.2. Unit 4.1. Risks and objective of risk assessments

#### 4.2.1. Unit Objectives

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

- Understand Risks, objectives of risk assessment, 5\*5 risk matrix and risk ratings.
- Understand HIRA and its statutory requirements.
- Understand Likelihood and severity of hazard

#### 4.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.

- Activities (role plays)

#### 4.2.3. Say

- Describe Risks, objectives of risk assessment, 5\*5 risk matrix and risk ratings
- Describe HIRA and its statutory requirements

#### 4.2.4. Explain

- Describe the Risks, objectives of risk assessment, 5\*5 risk matrix and risk ratings
- Describe HIRA and its statutory requirements

#### 4.2.5. Activity

##### Risks and Objectives of Risk Assessments

- **Objective:** To understand the concept of risk assessment, its objectives, and how to assess and manage risks in the workplace.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a hypothetical workplace scenario (e.g., a construction site, office, laboratory, or factory).
  - Give each group a template for conducting a basic risk assessment, including sections for hazard identification, risk evaluation (likelihood and severity), and control measures.
- **Instructions:**
  1. **Hazard Identification:**
    - Each group is assigned a workplace scenario and asked to identify potential hazards associated with it. Examples could include:
      - In a **construction site:** Falling from heights, machinery accidents, and exposure to dust.
      - In an **office:** Ergonomic issues, slips and falls, or electrical hazards.
      - Groups should list these hazards clearly in their risk assessment template.
  2. **Risk Evaluation:**
    - After identifying the hazards, groups should assess the **likelihood** and **severity** of each hazard occurring. They should use a simple risk matrix to categorize risks (e.g., Low, Medium, High).
    - Example: "Likelihood: Unlikely, Severity: High" for a hazard like a fall from height.
  3. **Control Measures:**
    - Groups will discuss possible **control measures** for each identified risk. They should prioritize them according to the Hierarchy of Control (Elimination, Substitution, Engineering Controls, Administrative Controls, PPE).
    - Example: For a fall hazard, control measures might include installing guardrails (engineering controls) or requiring fall protection gear (PPE).
  4. **Objective Setting:**
    - Each group will define the **objectives of the risk assessment**, such as reducing injuries, ensuring compliance with safety regulations, and improving employee awareness and safety culture.
  5. **Presentation:**
    - After completing their risk assessments, each group presents their findings to the class, including:
      - Identified hazards and their risk evaluations.
      - Proposed control measures.
      - The objectives they set for the risk assessment.
    - Encourage other groups to ask questions and suggest additional control measures.
- **Discussion:**
  - Discuss the importance of setting clear objectives when conducting a risk assessment and how risk assessments help in preventing accidents.
  - Emphasize that risk assessments are dynamic and should be regularly updated as new hazards or changes in the workplace occur.
- **Conclusion:**
  - Recap the key objectives of a risk assessment: identifying hazards, evaluating risks, applying control measures, and ensuring the safety of the workplace.
  - Reinforce that risk assessments are essential for effective risk management and ensuring a safe working environment.

#### 4.2.6. 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

#### 4.2.7. Summary

##### 1. Risks:

- Hazard Exposure: Risk of injury, illness, or environmental harm from identified hazards.
- Financial Losses: Costs related to accidents, injuries, property damage, or legal liabilities.
- Reputation Damage: Negative public perception due to safety incidents or non-compliance.
- Compliance Violations: Failing to meet safety regulations and standards, leading to fines or sanctions.
- Operational Disruptions: Downtime and decreased productivity due to accidents or unsafe conditions.
- Legal Consequences: Potential lawsuits from employees, customers, or third parties.

##### 2. Objectives of Risk Assessments:

- Identify Hazards: Recognize potential hazards and assess their impact.
- Evaluate Risks: Determine the likelihood and severity of risks associated with hazards.
- Prioritize Risks: Rank risks based on their potential harm to focus on critical areas.
- Implement Controls: Identify and recommend control measures to reduce or eliminate risks.
- Ensure Compliance: Ensure adherence to safety laws, regulations, and best practices.
- Improve Safety Culture: Promote awareness and engagement with safety practices among employees.
- Minimize Impact: Reduce the potential consequences of incidents and accidents on workers and the organization.

Risk assessments aim to systematically identify, evaluate, and control risks to ensure a safer workplace and prevent harm.

#### 4.2.8. Exercise

1. What is the primary objective of a risk assessment?
  - a) To identify hazards and assess their risks.
  - b) To create a safety manual for employees.
  - c) To increase productivity in the workplace.
  - d) To minimize legal liabilities only.
2. Which of the following is a potential risk in the workplace?
  - a) Injury from hazardous equipment
  - b) Increased employee motivation
  - c) High employee retention rate
  - d) Positive customer feedback
3. What is the first step in conducting a risk assessment?
  - a) Implement control measures
  - b) Prioritize risks
  - c) Identify hazards
  - d) Evaluate the effectiveness of controls
4. True or False: The primary goal of a risk assessment is to identify hazards and recommend ways to eliminate or control risks.
5. True or False: Financial losses and reputational damage are not considered risks in the context of workplace risk assessments.
6. True or False: Risk assessments help in prioritizing risks based on their severity and likelihood.

## 4.3. Unit 4.2. Hazard Identification and Risk Assessment (HIRA)

### 4.3.1. Unit Objectives

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

- Identify the persons vulnerable to the hazard.
- Analyze as How the hazard can lead to an accident or endanger a persons life, likelihood, and severity of the hazard.
- Carry out risk assessment and prepare risk matrix.
- Suggest corrective action in HIRA by following hierarchy of control

### 4.3.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 4.3.3. Say

- Describe Hazard Identification and Risk Assessment (HIRA) Process
- Describe corrective action in HIRA based on hierarchy of control

### 4.3.4. Explain

- Describe Hazard Identification and Risk Assessment (HIRA) Process
- Describe corrective action in HIRA based on hierarchy of control

### 4.3.5. Activity

**Hazard Identification and Risk Assessment (HIRA)**

- **Objective:** To understand and practice the process of Hazard Identification and Risk Assessment (HIRA) in a workplace context.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a hypothetical workplace scenario (e.g., construction site, laboratory, manufacturing plant, office).
  - Distribute a **HIRA template** to each group that includes sections for:
    - Hazard Identification
    - Risk Evaluation (Likelihood & Severity)
    - Risk Ranking
    - Control Measures
    - Action Plan
- **Instructions:**
  1. **Hazard Identification:**
    - Each group reads their assigned workplace scenario and identifies **potential hazards** in the workplace (e.g., physical, chemical, biological, ergonomic, and psychosocial hazards).
    - Example for a construction site: Falls from heights, heavy machinery accidents, exposure to noise or dust, etc.
  2. **Risk Evaluation:**
    - After identifying the hazards, each group evaluates the **likelihood** (How likely is it that the hazard will occur?) and **severity** (What will the impact be if it occurs?) of each hazard. They should use a simple **risk matrix** to categorize the risk (e.g., Low, Medium, High).
    - **Likelihood:** Unlikely, Likely, Very Likely
    - **Severity:** Minor, Moderate, Major
    - Example: A fall from a height may be "Likely" (Likelihood) and "Major" (Severity).
  3. **Risk Ranking:**
    - Based on the likelihood and severity, groups rank the hazards according to the level of risk they present. This helps prioritize which hazards need immediate attention.
    - **Low risk:** Monitor, no immediate action required.
    - **Medium risk:** Review controls and monitor.

- **High risk:** Immediate action required, implement controls.
- 4. **Control Measures:**
  - For each hazard identified, groups suggest appropriate **control measures** using the Hierarchy of Control:
  - **Elimination** (Remove the hazard)
  - **Substitution** (Replace the hazard with something safer)
  - **Engineering Controls** (Modify the work environment)
  - **Administrative Controls** (Change procedures, training, work practices)
  - **PPE** (Personal Protective Equipment)
- 5. **Action Plan:**
  - Based on their findings, groups will outline an **action plan** detailing who is responsible for implementing the controls, the timeline, and the resources required.
- 6. **Presentation:**
  - Each group presents their HIRA findings to the class, explaining:
    - The hazards identified.
    - The risk evaluation and ranking.
    - The proposed control measures.
    - The action plan and implementation details.
  - Encourage other groups to provide feedback or suggest additional controls.
- **Discussion:**
  - After the presentations, discuss the importance of HIRA in managing workplace safety.
  - Highlight how effective hazard identification and risk assessment help prevent accidents and improve safety culture.
  - Emphasize that HIRA should be an ongoing process that evolves with changing conditions and new hazards in the workplace.
- **Conclusion:**
  - Recap the steps of HIRA: Identifying hazards, evaluating risks, ranking them, applying control measures, and creating an action plan.
  - Reinforce the importance of proactive safety management and the role of HIRA in identifying potential dangers before they lead to accidents.

#### 4.3.6. 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

#### 4.3.7. Summary

- Recognize individuals or groups who may be at higher risk (e.g., workers, contractors, visitors).
- Assess how a hazard may result in harm or injury, considering its likelihood and severity.
- Evaluate risks by ranking their likelihood and severity, and create a risk matrix to prioritize them.
- Recommend actions to mitigate risks by applying the Hierarchy of Control: elimination, substitution, engineering controls, administrative controls, and PPE.

These steps ensure that hazards are identified, analysed, and controlled effectively to protect individuals from potential harm in the workplace.

#### 4.3.8. Exercise

1. What is the risk?
  - A) A guaranteed outcome
  - B) The chance of something bad happening.
  - C) A safe investment.
  - D) A positive opportunity
2. What is the primary objective of a risk assessment?
  - A) To eliminate all risks
  - B) To identify and evaluate risks
  - C) To reduce costs
  - D) To increase productivity

3. What does HIRA stand for?
  - A) Hazard Identification and Risk Analysis
  - B) Hazard Investigation and Risk Assessment
  - C) Health and Impact Risk Analysis
  - D) High Impact Risk Assessment
4. True or False: Hazard Identification and Risk Assessment (HIRA) is only necessary in high-risk industries.
5. True or False: In HIRA, identifying persons vulnerable to a hazard is a critical part of the assessment process.
6. True or False: The likelihood and severity of a hazard do not need to be considered when conducting a risk assessment.

## 4.4. Unit 4.3. Hierarchy and Process Safety

### 4.4.1. Unit Objectives

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

- Understand the role of management in an organization, role of safety supervisor, safety executive, safety officer, safety engineer, and safety manager.
- Understand fundamentals of process safety, OSHA standards. QRA, LOPA, SIL, FERA, EERA.
- Understand the role of occupier, controller of premise, role and need of contractors in the organization and work permit to contractors, role of safety committee.
- Understand the selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety.

### 4.4.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 4.4.3. Say

- Describe role of management in an organization
- Describe fundamentals of process safety, OSHA standards. QRA, LOPA, SIL, FERA, EERA
- Describe role of occupier, controller of premise, role and need of contractors in the organization and work permit to contractors, role of safety committee
- Describe Contractor Safety Management Process

### 4.4.4. Explain

- Describe role of management in an organization
- Describe fundamentals of process safety, OSHA standards. QRA, LOPA, SIL, FERA, EERA
- Describe role of occupier, controller of premise, role and need of contractors in the organization and work permit to contractors, role of safety committee
- Describe Contractor Safety Management Process

### 4.4.5. Activity

#### **Hierarchy of Controls and Process Safety**

- **Objective:** To understand the relationship between the Hierarchy of Controls and Process Safety and how to apply both in managing industrial and workplace risks.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a hypothetical workplace scenario involving process safety hazards (e.g., chemical plant, manufacturing facility, or laboratory).

- Distribute materials explaining the **Hierarchy of Controls** (Elimination, Substitution, Engineering Controls, Administrative Controls, and Personal Protective Equipment) and **Process Safety** concepts (e.g., identifying critical processes, evaluating potential risks, preventing accidents).
- **Instructions:**
  1. **Scenario Introduction:**
    - Each group is given a scenario of a process or operation involving potential hazards (e.g., handling flammable chemicals, operating machinery with high energy risks, working with toxic gases).
    - Groups must first identify the key safety hazards related to the process.
  2. **Risk Assessment and Control Identification:**
    - Groups should assess the risks associated with the hazards identified in the scenario. They will then apply the **Hierarchy of Controls** to each hazard:
      - **Elimination:** Can the hazard be completely removed from the process (e.g., eliminating a toxic chemical)?
      - **Substitution:** Can the hazardous substance or process be replaced with a safer alternative (e.g., replacing flammable solvent with a non-flammable one)?
      - **Engineering Controls:** Can the process be modified to reduce the risk (e.g., installing automatic shut-off valves, containment systems, or ventilation)?
      - **Administrative Controls:** Are there operational changes or procedures that can minimize risk (e.g., implementing work shifts, training, standard operating procedures)?
      - **PPE:** What protective equipment is needed (e.g., gloves, masks, flame-retardant suits)?
  3. **Process Safety Application:**
    - After considering the Hierarchy of Controls, groups should also evaluate the **process safety aspects:**
    - Identify **critical process areas** where failure could lead to significant hazards (e.g., chemical storage, pressure vessels, reactors).
    - Discuss **safety measures** like process monitoring, emergency shut-down procedures, or regular inspections.
    - Consider the importance of maintaining **safety culture** (e.g., reporting near misses, routine safety drills, continuous process safety monitoring).
  4. **Control Measures and Action Plan:**
    - For each identified hazard, groups create a clear **action plan** based on the Hierarchy of Controls and process safety principles.
    - They must outline specific actions for each control measure, detailing the responsible persons, timeline, and resources needed for implementation.
  5. **Presentation:**
    - Each group presents their process safety scenario, identifying the hazards, risks, and their application of the Hierarchy of Controls.
    - They should also explain the process safety measures they would implement to ensure the safe operation of the process and minimize risks.
- **Discussion:**
  - Discuss the importance of integrating the Hierarchy of Controls with process safety to manage high-risk industries and operations.
  - Talk about how safety systems should be designed to prevent accidents before they occur, using a combination of engineering, administrative measures, and PPE.
- **Conclusion:**
  - Recap the key concepts: the **Hierarchy of Controls** as the most effective strategy for managing risks, and **Process Safety** as a proactive approach to preventing catastrophic events in hazardous industries.
  - Emphasize that a robust process safety management system, supported by effective controls, is essential to protecting workers and preventing accidents in high-risk environments.

#### 4.4.6. 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

#### 4.4.7. Summary

**Hierarchy of Control in Process Safety:**

1. Elimination: Completely eradicate the hazard from the process.

2. Substitution: Replace dangerous materials or methods with safer options.
3. Engineering Controls: Introduce physical modifications to the process, such as safety barriers and ventilation systems.
4. Administrative Controls: Alter work practices, procedures, or training to minimize exposure, including shift work and warning systems.
5. Personal Protective Equipment (PPE): Equip workers with protective gear as a final safeguard.

**Process Safety:**

- Aims to avert catastrophic incidents in industrial operations that could endanger individuals, property, or the environment.
- Involves the identification, assessment, and management of risks within intricate processes, such as chemical production and oil refining.
- Key Components: Risk assessment, hazard identification, process design, safety culture, and incident investigation.
- Continuous Improvement: Ongoing evaluations, audits, and updates to safety protocols are essential for maintaining long-term safety and regulatory compliance.

These points illustrate the application of the Hierarchy of Control in process safety to safeguard workers, processes, and the environment.

#### 4.4.8. Exercise

1. What is the primary role of management in an organization regarding safety?
  - A) To enforce safety rules
  - B) To provide resources and support for safety initiatives
  - C) To conduct all safety training
  - D) To write safety policies
2. What is the primary goal of process safety?
  - A) Increase productivity
  - B) Minimize operational costs
  - C) Prevent accidents and incidents involving hazardous processes
  - D) Enhance employee morale
3. LOPA stands for
  - A) Layers of Process Analysis
  - B) Layers of Protection Analysis
  - C) Levels of Process Assessment
  - D) Legal Operations and Process Automation
4. What is a work permit?
  - A) A document allowing a contractor to work without supervision
  - B) A safety authorization for specific tasks
  - C) A license to operate machinery
  - D) An employment agreement
5. True or False: Process safety focuses on preventing accidents that could harm workers, the environment, or property.
6. True or False: The primary goal of process safety is to improve productivity and reduce operational costs.
7. True or False: Engineering controls, such as safety barriers and automated shutoff systems, are part of the hierarchy of control in process safety.

## 5. Unit 5 NOS 4: Safety Audit Report Preparation (SSD/VSQ/N0115)

### 5.1. Key Learning Outcomes

- Understand Process of Collect and analyse information for audit.

- Scrutinize documents for audit prerequisites
- audit procedure as per IS 14489-1998
- Prepare an audit report

## 5.2. Unit 5.1: Safety Audit inspection scope and audit management

### 5.2.1. Unit Objectives

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

- Understand the inspection and Health and Safety Audit report, difference between safety audit and inspection.
- Understand the scope of Health and Safety audit and management system.
- Understand the audit elements Title, Addressee, Introduction, Scope, Identification of documents audited, management responsibilities, auditors' responsibility, reference to audit standards, Opinion, Signature, Auditors address, Date of report

### 5.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 5.2.3. Say

- Describe difference between safety audit and inspection.
- Describe scope of different Health and Safety audit and management system
- Describe audit elements

### 5.2.4. Explain

- Describe difference between safety audit and inspection.
- Describe scope of different Health and Safety audit and management system
- Describe audit elements

### 5.2.5. Activity

#### Safety Audit Inspection Scope and Audit Management

##### Objective:

To help students understand the scope of safety audits and how to manage the audit process effectively within an organization.

Duration:

60 minutes

##### Materials Needed:

Whiteboard and markers

Printed case study of a workplace (e.g., factory, office, or construction site)

Safety audit checklist template (can be provided)

Projector (optional)

Pen and paper for each group

##### Activity Overview:

In this activity, students will work in groups to conduct a mock safety audit of a fictional workplace. They will identify potential hazards, outline the scope of their audit, and present an audit management plan that includes recommendations for improvements.

Steps for the Activity:

1. Introduction (10 minutes)

Briefly explain what a safety audit is and its purpose. Highlight the importance of the inspection scope, audit objectives, and the process of managing a safety audit.

Explain the key elements of safety audits:

Scope of the audit (areas covered, personnel involved, etc.)

Audit objectives (e.g., identifying hazards, ensuring compliance)

Managing audit findings (recommendations, corrective actions, timelines)

## 2. Group Formation (5 minutes)

Divide the class into small groups (3-4 students per group).

## 3. Case Study Presentation (5 minutes)

Provide each group with a printed case study of a workplace (e.g., a factory or office) along with a basic safety audit checklist.

The case study should include a brief description of the workplace, its operations, and any known safety concerns (e.g., equipment, processes, or health risks).

## 4. Safety Audit Task (20 minutes)

Each group will:

Define the scope of their safety audit for the given case study (e.g., what areas of the workplace they will inspect and why).

Identify potential hazards based on the case study.

Discuss and develop an audit management plan that outlines:

Audit objectives

Personnel involved in the audit

Methods of inspection (e.g., interviews, physical inspection, document review)

Timeline for completing the audit

Risk assessment and prioritization of hazards

Corrective action recommendations for identified issues

## 5. Presentation (15 minutes)

Each group will present their findings to the class. They should explain:

The scope of their audit and the areas they focused on.

The identified hazards and risks.

Their audit management plan (including objectives, methods, and corrective actions).

## 6. Discussion and Feedback (5 minutes)

After each group presents, encourage other students to ask questions or provide feedback.

Discuss the importance of covering all relevant areas in the scope of a safety audit and how audit management helps in addressing issues effectively.

## 7. Conclusion (5 minutes)

Summarize the key takeaways from the activity:

The scope of a safety audit should be well-defined and thorough.

Proper audit management ensures that the audit process is effective and corrective actions are implemented.

Engaging in real-world case studies helps to understand the practical application of safety audits.

### **Learning Outcomes:**

Students will understand the importance of defining the scope and objectives of a safety audit.

Students will gain hands-on experience in managing a safety audit, from identifying hazards to proposing corrective actions.

Students will develop critical thinking and teamwork skills by discussing and presenting audit findings.

This classroom activity provides practical insight into safety audit processes, enhancing students' understanding of audit scope and effective management.

### **5.2.6. 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

### **5.2.7. Summary**

#### **1. Safety Audit Inspection Overview:**

Purpose: Assess the efficiency of the safety management system and pinpoint potential risks.

Key Focus Areas:

Work environment conditions (e.g., machinery, illumination, air quality).

Operational processes and protocols (e.g., safety measures, emergency response plans).

Adherence to safety laws and standards (local, national, and industry-specific).

Employee education and awareness concerning safety measures.

Records of incidents and accidents (e.g., near-misses, injuries).

Frequency: Conduct regular audits (e.g., annually, quarterly) based on the level of workplace risk.

Documentation: Examination of policies, procedures, and safety documentation.

## **2. Audit Management:**

Planning: Establish the audit scope, objectives, timeline, and team composition.

Execution: Perform comprehensive inspections, interviews, and observations to collect data.

Reporting: Deliver detailed findings, highlighting identified risks, non-compliance issues, and suggestions for improvement.

Follow-up: Track the implementation of corrective measures and confirm enhancements.

Continuous Improvement: Leverage audit results to enhance safety protocols and ensure ongoing risk mitigation.

This overview encapsulates the safety audit process and scope, underscoring the significance of regular inspections, effective management, and continuous enhancement in ensuring workplace safety.

### **5.2.8. Exercise**

1. What is the primary difference between a safety audit and a safety inspection?

- A) Safety audits are informal; inspections are formal.
- B) Safety audits evaluate the entire system, while inspections focus on specific areas.
- C) Safety audits are conducted monthly; inspections are conducted annually.
- D) There is no difference.

2. What is the primary purpose of a safety inspection?

- A) To evaluate compliance with legal standards
- B) To identify hazards and ensure safety procedures are followed
- C) To create a detailed report for management
- D) To train employees on safety measures

3. A health and safety audit typically assesses:

- A) The physical condition of equipment
- B) Compliance with health and safety policies
- C) Employee performance
- D) Incident reports only

4. True or False: During a safety audit, the auditor should focus solely on identifying hazardous conditions and ignore the effectiveness of safety procedures.

5. True or False: Audit management includes planning, execution, reporting, and follow-up to ensure corrective actions are implemented.

6. True or False: Safety audits should only be conducted by external auditors and not by internal safety teams.

## **5.3. Unit 5.2: Scrutiny of Documents in safety audit**

### **5.3.1. Unit Objectives**

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

- Understand the Statement of Intent in the safety policy, Safety Culture in an organization and identify the positive Safety Culture indicators in an organization.
- Learn information gathering from Legal compliance, absence and sickness data, Risk Assessments, SOP, Monitoring records, External & Internal communication medium, Maintenance records, Accident and Incident records, Health and Surveillance records, Safety committee minutes of meetings, Training records, Statutory Inspections, Previous audit reports.
- Understanding the IS 14489:1998 – Code of practice on occupational safety and health audit

### **5.3.2. Resources**

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart

- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 5.3.3. Say

- Describe safety policy, Safety Culture and Safety Culture indicators
- Describe absence and sickness data, Risk Assessments, SOP, Monitoring records, External & Internal communication medium, Maintenance records, Accident and Incident records, Health and Surveillance records, Safety committee minutes of meetings, Training records, Statutory Inspections
- Describe IS 14489:1998 – Code of practice on occupational safety and health audit

### 5.3.4. Explain

- Describe safety policy, Safety Culture and Safety Culture indicators
- Describe absence and sickness data, Risk Assessments, SOP, Monitoring records, External & Internal communication medium, Maintenance records, Accident and Incident records, Health and Surveillance records, Safety committee minutes of meetings, Training records, Statutory Inspections
- Describe IS 14489:1998 – Code of practice on occupational safety and health audit

### 5.3.5. Activity

#### Scrutiny of Documents in Safety Audit

- **Objective:** To understand the importance of document scrutiny in the safety audit process and practice reviewing key safety documents for compliance and risk management.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a set of **mock safety-related documents** that need to be reviewed during a safety audit (e.g., safety policy, incident reports, inspection checklists, SOPs, accident records, maintenance logs, training records, and safety committee minutes).
  - Provide a checklist or template for document scrutiny that includes key areas to focus on (e.g., completeness, compliance with regulations, accuracy, timeliness).
- **Instructions:**
  1. **Document Review:**
    - Each group is given a set of documents and instructed to review them for accuracy, completeness, and compliance with relevant safety regulations (e.g., OSH guidelines, company safety policies, industry standards).
    - Groups should identify any discrepancies, missing information, or areas where the document does not meet safety standards.
  2. **Areas to Focus On:**
    - **Safety Policies:** Check if the company's safety policy is current, aligns with regulations (e.g., BOCW Act, Factories Act), and is communicated effectively to employees.
    - **Incident Reports:** Ensure that accident and incident reports are complete, timely, and include corrective actions taken.
    - **Training Records:** Verify if employees have received proper safety training and that training records are updated and complete.
    - **Inspection Checklists:** Check if inspections are documented properly, with actions taken to address any identified hazards.
    - **Maintenance Logs:** Review maintenance records to ensure that equipment is regularly maintained and any issues are addressed.
    - **Safety Committee Minutes:** Ensure safety meetings are held regularly, and action items are documented.
  3. **Identify Gaps and Non-compliance:**
    - For each document, groups should identify any gaps or non-compliance issues. For example, they may find that:
      - The safety policy is outdated.
      - Incident reports are missing corrective actions.
      - Training records do not cover all necessary topics or employees.
    - Each group should note down the areas that need attention and provide suggestions for improvement.
  4. **Report Preparation:**
    - After reviewing all the documents, each group prepares a short report summarizing:

- Key findings from the document scrutiny.
  - Identified gaps or non-compliance.
  - Recommended corrective actions or improvements.
5. **Presentation:**
- Each group presents their findings to the class. They should cover:
    - What documents were reviewed.
    - Key discrepancies or areas of non-compliance.
    - Suggested corrective actions or improvements to ensure compliance with safety regulations.
- **Discussion:**
- Discuss the importance of accurate and complete documentation in the safety audit process.
  - Emphasize how document scrutiny helps identify weaknesses in safety management systems and ensures compliance with legal and regulatory requirements.
  - Discuss the role of safety audits in improving safety culture and preventing accidents by continuously improving safety practices and record-keeping.
- **Conclusion:**
- Recap the importance of thorough document review as part of the safety audit process.
  - Reinforce the idea that effective documentation and regular audits are key components in maintaining a safe work environment and ensuring compliance with safety regulations.

### 5.3.6. 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

### 5.3.7. Summary

**1. Objective:** To assess adherence to safety regulations, recognize potential hazards, and confirm the implementation of safety protocols.

- **Document Categories:**
  - Safety manuals and policies
  - Incident reports and accident documentation
  - Inspection and maintenance records
  - Training documentation
  - Safety data sheets (SDS)
  - Risk assessments and hazard evaluations

**2. Procedure:**

- Examine documents for precision and thoroughness
- Verify that policies comply with legal and regulatory standards
- Review records from prior audits and corrective measures
- Assess the effectiveness of safety initiatives
- Identify deficiencies in safety systems and procedures

3.Result: A comprehensive understanding of safety performance and identification of areas needing enhancement within the organization.

### 5.3.8. Exercise

1. What is the primary purpose of a Safety Policy in an organization?
  - A) To increase productivity
  - B) To outline safety goals and responsibilities
  - C) To reduce costs
  - D) To improve employee morale
2. What is the primary purpose of the Statement of Intent in a safety policy?
  - A) To specify safety procedures
  - B) To communicate the organization's commitment to health and safety

- C) To list individual safety responsibilities  
 D) To provide financial projections
3. SOP stands for:  
 A) Standard Operating Procedure  
 B) Safety Operation Plan  
 C) Standard Organizational Policy  
 D) Safety Oversight Program
4. True or False: Scrutinizing incident reports and corrective actions is not necessary if there have been no recent accidents.
5. True or False: Reviewing risk assessments and hazard identification records is part of the document scrutiny in a safety audit.
6. True or False: A safety audit should ignore documentation related to compliance with local or national safety regulations.

## 5.4. Unit 5.3: Safety Audit data collection and report preparation

### 5.4.1. Unit Objectives

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

- Learn to prepare Safety Policy, Standard Operating Procedures, Agenda, Minutes of Meetings and Safe Systems of Work
- Conduct and record interviews for audits.
- Understand process of gathering data and information from compliance data, absence and sickness data, SOP, monitoring records, external & internal communication, maintenance records, accident and incident records, health and surveillance records, safety committee minutes of meetings, inspection reports, previous audit reports and others records

### 5.4.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 5.4.3. Say

- Describe how to prepare Safety Policy, Standard Operating Procedures, Agenda, Minutes of Meetings and Safe Systems of Work
- Describe process of Conducting and recording interviews for audits
- Describe absence and sickness data, Risk Assessments, SOP, Monitoring records, External & Internal communication medium, Maintenance records, Accident and Incident records, Health and Surveillance records, Safety committee minutes of meetings, Training records, Statutory Inspections
- Describe how to Prepare the audit report as per IS 14489- 1998

### 5.4.4. Explain

- Describe how to prepare Safety Policy, Standard Operating Procedures, Agenda, Minutes of Meetings and Safe Systems of Work
- Describe process of Conducting and recording interviews for audits
- Describe absence and sickness data, Risk Assessments, SOP, Monitoring records, External & Internal communication medium, Maintenance records, Accident and Incident records, Health and Surveillance records, Safety committee minutes of meetings, Training records, Statutory Inspections
- Describe how to Prepare the audit report as per IS 14489- 1998

### 5.4.5. Activity

#### **Safety Audit Data Collection and Report Preparation**

- **Objective:** To practice collecting data for a safety audit, analyzing it, and preparing a comprehensive audit report based on the findings.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a **hypothetical workplace scenario** (e.g., construction site, manufacturing plant, office, or laboratory).
  - Provide a **data collection template** that includes categories like:
    - Accident and incident records
    - Inspection checklists
    - Training and certification records
    - Maintenance logs
    - Safety committee meeting minutes
    - SOPs (Standard Operating Procedures)
    - Compliance with regulations (e.g., OSHA, BOCW Act)
  - Also provide a **report template** that includes:
    - Executive summary
    - Findings from the data collection
    - Compliance status
    - Recommendations for improvement
- **Instructions:**
  1. **Data Collection:**
    - Each group is tasked with collecting and reviewing relevant safety-related documents and data for their assigned scenario. They will focus on:
      - Identifying trends in incident and accident reports.
      - Reviewing inspection reports for safety hazards or unresolved issues.
      - Verifying that employees have received the necessary safety training.
      - Checking maintenance logs for proper upkeep of equipment.
      - Reviewing the minutes of safety committee meetings for action items and follow-ups.
      - Ensuring compliance with applicable safety regulations and policies.
  2. **Analysis of Data:**
    - After collecting the data, each group should:
      - Identify patterns, such as recurring accidents or hazards that are not being addressed.
      - Check if the required safety measures (e.g., PPE usage, training) are being followed consistently.
      - Compare the data to industry standards and legal requirements to ensure compliance.
  3. **Findings and Recommendations:**
    - Each group should analyze the data and identify any **non-compliance issues** or areas for improvement (e.g., missed inspections, inadequate safety training).
    - Based on the findings, groups will prepare **recommendations** for corrective actions, such as:
      - Enhancing training programs.
      - Introducing new safety measures.
      - Improving communication of safety policies.
      - Updating or revising Standard Operating Procedures (SOPs).
  4. **Report Preparation:**
    - Using the provided report template, groups will prepare a **comprehensive safety audit report** that includes:
      - **Executive Summary:** A brief overview of the findings.
      - **Detailed Findings:** A clear and structured presentation of their findings from the data collection.
      - **Compliance Status:** Whether the workplace is in compliance with applicable safety regulations.
      - **Recommendations:** Suggestions for improvements to enhance safety.
    - Ensure that the report is clear, professional, and easy to understand for a management audience.
  5. **Presentation:**
    - Each group presents their safety audit report to the class. They should include:
      - A summary of their data collection process.
      - Key findings and areas of non-compliance.
      - Recommended actions to improve safety and compliance.
    - After each presentation, encourage classmates to ask questions or provide feedback on the findings and recommendations.
- **Discussion:**
  - Discuss the importance of thorough data collection and documentation in conducting a safety audit.

- Emphasize how audit reports help organizations identify safety gaps, ensure compliance with regulations, and take proactive measures to reduce risks.
- Discuss real-life scenarios where audits led to significant improvements in workplace safety.
- **Conclusion:**
- Recap the steps involved in safety audit data collection and report preparation.
- Reinforce the idea that safety audits are essential tools for continuous improvement in workplace safety.
- Encourage students to think of audits as not just a compliance exercise but as an opportunity to improve safety culture and minimize risks in any organization.

#### 5.4.6. 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

#### 5.4.7. Summary

##### 1. Safety Policy and Documentation:

- Prepare Safety Policy, Standard Operating Procedures (SOPs), Safe Systems of Work.
- Develop agenda and minutes of safety meetings.

##### 2. Audit Process:

- Conduct interviews with relevant personnel for safety audits.
- Record interview findings accurately.

##### 3. Data Collection:

- Gather information from multiple sources:
- Compliance data
- Absence and sickness records
- SOPs
- Monitoring and maintenance records
- Accident and incident reports
- Health surveillance data
- Safety committee meeting minutes
- Inspection and previous audit reports

##### 4. Audit Report Preparation:

- Prepare the audit report according to IS 14489-1998 standards

#### 5.4.8. Exercise

1. What should be done before starting an audit interview?
  - A) Review relevant documents and prepare questions
  - B) Ask the interviewee to leave the room
  - C) Ignore the audit objectives
  - D) Focus solely on personal opinions
2. Effective communication in safety culture is essential for:
  - A) Blame-shifting
  - B) Transparency and trust
  - C) Reducing employee benefits
  - D) Increasing production schedules
3. Why are maintenance records important for safety?
  - A) They track employee productivity
  - B) They ensure equipment is safe and functioning properly
  - C) They provide data for financial audits
  - D) They summarize customer feedback

4. True or False: Safety audit reports are not useful unless the audit is conducted by an external auditor.
5. True or False: During the data collection phase of a safety audit, it is important to review incident reports and safety records to identify trends and areas for improvement.
6. True or False: The safety audit report should only focus on the positive aspects of the safety system and ignore areas that need improvement.

## 6. Unit 6 NOS 5: Statutes and Legislative requirements in Health and Safety (SSD/VSQ/N0131)

### 6.1. Key Learning Outcomes

- Understand & comply with statutory regulation related to occupation safety, health, and environment of the worksite.
- Protect Worker Health and Safety: The primary goal is to minimize work-related accidents, injuries, and illnesses.
- Enhance Productivity: A safe and healthy workplace leads to increased productivity and reduced absenteeism.
- Comply with Legal Requirements: Adherence to OSH laws and regulations is mandatory to avoid penalties and legal consequences.
- Promote a Positive Work Culture: A strong OSH culture fosters employee morale, job satisfaction, and loyalty.

#### 6.1.1. Unit Objectives

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

##### 1. Key Provisions of the BOCW Act, 1996

- **Registration of Establishments:** All establishments engaged in building or other construction work must be registered with the appropriate government.
- **Wages and Benefits:** The Act mandates fair wages and provides for various benefits, including provident fund, gratuity, and insurance.
- **Working Hours:** It regulates working hours, including overtime pay and weekly rest days.
- **Safety, Health, and Welfare Measures:** The Act emphasizes the importance of safety, health, and welfare measures at construction sites, including provisions for first aid, drinking water, sanitation, and protective equipment.
- **Welfare Fund:** A welfare fund is established to provide benefits to construction workers, such as housing, education, and medical facilities.
- **Grievance Redressal:** The Act provides mechanisms for resolving grievances and disputes between employers and workers.

##### 2. Understand & comply with Factories Act, 1948

#### Clause 6. Approval, Licensing and Registration of Factories

1. Requiring the previous permission in writing of the State Government or The Chief Inspector to be obtained for the site on which factory is to be situated and for the construction or extension of any factory or class or description of factories
2. Requiring for the purpose of considering applications for such permission the submission of plans and specifications:
3. Prescribing the nature of such plans and specifications and by whom they shall be certified

#### Clause 7A General Duties of the Occupier

4. Every occupier shall ensure, so far as is reasonably practicable, the health, safety and welfare of all workers while they are at works in the factory.
5. Without prejudice to the generality of the provisions of sub-section (1), the matters to which such duty extends, shall include –
  - a) The provision and maintenance of plant and systems of work in the factory that are safe and without risks to health

- b) The arrangements in the factory for ensuring safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances;
- c) The provision of such information, instruction, training and supervision as are necessary to ensure the health and safety of all workers at work;
- d) The maintenance of all places of work in the factory in a condition that is safe without risks to health and the provision and maintenance of such means of access to, and egress from, such places as are safe and without such risks;
- e) the provision, maintenance or monitoring of such working environment in the factory for the workers that is safe, without risks to health and adequate as regards facilities and arrangements for their welfare at work.

#### **Clause 7B General Duties of Manufacturers**

1. Every person who designs, manufactures, imports or supplies any article for use in any factory, shall –
  - a) ensure, so far as is reasonably practicable, that the article is so designed and constructed as to be safe and without risks to the health of the workers when properly used;
  - b) Carry out or arrange for the carrying out of such tests and examination as may be considered necessary for the effective implementation of the provisions of clause (a)
  - c) Take such steps as may be necessary to ensure that adequate information will be available –
    - I. in connection with the use of article in any factory.
    - II. about the use for which it is designed and tested; and about any condition necessary to ensure that the article, when put to such use, will be safe, and without risks to the health of workers.

#### **3.Key Provisions of the OSH Code 2020:**

- **Scope of Application:** The Code applies to a wide range of establishments, including factories, mines, plantations, shops, commercial establishments, and more.
- **Health and Safety Standards:** The Code mandates the establishment and maintenance of health and safety standards, including safe working practices, emergency procedures, and regular inspections.
- **Working Hours and Rest Periods:** It specifies maximum working hours, rest periods, and overtime regulations to prevent employee fatigue and promote work-life balance.
- **Welfare Facilities:** Employers are required to provide essential welfare facilities such as drinking water, first-aid, restrooms, and canteens.
- **Occupational Diseases:** The Code addresses occupational diseases and provides for compensation and rehabilitation measures for affected workers.
- **Safety Committees:** The formation of safety committees at the workplace is mandatory to promote safety awareness and incident prevention.
- **Inspection and Enforcement:** The Code empowers inspectors to conduct inspections, issue notices, and impose penalties for non-compliance.

#### **4. <https://www.cheggindia.com/general-knowledge/environment-protection-act-1986/>Key Provisions of EPA 1986**

- **Environmental Protection:** The Act grants the Central Government authority to take all necessary steps to protect and improve the environment.
- **Pollution Control:** It empowers the government to establish authorities to prevent and control pollution in all its forms.
- **Environmental Standards:** The Act sets standards for various pollutants to ensure safe levels in the environment.
- **Hazardous Substances:** It regulates the handling and disposal of hazardous substances.
- **Public Participation:** It encourages public participation in environmental protection efforts.

- **Penalties:** The Act prescribes penalties for violations of its provisions.

### Other Relevant Regulations

#### Electricity Act 2010 & 2003

- **Purpose:** Consolidates laws related to electricity generation, transmission, distribution, trading, and use.
- **Key Provisions:**
  - Promotes competition in the electricity industry.
  - Protects consumer interests.
  - Ensures electricity supply to all areas.
  - Rationalizes electricity tariffs.
  - Promotes efficient and environmentally friendly practices.
  - Establishes regulatory bodies like the Central Electricity Authority and State Electricity Regulatory Commissions.

#### National Building Code (NBC) – 2016

- **Purpose:** Provides guidelines for building construction and safety.
- **Key Provisions:**
  - Sets standards for structural design, materials, and construction practices.
  - Includes provisions for fire safety, earthquake resistance, and accessibility.
  - Covers a wide range of building types, including residential, commercial, and industrial.

#### National Fire Protection Association (NFPA) Regulations

- **Purpose:** Offers detailed standards for fire safety.
- **Key Provisions:**
  - Covers fire prevention, detection, and suppression systems.
  - Provides guidelines for emergency response and evacuation procedures.
  - Includes standards for specific industries and hazards.

#### Petroleum & Explosive Safety Organization (PESO)-Explosive Act 1884

- **Purpose:** Regulates the handling and storage of explosives.
- **Key Provisions:**
  - Licenses the manufacture, import, export, transport, sale, purchase, and storage of explosives.
  - Sets safety standards for explosives handling and storage facilities.
  - Provides for the investigation of accidents involving explosives.

#### Gas Cylinders Rule 2016

- **Purpose:** Governs the safety of gas cylinders.
- **Key Provisions:**
  - Sets standards for the design, manufacture, testing, filling, transport, storage, and use of gas cylinders.
  - Requires periodic inspection and testing of gas cylinders.
  - Provides for the safe handling and disposal of gas cylinders.

#### The Boilers Act 1923

- **Purpose:** Regulates the operation and maintenance of boilers.
- **Key Provisions:**
  - Requires the registration of boilers.

- Sets standards for the design, construction, installation, and operation of boilers.
- Provides for the inspection and testing of boilers.
- Requires the appointment of boiler attendants.

#### **Workmen Compensation Act 1923 & Employee State Insurance Act 1948**

- **Purpose:** Provides social security benefits to workers.
- **Key Provisions:**
  - Provides compensation for work-related injuries and diseases.
  - Provides medical benefits, disability benefits, and death benefits.
  - Provides for maternity benefits and unemployment benefits.

#### **Motor vehicle Act 1988**

- **Purpose:** Regulates road safety and vehicle operations.
- **Key Provisions:**
  - Sets standards for vehicle design, manufacture, and registration.
  - Provides for the licensing of drivers.
  - Sets speed limits and traffic rules.
  - Provides for the punishment of traffic offenses.

#### **First Aid at workplaces and training on first aid**

- **Purpose:** Mandates first aid facilities and training for employees.
- **Key Provisions:**
  - Requires employers to provide first aid facilities at the workplace.
  - Requires employers to train employees in first aid.
  - Provides for the appointment of first aid personnel.

### **6.1.2. Resources**

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### **6.1.3. Say**

- Describe statutory regulation related to occupation safety, health, and environment of the worksite.

### **6.1.4. Explain**

- Describe statutory regulation related to occupation safety, health, and environment of the worksite.

### **6.1.5. Activity**

#### **Statutes and Legislative Requirements in Health and Safety (SSD/VSQ/N0131)**

- **Objective:** To understand the key statutes, laws, and legislative requirements related to health and safety, and to practice applying these legal principles in real-world scenarios.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a list of **statutes and legislative requirements** relevant to health and safety (e.g., the Factories Act, 1948; the Occupational Safety, Health and Working Conditions Code, 2020; the Employees' State Insurance Act, 1948; the Environment Protection Act, 1986; etc.).
  - Prepare a set of **hypothetical workplace scenarios** (e.g., a construction site, a factory, an office, a chemical plant) for each group to analyze.
  - Distribute a **legislation reference sheet** that highlights the key aspects of these laws and regulations, including obligations of employers, rights of workers, and specific safety measures.
- **Instructions:**

### 1. Understanding the Statutes:

- Begin by reviewing key statutes and legislative requirements in health and safety, covering the following:
- **Factories Act, 1948:** Regulations on safety, health, and welfare of workers in factories.
- **Occupational Safety, Health, and Working Conditions Code, 2020:** Consolidated guidelines on worker safety, working conditions, and occupational health.
- **Employees' State Insurance Act, 1948:** Provisions for workers' compensation, medical benefits, and insurance in case of accidents.
- **Environment Protection Act, 1986:** Guidelines for maintaining environmental safety and compliance with pollution control.
- **Other Relevant Legislation:** National Building Code (NBC), Fire Safety regulations, etc.

### 2. Scenario Analysis:

- Each group receives a workplace scenario and is asked to **identify which statutes and regulations apply** to the situation. For example:
  - In a **construction site scenario**, they must identify regulations related to worker safety, use of personal protective equipment (PPE), fall protection, and machinery safety.
  - In a **factory setting**, they must consider issues like machinery safety, worker welfare (e.g., sanitation, lighting), and emergency procedures.
  - In an **office environment**, they should look at ergonomics, fire safety regulations, and workplace safety training.
- Each group should also identify potential **legal violations** or non-compliance in their assigned scenario.

### 3. Research and Application:

- After identifying relevant laws, groups will **research the specific legislative provisions** that apply to their scenario. They should:
  - Find the sections of the statutes that specifically address the issues in their scenario.
  - Discuss the **legal obligations** of employers and the **rights of workers** within the context of health and safety.
  - Identify **consequences for non-compliance** (e.g., penalties, legal action, fines).

### 4. Develop an Action Plan:

- Based on the identified statutory requirements, each group must develop an **action plan** for the employer in the scenario, outlining:
  - Necessary steps to ensure compliance with the relevant laws.
  - Proposed measures to address safety hazards and health concerns.
  - Ways to communicate safety policies and procedures to workers.
  - Procedures for monitoring and enforcing compliance.

### 5. Presentation:

- Each group presents their analysis and action plan to the class. Their presentation should cover:
  - The statutes they reviewed and how they apply to the scenario.
  - The key health and safety obligations for the employer.
  - Recommended actions to comply with the legal requirements.
  - Potential penalties or consequences of non-compliance.
- After each presentation, allow for questions and feedback from the class.

### • Discussion:

- Discuss the importance of understanding and adhering to statutory and legislative requirements in maintaining a safe workplace.
- Emphasize the role of health and safety regulations in preventing workplace accidents, protecting workers' rights, and promoting a culture of safety.
- Explore how different industries (construction, manufacturing, healthcare, etc.) have unique legal requirements.

### • Conclusion:

- Recap the importance of statutory and legislative requirements in health and safety and their role in safeguarding workers and the environment.
- Reinforce that compliance with these laws is not only a legal obligation but also crucial for creating a safe and healthy workplace.
- Encourage students to view health and safety regulations as tools for both compliance and continuous improvement in workplace safety.

## 6.1.6. 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

### 6.1.7. Summary

- BOCW Act, 1996: Apply safety, health, and environmental compliance as per the Building and Other Construction Workers (BOCW) Act.
- Factories Act, 1948: Implement safety, health, and environmental regulations according to the Factories Act.
- OSH Code 2020 & OSHA: Comply with safety, health, and environmental requirements outlined in the Occupational Safety and Health Code and OSHA standards.
- Environment Protection Act, 1986 & ILO Guidelines: Adhere to environmental protection guidelines and ILO standards for EHS compliance.
- Oil Industry Safety Directorate (OSID): Follow safety regulations as per OSID guidelines.
- Mines Vocational Training Rules - DGMS: Ensure compliance with DGMS rules for safety in mining operations.
- Electricity Act, 2010 & 2003: Apply safety and regulatory obligations related to electricity and electrical installations.
- National Building Code (NBC) - 2016: Follow safety guidelines outlined in the National Building Code for construction and building safety.
- National Fire Protection Association (NFPA): Implement fire safety regulations as per NFPA standards.
- PESO - Explosive Act 1884: Ensure compliance with the Explosive Act and PESO regulations for handling explosives.
- Gas Cylinders Rule, 2016: Apply regulatory obligations for the safe use and handling of gas cylinders.
- Boilers Act, 1923: Follow regulations for the safety and operation of boilers.
- Workmen Compensation Act, 1923 & ESI Act, 1948: Adhere to worker compensation and employee state insurance compliance.
- Motor Vehicle Act, 1988: Ensure compliance with road safety regulations under the Motor Vehicle Act.
- First Aid Training: Provide first aid training and ensure its implementation at workplaces.

### 6.1.8. Exercise

1. What does the BOCW Act of 1996 primarily address?
  - A) Environmental Protection
  - B) Construction Workers' Safety
  - C) Oil Industry Regulations
2. Under the BOCW Act, who is responsible for ensuring safety measures at construction sites?
  - A) Only the workers
  - B) The employer and the contractor
  - C) Government inspectors only
  - D) The workers' unions
  - D) Factories Safety
3. According to the BOCW Act, which body is responsible for enforcing compliance with safety regulations? (PC1)
  - A) Local police
  - B) Chief Inspector of the State
  - C) Ministry of Labour and Employment
  - D) Trade unions
4. What is a consequence of non-compliance with the Factories Act, 1948?
  - A) Increased taxes
  - B) Legal penalties
  - C) Improved working conditions
  - D) Employee promotions
5. Under the Factories Act, which of the following is a key responsibility of the factory manager?

- A) To provide entertainment facilities for workers
  - B) To ensure compliance with health and safety regulations
  - C) To manage financial accounts of the factory
  - D) To conduct recruitment drives
6. How often must employers conduct safety training according to OSHA standards?
- A) Only during employee onboarding
  - B) Annually or as needed based on workplace changes
  - C) Every five years
  - D) Training is not mandatory
7. What does the Environment Protection Act, 1986 aim to prevent?
- A) Worker exploitation
  - B) Air and water pollution
  - C) Traffic accidents
  - D) Natural disasters
8. True or False: The Health and Safety at Work Act is a key piece of legislation that outlines the duties of employers and employees regarding workplace safety.
9. True or False: Health and safety legislation only applies to industrial workplaces, not offices or administrative environments.
10. True or False: Employers are legally required to carry out risk assessments to identify and mitigate potential hazards in the workplace.
11. True or False: Employees are not responsible for their own safety or the safety of others under health and safety laws.

## 7. Unit 7 NOS 6: Plan, Organize, and Monitor (SSD/N0116)

### 7.1. Key Learning Outcomes

- Planning of resources for own work and communication to concerned subordinates, co-workers, and superiors.
- Provide necessary support to subordinates, coordinate with co-workers and liaise with superiors and other teams.
- Monitor progress of work and adjust, manage, or project requirements on time.

### 7.2. Unit 7.1: Planning of Work

#### 7.2.1. Unit Objectives

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

- Understand process of plan the resources, schedules, and timelines as per work timelines given by superiors.
- Understand hierarchy of the organization and communicate to concerned co workers and superiors.
- Understand how to do work within timelines.

#### 7.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 7.2.3. Say

- Describe resource allocation and resource schedule
- Describe process of hierarchy of the organization and communicate to concerned co workers and superiors.
- Describe Task allocation and timeline

### 7.2.4. Explain

- Describe resource allocation and resource schedule
- Describe process of hierarchy of the organization and communicate to concerned co workers and superiors.
- Describe Task allocation and timeline

### 7.2.5. Activity

#### Planning of Work

- **Objective:** To understand the process of work planning, including resource allocation, schedule management, and effective communication, while simulating real-world workplace scenarios.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a **hypothetical project scenario** (e.g., a construction project, event planning, manufacturing task, or research project) that involves tasks to be completed within a set timeframe.
  - Provide **planning tools**, such as:
    - A **Gantt chart template** or **work schedule template**.
    - A **resource list** (e.g., equipment, personnel, materials).
    - A **project timeline** that outlines the total time available and key milestones.
- **Instructions:**
  1. **Scenario Overview:**
    - Present each group with a detailed scenario of a project or task. For example, for a construction project, the scenario might include building a new office space within three months, with specific deadlines for tasks like foundation laying, electrical installation, and final inspection.
    - Emphasize that each group must plan the resources, schedule, and timelines effectively to complete the project successfully.
  2. **Work Breakdown:**
    - Each group should **break down the overall project** into smaller, manageable tasks or phases. For instance:
      - **Task 1:** Site preparation and foundation laying.
      - **Task 2:** Framing and structure work.
      - **Task 3:** Electrical wiring installation.
      - **Task 4:** Final inspection and project handover.
    - Assign responsibilities for each task (e.g., which team member or department will handle which task).
  3. **Resource Allocation:**
    - Identify the resources required for each task:
      - **Personnel:** Who will do what (e.g., skilled workers, managers, supervisors)?
      - **Equipment:** What tools or machinery are needed?
      - **Materials:** What materials (e.g., wood, cement, wiring) are required for the project?
    - Groups should allocate resources for each task, ensuring that the necessary items are available at the right time.
  4. **Timeline Creation:**
    - Using a **Gantt chart** or **work schedule**, groups must map out when each task will begin and end, taking into account dependencies (e.g., Task 2 cannot start until Task 1 is completed).
    - Ensure that they account for any potential delays, allowing some buffer time between tasks or key milestones.
  5. **Communication Plan:**
    - Develop a **communication plan** to ensure all team members and stakeholders are informed about the work schedule and progress.
    - Decide how to communicate with superiors or other departments (e.g., regular progress reports, meetings).
    - Discuss how changes to the schedule or issues will be communicated and resolved.
  6. **Risk Assessment:**
    - Identify potential **risks** to the successful completion of the project (e.g., delays in material delivery, workforce shortages).

- Plan **mitigation strategies** to address these risks (e.g., backup suppliers, additional shifts, contingency time in the schedule).

#### 7. Presentation:

- Each group presents their **work plan** to the class, including:
  - Breakdown of tasks and milestones.
  - Resource allocation plan.
  - Timeline and Gantt chart.
  - Communication strategy and risk management plan.
- After each presentation, encourage questions and feedback from the class on how the plan could be improved.
- **Discussion:**
  - Discuss the importance of **effective work planning** in completing projects on time and within budget.
  - Emphasize the role of **resource management, timeline adherence, and communication** in the success of any project.
  - Discuss how unplanned risks or delays can affect the overall work plan and how to manage those risks proactively.
- **Conclusion:**
  - Recap the essential components of **work planning**, including task breakdown, resource allocation, timeline management, and communication.
  - Reinforce that planning is a critical skill for any professional and helps ensure that projects are completed efficiently, safely, and successfully.
  - Encourage students to always consider potential risks and communication needs while planning work in real-world situations.

#### 7.2.6. 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

#### 7.2.7. Summary

##### 1. Resource and Schedule Planning:

Plan resources, schedules, and timelines based on work deadlines set by superiors.

##### 2. Understanding Organizational Hierarchy:

Understand the hierarchy within the organization.

Communicate effectively with co workers and superiors according to the organizational structure.

##### 3. Task Delegation:

Assign tasks to subordinates in alignment with project requirements and timelines.

#### 7.2.8. Exercise

1. What is the first step in planning safety resources for a work task?
  - A) Gathering feedback from team members
  - B) Reviewing the overall work timelines and objectives
  - C) Conducting a financial audit
  - D) Allocating tasks to subordinates
2. What is the primary purpose of resource planning?
  - A) To allocate tasks to employees
  - B) To minimize costs
  - C) To ensure resources are available when needed
  - D) To increase profit margins
3. Which document typically outlines the project schedule?
  - A) Project charter
  - B) Statement of work
  - C) Project management plan
  - D) Risk management plan

4. Which term describes the resources needed to complete a project?

- A) Resource pool
- B) Resource allocation
- C) Resource capacity
- D) Resource requirement

5. True or False: In work planning, it is essential to consider worker skill levels and ensure adequate training for the tasks they will perform.

6. True or False: Work planning should avoid including safety protocols if the tasks seem simple or low-risk.

7. True or False: A detailed work plan helps in minimizing delays, reducing accidents, and increasing productivity.

## 7.3. Unit 7.2: Organizing of Work

### 7.3.1. Unit Objectives

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

- Resource collection and provisioning.
- Understand Communication Medium to concerned co workers and superiors.
- Briefing to subordinates about the schedule, sequence, timing and resources to subordinates

### 7.3.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 7.3.3. Say

- Describe Resource collection and provisioning
- Describe process of hierarchy of the organization and communicate to concerned co workers and superiors.
- Describe process of Briefing to subordinates about the schedule, sequence, timing and resources to subordinates

### 7.3.4. Explain

- Describe Resource collection and provisioning
- Describe process of hierarchy of the organization and communicate to concerned co workers and superiors.
- Describe process of Briefing to subordinates about the schedule, sequence, timing and resources to subordinates

### 7.3.5. Activity

#### Organizing of Work

Objective: To understand the process of organizing work, focusing on resource collection, team communication, and task delegation to ensure efficient execution.

#### Activity Setup:

Divide the class into small groups (4-5 students per group).

Provide each group with a hypothetical project that requires organizing work (e.g., organizing a company event, launching a new product, or completing a team task in a manufacturing setting).

Provide resources such as a resource list, a timeline, and a task delegation sheet.

Instructions:

#### Project Overview:

Present each group with a project scenario that requires organizing tasks and resources. For example:

Scenario 1: Organize an employee health and safety training seminar for 100 staff members.

Scenario 2: Organize a new product launch event that includes product display, marketing, and customer engagement.

Scenario 3: A factory maintenance project that involves machine inspection, repair, and quality control.

Identify Resources:

Instruct each group to identify the resources needed for their project:

Personnel: Who will do what? (E.g., team leaders, helpers, specialists).

Materials/Equipment: What materials or tools are required? (E.g., seminar materials, decorations, machinery).

Time: How much time is allocated for each task? (E.g., deadlines for completing specific project phases).

#### **Task Delegation:**

Groups should delegate tasks to each team member based on skills and available resources.

Discuss who will be responsible for specific tasks (e.g., one person may handle event logistics, another may be in charge of communications).

Ensure that tasks are evenly distributed and that every member knows their responsibilities and deadlines.

#### **Develop a Task Schedule:**

Each group creates a task schedule that outlines when each task will begin and end, who will handle it, and any dependencies (e.g., Task B cannot start until Task A is completed).

Use a work schedule template to visualize the sequence of tasks.

Emphasize the importance of setting realistic deadlines and allocating time for contingencies.

#### **Communication Plan:**

Discuss how communication will take place among team members and superiors.

How will progress be tracked and reported? (E.g., weekly meetings, progress updates).

How will issues or delays be communicated and addressed?

#### **Risk Management:**

Each group should consider potential risks that could disrupt the project (e.g., a supplier delay, unexpected absences) and develop contingency plans.

For example, if an equipment breakdown occurs, the team should have an alternative vendor or maintenance procedure.

#### **Final Presentation:**

Each group will present their organized work plan to the class, covering:

Key resources needed (personnel, materials, time).

How tasks were delegated and why.

The task schedule and timeline.

The communication plan and risk management strategies.

Encourage classmates to ask questions and give feedback on how the organizing process could be improved.

#### **Discussion:**

Discuss the importance of organizing work effectively for successful project execution.

Highlight the role of delegating tasks based on skills, available resources, and time constraints.

Emphasize the importance of clear communication and monitoring progress to ensure all tasks are completed on time.

#### **Conclusion:**

Recap the key steps in organizing work: identifying resources, delegating tasks, creating schedules, and planning communication and risk management.

Reinforce that organizing work is essential for maximizing efficiency and ensuring project success.

Encourage students to use these organizational principles in their future professional tasks to improve teamwork and productivity.

### **7.3.6. 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

### 7.3.7. Summary

#### 1.Resource Collection and Provisioning:

Collect and provide necessary resources for the tasks at hand.

#### 2.Effective Communication:

Communicate relevant information to co-workers and superiors.

#### 3.Briefing Subordinates:

Brief subordinates about the work schedule, task sequence, timing, and available resources.

### 7.3.8. Exercise

1. What is the primary purpose of resource collection in project management?
  - A) To allocate tasks
  - B) To gather necessary materials and inputs
  - C) To create budgets
  - D) To schedule meetings
2. What is the first step in resource collection?
  - A) Allocation of resources
  - B) Identifying resource needs
  - C) Distribution of resources
  - D) Evaluation of resources
3. What is the first step in the resource provisioning process?
  - A) Allocating resources
  - B) Identifying resource requirements
  - C) Monitoring resource usage
  - D) Reporting resource status
4. What is the best way to ensure your message is understood by co-workers?
  - A) Use technical jargon
  - B) Keep the message concise and clear
  - C) Avoid summarizing key points
  - D) Speak quickly
- 5.True or False: It is not necessary to assign clear responsibilities for safety and emergency procedures when organizing work.
- 6.True or False: Organizing work includes scheduling tasks in a way that optimizes productivity without compromising safety.
- 7.True or False: Organizing work should only focus on the efficiency of the process and not on the health and safety of the workers.

## 7.4.Unit 7.3: Monitoring of Work

### 7.4.1. Unit Objectives

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

- Understand process of monitoring progress of work, management of resources, guidance to subordinates.
- Understand process of reporting to superiors and keeping the other teams informed.
- Documentations and compliances and report submission.

### 7.4.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 7.4.3. Say

- Describe about process of monitoring progress of work, management of resources, guidance to subordinates
- Describe about process of reporting to superiors and keeping the other teams informed
- Describe importance of Documentations and compliances and report submission

### 7.4.4. Explain

- Describe about process of monitoring progress of work, management of resources, guidance to subordinates
  - Describe about process of reporting to superiors and keeping the other teams informed
- Describe importance of Documentations and compliances and report submission

### 7.4.5. Activity

#### Monitoring of Work

- **Objective:** To understand the process of monitoring work, ensuring tasks are completed as planned, and addressing issues in real-time to ensure efficiency and quality.
- **Activity Setup:**
  - Divide the class into small groups (4-5 students per group).
  - Provide each group with a **project scenario** that involves multiple tasks and objectives. Examples could include:
    - Organizing a conference or event.
    - Managing a product launch.
    - Completing a construction project or factory maintenance task.
  - Distribute **monitoring tools**, such as a **progress tracking sheet**, **performance checklist**, and **issue resolution template**.
- **Instructions:**
  1. **Scenario Overview:**
    - Present a project scenario where the group needs to **monitor progress** and ensure that tasks are completed on time and according to quality standards. For example:
      - **Scenario 1:** You are managing a team to plan and organize a corporate training event. The team has various tasks like booking the venue, creating materials, sending invitations, and arranging catering.
      - **Scenario 2:** You are overseeing a construction project. The tasks include scheduling deliveries, organizing team work shifts, and ensuring safety protocols are followed.
    - Each group is tasked with organizing and monitoring the project to ensure all tasks are completed as planned.
  2. **Task Breakdown:**
    - Ask each group to break down the project into smaller tasks. For example:
      - **Task 1:** Booking the venue for the event.
      - **Task 2:** Sending invitations to participants.
      - **Task 3:** Preparing presentation materials.
      - **Task 4:** Setting up the venue and arranging logistics.
    - Assign specific tasks to each group member, ensuring that they each have clear responsibilities.
  3. **Establish Monitoring Criteria:**
    - Instruct each group to establish clear **monitoring criteria** for each task. For example:
      - What is the **deadline** for each task?
      - What are the **quality standards** to be met?
      - What are the **key milestones** for checking progress?
    - Use a **progress tracking sheet** to track whether the tasks are on schedule, on budget, and meeting quality standards.
  4. **Monitor Progress:**
    - Each group should regularly **monitor the progress** of the tasks:
      - Conduct regular **check-ins** (e.g., weekly or bi-weekly) to ensure that the tasks are being completed on time.
      - **Compare the progress** with the original plan (e.g., check if task deadlines are being met).
    - Use the **performance checklist** to evaluate if tasks are being performed correctly and according to the defined quality standards.
    - Address any issues that arise, such as:
      - **Delays:** If a task is behind schedule, what corrective actions will be taken?
      - **Quality issues:** If the work doesn't meet the expected quality, how will you address it?

### 5. Issue Resolution:

- Each group will need to deal with hypothetical **issues** that could arise during the project. For example:
- **Issue 1:** Task 2 (sending invitations) is delayed because the contact list wasn't updated on time.
- **Issue 2:** Task 4 (venue setup) is being delayed due to supplier delivery problems.
- Use the **issue resolution template** to propose solutions for the issues, such as:
- Reassigning tasks.
- Extending deadlines.
- Procuring alternative resources.

### 6. Final Report:

- At the end of the activity, each group will **present a report** that includes:
  - A summary of the **tasks assigned** and their deadlines.
  - The **monitoring process** used to track progress and ensure quality.
  - Any **issues encountered** and how they were resolved.
  - Final assessment of whether the project was completed on time and met quality standards.
  - Groups should highlight the **lessons learned** from the monitoring process, such as:
    - The importance of early issue identification.
    - The need for clear communication within the team.
- **Discussion:**
  - Discuss the importance of **monitoring work** to ensure it stays on track and meets quality standards.
  - Explore different **monitoring techniques**, such as setting clear objectives, tracking progress, and holding regular check-ins.
  - Highlight the need for **flexibility** in monitoring and adjusting the plan as issues arise.
- **Conclusion:**
  - Recap the key steps in **monitoring work**, including setting clear tasks, establishing criteria, tracking progress, addressing issues, and adjusting plans.
  - Reinforce that monitoring is essential to ensure that work is completed efficiently, on time, and to the required standard.
  - Encourage students to apply these **monitoring techniques** in future projects to improve team performance and project outcomes.

### 7.4.6. 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

### 7.4.7. Summary

#### 1. Track Progress:

Continuously monitor the progress of tasks and projects against set timelines and goals.

#### 2. Ensure Compliance:

Ensure work is being carried out according to established procedures, safety standards, and quality guidelines.

#### 3. Identify Issues:

Identify any delays, resource shortages, or obstacles and address them promptly.

#### 4. Provide Support:

Offer assistance or guidance to team members as needed to ensure smooth workflow.

#### 5. Report Status:

Regularly report work progress to superiors and stakeholder

### 7.4.8. Exercise

1. What role does leadership play in monitoring work?

- A) It is irrelevant
- B) It sets the tone for accountability and support
- C) It complicates processes
- D) It should be avoided

2. What is the primary purpose of monitoring progress in a project?
  - A) To assign blame for delays
  - B) To ensure tasks are completed on time and within budget
  - C) To ignore issues as they arise
  - D) To complicate project management
3. Which of the following is a key indicator of project progress?
  - A) Employee satisfaction
  - B) Milestone completion
  - C) Office atmosphere
  - D) Social media engagement
4. True or False: Organizing work should consider the availability of resources, including tools, materials, and equipment, to avoid delays or inefficiencies.
5. True or False: It is not necessary to assign clear responsibilities for safety and emergency procedures when organizing work.
6. True or False: Organizing work includes scheduling tasks in a way that optimizes productivity without compromising safety.

## 8. Unit 8 NOS 7: Employability Skills (DGT/VSQ/N0102)

### 8.1. Key Learning Outcomes

- Introduction to Employability Skills Constitutional values - Citizenship
- Becoming a Professional in the 21st Century Basic English Skills
- Career Development & Goal Setting Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy Essential Digital Skills
- Entrepreneurship Customer Service
- Getting ready for Apprenticeship & Jobs

### 8.2. Unit 8.1: Preparing for Employment & Self Employment

#### 8.2.1. Unit Objectives

**At the end of this unit, students will be able to**

1. **Develop Job Readiness Skills:**  
Understand the key skills and attributes required for gaining employment or self-employment.
2. **Create Effective Job Search Strategies:**  
Learn to develop a professional resume, cover letter, and online profiles.
3. **Prepare for job interviews and networking opportunities.**  
Explore Self-Employment Opportunities:
4. **Identify potential self-employment ideas and business opportunities.**  
Understand the basics of starting and managing a small business.
5. **Understand Employment Rights and Responsibilities:**  
Gain knowledge of workplace rights, legal requirements, and professional ethics.
6. **Enhance Personal Branding:**  
Build and enhance personal branding for career advancement and self-promotion.
7. **Develop Financial and Organizational Skills:**  
Learn essential financial planning and organizational skills for managing a job or business.

#### 8.2.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart

- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 8.2.3. Say

Tell the participants that when an interviewer asks you to say something about yourself, he/she is not asking you to present your life history.

- Introduction should be short and crisp, and should present you in a positive light. It should include the following points:
  - o Any work experience that you might have
  - o A brief summary of your educational qualifications
  - o Your strengths and achievements
  - o Any special projects that you might have been part of
- The following topics should be avoided during an introduction:
  - o Detailed description of your family (unless you are specifically asked to do so)
  - o Too much information about your weaknesses
  - o Information that is not true

### 8.2.4. Do

- Congratulate each participant for making their first attempt towards creating an effective resume.
- As a follow up activity, you can suggest them to prepare their own resume and show it to you the next day.

### 8.2.5. Role Play

Conduct a role play for the situation given.

#### **Role Play – Situation 2**

- The interviewer will start by asking the interviewee a few generic questions such as:
  - o What is your name?
  - o Tell me something about yourself?
  - o Can you tell me something about your family?
- Then, at the end of the interview, ask the interviewee:
  - o There are over 200 people who have applied for this job, some with excellent work experience. Why should I hire you?

### 8.2.6. 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

### 8.2.7. Summary

#### **Job Readiness:**

Develop skills for seeking and securing employment or starting a business.

#### **Job Search Tools:**

Create a professional resume, cover letter, and online presence.

Prepare for job interviews and networking.

#### **Self-Employment:**

Identify and explore potential self-employment or business ideas.

Understand the basics of starting and managing a small business.

#### **Workplace Rights**

Learn about employment laws, rights, and responsibilities.

#### **Personal Branding:**

Build a strong personal brand for career or business growth.

#### **Financial Planning:**

Develop essential financial and organizational skills for employment or entrepreneurship.

### 8.2.8. Exercise

1. What is the first step in preparing for employment?
  - A) Writing a resignation letter
  - B) Creating a resume
  - C) Opening a business
  - D) Networking with friend
2. Which of the following is NOT typically required for self-employment?
  - A) A business plan
  - B) An employer to answer to
  - C) Financial management skills
  - D) Marketing and sales strategies
3. What should be included in a self-employment business plan?
  - A) The business idea and goals
  - B) A list of personal contacts
  - C) A resume
  - D) A job offer letter
4. True or False: In self-employment, you are responsible for your own business operations, including financial management and legal compliance.
5. True or False: Having relevant qualifications and work experience is the only factor to consider when preparing for employment.
6. True or False: Personal branding is important for both self-employment and traditional employment opportunities.

## 8.3. Unit 8.2. Understanding Entrepreneurship

### 8.3.1. Unit Objectives

**At the end of this unit, students will be able to**

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Discuss the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List the important problem solving traits
14. Discuss ways to assess problem solving skills

### 8.3.2. Resources

- Whiteboard, erasable marker, board cleaner, projection screen, laptop, speaker, notebook, pen, participant handbook, etc
- Flip chart
- Participant Manual
- Projection screen and PowerPoint presentations.
- Activities (role plays)

### 8.3.3. Say

Let's start this session with some interesting questions about Indian entrepreneurs

### 8.3.4. Do

Tell them that you will ask them few questions about a few entrepreneurs.

- Divide the class in to two groups.
- In turns ask the quiz questions to the groups.
- If the answer is incorrect pass the question to the other group.
- Share the answer if the groups are not able to answer.
- Congratulate the participants who answered correctly

### 8.3.5. Team Activity

#### Quiz Questions

1. Who is the founder of Reliance Industries?

Dhirubhai Ambani

2. Who is the Chairman of Wipro Limited?

Azim Premji

3. Who launched e-commerce website Flipkart?

Sachin Bansal and Binny Bansal

4. Who is the founder of Paytm?

Vijay Shekhar Sharma

5. CEO OLA Who is of Cabs?

Bhavish Aggarwal

6. Who is the founder of Jugnoo?

Samar Singla (autorickshaw aggregator)

7. OYO Who is the founder of Rooms?

Bhavish Aggarwal

### 8.3.6. 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

### 8.3.7. Summary

Close the discussion by summarizing about the opportunities for entrepreneurs in India

### 8.3.8. Exercise

**1. Which of the following is a good practice for writing a professional email?**

- A) Using a casual tone and slang
- B) Including a clear subject line
- C) Writing long paragraphs without breaks
- D) Not using a greeting

**2. Which research method is often used to assess market opportunities for a new business?**

- A) Historical analysis
- B) Surveys and questionnaires
- C) Personal opinions
- D) Guesswork

**3. Which of the following is a primary motivation for entrepreneurs?**

- A) Seeking a stable salary
- B) Solving problems and creating value
- C) Avoiding risk
- D) Working within a corporate structure

4. True or False: An entrepreneur's role in the economy is limited to running a business for profit.

5. True or False: The entrepreneurial mindset involves risk-taking, resilience, and the ability to adapt to challenges.

6. True or False: Entrepreneurship only applies to individuals who start their own businesses and does not include individuals who work within large corporations.

