Demonstrate an Understanding of Occupational Health, Safety and Environmental Legislation

Learner Guide

Number:	246667
NQF Level:	03
Credits:	4
Qualification:	Manufacturing, Engineering and Technology

Table of Content

BEFORE YOU GET STARTED…

Dear Learner,

This Learner Guide contains all the information to acquire all the knowledge and skills leading to the unit standard:

Title: Demonstrate an Understanding of Occupational Health, Safety and Environmental Legislation

US No: 246667 NQF Level: 03 Credits: 4

The full unit standard is attached. Please read the unit standard at your own time. Whilst reading the unit standard, make a note of your questions and aspects that you do not understand, and discuss it with your facilitator.

This Learner Guide contains all the information, as well as the activities that you will be expected to do during the course of your study.

Please keep the activities that you have completed and include it in your Portfolio of Evidence.

Your PoE will be required during your final assessment.

THE LEARNING EXPERIENCE...

The Purpose: Demonstrate knowledge and understanding of the basic principles of the Act and Regulations. Explain the requirements for minimum compliance stipulated in the Act. Conduct inspections to identify hazards. Demonstrate knowledge and understanding of the National Environment Management Act...

People credited with this unit standard are able to:

Demonstrate the principles of the current health, safety and environment Act and the consequences of non-compliance.

WHAT IS THE ASSESSMENT ALL ABOUT?

Assessment takes place at different intervals of the learning process and includes various activities. Some activities will be done before the commencement (Baseline) of the program whilst others will be done during programme (Formative) delivery and other after completion (Summative) of the program.

You will be assessed during the course of your study. This is called formative assessment.

You will also be assessed on completion of this unit standard. This is called summative assessment.

Before your assessment, your assessor will discuss the unit standard with you. The assessment experience should be user friendly, transparent and fair. Should you feel that you have been treated unfairly, you have the right to appeal. Please ask your Assessor about the appeals process and make your own notes.

Your activities must be handed in from time to time on request of the facilitator and the assessor. Sources of information to complete these activities should be identified by your facilitator.

Please note that all completed activities, tasks and other items on which you were assessed must be kept in good order as it becomes part of your Portfolio of Evidence for final assessment.

Enjoy this learning experience...

MODULE 1 – DEMONSTRATE AN UNDERSTANDING OF OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL LEGISLATION

Globally, the construction industry has a poor health, safety and environment (HSE) record and South Africa is no exception. Construction H&S has long been the focus of attention of many industry stakeholders and role players in South Africa, and while it is acknowledged that many industry associations and professional societies, contracting organizations and others have made significant efforts to improve H&S within the construction industry, overall construction H&S is not improving significantly.

Notably, construction continues to contribute a disproportionate number of fatalities and injuries and there continues to be a high level of non-compliance with the H&S Regulations in South Africa.

Improving H&S in the construction industry therefore continues to remain a priority

The Site-Specific Safety Report Must Conform To The Ohsa In Terms Of Compliance Criteria (SO1-AC1)

Construction can be a hazardous business. This is widely recognised by everyone in the construction industry. When accidents happen, the costs are high – in people, profits and productivity.

One of the best ways to avoid injuries and minimise costs is through good planning and co-ordination – both before and on the job. This should start when the decision is made to go ahead with the project, and should consider all stages and parties associated with the work. The size of the job doesn't matter — systems do.

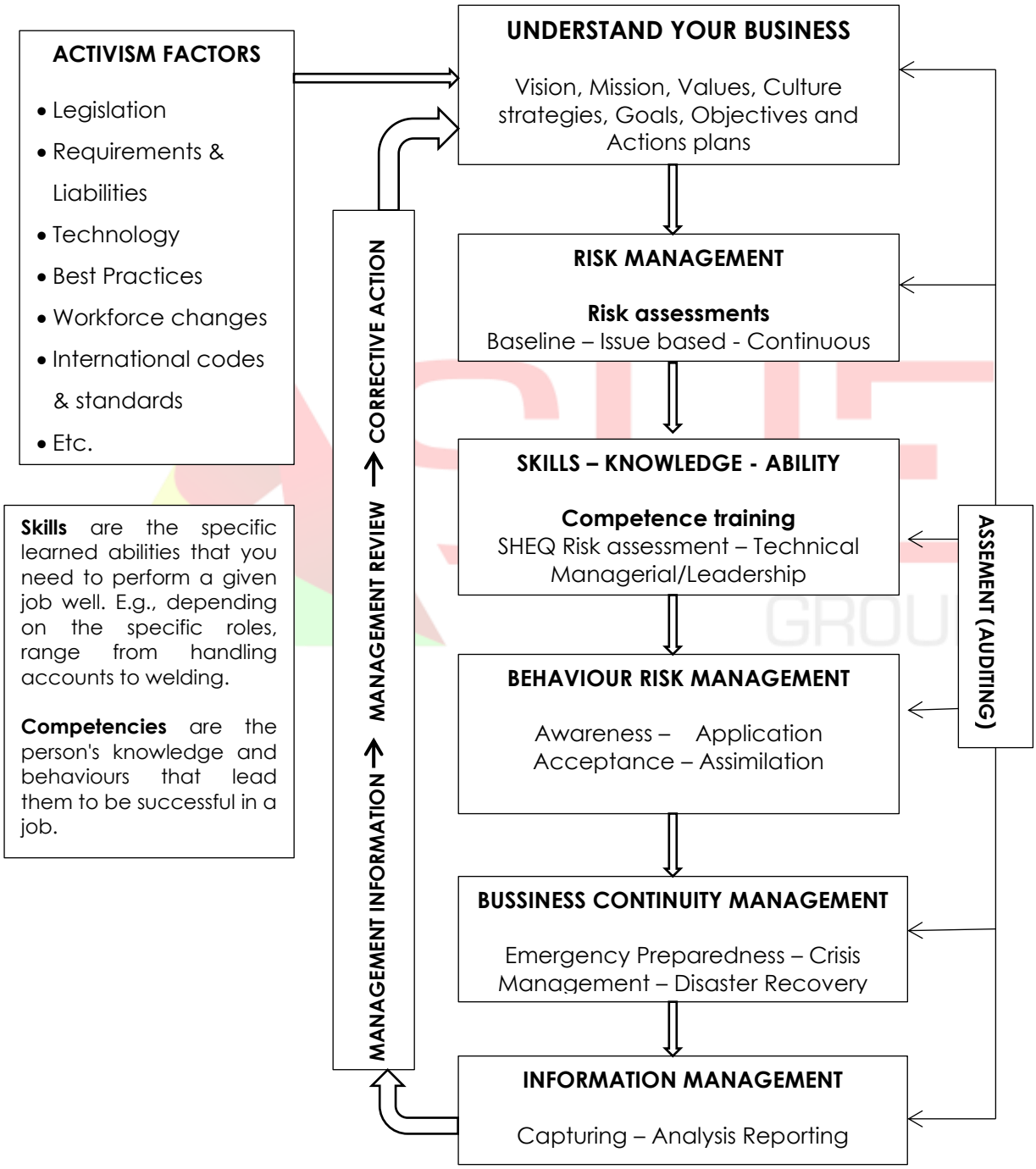
The Act Requires for contractors to take 'all reasonable practicable steps' to ensure the health and safety of people contracted by them to carry out work of any kind throughout all stages of a project. In terms of 'best practice', they also have a duty to consider the safety of others who may be affected by the project, such as the public.

To achieve this, the principal contractor (depending on their knowledge and experience) may need help from designers/advisers, contractors and subcontractors. The steps required will depend on the size and scope of each project. The larger the project, the wider the range will be of possible risks and hazards.

Designers in particular need to consider the potential effect of their actions and designs on the health and safety of those carrying out the work and others affected by it.

The construction stage site-specific health and safety plan sets out the arrangements for securing the health and safety of everyone carrying out the work and all others who may be affected by it.

These components and their interrelationships are illustrated in Figure 1 for Sustainable SHEQ



The Principles Of OHSA Are Described With Reference To Act Regulations (SO1-AC2)

The Occupational Health and Safety Act are supported by subordinate legislation, Regulations and Codes of Practice, which give practical guidelines on how to manage health and safety issues.

A health and safety system/plan generally include the following elements:

Element	Important aspects
SHE policy statement	Written policy document Displayed and signed by the CEO Review date
Individual responsibilities (Appointment letters – set scope of work)	Responsibilities of employees Responsibilities of supervisors and first-line supervisors (Section 8(2)(i) appointees) Responsibilities of senior management (Section 16(1) and 16(2) appointees) GMR 2(1) – Supervision of machinery Assistant to GMR 2(1) GMR 4(3) – Shifts man appointment Responsibilities of safety coordinators Emergency Controller Fire Fighting Co-ordinator Fire Fighter Fire Team Member Fire Fighting Equipment Inspector First Aid Co-ordinator First Aider Incident Investigator Stacking Supervisor

	Ladder Inspector HCS Co-ordinator Ergonomically Survey Officer Health and Hygiene Co-ordinator Pollution Surveys Work Permit Survey Officer Air Power Tools Inspector Explosive Power Tool Controller Explosive Power Tool Operator Etc.
Health and safety representatives and committees	Appointment of representatives (GAR 6 & Section 17 & 18 of OHSA) Establishment of health and safety committees (Section 19 & 20 of OHSA) Appointment of Health & Safety Committee Members Appointment of Chairman Health & Safety Committee Monthly meetings
Risk assessment	Baseline Risk Assessments Issue based risk assessment Continuous risk assessment
Safe work procedures	After the critical area activities have been identified, standards must be determined to establish safe work procedures. Written procedures or standards needs to be set (SWP's or SOP's)
Employee orientation	Safety awareness should include: • emergency procedures • first aider and location of first aid stations • health and safety responsibilities, including those specified by legislation

	• reporting of injuries, unsafe conditions and acts • use of personal protective equipment • right to refuse hazardous work • hazards, including those outside own work area • reasons for each health and safety rule • each individual's specific role and responsibilities • scope of authority (Job descriptions)
Training	Training programmes should be established and maintained to address: Knowledge and understanding of the organisations safety programmes, rules and procedures as well as each individual's specific role and responsibilities. Systematic programme of induction and ongoing training for employees and those how may be transferred between divisions, jobs or tasks Training in the handling of risks, hazards and dangers, precautions to be taken and procedures to be followed Training in hazard identification, risk assessment and control Training for all persons who may manage others like employees, contractors and other Training of top management in their role and responsibilities Training and awareness programmes for contractors, temporally workers and visitors according to the level of risk which they will be exposed to, Training in the correct report procedures Training in proper incident/ accident investigation Training in the effective monitoring of the quality of the health and safety programme
Workplace inspections	Regular inspections by: Health and Safety Representative Supervisors

	Where prescribed by regulations Inspect the workplace to identify hazards related to: Regular, planned workplace inspections Equipment inspections Special inspections Inspection lists – useful tools
Certifications	By Approved Inspection Authority: • Ventilation surveys • Light surveys • Dust surveys • Noise surveys • Lifting equipment • Pressure vessels etc.
Medicals (pre-medicals, baseline, periodic and exit medicals)	Where prescribed by a regulation: Noise; heat; dust; chemical exposure; asbestos; lead etc.
Reporting, recording and investigating accidents	Reporting to PD: Section 24 - Reportable incidents (WC.I 2) Section 25 – Occupational deceases (WC.I1) Recording and investigations: GAR 8 & 9 Annexure 1
Emergency procedures	Fire precautions and procedures are adequate: Building construction Access and egress Emergency exits Emergency lighting Firefighting appliances (sufficient, appropriate and maintained)

	Fire drills and alarm checks Storage of flammable/combustible materials (gas cylinders, fuel oils, wood and paper waste) Identification of fire / explosion risk areas and instructions for isolating power, fuel, gas etc. Evacuation procedures and responsibility for roll calls Employee training in procedures and general fire safety practices. Other emergencies, similar procedures to those for accidents and fire are required for emergencies, to cover such events as: Gas leaks Explosions Pressure vessel rupture Building collapse Chemical leaks and spillage Bomb threats
First aid	Training of first aiders Provision of first aid boxes Inspection & control of first aid boxes
Safety culture	*Situational aspects:* Observed through the organisation's management systems, policies, working procedures, communication flow, etc. and should be measured by audits of safety management systems. *Behavioural aspects:* How people act in the workplace and can be measured through self-reported measures, outcome measures and peer observations *The psychological component:* Relates to people's norms, values, attitudes and

	perceptions of safety in the workplace The psychological components are commonly measured in the form of a safety climate survey
Contractor management	37(2) Contractors agreements COID registration (letter of good standing) Medical certificates Employee certifications and qualifications (competence) Machinery and equipment check and certifications Risk assessments for activities
Other elements	Handling of Hazardous Chemical Substances(Material Safety Data Sheets) Handling of Hazardous Biological Agents Lock out procedures Hot work permits Material handling rules Maintenance programs Vehicle safety rules Personal protective equipment requirements Engineering standards Purchasing standards Preventive maintenance
Health and Safety Audits	Internal audits External audits

The Consequences Of Non-Compliance Are Described Within The Generic Framework Of The Act Relative To The Duties Of Employer, Employees And Contractors (SO1-AC3)

Non-compliance with occupational health and safety legislation in South Africa can have a negative impact, including death, loss of income and disability, to mention but a few. It is therefore of utmost importance for employers to comply with occupational health and safety legislation to reduce work-related injuries and illnesses.

Workplace inspections are conducted to assist businesses to adhere to occupational health and safety legislation, while compliance orders issued to work-sites as a result of these inspections are considered to reduce the risk of occupational injuries and exposure to health hazards.

Employers in South Africa have a legal duty under both common law and statute (as per the OHSA) to provide and sustain a working environment free of risk to the health and safety of their employees.

Health and Safety Non-Compliance

Every employee is valuable, therefore all employees who are exposed to hazards in the workplace are entitled to proper health and safety assistance programmes. Penalties for failure to comply with the prescripts of the OHSA include fines and imprisonment with a criminal record. It is important to know that where non-compliance leads to injury or a casualty, the employer could be held liable. For compliance purposes, the employer must provide effective leadership in health and safety management and demonstrate management commitment by allocating sufficient resources for workplace health and safety.

As can be seen from above, when an employer fails in his duties, he is in contravention of the OHSA, which is a Statutory Law, in which case he may be held criminally liable and prosecuted in his personal capacity.

Business owners should know that according to Section 332 of the CRIMINAL PROCEDURE ACT 51 of 1977, the following persons may be prosecuted individually and jointly with the

- Company
- CEO (Appointed 16(1)
- Assistant CEO (Appointed 16(2)
- Other Chief Officers Appointed
- Managers
- Supervisors and Responsible Employees or Operators

The Accountability Of The Chief Executive Officer Or Person Deemed To Be The Chief Executive Officer Under The Act Is Described In Terms Of The Legal Implications Of Non-Compliance (SO1-AC4)

A chief executive officer (CEO) is the highest-ranking executive in a company, whose primary responsibilities include making major corporate decisions, managing the overall operations and resources of a company, acting as the main point of communication between the board of directors (the board) and corporate

Should an employer is not complying with the safety guidelines set out to protect their employees there is the potential for someone to be severely injured, and for them to receive no compensation for their injury. Depending on many factors the consequences can be fines and jail for the employer when not complying with the OHS act.

Consequences affect the health and safety of the workers and the non-compliance to these regulations may result in hazard for the workforce.

Codes of practice: if the workers are not complying with the codes of practice this may result in hazardous situations for the employees that have the responsibility to follow these codes. Organisational Health, Safety & Environmental policies, procedures, processes and systems are the things a business does to implement the laws of the OHS Act in the workplace. These company policies and procedures will ensure that the company is in full compliance with the legislative requirements concerning work health & safety for employees so the non-compliance with these guidelines will result in an unsafe workplace since they exist to create a safe work environment for all employees.

Inspection Progress And Scope Coverage Is Monitored And Documented In Accordance With Written Instructions (SO1-AC5)

Routine inspection is critical in each and every part of your construction project. Inspections guarantee that works within a project go forward as planned and are according to requirements, standards and regulations. Running a construction site requires the coordination of people, materials and equipment hence, construction inspections are executed for a great number of purposes in every construction phase and throughout the entire project duration to ensure that things are progressing smoothly.

Construction inspections are usually carried out as a contractual responsibility performed by the contractors to provide the client or a third party an independent view of the construction works and their progress.

The usual construction inspections include the following activities:

- Inspection of the construction process to make sure that all materials and procedures comply with the plan and specifications
- Inspection and documentation of all contractor activities
- Reporting of daily on-site inspections:
- Detailed inspections of the quality of installations if they comply to standards and specifications

Most inspections are usually conducted but not limited during the construction phase. But before you can inspect and start reporting on a project's progress, specific inspections are carried out as part of the general contract administration process. These inspections may be part of the contract review and contract signing, pre-contract meetings and client onboarding.

Construction site inspectors may either be the supervisor, project manager, a member of the contractors' existing team or an entirely different consultant. Depending on the size of the project, site inspection may have to be carried out by a team with specific inspectors per different department of the project. Design consultants also play a role in periodic inspections. For specific aspects of a project, specialist inspectors may be required to perform inspections on environmental policy, waste management on site, accessibility, etc.

Since site supervisors, furnish the contract manager or project manager with independent evaluation of construction works and their progress, site supervisors usually keep daily construction logs or a site diary, construction progress meetings, and create and submit regular reports.

EXAMPLE

Findings

The key findings are summarised in the tables below.

Category 1: A hazard of workplace activity likely to cause death, serious injury or serious illness.

Category 2: A hazard or workplace activity likely to cause other than death, serious injury or serious illness.

Category 3: Contravention of administrative requirements e.g. work plans, inductions, record keeping systems.

Risk category	Non-conformances		Total
Category 1		x 25 Faults	
Category 2		x 2 Faults	
Category 3		x 1 Fault	
Total			

Site Inspection Checklist

1. Administrative requirements

Example

Ref	Criteria	Observations	Rating	Non-Compliance	Corrective Actions
1.1	**Signs have been installed that**: • show the principal contractor's name and telephone contact numbers (including an after-hours telephone number) • show the location of the site office for the project, if any • Are clearly visible from outside the workplace, or the work area of the workplace, where the construction project is being undertaken.				
1.2	A written work health and safety management plan for the construction project was prepared prior to work commencing.				
1.3	So far as reasonably practicable, all workers carrying out construction work on the project have been made aware of the content of the HSE management plan, including any updates, and their right to inspect the plan.				
1.4	The HSE management plan has been reviewed and, if necessary, revised to ensure it is up-to-date.				
1.5	A copy of the HSE management plan has been kept by the principal contractor and is readily available for inspection by the auditor and by any worker carrying out construction work on the project.				

2. Training, risk management, and general requirements Example

Ref	Criteria	Observations	Rating	Non-Compliance	Corrective Actions
2.1	All workers carrying out construction work have received the general construction induction training.				
2.2	Workers have been informed of the site-specific health and safety rules.				
2.3	Suitable and adequate information, training, and instruction have been provided to workers in relation to work they are carrying out.				
2.4	Control measures have been maintained and reviewed to ensure they remain effective, fit for purpose, suitable, and set-up and used correctly.				
2.5	Personal protective equipment (PPE) has been provided to workers where it is prescribed as a control measure.				
2.6	PPE is: • suitable for the relevant hazards • of suitable size and fit • Maintained such that it is clean and hygienic and in good working order.				
2.7	Workers have been provided with information, training, and instruction on the proper use and wearing of PPE.				
2.8	Where it is prescribed as a control measure, PPE is being used by workers.				

MODULE 2 – EXPLAIN THE REQUIREMENTS FOR COMPLIANCE AS STIPULATED IN THE ACT

The Health and Safety Structure Conforms To The OHSA Written Instruction (SO2-AC1)

The primary Acts that impact on construction H&S in South Africa are the Occupational Health and Safety Act No. 85 of 1993 (OH&S Act) and the complementary Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 (COID Act).

Under the Act we all have obligations that we must comply with. Twenty-one sets of regulations form an inseparable part of the Occupational Health and Safety Act.

These regulations provide specifications and requirements towards the area that they govern.

Health related regulations

1. Asbestos Regulations, 2001
2. Hazardous Biological Agent Regulations, 2001
3. Hazardous Chemical Substances Regulations, 1995
4. Lead Regulations, 2001
5. Noise Induced Hearing Loss Regulations, 2003

General regulations

6. Environmental Regulations for Workplaces, 1987
7. Facilities Regulations, 1990
8. General Administrative Regulations, 2003

General Safety Regulations, 1986

9. Electrical regulations
10. Electrical Installation Regulations, 2009
11. Electrical Machinery Regulations, 1988

Machinery regulations

12. Driven Machinery Regulations, 2015
13. General Machinery Regulations, 1988
14. Lift, Escalator and Passenger Conveyor Regulations, 1994
15. Pressure Equipment Regulations, 2009

Specific regulations

16. Regulations concerning the Certificate of Competency, 1990

17. Diving Regulations, 2001
18. Explosives Regulations, 2003
19. Major Hazard Installation Regulations, 1993
20. Regulations on Hazardous Work by Children in SA, 2010
21. Draft Ergonomics Regulations, 2017

National Environmental Management Act [No. 107 of 1998]

Corporate Environmental Responsibility (CER) refers to a company's duties to abstain from damaging natural environments. The term derives from corporate social responsibility.

Environmental protection is the practice of protecting the natural environment by individuals, organizations and governments. Its objectives are to conserve natural resources and the existing natural environment and, where possible, to repair damage and reverse trends.

Due to the pressures of overconsumption, population growth and technology, the biophysical environment is being degraded, sometimes permanently. This has been recognized, and governments have begun placing restraints on activities that cause environmental degradation. Since the 1960s, environmental movements have created more awareness of the multiple environmental problems.

The Health and Safety Appointments Must Conform As Indicated In The Act (SO2-AC2)

The OHS Act and its Regulations require a number of appointments to be made according to the Occupational Health and Safety Act 85 of 1993

- Responsibilities of senior management (Section 16(1) and 16(2) appointees)
- Supervisors and first-line supervisors (Section 8(2)(i)
- GMR 2(1) – Supervision of machinery
- Assistant to GMR 2(1)
- GMR 4(3) – shifts man appointment
- SHE Representative Section 17.1
- Emergency Controller
- Fire Fighting Co-ordinator
- Fire Fighter
- Fire Team Member
- Fire Fighting Equipment Inspector

- First Aid Co-ordinator
- First Aider
- Incident Investigator
- Stacking Supervisor
- Ladder Inspector
- HCS Co-ordinator
- Ergonomically Survey Officer
- Health and Hygiene Co-ordinator
- Pollution Surveys
- Work Permit Survey Officer
- Air Power Tools Inspector
- Explosive Power Tool Controller
- Explosive Power Tool Operator

It needs to be remembered that although there are specific legal appointments that are made, everyone that is employed carries responsibility in terms of health and safety. There are also basic health and safety procedures that everyone should be familiar with.

Responsibilities And Accountability Are Described In Terms Of The Duties Of The Three Designated Appointments (SO2-AC3)

Below three designated appointments will be explained:

The Appointed Supervisor - Regulation 8(7)

A significant legal appointment that we need to look at is the appointment of competent supervisors for the workplace. Section 8(7) stipulates that the employer is obligated to ensure that work is performed and that plant or machinery is used under general supervision.

The supervisor is responsible to enforce the necessary control measures in the interest of health and safety. Please note that the health and safety duties of the employer automatically become a "management responsibility", relating to all levels of management, including supervisions. The health and safety should be given the same priority as productivity or quality control.

Being accountable means standing by decisions, actions, and the overall well-being of projects. Accountability is also a management process that ensures employees answer to their superior for their actions and that supervisors behave responsibly as well.

The normal health and safety responsibilities of supervisors include:

- Instructing workers to follow safe work practices

- Enforcing health and safety regulations
- Correcting unsafe acts and unsafe conditions
- Perform continues risk assessments
- Ensuring that only authorized, adequately trained and competent workers operate equipment
- Reporting and investigating all near misses/ accidents/ incidents
- Inspecting own area and taking remedial action to minimize or eliminate hazards
- Perform Job observations
- Ensuring all equipment is properly maintained and safe to work
- Promoting safety awareness in workers
- On the job training
- Carry out toolbox talks
- Managing contractors or other persons at the workplace

It is important to remember that the CEO remains responsible to direct and control these duties. It also stipulates that supervisors must be trained to understand the hazards associated with the work that is performed and machinery that is used. Where significant risk exist supervisors and employees should receive appropriate health and safety training. While keeping these persons competence in mind, it is the employer's duty to ensure that individuals are properly empowered to perform their duties in a safe and healthy manner. Education, training and motivation largely contribute to the success of any safety programme.

Construction Site Manager - Regulation 8(1)

A principal contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.

Construction Manager Responsibilities include:

Overseeing and directing construction projects from conception to completion. Reviewing the project in-depth to schedule deliverables and estimate costs.

While the construction site manager's specific duties can vary greatly from day to day, they tend to have several core responsibilities:

- Direct Contractors: One of the core duties of the construction site manager is directing and overseeing the activities of a range of contractors and subcontractors.
- Manage Timelines: Construction site managers set contractor schedules and delivery dates for certain elements of ongoing construction projects.

- Consult with Clients: Many construction site managers work closely with clients throughout the project life cycle. This aspect of the role can involve accompanying the client during site visits, answering questions about construction projects and overall progress, and communicating changes between the client and contractors.
- Oversee Project Budgets: Construction site managers ensure that projects remain profitable by overseeing budgets throughout the construction process. They may make key decisions regarding materials and provide input on contractor bids to balance quality of work with acceptable margins.
- Maintain Site Safety: Construction site managers play a vital role in maintaining jobsite safety. This can include setting and enforcing standards for each jobsite and making periodic site visits to ensure that contractors and crews are following proper safety protocols. The construction site manager also works to minimize risk, resolve violations and potential hazards, and prepare incident reports in case of an accident or injury.
- Prepare Site Reports: From the earliest stages of a construction project, site managers also help coordinate and write site reports, drawings, and other necessary documents.

Construction Site Manager Skills

Construction site managers have control and should be held responsible and accountable for the project's outcome. Most site managers in this role have construction or contracting experience, and the following skills:

- Project management – this position requires strong project management skills to ensure that large-scale projects are completed on time and that teams achieve construction milestones and deliverables
- Team leadership – construction site managers provide guidance to contractors and teams of workers, so effective team leadership and coordination are vital in this role
- Problem-solving skills – construction site managers also need strong problem-solving skills to resolve issues that may arise during the construction process, such as scheduling conflicts or materials issues
- Attention to detail – because a construction project has so many elements and teams that need oversight, construction site managers also need excellent attention to detail and organization skills to effectively manage schedules
- Budgeting – financial management is also an important skill for construction site managers to ensure that projects remain profitable and that all elements adhere to client budgets
- Communication skills – effective written and verbal communication skills are important in this position, since construction site managers work with contractors, clients, architects, and engineers

Note: Regulation 8(1) The Construction manager must demonstrate competency in relation to work being performed and the ability to manage construction work which may include making all statutory appointments in terms of health and safety.

Health and safety officer - Regulation 8(5)

The South African Council for the Project and Construction Management Professions (SACPCMP) prescribes the registration of Construction Health and Safety Officers as a specified category in terms of section 18(1) (c) of the Act No. 48 of 2000.

Role and responsibility of the Health & Safety Officer during the construction phase of a project include:

- Assist with the preparation of a construction health and safety plan
- Confirm necessary documentation was submitted to the relevant authorities
- Attend project planning meetings
- Assessments and approval of contractor(s) health and safety plans
- Attend the contractors' site handover
- Attend regular site, technical and progress meetings
- Facilitate site health and safety meetings
- Identification of the hazards and risks relevant to the construction project through regular coordinated site inspections
- Establish and maintain health and safety communication structures and systems, distribution of health and safety specific documents to sub-contractors
- Compiling project specific emergency response and preparedness plans
- Testing the effectiveness of the emergency response plans
- Conduct site safety inductions
- Evaluate the levels of compliance of subcontractors to the project specific health and safety plan and client specifications through inspections and audits
- Oversee the reporting and investigation of project related incidents
- Oversee the maintenance of all records
- Participation in management reviews of the health and safety systems
- Use of trends analysis to identify system deficiencies and incident trends, outline relevant improvements
- Incorporation of changes into a health and safety management system
- Review and update the health and safety plan
- Development of technical reports in relation to health and safety issues and communicate through presentations to diverse groups of decision makers

Explain the Obligation Of The Employer To Provide The Means To Comply With The Act With Reference To Resources And Financing (SO2-AC4)

Resource management is the process of planning the resources necessary to meet the objectives of the project, and to satisfy the client's requirements.

The Contractor must adequately allocate resources, responsibility and accountability to ensure the effective implementation, maintenance and continual improvement of the contractor's health and safety management system on the projects required by Construction regulation of 2014,

For each role that carries health and safety accountability and / or responsibilities (including

Legislative requirements), a role description detailing the accountability and / or responsibilities must be documented.

All appointments (i.e. the assignment of specific SHE responsibilities to individuals in accordance with legal or project requirements) must be done in writing. Documented proof of each appointment (i.e. a signed appointment letter) must be retained.

Contractor should not discharge any legal responsibilities to employees who are not legally appointed.

A resource management plan can be used to:

- Construction plant, tools and equipment.
- Ensure workers with the right skills are available.
- Identify limitations, such as site access, weather conditions, and so on.
- Reassign resources in response to circumstances.
- Track resources utilisation to avoid excessive resourcing or under-utilisation.

Construction resources might include:

- Products and materials
- Construction plant, tools and equipment
- Human resources
- Space and facilities
- Subcontractors
- Finance

Resources, Accountabilities and Responsibilities

- Construction Manager
- Health and Safety Officers

- Supervisors
- Health and Safety Representatives
- First Aiders

Skilled and experienced workers should be seen as an asset in which the company has invested; replacing them is costly. At the same time, an employer who provides safe working conditions is also likely to benefit from better labour relations generally, not forgetting improved employee engagement and staff retention and less absenteeism.

Smaller contractors that take health, safety and environmental legislation seriously will find their reputation with the larger construction companies is improved, thus their chances of being included in big projects. Safety-conscious companies are more reliable on all sorts of levels.

MODULE 3 – CONDUCT INSPECTIONS TO IDENTIFY HAZARDS

Pre-use and Audit Inspections Reports Are Conducted In Accordance With Specified Requirements For The Intended Type Of Inspections (SO3-AC1)

The purpose for pre-use and audit inspections are to identify and correct workplace Health, Safety and Environmental hazards in all aspects of company operations.

Supervisors and workers continually conduct ongoing inspections as part of their job responsibilities. Such inspections identify hazardous conditions and either correct them immediately or report them for corrective action. The frequency of these inspections varies with the amount and conditions of equipment use. Daily checks by users assure that the equipment meets minimum acceptable safety requirements.

Laws and regulations may specify that qualified or competent persons must inspect certain types of equipment, such as elevators, boilers, pressure vessels, scaffolding, and fire extinguishers at determined points in the work process and at regular intervals.

Procedure / Guideline

- General workplace Pre-shift Inspections
- The inspections shall be conducted before work commences on the shift.
- Pre-shift Inspection records will be maintained in the department and be subject to periodic audit by Loss Prevention.
- Correct deficiencies as they are observed, if possible.
- When deficiencies cannot be corrected on a prompt basis:
- Barricade and/or restrict access to unsafe areas until corrected.
- Report any hazardous conditions that cannot be immediately corrected to the Supervisor prior to starting work activities.
- Responsibility for corrective action of identified hazards rests with the Supervisor, Foreman/ Manager, and finally the Health and Safety Manager.

Audit inspections are important as they allow you to:

- listen to the concerns of workers and supervisors
- gain further understanding of jobs and tasks
- identify existing and potential hazards
- determine underlying causes of hazards

- recommend corrective action
- monitor steps taken to eliminate hazards or control the risk (e.g., engineering controls, administrative controls, policies, procedures, personal protective equipment)

Plan for inspections: - Planning is essential for an effective inspection.

What to examine: - Every inspection must examine who, what, where, when and how. Pay particular attention to items that are or are most likely to develop into unsafe or unhealthy conditions because of stress, wear, impact, vibration, heat, corrosion, chemical reaction or misuse. Include areas where no work is done regularly, such as parking lots, rest areas, office storage areas and locker rooms.

Look at all workplace elements – the people, the environment, the equipment and the process. The environment includes such hazards as noise, vibration, lighting, temperature, and ventilation. Equipment includes materials, tools and apparatus for producing a product or a service. The process involves how the worker interacts with the other elements in a series of tasks or operations.

Types of workplace hazards include: -

- Safety hazards such as those caused by inadequate machine guards, unsafe workplace conditions, unsafe work practices.
- Biological hazards caused by organisms such as viruses, bacteria, fungi and parasites.
- Chemical hazards caused by a solid, liquid, vapour, gas, dust, fume or mist.
- Ergonomic hazards caused by physiological and psychological demands on the worker, such as repetitive and forceful movements, awkward postures arising from improper work methods, and improperly designed workstations, tools, and equipment.
- Physical hazards caused by noise, vibration, energy, weather, heat, cold, electricity, radiation and pressure.
- Psychosocial hazards that can affect mental health or well-being such as overwork, stress, bullying, or violence.

Information Needed to Complete an Audit Inspection Report

Diagram of Area: - Use drawings of the plant layout or floor plans to help you draw a diagram. Divide the workplace into areas based on the process. Visualize the activities in the workplace and identify the location of machinery, equipment and materials. Show the movement of material and workers, and the location of air ducts, aisles, stairways, alarms and fire exits. Appendix A shows a sample diagram. Use several simple diagrams if the area is large. Ask workers and supervisors for their comments on the information - they know the area better than anyone else.

Equipment Inventory

Know what type of machinery or equipment is present. Review technical data sheets, or manufacturers' safety manuals. Read work area records to become familiar with the hazards of the equipment.

Hazardous Product or Chemical Inventory

Determine which products are used in the workplace and whether safety data sheets are available. Find out if all sources of exposure are properly controlled. Make sure that all workers have received education and training in how to safely use, handle and store the products they work with. Check that all hazardous products are labelled appropriately according to Workplace Hazardous Materials Information System (WHMIS) requirements.

Checklists

A checklist helps to clarify inspection responsibilities, controls inspection activities and provides a report of inspection activities. Checklists help with on-the-spot recording of findings and comments. Use checklists only as a basic tool.

Refer to the related documents for sample checklists that you can use as a guide to develop a checklist that is customized for your workplace.

Inspection Checklists - General Information

Inspection Checklists - Sample Checklist for Manufacturing Facilities

Inspection Checklists - Sample Checklist for Offices

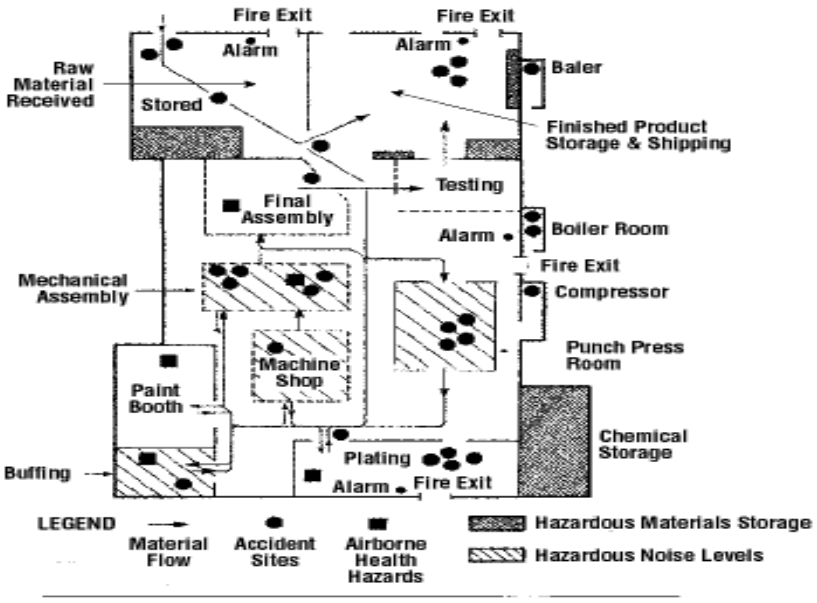
Inspection Checklist - Sample Checklist for Chemical or Product Inventory

Inspection Checklist - Sample Checklist for Outdoor Areas

Reports

Keeping inspection audit records is important. Past audit inspection records show what has been previously identified. They also show what an earlier inspection team concentrated on and what areas it did not inspect. Do not simply repeat or copy previous inspection results. Use the older inspection reports to help look for issues, and then determine whether recommendations were implemented. Note if the changes have been effective.

Appendix A: an example of a floor diagram



The Potential Life, Safety And Damage Hazards Are Identified In Accordance With Specified Requirements During The Pre-Use And Audit Inspection Report (SO3-AC2)

Review the information from regular inspections to identify where corrective action was needed. Determine if these actions have been taken. Use older reports to identify trends.

Analysis of audit inspection reports may show the following:

- priorities for other corrective action
- need for improving safe work practices
- insight about why incidents are occurring in particular areas
- need for education and training in certain areas
- areas and equipment that require more in-depth hazard analysis

The health and safety committee can review inspections, identify trends, and monitor the progress of the recommendations. This analysis can be used as part of the continual improvement process for the occupational health and safety program or management system.

Assign a priority level to the hazards observed to indicate the urgency of the corrective action required. For example:

A = Major - requires immediate action

B = Serious - requires short-term action

C = Minor - requires long-term action

Report issues in a concise, factual way. Management should be able to understand and evaluate the problems, assign priorities and quickly reach decisions.

After each listed hazard, specify the recommended corrective action and establish a definite correction date if possible and appropriate. Each inspection team member should review for accuracy, clarity and thoroughness.

Hazard Identification Is Carried Out According To Site Specified Safety Requirements (SO3-AC3)

When conducting inspections, follow these basic inspection principles to identify hazards:

- Draw attention to the presence of any immediate danger - other items can await the final report.
- Shut down and "lock out" any hazardous items that cannot be brought to a safe operating standard until repaired.
- Do not operate equipment. Ask the operator for a demonstration. If the operator of any piece of equipment does not know what dangers may be present, this is cause for concern. Never ignore any item because you do not have knowledge to make an accurate judgement of safety.
- Look up, down, around and inside. Be methodical and thorough. Do not spoil the inspection with a "once-over-lightly" approach.
- Clearly describe each hazard and its exact location in your rough notes. Allow "on-the-spot" recording of all findings before they are forgotten. Record what you have or have not examined in case the inspection is interrupted.
- Ask questions, but do not unnecessarily disrupt work activities. This interruption may interfere with efficient assessment of the job function and may also create a potentially hazardous situation.
- Consider the static (stop position) and dynamic (in motion) conditions of the item you are inspecting. If a machine is shut down, consider postponing the inspection until it is functioning again.
- Consider factors such as how the work is organized or the pace of work and how these factors impact safety.
- Discuss as a group, "Can any problem, hazard or accident generate from this situation when looking at the equipment, the process or the environment?" Determine what corrections or controls are appropriate.
- Do not try to detect all hazards simply by relying on your senses or by looking at them during the inspection. You may have to monitor equipment to measure the levels of exposure to chemicals, noise, radiation or biological agents.
- Take a photograph if you are unable to clearly describe or sketch a particular situation.

To make a report, first copy all unfinished items from the previous report on the new report. Then write down the observed unsafe condition and recommended methods of control. Enter the department or area inspected, the date and the inspection team's names and titles on top of the page. Number each item consecutively, followed by a hazard classification of items according to the chosen scheme.
State exactly what has been detected and accurately identify its location. Instead of stating "machine unguarded," state "guard missing on upper pulley #carpentry maintenance area."

Assign a priority level to the hazards observed to indicate the urgency of the corrective action required. For example:

A = Major - requires immediate action
B = Serious - requires short-term action
C = Minor - requires long-term action

Report issues in a concise, factual way. Management should be able to understand and evaluate the problems, assign priorities and quickly reach decisions.

After each listed hazard, specify the recommended corrective action and establish a definite correction date if possible and appropriate. Each inspection team member should review for accuracy, clarity and thoroughness.

EXAMPLE

Inspection Location: …….. Date of Inspection: ……

Department/Areas:…….. Time of Inspection: ……

Observations						For Future Follow-up		
Item and Location	Hazard(s) Observed	Repeat Item Y / N		Priority A/B/C	Recommended Action	Responsible Person	Action Taken	Date

Copies to: …… **Inspected by:** ……

Hierarchy of Controls

A sequence of control measures, arranged in order of decreasing effectiveness, used to eliminate or minimise exposure to workplace health and safety hazards:

Elimination – Completely removing a hazard or risk scenario from the workplace.

Substitution – Replacing an activity, process or substance with a less hazardous alternative.

Isolation (Engineering) Controls – Isolating a hazard from persons through the provision of mechanical aids, barriers, machine guarding, interlocks, extraction, ventilation or insulation.

Administrative Controls – Establishing appropriate policies, procedures and work practices to reduce the exposure of persons to a hazard. This may include the provision of specific training and supervision.

Personal Protective Equipment – Providing suitable and properly maintained PPE to cover and protect persons from a hazard (i.e. Prevent contact with the hazard).

Unsafe Conditions Observed Are Compared To Specified Act Requirements And Identified Deviations Are Recorded Accurately (SO3-AC4)

Safety observations are counts of the number of safe and unsafe actions or conditions in a work area for a given time.

The purpose of a safety observation report is a tool used by safety officers to document hazards as well as safety commendations in the workplace. Performing and documenting regular safety observations not only ensures a safer workplace but it can also help share best practices with other teams.

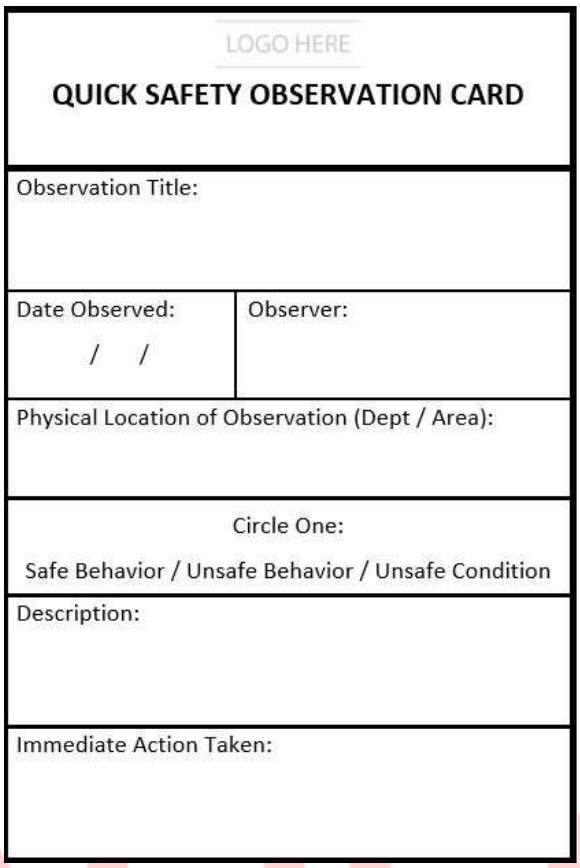
Look for deviations from accepted work practices. Use statements such as: "a worker was observed operating a machine without a guard." Do not use information derived from inspections for disciplinary measures.

Identified deviations:

- using machinery or tools without authority

- operating at unsafe speeds or in other violation of safe work practice
- removing guards or other safety devices, or making the devices ineffective
- using defective tools or equipment or using tools or equipment in unsafe ways
- using hands or body instead of tools or push sticks
- overloading, crowding, or failing to balance materials or handling materials in unsafe ways, including improper lifting
- repairing or adjusting equipment that is in motion, under pressure, or electrically charged
- failing to use or maintain, or improperly using, personal protective equipment or safety devices
- creating unsafe, unsanitary, or unhealthy conditions by improper personal hygiene, by using compressed air for cleaning clothes, by poor housekeeping, or by smoking in unauthorized areas
- standing or working under suspended loads, scaffolds, shafts, or open hatches
- discussion with or observation of workers who may be overloaded, fatigued, working in conflict with others, or working in isolation (working alone)

EXAMPLE



LOGO HERE

QUICK SAFETY OBSERVATION CARD

Observation Title:	
Date Observed: / /	Observer:
Physical Location of Observation (Dept / Area):	
Circle One: Safe Behavior / Unsafe Behavior / Unsafe Condition	
Description:	
Immediate Action Taken:	

Workplace Is Inspected And A Report Is Generated On Workplace Hazards And Associated Risks As Prescribe By OHSA Inspections List. (SO3-AC5)

Workplace hazards can be identified in a number of ways. Inspections provide a system of recognizing hazardous conditions so that those conditions can be corrected. The data collected while performing inspections will be used to identify hazards and barriers to working safely and in an environmentally protective manner so that they can be addressed such as procedure changes or purchasing different PPE. The data also will be tracked as a protective measure of acceptable HSE behaviour on the site. Reports and safe work observation information will be shared with employees at toolbox safety meetings.

Hazard Report Form

Date: _____ Hazard Report Number: _____

Reported By:

Name: _____ Position: _____

Reported To:

Name: _____ Position: _____

Site location: _____

Subject:

☐ Incident ☐ Near Miss ☐ Workplace Hazard ☐ Hazardous Work Practice

Description of Hazard:

What needs to be done?

Signature: _____ Date: _____

Copy given to:

Manager: _____ (Signature)

Communication Meeting: _____ (Signature)

MODULE 4 – DEMONSTRATE KNOWLEDGE AND UNDERSTANDING OF THE NATIONAL ENVIRONMENT MANAGEMENT ACT

Outcome Notes

ACT

To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, instruction that will promote co-operative governance and procedure for co-ordinating environmental functions exercised by organs of state, and to provide for matters connected therewith.

To Demonstrate Knowledge And Understanding Of The National Environment Management Act, The Concept Of Duty Of Care Is Explained With Reference To Pollution, Environmental Damage And Remediation (SO4-AC1)

The National Environmental Management Act No. 107 of 1998 (NEMA) is intended to promote co-operative governance and ensure that the rights of people are upheld, but also recognising the necessity of economic development.

The purpose of environmental law is to protect and preserve the environment. There are two main subjects of environmental laws, control of pollution, and the conservation and management of land. Both sections of environmental law protect land, air, water, and soil.

Environmental law works to protect land, air, water, and soil. Negligence of these laws results in various punishments like fines, community service, and in some extreme cases, jail time. Without these environmental laws, the government would not be able to punish those who treat the environment poorly.

The Principles of Environment Management

These are some guiding principles of environmental management. These principles are helpful in environmental decision making.

1. Polluter Pays Principle (PPP):

The 'polluter pays' principle is the commonly accepted practice that those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment.

The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called Polluter Pays Principle. The essential concern of this principle is that polluters should bear the costs of abatement without subsidy.

5 Major Outdoor Air Pollutants

- Ozone (O3)
- Nitrogen Oxides (NOx)
- Carbon Monoxide (CO)
- Sulphur Dioxide (SO2)
- Particulate Matter (PM10 and PM2.5)2.

2. The User Pays Principle (UPP):

The user-pays principle is the variation of the polluter-pays principle that calls upon the user of a natural resource to bear the cost of running down natural capital. The principle states that all resource users should pay for the full long-run marginal cost of the use of a resource and related services, including any associated treatment costs. It is applied when resources are being used and consumed.

3. The Precautionary Principle (PP):

The main objective of the precautionary principle is to ensure that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof of linking that particular substance or activity to environmental damage. The words 'substance' and 'activity' are the result of human intervention.

4. Principle of Effectiveness and Efficiency:

It is essential that efficiency of resources use may also be accomplished by the use of policy instruments that create incentive to minimize wasteful use. It also applies to various issues of environmental governance by streaming processes and procedures in order to minimize environmental costs.

5. The Principle of Responsibility:

It is the responsibility of all persons, corporations and states to maintain the ecological processes. Further, access to environmental resources carries attendant responsibilities to use them in an ecological sustainable economically efficient and socially fair manner.

6. The Principle of Participation:

It is the duty of all the persons to participate in collectively environmental decision making activities. Some participation areas are related to the use of trees and other plants, minerals, soils, fish and wildlife for purposes such as materials and food as well as for consumptive and non-consumptive recreation. The second issue concerns solid waste i.e. garbage, construction and demolition materials and chemically hazardous waste etc. The third issue of participation is related to pollution generating activities.

7. The Principle of Proportionality:

The principle of proportionality is based on the concept of balance. A balance is to maintain between the economic development on the one hand and environmental protection on the other hand. It cannot be disputed that no development is possible without some adverse effects on ecology. Therefore, it is essential to adjust the interest of the people as well as the necessity to maintain the environment. Moreover, comparative hardships have to be balanced and benefits to a larger section of the people have to be maintained.

Air Quality Act No. 39 of 2004 (NEM: AQA) was enacted to manage and prevent pollution. Section 3 of NEM: AQA places a general duty on the state to protect and enhance the quality of air as part of its obligations under section 24 of the Constitution. The Atmospheric Pollution and Prevention Act 1995 continue to apply to offences committed before the National Environmental Laws Amendment Act 2009 came into effect.

The Minister of Environmental Affairs published a list of activities that result in atmospheric emission which they reasonably believe may have a significant detrimental effect on the environment. Government Notice 893 of 22 November 2013 provides for minimum emission standards for the following categories:

- Category 1: Combustion Installations.
- Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from crude oil, coal, gas or biomass.
- Category 3: Carbonization and Coal Gasification.
- Category 4: Metallurgical Industry.
- Category 5: Mineral Processing, Storage and Handling.
- Category 6: who Organic Chemicals Industry.
- Category 7: Inorganic Chemicals Industry.
- Category 8: Thermal Treatment of Hazardous and General Waste.

- Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery.
- Category 10: Animal Matter Processing.

Anyone who undertakes any of the listed activities under these categories, or any other list applicable to a particular province, must obtain an atmospheric emissions licence (AEL) (section 22, NEM: AQA). In most cases, the AEL process is conducted in conjunction with the environmental impact assessment (EIA) process. Therefore, an applicant must apply for both an AEL and environmental authorisation under NEMA.

A Workplace Inspection Is Carried Out To Determine Conformance To Prescribed Standards Of The National Environment Management Act And Results Are Recorded In A Prescribed Manner (SO4-AC2)

The Contractor shall identify and comply with all South African environmental legislation, including associated regulations and all local by-laws relevant to the project. Key legislation at the time of this EMPr being in effect applicable to the construction and implementation phases of the project must be complied with.

Environmental Audit Reports

The (Environmental Control Office) ECOs shall prepare a monthly Environmental Audit Report. The Report will be tabled as the key point on the agenda of the Environmental Site Meeting. The Report is submitted for acceptance at the meeting and the final report will be circulated to the Project Manager and filed in the environmental management programme (EMPr) file. At a frequency determined by the environmental authorisation, the Environmental Control Office (ECOs) shall submit the monthly reports to the Competent Authority in terms of NEMA.

At a minimum the Monthly report is to cover the following:

- Weekly Environmental Checklists;
- Deviations and non-compliances with the checklists;
- Non-compliances issued;
- Completed and reported corrective actions;
- Environmental Monitoring;
- General environmental findings and actions; and
- Minutes of the Bi-monthly Environmental Site Meetings.

Environmental Site meetings will take place at least bi-monthly (i.e. every two weeks). The meeting will be chaired by the Project Manager or the Developer's Site Supervisor and CEOs will be required to attend. All environmental issues shall be tabled at the meeting for

discussion and resolution. Minutes of the Environmental Site Meetings shall be kept. The Minutes must include an attendance register and will be attached to the Monthly Report that is distributed to attendees.

Each set of Minutes must clearly record.

Matters will be reviewed at the next meeting.

Required Method Statements: A Method Statement is a written submission by the contractor to the Developer's Project Manager, Developer's Site Supervisor or ECO in response to the EMPr, setting out the plant, materials, labour and method the contractor proposes using to carry out an activity. The Method Statement will be done in such detail that the ECOs are enabled to assess whether the contractor's proposal is in accordance with the EMPr. The Method Statement shall cover applicable details with regard to:

- construction procedures;
- materials and equipment to be used;
- getting the equipment to and from site;
- how the equipment/ material will be moved while on site;
- how and where material will be stored;
- the containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- timing and location of activities;
- compliance/ non-compliance with the EMPr; and
- any other information deemed necessary by the ECOs.

Unless indicated otherwise by the Project Manager, the Contractor shall provide the following Method Statements to the Project Manager no less than 14 days prior to the programmed commencement date of the subject Works or activity:

Site establishment – Lay-down or storage areas, satellite camps, infrastructure;

- Batch plants;
- Workshop or plant servicing;
- Handling, transport and storage of Hazardous Chemical Substance's;
- Vegetation management – Protected, clearing, aliens, felling;
- Access management – Roads, gates, crossings etc.;
- Fire plan;
- Waste management – transport, storage, segregation, classification, disposal (all waste streams);
- Social interaction – complaints management, compensation claims, access to properties etc.;

- Water – use (source, abstraction and disposal), access and all related information, crossings and mitigation;
- Emergency preparedness – Spills, training, other environmental emergencies;
- Dust and noise;
- Fauna interaction and risk management – only if the risk was identified – wildlife interaction especially on game farms; and
- Heritage and palaeontology (the study of life in prehistoric times by using fossil evidence) management.

The ECOs shall ensure that the contractors perform in accordance with these Method Statements.

Liability Relating To Environmental Damage Is Explained With Reference To The Company, Directors And Employees (SO4-AC3)

In terms of Section 31A of NEMA offences listed under Section 49A of NEMA and the Specific Environmental Management Acts are considered as Schedule 1 offences under the Criminal Procedure Act 51 of 1997 that may result in the imposition of a fine or jail sentence on conviction for an offence. In terms of NEMA, directors may be held liable for environmental offences.

Section 33 of NEMA facilitates private prosecution by any person when the matter relates to the protection of the environment or a breach or threatened breach of any duty which breach is an offence under NEMA.

Any person may utilise Section 33 to initiate the prosecution of an entity, its directors or employees in their personal capacity. The person initiating prosecution does not require the public prosecutors permission and does not need to provide security for such action. The accused on conviction may be ordered to pay costs of the prosecution.

Section 49A contains the list of offences that can be committed in terms of NEMA, which offences range from commencement of unauthorised activities, failure to comply with condition in a license to operate, unlawful or intentional acts that lead to significant pollution and failure to comply with compliance orders or directives.

Section 49B provides that persons convicted of offences in terms of Section 49A may be liable to a fine and/or imprisonment.

Corporate officer liability under NEMA may be established in four different ways, with directors and officers being at risk if they are found to be:

- the principle of an offence (liability will arise as a result of them being in control of the activity);
- an accomplice, if the director was party to the offence committed by the corporate or its employees;
- a co-conspirator, if it is alleged that the director was party to a conspiracy to commit and offence; and

Prima facie (Prima facie is defined as something that has been proven or assumed to be true unless there is evidence presented to the contrary) guilty and liable on conviction to a penalty specified in law, if it is proven that the corporate committed an offence as described in Schedule 3.

The director will automatically be cited as a party to the proceedings, and the evidentiary burden is on the director to prove they took reasonable measures to prevent or mitigate the offence (Section 34(7) NEMA).

Schedule 3 contains a list of offences, which can be committed in terms of NEMA or any of the environmental management Acts. There are approximately 80 different offences listed in this Schedule.

Offences committed in relation to a failure of a duty of care: should a corporate entity receive a Section 28 directive ordering it to take reasonable measures to prevent pollution and/or to rectify or minimise the pollution and degradation and fail to take such measures, the authority may recover the cost of implementing the measures from any person who directly or indirectly contributed to the pollution or degradation or negligently failed to prevent the pollution.

Directors may be cited as joint and severally liable for such claims in the event that they meet the requirements for associated liability (any person responsible for, or who directly or indirectly contributed to the pollution) with the amount being apportioned according to the degree to which each was responsible.

Extension of Liability Is Explained In Terms Of People's Legal Standing And Type Of Liability (SO4-AC4)

Private Prosecution

Section 33(1) Any person may—
(a) in the public interest: or
(b) in the interest of the protection of the environment, institute and conduct a prosecution in respect of any breach or threatened breach of any duty. Other than a public duty resting on an organ of state, in any national or provincial legislation or municipal bylaw, or any

regulation. Licence, permission or authorisation issued in terms of such legislation, where that duty is concerned with the protection of the environment and the breach of that duty is an offence.

(2) The provisions of sections 9 to 17 of the Criminal Procedure Act, 1977 (Act51 of 1977) applicable to a prosecution instituted and conducted under section 8 of that Act must apply to a prosecution instituted and conducted under subsection (1):

Provided that if—

- the person prosecuting & privately does so through a person entitled to practise as an advocate or an attorney in the Republic:
- the person prosecuting privately has given written notice to the appropriate public prosecutor that he or she intends to do so; and
- the public prosecutor has not within 28 days of receipt of such notice stated in writing that he or she intends to prosecute the alleged offence,

(i) the person prosecuting privately shall not be required to produce a certificate issued by the Attorney-General stating that he or she has refused to prosecute the accused: and

(ii) the person prosecuting privately shall not be required to provide security for such action.

(3) The court may order a person convicted upon a private prosecution brought under subsection (1) to pay the costs and expenses of the prosecution, including the costs of any appeal against such conviction or any sentence.

(4) The accused may be granted an order for costs against the person prosecuting privately, if the charge against the accused is dismissed or the accused is acquitted or a decision in favour of the accused is given on appeal and the court finds either:

(a) that the person instituting and conducting the private prosecution did not act out of a concern for the public interest or the protection of the environment: or

(h) that such prosecution was unfounded, trivial (having little value) or vexatious (annoying

(5) When a private prosecution is instituted in accordance with the provisions of this Act the Attorney-General is barred from prosecuting except with the leave of the court concerned.

The Concept Of Civil Liability Is Explained With Reference To NEMA (SO4-AC5)

South Africa is part and parcel of the world initiatives to ensure maximum protection of the environment for the sake of the existing generation and the future generation which are yet to come.

In its bid to promote conservation of the environment, it imposes a duty to everyone who has caused or may cause significant harm to the environment to "take reasonable measures to

prevent such harm from occurring, continuing or recurring, or, in so far as such harm to the environment is authorized by law or cannot reasonably be avoided or stopped, to minimize and rectify such harm to the environment".

Such a duty is principally recognised by the National Environmental Management Act of 1998 (NEMA) and it is known as the duty of care.

The NEMA Act "Is based on the international environmental law principles of sustainable development and integrated environmental management".

Civil law protection of the environment is not regulated directly by specific regulations, but it is foreseen by legislative instruments in the area of compensation of damages, such as the Law on Obligations, the Law on the Basis of Property Relations and others.

The Concept Of Criminal Liability Is Explained With Reference To Nema (SO4-AC6)

Environment is the existential right of man. The issue of environmental liability can be considered from multiple angles, the focus will be directed to criminal and civil liability. The NEMA was influenced by section 24 of the Constitution which makes provisions of the right to an environment that is not harmful to one's health or well-being; and also to have the environment protected, for the sake of the present generation and the upcoming generation.

Section 24 of the Constitution is the main statutory provision relating to the protection of the environment. It allows the promotion of justifiable economic and social development and imposes a duty to the public to prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of natural

In South Africa the duty of care is contained in section 28 of the NEMA, and this duty gives an obligation to everyone who causes, has caused or who is likely to cause significant pollution or degradation to the environment to take reasonable measures to prevent or stop such harm to the environment, in the event that such a person fails to comply with the provisions of section 28 of the NEMA, the Act imposes liability on such person which may be in form of civil and criminal penalties where in the environmental perpetrator has to pay a certain amount of money to remedy the harm done to the protection of the environment is achieved in this way. However, there is a challenge when it comes to the enforcement of the environmental duty of care as there are certain individuals with financial means to pay off such penalties and continue to harm the environment.

This however defeats the whole purpose of the duty of care as contained in NEMA. Therefore, measures need to be taken in order to ensure maximum compliance of the duty.

These measures may include increment of the fines to environmental perpetrators and or holding the perpetrators criminally accountable.

Offences That Could Result In Extension Of Liability Under Nema Are Named With Reference To Related Legislation Dealing With Air, Water And Environmental Cover (SO4-AC7)

The National Environmental Management Act (NEMA) defines "environment" as the surroundings within which humans exist. These are made up of:

- the land, the water and the atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of the first two items on this list, and the interrelationships among and between them; and
- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

In addition, the Environment Conservation Act defines the environment as "the aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms.

Legislation Regulating Environmental Management

Legislation, from an environmental point of view, may be divided into six categories:

- Legislation aimed exclusively at environmental management, like the National Parks Act and the Atmospheric Pollution Prevention Act;
- Legislation calculated to promote an environmental object, like the Mountain Catchment Areas Act;
- Legislation not specifically directed at environmental management, but including individual provisions aimed at environmental management, like the Nuclear Energy Act, the Sea-Shore Act and the National Roads Act;
- Legislation not aimed at environmental management, but including provisions that are directly or potentially of environmental significance, like land-use planning legislation and the Customs and Excise Act;
- Legislation not aimed at environmental management, but rather at environmental exploitation (like the old mining legislation and legislation promoting afforestation and fishing, and the development of townships); and, finally,
- Legislation with no environmental relevance.

There are a number of diverse sources of South African environmental law:

- International law – Both international customary law and international conventions function as sources of South African environmental law.

    - Common law – A variety of common-law rules, derived from neighbour law, for example, and the law of nuisance, are of significance as sources of environmental law. The dictum sic utere tuo ut alienum non laedas (use your own property in such a manner as not to injure that of another) furnishes one instance.
- Constitution of South Africa – The Constitution now informs and underlies the entire legal system in South Africa. Of prime importance is the Bill of Rights, with its explicit provision for environmental rights. The Constitution provides a framework for the administration of environmental laws.
- Statute law – Environmental law is also derived, fairly obviously, from national and provincial legislation, and from local by-laws.
- Customary law – Custom functions to some degree as a source of environmental law.

MODULE 5 – DEMONSTRATE KNOWLEDGE AND UNDERSTANDING THAT CONFORMS TO SET CRITERIA OF THE ENVIRONMENT CONSERVATION ACT.

Outcome notes

To provide for the effective protection and controlled utilization of the environment and for matters incidental thereto.

Requirements For Waste Management Are Explained With Reference To The Act. (SO5-AC1)

Waste management laws govern the transport, treatment, storage, and disposal of all manner of waste, including municipal solid waste, hazardous waste, and nuclear waste, among many other types. Waste laws are generally designed to minimize or eliminate the uncontrolled dispersal of waste materials into the environment in a manner that may cause ecological or biological harm, and include laws designed to reduce the generation of waste and promote or mandate waste recycling. Regulatory efforts include identifying and categorizing waste types and mandating transport, treatment, storage, and disposal practices.

"**Waste management activity**" means any activity listed in Schedule 1 or published by notice in the Gazette under section 19, and includes—

(a) the importation and exportation of waste;

(b) the generation of waste, including the undertaking of any activity or process that is likely to result in the generation of waste:

(c) the accumulation and storage of waste;

(d) the collection and handling of waste;

(e) the reduction, re-use, recycling and recovery of waste;

(f) the trading in waste;

(g) the transportation of waste;

(h) the transfer of waste;

(i) the treatment of waste; and

(j) the disposal of waste;

General duty in respect of waste management

16. (1) A holder of waste must, within the holder's power, take all reasonable measures to—

(a) avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated;

(b) reduce, re-use, recycle and recover waste;

(c) where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner;

(d) manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts;

(e) prevent any employee or any person under his or her supervision from contravening this Act; and prevent the waste from being used for an unauthorised purpose.

(2) Any person who sells a product that may be used by the public and that is likely to result in the generation of hazardous waste must take reasonable steps to inform the public of the impact of that waste on health and the environment.

(3) The measures contemplated in this section may include measures to—

(a) investigate, assess and evaluate the impact of the waste in question on health or the environment;

(b) cease, modify or control any act or process causing the pollution, environmental degradation or harm to health;

(c) comply with any norm or standard or prescribed management practice;

(d) eliminate any source of pollution or environmental degradation; and

(e) remedy the effects of the pollution or environmental degradation.

(4) The Minister or MEC may issue regulations to provide guidance on how to discharge this duty or identify specific requirements that must be given effect to, after following a consultative process in accordance with sections 72 and 73.

(5) Subsection (4) need not be complied with if the regulation is amended in a non-substantive manner.

Reduction, re-use, recycling and recovery of waste

17. (1) Unless otherwise provided for in this Act, any person who undertakes an activity involving the reduction, re-use, recycling or recovery of waste must, before undertaking that activity, ensure that the reduction, re-use, recycling or recovery of the waste—

(a) uses less natural resources than disposal of such waste: and

(b) to the extent that it is possible, is less harmful to the environment than the disposal of such waste.

(2) The Minister may after consultation with the Minister of Trade and Industry and by notice in the Gazette, require any person or category of persons to—

(a) provide for the reduction, re-use, recycling and recovery of products or components of a product manufactured or imported by that person; or

(b) include a determined percentage of recycled material in a product that is produced, imported or manufactured by that person or category of persons.

(3) (a) Before publishing a notice in terms of subsection (2) or any amendment to the notice, the Minister must follow a consultative process in accordance with sections 72

and 73 .

Criminal Liability For Non-Compliance Is Explained With Reference To The Act (SO5-AC2)

Enforcement of environmental laws in South Africa was given a significant boost in 2005 with the establishment of the Environmental Management Inspectorate, popularly known as the "Green Scorpions". In a regulatory context where the lack of cooperation between government departments is frequently blamed for all ills, the Inspectorate is a real act: its member institutions – the Department of Environmental Affairs, South African National Parks, Wetland Parks, all nine provincial environment departments, four provincial conservation agencies and even a few municipalities – all cooperate on the monitoring and enforcement of compliance with the National Environmental Management Act and its subsidiary laws covering protected areas, biodiversity, waste, air quality and coastal management.

Non-compliance" refers to any breach of an environmental legislative obligation or permit conditions, irrespective of whether such a breach constitutes a criminal offence or not.

Offences and Penalties

- A person commits an offence if that person contravenes or fails to comply with a provision of section 16(1) (c), (d), (e) or (f) [General Duties] and section 20 [Waste Licencing].

• A person convicted of an offence referred to in section 67(1)(a) is liable to a fine up to R10 000 000, or imprisonment up to 10 years, or both, in addition to other penalties that may be imposed in terms of NEMA. Waste generators remain responsible for their waste ('Cradle-

to-Grave'), and must ensure that they and their service providers (waste transporters & managers) are legally compliant, and able to manage waste in an environmentally sound manner

The Relationship Between This Act And Mema Is Explained With Reference To Extension Liability (SO5-AC3)

National Environmental Management: Waste Act 59 of 2008 aims

- to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development;
- to provide for institutional arrangements and planning matters;
- to provide for national norms and standards for regulating the management of waste by all spheres of government;
- to provide for specific waste management measures;
- to provide for the licensing and control of waste management activities;
- to provide for the remediation of contaminated land;
- to provide for the national waste information system;
- to provide for compliance and enforcement; and
- to provide for matters connected therewith.

The National Environment Management Authority (NEMA) is established under the Environmental Management and Co-ordination Act No. The supreme objective underlying the enactment of EMCA 1999 was to bring harmony in the management of the country's environment

The purpose is to provide for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith

Activities that Require Environmental Impact Assessments Are Named With Examples (SO5-AC4)

Projects / activities which are subjected to an EIA as specified include:

1. General: – a) an activity out of character with its surrounding;	**7. Forestry related activities including –** a) timber harvesting; b) clearance of forest areas; c) reforestation and afforestation

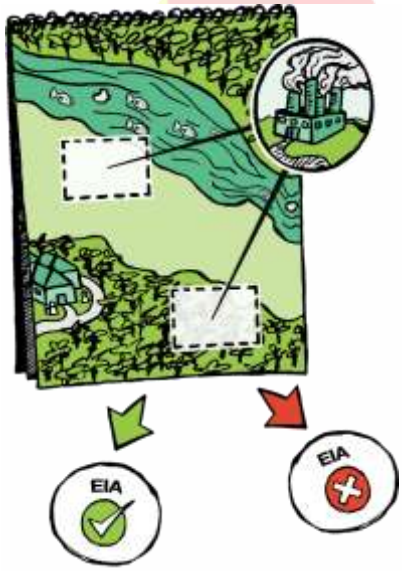
b) any structure of a scale not in keeping with its surrounding; c) major changes in land use	
2. Urban Development including:- a) designation of new townships; b) establishment of industrial estates; c) establishment or expansion of recreational areas; d) establishment or expansion of recreational townships in mountain areas, national parks and game reserves; e) shopping centres and complexes	**8. Agriculture including –** a) large-scale agriculture; b) use of pesticide; c) introduction of new crops and animals; d) use of fertilizers; e) irrigation
3. Transportation including – a) all major roads; b) all roads in scenic, wooded or mountainous areas and wetlands; c) railway lines; d) airports and airfields; e) oil and gas pipelines; f) water transport	**9. Processing and manufacturing industries including:-** a) Chemical discharge mineral processing, reduction of ores and minerals; b) smelting and refining of ores and minerals; c) foundries; d) brick and earth ware manufacture; e) cement works and lime processing; f) glass works; g) fertilizer manufacture or processing; h) explosive plants; i) oil refineries and petro-chemical works; j) tanning and dressing of hides and skins; k) abattoirs and meat-processing plants; l) chemical works and process plants; m) brewing and malting; n) bulk grain processing plants; o) fish-processing plants; p) pulp and paper mills; q) food-processing plants r) plants for the manufacture or assembly of motor vehicles; s) plants for the construction or repair of aircraft or railway equipment; t) plants for the manufacture of tanks, reservoirs and sheet-metal containers; u) plants for the manufacture of coal briquettes; v) plant for manufacturing batteries;
4. Dams, rivers and water resources including – a) storage dams, barrages and piers; b) river diversions and water transfer between catchments; c) flood control schemes; d) drilling for the purpose of utilising ground water resources including geothermal energy.	**Electrical infrastructure** **10. Electrical infrastructure including –** a) electricity generation stations; b) electrical transmission lines; c) electrical sub-stations; d) pumped-storage schemes.
5. Aerial spraying.	**11. Management of hydrocarbons including:-** the storage of natural gas and

	combustible or explosive fuels.
6. Mining, including quarrying and open-cast extraction of – a) precious metals; b) gemstones; c) metalliferous ores; d) coal; e) phosphates; f) limestone and dolomite; g) stone and slate; h) aggregates, sand and gravel; i) clay; j) exploitation for the production of petroleum in any form; k) extracting alluvial gold with use of mercury.	**12. Waste disposal including –** a) sites for hazardous waste disposal; b) sewage disposal works; c) works involving major atmospheric emissions; d) works emitting offensive odours; e) sites for solid waste disposal
	13. Natural conservation areas including – a) creation of national parks, game reserves and buffer zones; b) establishment of wilderness areas; c) formulation or modification of forest management policies; d) formulation or modification of water catchment management policies; e) policies for the management of ecosystems, especially by use of fire; f) commercial exploitation of natural fauna and flora; g) Introduction of alien species of fauna and flora into ecosystems.
	14. Nuclear Reactors.
	15. Major developments in biotechnology including the introduction and testing of genetically modified organisms.

The Basic Requirements For Conducting Environmental Impact Assessments Are Explained For A Specific Scenario. (SO5-AC5)

Environmental Impact Assessments is much more than a process for obtaining an environmental permit or licence. It aims to minimize, avoid or offset the environmental and social impacts of a proposed development project. If done properly, it can even promote sustainability in the area where the project is being implemented.

Please see below the 7 steps for conducting an environmental impact assessment:



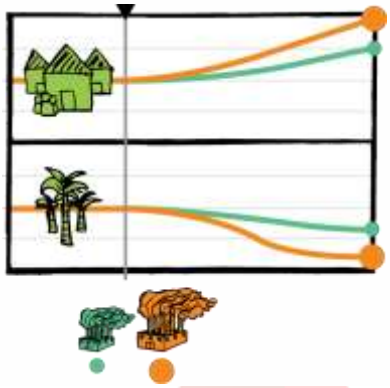
If not - An Environmental Management Plan (EMP) needs to be created and subsequently monitored.

1. Screening

Determines whether the environmental and social impacts of a proposed development project would be significant enough to develop an EIA.

2. Scoping

Establish the boundaries of theEIA, set the basis of the analyses that will be conducted at each stage, describe the project alternatives and consult the affected public



3. Impact Assessment & Mitigation

Evaluate the socioeconomic and environmental impacts of the planned project and its alternatives, and then identify the mitigation measures to reduce those impacts.

4. Impact Management

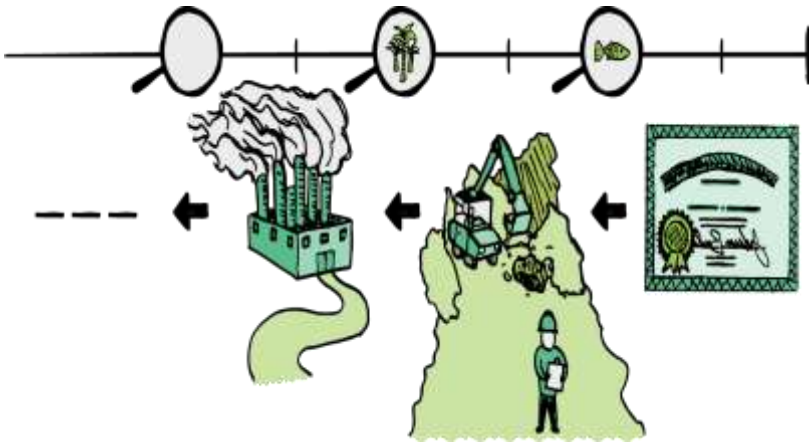
Prepare the plans required for addressing mitigation measures and other project risks, such as technological failures and natural disasters.

5. The EIA Report

Pull together all the research and work done during the previous steps into a comprehensive, structured document, ensuring that the EIA report contains all the key components.

6. Review & Licensing

Designated authorities review the EIA report to determine if the planned project will get a license or if it requires amendments.



7. Monitoring

Ensure that the mitigation measures, priorities listed in the EMP, and contingency plans are properly implemented and effectively address the project's impacts.