

**Risk Assessment (RA) and Environmental Aspects & Impacts Assessment (EAIA)  
HSE Management System**

**PTCL Group**

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## 1. Purpose

The purpose of this procedure is to outline the Health, Safety, Environment and Social Risk Management process (system & responsibilities) and its applicability. It shall ensure that:

- HSE hazards of all routine and non-routine activities and associated company's operations are identified, analyzed; risks are assessed, Environmental impact and aspects are treated as required and controlled to "As Low as Reasonably Practicable (ALARP)" status.
- All Social and community related actions and issues are taken into consideration.
- HSE risk management process is properly defined and documented to ensure periodic monitoring of risk and its traceability.
- The identification of hazards including decision on how likely it is, that someone could be harmed and how serious is the risk and to take action to eliminate the hazard associated with risk, or if it isn't possible, control the risks across Group PTCL and its associated businesses.
- Environmental aspects and impacts of the organization's activities, services, and products and support departments are identified, analyzed, and treated as required and controlled. The evaluation should result in a determination of whether a particular aspect has any significant environmental impacts and if so, whether the organization can control or influence those impacts. Major environmental aspects and identified, assessed, evaluated and controls provided along with potential impacts are documented.

## 2. Scope

The following are within the scope of this procedure:

- All PTCL Group Routine (R), Non-routine (N) and Emergency (E) activities, Natural disaster, and catastrophic failures.
- All Group PTCL personnel, contractor personnel, visitors, or community and OSPs (Outsource Service Providers) that may interact with or be affected by any aspect of company activities.
- All, facilities, equipment, Vehicles used by, Group PTCL.
- Initial risk assessment (HSE hazards/Environmental aspects/Social issues/ Impact assessment) and On-going risk assessments.
- Conducting risk assessment at the time of change in existing activities/ processes/ products.

## 3. Definitions

**3.1 Hazard:** source, situation, or act with a potential to cause harm in terms of human injury or ill health, or combination of these.

*Note: The term 'hazard' is essentially equivalent to 'environmental or community aspect.'*

**3.2 Risk:** effect of uncertainty. The likelihood that the hazard will cause harm in the circumstances. Combination of the likelihood of an incident occurring & the severity of the outcome

**3.3 Risk Assessment:** A Risk Assessment involves identifying the hazards present in any working environment or arising out of commercial & work activities, and evaluating the extent of the risks involved, considering existing precautions & their effectiveness.

**3.4 Control Measures:** an item, procedure or system introduced to eliminate or reduce risk.

**3.5 Competent Person:** person with sufficient Knowledge Attributes (skills) Training Experience & knowledge of their own Limitations

**3.6 Likelihood:** estimated frequency of occurrence. influenced by No. & type of people exposed to hazard, how often & by the workplace conditions e.g., light, space etc.

**Severity:** estimated probable outcome of the incident. Influenced by No. & type of people affected level of energy & other factors e.g., concentration & toxicity of hazardous substances.

- 3.7 Risk Rating:** Risk Rating = Likelihood X Severity
- 3.8 Residual Risk:** Residual risk is the risk that remains after your organization has implemented all the HSE controls, policies, and procedures you believe are appropriate to take.
- 3.9 Intolerable Risk:** A level of risk that is as high as to require significant and urgent actions to reduce its magnitude. If these risk levels cannot be reduced to ALARP or acceptable level, the project objectives and operating philosophy must be fundamentally reviewed by the management.
- 3.10 Acceptable Risk:** Risk that has been reduced to a level that can be tolerated by the organization having regard to its legal obligations and its own.
- 3.11 Incident:** Work-related event(s) in which an injury or ill health regardless of severity or fatality, occurred, or could have occurred.  
*Note: An incident where no injury, ill health, or fatality occurs may also be referred to as a “near-miss”, “near-hit”, “close call” or “dangerous occurrence”. An accident is an incident which has given rise to injury, ill health, or fatality.*
- 3.12 Accident:** an unplanned event that results in loss.
- 3.13 Ill health:** Identifiable, adverse physical or mental condition arising from and/or made worse by a work activity and/or work-related situation.
- 3.14 ALARP:** As Low As Reasonably Practicable. A level of risk that cannot be reduced further without the expenditure of costs that are grossly disproportionate in relation to the benefits gained.
- 3.15 Environment:** Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelationships; surroundings can extend from within an organization to the local, regional, and global system. Surroundings can also be described in terms of biodiversity, ecosystems, climate, or other characteristics.
- 3.16 Environmental Aspect:** an element of an organization's activities, products or services that can interact with the environment.
- 3.17 Environmental Impact:** change to the environment, whether adverse or beneficial, wholly, or partially resulting from an organization's environmental aspects.
- 3.18 Environmental Objectives:** Environmental goal consistent with the environmental policy that the organization sets itself to achieve. Objectives should be measurable so that the organization can verify progress made toward their attainment.
- 3.19 Environmental Target:** Performance requirement, applicable to the organization or parts thereof, that arise from the environmental objectives and that need to be set and met to achieve those objectives.
- 3.20 Significant Environmental Aspect:** Environmental aspect that has or can have a significant environmental impact.
- 3.21 Impact Register:** Collection of Impact information that defines the Impact profile of a defined Department/ Division, Asset, Function or a project, investment, or activity.
- 3.22 Residual Risk/Impact:** The level of risk/impact that remains after the existing controls that are in place and their effectiveness are considered. These controls may require verification by audit.
- 3.23 Risk Register:** A collection of risk information that defines the risk profile of a defined Department / Division, Asset, Function or a project, investment, or activity.

## 4. HSE Requirements

### 4.1 HSE Policy

The management at all levels shall demonstrate, through its decisions and actions, its commitment to provide all necessary resources to achieve the defined HSE objectives; to bring all risks to an acceptable level or as low as reasonably practicable (ALARP).

### 4.2 ISO 45001 Occupational Health & Safety Management System (Sub-clause 6.2.1) - Hazard identification and assessment of risks and opportunities

The organization shall establish, implement, and maintain a process(es) for hazard identification that is ongoing and proactive, the assessment of risks, and the implementation of necessary control measures.

### **4.3 ISO 14001 specifications (Sub clause 4.3.1) - Environmental Management Systems**

The organization shall establish and maintain procedure(s) to identify the environmental aspects of its activities, products, and services that it can control and over which it can be expected to have an influence, to determine those which, have or can have significant impacts on the environment.

### **4.3 Community Engagement and Social Action Plan**

Stakeholder Engagement Framework addresses the Engagement process with the communities directly and indirectly impacted through the project. A formal process is defined to identify risks associated with the community. It also considers “marginalized communities”. Refer to “**Annexure D- Guidelines to identify Social and Community Risks**”.

Any Health or safety hazard is identified with the help of the HSE team in collaboration with the respective nominated representatives.

Any displacement or risk to public property or assets other than PTCL Group is taken into consideration and is communicated with clarity to the community. Compensations in case of any damage are also settled through a grievance System.

Detailed Stakeholder Engagement Framework which includes the social Action plan specific to community defines the detailed engagement process and grievance system.

## **6. Roles and responsibilities:**

### **GCPO**

GCPO shall be overall responsible for implementation of this procedure.

### **VP HSE & Sustainability**

- VP HSE shall be responsible for keeping this procedure updated, communicated, and implemented.
- Shall ensure that Risk Assessments and Environmental Aspect Impact Management procedure are prepared and disseminated.
- Shall ensure its implementation through regular HSE & Environmental Inspections across the company.
- Shall ensure that effective training is given to the HSE team and other risk assessors.

### **Group Director Corporate HSE**

Ensure that procedure reviewed as decided and get approved from all stakeholders. Keep the updated copy on portal.

### **SM/ Manager Corporate HSE**

- Ensure that required awareness on procedure made to all users. Participate in Risk Assessment preparation meetings/ process. Review all risk assessments and upload them on HSE portal.
- Shall ensure that major environmental aspects and their impacts are incorporated into the site specific Environmental Aspect Impact Register.
- Shall ensure and participate in the Aspect Impact Assessment Process.
- Shall ensure the Risk Assessment and Aspect Impact Assessment process takes places for all significant aspects which poses threat to environment from any sort of activity and operations.
- Shall provide internal training to relevant stakeholders of Risk Assessment and Aspect Impact Assessment Process.

### **Extended HSE Team**

- Ensure that required awareness and training on procedure made to all relevant stakeholders within their domain.

- Shall ensure that risk assessments of all routine and non-routine activities, major environmental aspects and their impacts are identified, assessed, mitigated/reduced, controlled, and incorporated into the site specific Environmental Aspect Impact Register and Risk Register.
- Shall ensure and participate in the risk assessment and Aspect Impact Assessment Process.
- Shall ensure risk assessment and Aspect Impact Assessment process takes places for all significant aspects which poses threat to environment.
- Shall provide internal training for risk assessment and Aspect Impact Assessment Process.
- Shall ensure to conduct re assessment of all risk assessed activities after a defined period in the SOP.

**Building owners/Directors/ Project team:**

- Ensure that risk assessment and Aspect Impact management process conducted, communicated, available and implemented with field teams during work. Also ensure that risk assessments and Aspect Impact management are suitable and sufficient as per defined controls.
- Shall ensure that risk assessment and Aspect Impact management process is undertaken for all significant impact activities in respective premises and associated sites.
- Shall ensure annual review of respective risk assessment and Aspect Impact Aspect Impact Register updated as per all identified activities.
- Shall be overall responsible to control/mitigate the significant risks and impacts at respective sites.
- Shall ensure to conduct risk assessments and Impact aspect assessments of new activities before starting/utilization.

**Job/ site Supervisor/line manager:**

Respective job supervisor/ line manager shall ensure that updated copy of risk assessment available with field teams. They will communicate all hazards and controls to complete team/ contractor (TBT) and take attendance. Also ensure that staff are aware of and understand relevant risk assessments along with identified controls.

**Contractors:**

It is the responsibility of the contractor to conduct the Risk Assessment of critical activities before commencement of work in alignment with the Contractor Safety Handbook.

**7. Criteria of Risk Assessment**

- Risk Assessment should be suitable & sufficient –
- to be appropriate to the work & risks involved
- identify all significant hazards & risks and accounts of people affected.
- identify & prioritize controls required.
- controls should be reasonable, should enable legislative compliance & result in the remaining risk being low.
- Risk Assessment should remain valid for a reasonable period till any change occurs.

**8. Risk Assessment Team**

Risk Management / Assessment Process is best undertaken on a team basis as per their competence and experience. The assessment team may comprise of representative of Building Owner(s), relevant manager/ In-charge, supervisor, operator/ representative etc. The expertise of the HSE team or other specialists may be required to advise in certain areas. The HSE Team can be an independent moderator and coordinator of the risk assessment process, arranging reviews of assessments.

Following shall be the team members to conduct/ review risk assessment. Respective line managers shall formally engage all to conduct / review risk assessments.

- Building Owner(s)
- Functional HSE (PE, BO, Technology)

- Job Owner/User Department
- HSE team member
- Job supervisor
- Area in-charge (where work will be carried out)
- Respective contractor (If work assigned to contractor)

**Always consult directly involved employees of the work area where the Risk Assessment of the activity is being undertaken!**

### **8.1 Competency and Training of members of Risk Assessment Team**

HSE department ensures before initiating the risk assessment exercise, the members of the risk assessment must be competent to perform the risk assessment process.

The member must have sufficient knowledge of:

- the area, department, or activity to be assessed.
- the risk assessment process
- an understanding of hazards and the ability to identify hazards.
- current health and safety practices
- When and how to seek specialist advice.

The competency requirements must be fulfilled through formal training in the risk assessment process by the Zonal Corporate HSE team. The training contents covers:

- (a) Types of OH&S and Environment hazards
- (b) Identification of hazards
- (c) Risk assessment methodology
- (d) Knowledge of common OH&S and Environment Operational Controls

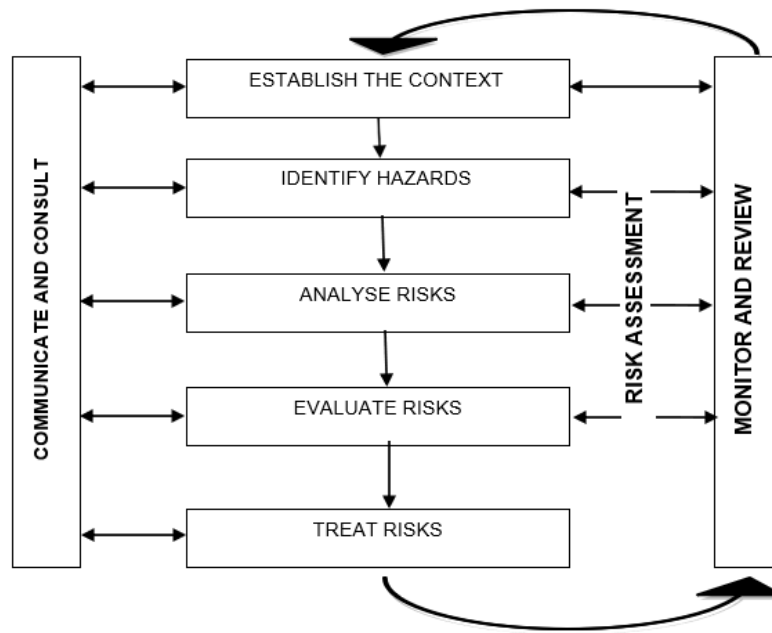
## **9. Procedure for Risk Assessment**

### **9.1 Process – General**

- 9.1.1 Hazards have the potential to cause human injury or ill health. Hazards therefore need to be identified before the risks associated with these hazards can cause harm.
- 9.1.2 The organization is applying the process of hazard identification and risk assessment across the full scope of work for specific projects, utilizing the process set out below, to determine the controls that are necessary to reduce the risk.
- 9.1.3 The results of the hazard identification and risk assessment process will enable the organization to prioritize resources for effective risk management.

## **10.0 Hazard Identification & Risk Assessment Method**

- 10.1 For any risk assessment, Annexure A- Risk Assessment Form in conjunction with Table 1 & 2 for risk calculations to be used. Details process for performing risk assessment is described below:
- 10.2 Method of risk assessment shall follow the same basic steps and have the same basic components as illustrated in the following figure.



**10.3 Step 1 – Establish the context.**

Establishing the context defines the basic parameters within which risks shall be managed and sets the scope for the rest of the risk management process. The context includes the financial, operational, competitive, political (public perceptions and image), social, client, cultural and legal aspects. Criteria against which risk shall be evaluated should also be established and the structure of the analysis defined. Refer to **Annexure A- Risk Assessment Form**

<b>Task Description</b>	<b>What</b> will be done? State the specific job to be performed that may have a history of potential for injury, incidents, safety critical, new jobs, jobs changed, new personnel performing job.
<b>Location</b>	<b>Where?</b> Identify the location where the work will be conducted.
<b>Risk Assessment Date</b>	<b>When?</b> Record the date that the job is being recorded.
<b>Risk Assessment Number</b>	Allocate Number
<b>Team Leader</b>	<b>Who</b> facilitated the Risk Assessment? Record the name of the person who facilitated the Risk Assessment Process.
<b>Scriber</b>	Person completing the Risk Assessment Forms/Documentation
<b>Team Members</b>	Who will be involved? Record details of the Risk Assessment participants.
<b>Distinct Activity</b>	How many steps can the Task be broken into? What shall be done at each activity?
<b>Hazard Effect</b>	What can happen at each step? What are the potential incidents that could occur from each of the Job Steps?

<b>Hazard Identification Checklist</b>	Identify applicable Hazards from list
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#### 10.4 Step 2 - Hazards Identification

- Hazard identification shall consider the different types of hazards in the workplace including safety, physical, health, ergonomic, chemical, and biological hazards.
- Hazard identification shall include routine and non-routine activities and shall cover the full scope of the work to be carried out by the PTCL Group. Through these steps a register of risks is generated from which a safety ‘management program’ can be developed.
- One of the most important aspects of risk assessment is accurately identifying the potential hazards in your workplace. For example, a good starting point is to walk around your workplace and think about any hazards. In other words, what is it about the activities, processes or substances used that could injure your employees or harm their health?

The hazards identification is carried out considering the following hazards below are minimum but not limited to:

- Work at Height
- Electrical Hazards/Work
- Mechanical Hazards (associated with power driven machinery/equipments/tools etc.)
- Confined space
- Biological Hazards
- Physical Hazards
- Ergonomic Hazards
- Psychological Hazards
- Thermal Hazards (heat & temperature)
- Fire & Explosion
- Hazards through work environment conditions
- Toxicity
- Noise
- Vibration
- Hazardous substances
- Human factors

While conducting the hazard identification, the information regarding the hazards and the risk involved is determined from any of the following sources:

- Task analysis (make steps of activity and list down all possible hazards under each activity) & Interviewing people associated with the activity.
- Self-examination, observation, results of measurements and monitoring.
- Examination of existing management practices/procedures and using relevant checklists.
- Check manufacturers’ instructions or data sheets for chemicals and equipment as they can be very helpful in explaining the hazards and putting them in their true perspective.



- Feedback and analysis from previous incidents/ accidents/ Near misses.
- Views of interested parties (if any)
- Applicable Legal and Regulatory requirements.

#### 10.4 Step 3 - Assess Risks- Decide Who might be harmed & How.

- Determining who is at risk is an important step in this part of the process. The hazard identification and risk assessment process must consider all persons likely to be affected.
- Who is at risk shall be recorded. Control measures shall mitigate the risk to all identified persons.
- Evaluation of risk, specifically the severity & likelihood of a hazard being realized is the key element of this step. Failure to correctly assess the magnitude of risk may lead to the implementation of inadequate controls.
- Severity is the outcome and is often referred to as the consequence. The outcome may be a minor injury or at the other end of the scale the outcome may be a fatality. The likelihood is the chance of the hazard being realized or the magnitude of risk.
- It is important to remember that only the likelihood can be affected by the implementation of control measures. For example, falling 10m is likely to result in a fatality. Through the implementation of control measures the organization can reduce the likelihood of falling 10m, but not the severity.
- This process is aimed at reducing the likelihood so that the level of residual risk, the risk remaining after control measures are implemented, is acceptable, often referred to as tolerable risk.
- The organization shall utilize a matrix of severity and likelihood to assist in the evaluation process the same or like the one shown below.

Once the hazard and potential incidents are identified, the risk is analyzed by determining:

- a) The likelihood (L) of each consequence consulting **Table 1**.
- b) The severity/consequences (S) and associated impacts/effects that can result from the potential incident consulting **Table 2**.
- c) The risk (R), by combining the consequence severity and likelihood ( $R=C \times L$ ) consulting Risk Matrix Table.

Sub-steps a) to c) are described in further detail below.

**a) Determining likelihood** involves estimating the likelihood of a consequence (including its associated impacts) using qualitative/quantitative method such as:

- Certain (05)
- Likely (04)
- Possible (03)
- Unlikely (02)
- Rare (01)

Below **Table 1** contains likelihood matrix that shall be used to rank likelihood.

Likelihood Table (Table 1)				
Certain (05)	Likely (04)	Possible (03)	Unlikely (02)	Rare (01)
Almost sure to occur during routine or non-activities. A monthly or more frequent occurrence would lie in this category.	A high chance of occurrence. Occurring once in six months.	Medium chance of occurrence. Occurring once in a Year.	Low chances of occurrence. Once every 1-5 year	Very low chances of occurrence.

**b) Analyzing the potential consequences (and impacts/effects)** involves identifying all the possible consequences and associated impacts/effects to people, the environment, or plant/property that may be caused by the incident of interest.

The severity of consequences ranked **qualitatively/quantitatively** e.g., Negligible (01), Noticeable(02), Moderate (03) etc. using the HSE Qualitative Consequence Severity **Table 2** as shown below.

**Consequence Severity: Table-2**

Negligible (01)	Noticeable (02)	Moderate (03)	Major (04)	Severe (05)
Level 1	Level 2	Level 3	Level 4	Level 5
<b>Injury and Disease (Includes workers and community)</b>				
<p>Low level short – term subjective inconvenience or symptoms. No measurable physical effects. No medical treatment.</p>	<p>Objective and temporary harm like cuts/bruises and/or injuries requiring little medical treatment. No hospitalization required.</p>	<p>Objective but reversible disability/impairment and/or medical treatment injuries requiring hospitalization.</p>	<p>Moderate irreversible disability or impairment (&lt;30%) to one or more persons.</p>	<p>Short- or long-term health effects leading to fatality or significant irreversible human health impairment (&lt;30%)</p>
<b>Environment Effects</b>				
<p>No lasting effect. Low Level impacts on biological or physical environment. Limited damage to minimal area of low significance.</p>	<p>Minor effects or Biological or physical environment. Minor short – medium term damage to small area of limited significance.</p>	<p>Moderate effects on biological or physical environment but Not affecting ecosystem function. Moderate short-medium term widespread impacts (e.g., Oil spill causing impacts on shoreline).</p>	<p>Serious environment Effects with some impairment of ecosystem function (e.g., Displacement of a species). Relatively widespread medium long term impacts.</p>	<p>Very serious environmental Effects with impairment of Ecosystem function. Long term widespread effects on significant environment (e.g. Unique habitat, National Park).</p>
<b>Social / Cultural Heritage</b>				
<p>Low level social or cultural impacts. Low level repairable damage to common place structures.</p>	<p>Minor medium-term social impacts on local population. Minor damage to structures / items of some significance. Minor infringement of cultural heritage. Mostly repairable.</p>	<p>Ongoing social issues. Permanent damage to structures / items of cultural significance, or significant infringement of cultural heritage / sacred locations.</p>	<p>Ongoing serious social issues. Significant damage to structures/items of cultural significance, or significant infringement and disregard of cultural heritage.</p>	<p>Very serious widespread Social impacts. Irreparable damage to highly valued structures/items/locations of cultural significance. Highly offensive infringements of cultural heritage.</p>

<b>Community / Government / Media / Reputation.</b>				
Public concern restricted to local complaints. Ongoing security / attention from regulator.	Minor, adverse local public or media attention and complaints. Significant hardship from regulator. Reputation is adversely affected with a small number of sites focused people.	Attention from media and / or heightened concern by local community. Criticism by NGOs. Significant difficulties in gaining approvals. Environment credentials moderate affected.	Significant adverse national media / public / NGO attention. May lose license to operate or not gain approval. Environment management credentials are significantly tarnished.	Serious public or media outcry (international coverage). Damaging NGO campaign. License to operate threatened. Reputation severely tarnished. Share price may be affected.
<b>Legal</b>				
Low level legal issue. On the spot fine. Technical non-compliance. Prosecution unlikely.	Minor legal issues, non-compliances and breaches of regulation. Minor prosecution or litigation possible.	Serious breach of regulation with investigation or report to authority with prosecution and / or moderate fine possible.	Major breach of regulation with potential major fine and / or investigation and prosecution by authority. Major litigation.	Investigation by authority with significant prosecution and fines. Very serious litigation, including class actions.
<b>Operational Impact (Safety, Health, environment related incidents)</b>				
Easily addressed or rectified by immediate corrective action. No loss of production. No damage to equipment.	Minor or superficial damage to equipment and or facility.	Moderate damage to equipment and or facility.	Major damage to facility requiring significant corrective/preventative action.	Future operations as site seriously affected. Urgent corrective / remedial action.
<b>Total Estimated Cost (Inclusive of all safety, health, and environment related costs e.g.: potential clean-up, corrective actions, fines, liabilities)</b>				
<PKR 10,000	PKR 10,000 to 100,000	PKR 100,000 to 1 M	PKR 1M to 10 M	> PKR 10 M

**c) Estimating risk** involves combining the severity of the consequence resulting from the potential incident and the likelihood of that consequence (**R = L X S**) consulting Risk Matrix Table as shown below:

Probability/ Likelihood	Consequences/Severity				
	Negligible (01)	Noticeable (02)	Moderate (03)	Major (04)	Severe (05)
Certain (05)	Medium (05)	Significant (10)	High (15)	High (20)	High (25)
Likely (04)	Low (04)	Medium (08)	Significant (12)	High (16)	High (20)
Possible (03)	Low (03)	Medium (06)	Medium (09)	Significant (12)	High (15)
Unlikely (02)	Low (02)	Low (04)	Medium (06)	Medium (08)	Significant (10)
Rare (01)	Low (01)	Low (02)	Low (03)	Low (04)	Medium (05)

**Note:** The Risk Matrix used in this SOP is aligned with the Etisalat Group's ERM Risk Assessment Matrix defined in Governance & Quality Management Framework Doc # PTCL/GTO/G&QA/GQMF/01/02 but for clarity below mentioned are explanation:

- Risk Rating Low 01-04 is = RL 01-04 ERM Risk Assessment Matrix
- Risk Rating Medium & Significant 05-12 is = RL 05-12 ERM Risk Assessment Matrix
- Risk Rating High 15-25 is = RL 15-25 ERM Risk Assessment Matrix

The risk is represented using a Risk Matrix Table to plot the likelihood/consequence-severity combination as shown in the risk matrix table above.

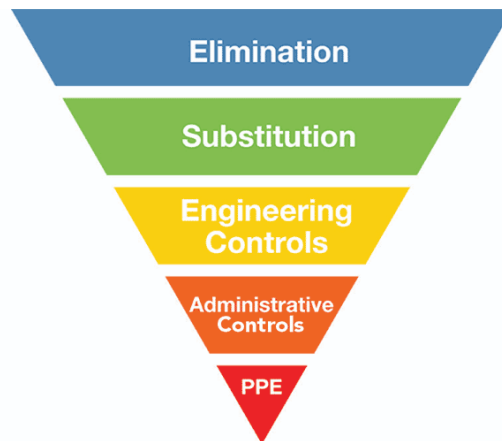
- The hazards with risk rating of Significant or High are considered **Intolerable** and need to be controlled. To reduce the risk to ALARP risk levels (Low Medium).
- Record HSE Risk assessment on Annexure A- Risk Assessment Form and Annexure C- Risk Register and maintain as an on-going record of risk assessment.
- New hazards identified and risks assessed on an on-going basis are added to the Annexure A- Risk Assessment Form and Annexure C- Risk Register.
- All critical activities undertaken Risk assessment should be on hold, till all additional controls identified (if identified) have been implemented.
- Final Residual Risk value must be less than **Medium** in all cases for the risk to be acceptable.

#### 10.5 Step 4 - Determine Controls- Evaluate the Risks and decide on Precautions.

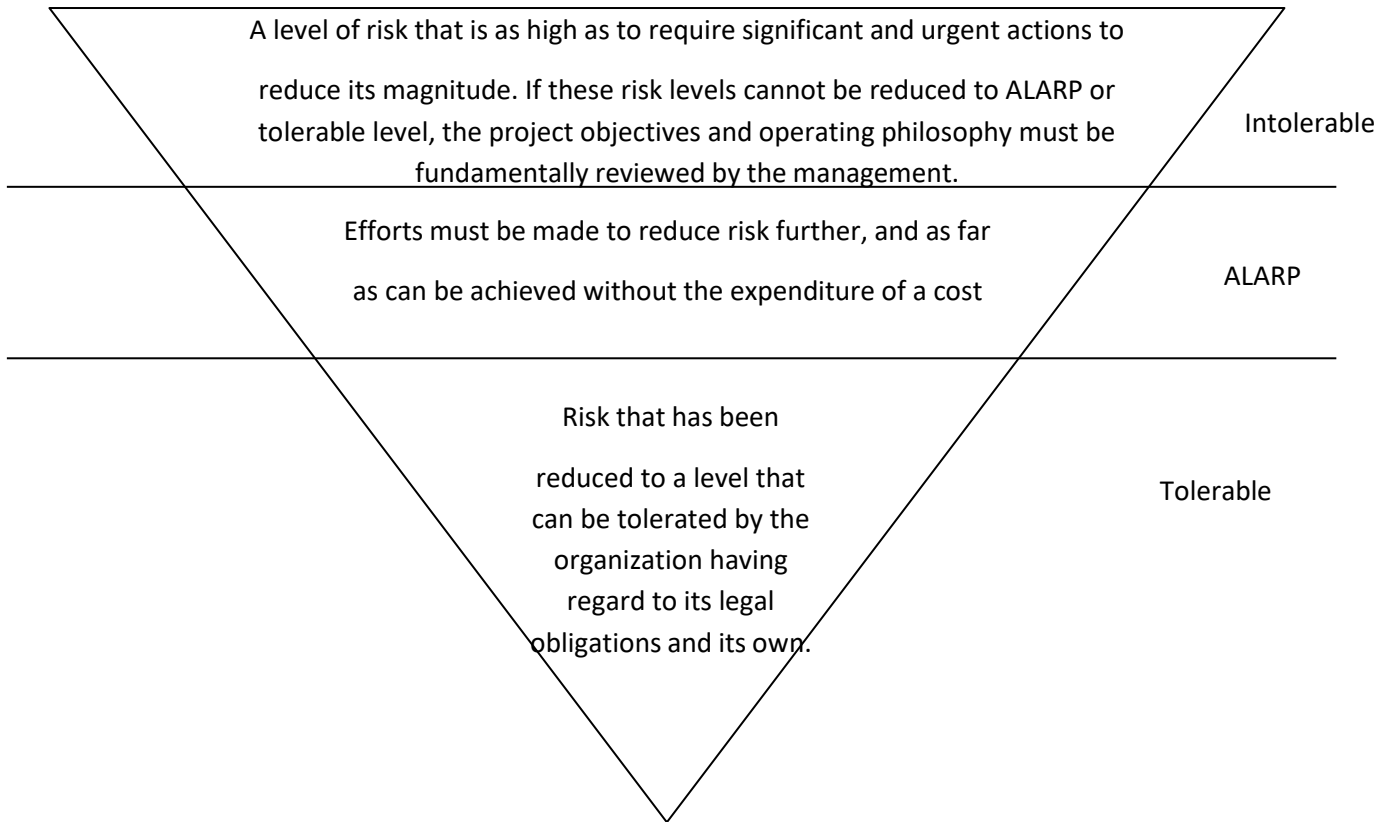
- Selection of appropriate control measures is a key step in the process. Control measures shall be realistic and achievable. The term '**reasonably practicable**' is often used to determine control measures. This basic principle is that the cost and complexity of the control measures selected should be balanced against the risk. It would not be reasonable to commit significant time and resources to control a low risk but may be necessary for an activity deemed high risk where the likelihood of a fatality is high.
- It is important that those involved in the selection of control measures are experienced and competent in

the work activity being undertaken. Experienced & competent personnel should always be consulted where possible.

- Controls measures shall consider the hierarchy of risk management. This can be seen, moving from top to bottom, in the diagram below:



- Risk may be '**eliminated**' by redesigning a job sequence and removing a hazardous step.
- Risk can be **reduced** through, for example, the '**substitution**' of hazardous materials / substances for less hazardous materials / substances.
- '**Engineering Controls**' are an effective means of managing risk. Engineering controls use physical measures to separate workers from hazards. Typical examples include barriers or guarding of machinery. The use of local exhaust ventilation in a workshop is another example of engineering controls.
- '**Administrative Controls**' include the development of procedures, method statements, risk assessments, training, etc. Administrative controls can be effective as workers become more aware of hazards and more competent in carrying out their duties in a safe manner. Administrative controls may also include work scheduling. For example, reducing shift times may reduce workers' exposure to hazards.
- '**PPEs (Personal Protective Equipment's)**' is the final element in the hierarchy of risk management. PPEs should be used where no 'reasonably practicable' alternative is available. PPEs will include general personal safety equipment and RPE (Respiratory Protective Equipment).
- Most control measures for routine activities have been reviewed and required controls set out in a Risk Assessment. A copy of the Risk Register can be made available if required.
- As per good industrial practices, the standard risk management criteria by which projects and activities are designed and operated, is that risk is As Low As Reasonably Practicable – **ALARP**. The 'ALARP' principle (see attached figure below) is used to determine acceptability of a risk.
- It is important to consider whether all the risks associated with a particular task or project, whilst not significant in themselves on a standalone basis, may combine and have an overall cumulative risk effect that may rate differently.



All actions should be developed in accordance with the hierarchy of controls (Briefed Below)

### 10.6 Step 5 – Decision to accept the risk.

Once the risk has been compared against the acceptability criteria, a decision can then be made to either:

- Accept the risk if it is ALARP and monitor and review it; or
- Consider treatment options if the risk is not acceptable to reduce it to ALARP.

This decision-making process should be consistent and repeatable. The decision on risk acceptability is one made by management based upon risk versus rewards. However, a risk that rates as “high” or “significant” using the risk matrix table, falls into the “intolerable” zone when applying the ALARP principle. Hence, treatment options need to be applied to these risks to bring them down to the ALARP range.

### 10.7 Step 6 – Treat Risk

This is concerned with the development and implementation of specific cost-effective strategies and action plans for increasing potential benefits and reducing potential costs.

In the context of HSE, risk control strategies include:

- 10.7.1 Avoiding risk (where this is practicable) by deciding not to proceed with the activity likely to create risk.

- 10.7.2 Modifying the likelihood of the event occurring, to reduce the likelihood of harm, loss, and detriment.
- 10.7.3 Altering the consequences, to reduce the severity of harm, loss, or detriment.
- 10.7.4 Retain the risk. After risks have been controlled, there will be residual risks that are retained. Risks can also be retained by default, e.g., when there is a failure to identify or appropriately control risks.

## **10.8 Step 7 - Record your significant Hazards & Risks and implement them.**

- 10.8.1 Make a record of your significant hazards & risks – the hazards, how people might be harmed by them and what you have in place to control the risks. Any record produced should be simple and focused on controls.
- 10.8.2 Where the nature of your work changes fairly frequently or the workplace changes and develops (e.g. a project site), or where your workers move from site to site, your risk assessment may have to concentrate more on a broad range of risks that can be anticipated. Remember, the greater the hazard the more robust and reliable the measures to control the risk of an injury occurring will need to be.
- 10.8.3 Implementation of the planned arrangements is the responsibility of everyone management to ensure the provision of required resources.
- 10.8.4 Compliance with planned arrangements is the responsibility of every person involved in the activity, however, specific responsibility for identified control measures should be allocated to a member of staff present on the project.
- 10.8.5 The Corporate HSE team will help everyone at all stages of the implementation process.

## **10.9 Step 8 – Monitor and Review**

Monitoring and reviewing needs to be undertaken at each step in the risk management process. Monitor and review activities should include:

- 10.9.1 Monitor changes to the strategic and organizational context.
- 10.9.2 Monitor hazards (preferably at least annually) to determine whether any new or previously unidentified hazards exist.
- 10.9.3 Monitoring of incidents and review of incident trends.
- 10.9.4 Monitoring of predicted and actual impacts/effects.
- 10.9.5 Review of impacts/effects to check accuracy of consequence severity and likelihood ratings, review of significant risks.
- 10.9.6 Monitor and review the effectiveness of treatment plans.
- 10.9.7 Monitor and review the effectiveness of risk communication programs.
- 10.9.8 Review the effectiveness of management systems in identifying and managing risk.

## **11. Recording & Documenting the Risk Assessment**

- Risk assessments shall be recorded. Documented risk assessments shall be included in planned arrangements, set out in management and execution plans etc.
- Few workplaces stay the same. Sooner or later, you will bring in new equipment, substances and procedures that could lead to new hazards. So, it makes sense to review what you are doing on an ongoing basis, look at your risk assessment again and ask yourself: Have there been any significant changes? Are there improvements you still need to make? Have your workers spotted a problem? Have you learnt anything from accidents or near misses? Make sure your risk assessment stays up to date.
- Risk assessments shall document the necessary control measures that result in an acceptable (tolerable) residual risk rating. A risk rating of 8 or below (tolerable risk), using the process set out in this document, is deemed acceptable. Identified control measures shall be implemented prior to the commencement of work.
- Where a residual risk rating of 10 or above (intolerable risk) is generated, the risk controls shall be re-evaluated / redesigned until a tolerable residual risk rating is achieved.



## 12. Review Frequency of Risk Assessment

Corporate HSE ensures that hazards and risk related to the activities/processes are kept current by conducting the same assessment:

- After every two year- (to update the system)
- Before change in existing activities/ processes/products/ facility/ equipment.
- Change in standard, laws & regulations.
- After Accidents/Incidents (if required)

## 13. Communication & Consultation of Hazards & Documented Control Measures

- The corporate HSE team and relevant team shall ensure that information regarding hazards and planned control measures is communicated. Pre-start briefings shall be carried out prior to the commencement of works. Hazard communication shall be via induction, training, awareness sessions and toolbox talks.
- Communication shall be in the understandable languages preferred by the workforce.
- Records of such instructions shall be maintained by relevant departments.
- Communication and consultation are important throughout the whole risk management process and need careful planning. The communication needs to cover both external and internal stakeholders.
- Communication and consultation involve a two-way dialogue, rather than a one- way flow of information from the decision makers to other stakeholders. Direct involvement in the process is the best form of consultation & communication.
- People exposed to risk should take part in the hazard identification process and in the development of risk treatment actions. It is important to communicate with people potentially exposed to risks so that they understand how to look for hazards in their workplace or living environment, and how to manage risks to which they may beexposed.
- Stakeholders may need to be considered in developing communication plans, in addition to the employees directly involved in the operation, including regulators, community suppliers, linemanagers, , and non-government organizations.

The output from risk assessments, together with risk control action plans, can be contained in risk registers. For small projects these can be kept on an Excel spreadsheet or in a Word document; however, to maintain integrity and to ensure effective tracking and management of control actions, risk registers should be kept in a risk management information system. Refer to Annexure C- Risk Register Template.

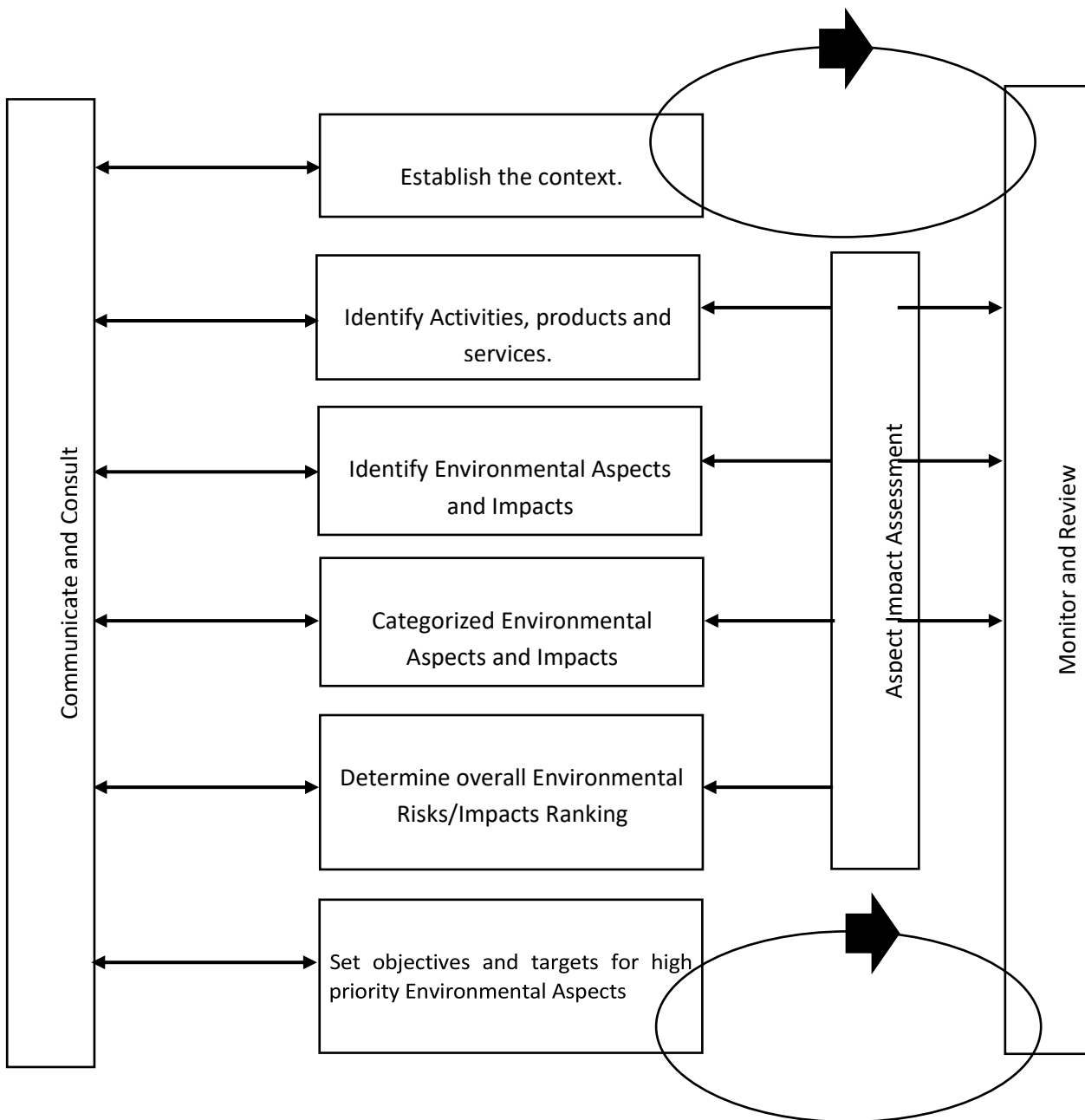
## 14. Aspects & Impacts Management Process

There is no one method for Aspects and Impacts Assessment. Generally, the type and rigor of the Impact assessment process adopted shall depend on the potential severity of the harm that could occur and the likelihood of occurrence. For the greatest severity consequences or where there are high levels of Impact, very rigorous impact analysis (Quantitative) is required. On the other hand, where the consequences are less serious and/or the level of Impact is low, simpler techniques (Qualitative) can be used.

Environmental Aspect Impact Assessment Process is best undertaken on a team basis. The assessment team is comprised of relevant managers, supervisor, operator, representative etc. The expertise of the HSE team, Cross Functional team or other specialist may be required to advise in certain areas. The HSE team can be an independent moderator and coordinator of the Impact assessment process, arranging reviews of assessments.

Annexure E- - Aspect Impact Assessment in conjunction with Tables 3 and Table 4 for aspect impact evaluation is to be used. Detailed process is described below. All methods of aspect impact assessment shall follow the same basic steps and have the same basic components as illustrated in the following figure 1.

**figure 1**



#### **14.1 Step 1- Establish the Context**

Establishing the context defines the basic parameters within which impacts shall be managed and sets the scope for the rest of the aspect impact management process. The context includes the financial, operational, competitive, political (public perceptions and image), social, client, cultural and legal aspects. Criteria against which impact shall be evaluated should also be established and the structure of the analysis defined. Refer to **Annexure E- Environment Aspect Impact Assessment Form/Register**

#### **14.2 Step 2- Identify Activities, Products and Services**

Identify all activities, products and services while conducting the Environmental Aspect Impact Assessment by considering following steps:

Inputs and outputs Consider all areas, e.g.:

- Operation
- Services
- Products
- Transportation
- Contracted tasks
- Office activities
- Material and waste storage
- Maintenance

Consider normal, abnormal, and emergency operating conditions.

### 14.3 Step 3- Identify Environmental Aspects and Impacts

While conducting the Environmental Aspect Impact Assessment, identification of aspect and their significant impacts is the most important step which may be determined from the following sources:

1. Observations/ examination / brainstorming of activities by a team trained in carrying out aspect impact assessment.
2. Results of measurements and monitoring.
3. Identifying potential incidents that can result from an aspect in the past. All actual incidents shall be recorded and reported to Corporate HSE..
4. Identifying significant aspects and impacts related with specific Job Activity.

### 14.4 Step 4- Categorize Environmental Aspects and Impacts

Once the aspects and their significant impacts are identified, categorize each environmental aspect, and associated environmental impact to ensure that further analysis is manageable. Categorization should be made according to the list of environmental aspect categories which is shown below.

- a. Air emissions
- b. Water and wastewater
- c. Solid waste (non-hazardous)
- d. Hazardous material use and disposal
- e. Fuels, oils, and lubricants
- f. Historical, archeological, and cultural resources
- g. National Environmental Policies
- h. Natural Resource Conservation
- i. Any other

After categorization of environmental aspects, environmental impact pertains to each aspect will be categorize according to the following four categories:

### Table-3 Severity (S)

Environmental Impacts		
Rating	Severity	Description

1	Low	Substantiated incident with no impact on land, water, and air quality.
2	Minor	Contamination or damage sufficiently attacks the environment. Single complaint. No permanent effect on the environment
3	Moderate	Limited discharges of known toxicity. Affecting neighborhood. Single breach of statutory or prescribed criteria.
4	Major	Significant impact but reversible or irreversible but local environmental damage. The company is required to take extensive measures to restore the contaminated environment to its original state. Breaches of statutory or prescribed limits
5	Catastrophic	Persistent severe environmental damage or irreversible impact on the environment extending over a large area. Constant breaching of statutory or prescribed limits

### Social Cultural Impacts

Rating	Severity	Description
1	Low	Low level social or cultural impacts. Low level repairable damage to common place structures.
2	Minor	Minor medium-term social impacts on local population. Minor damage to structures / items of some significance. Minor infringement of cultural heritage. Mostly repairable.
3	Moderate	Ongoing social issues. Permanent damage to Structures / items of cultural significance, or significant infringement of cultural heritage /scared locations.
4	Major	Ongoing serious social issues. Significant damage to structures/items of cultural significance, or significant infringement and disregard of cultural heritage.
5	Catastrophic	Very serious widespread social impacts. Irreparable damage to highly valued structures/items/locations of cultural significance. Highly offensive infringements of cultural heritage.

### Legal Impacts

Rating	Severity	Description
1	Low	Low level legal issue. On the spot fine. Prosecution unlikely.
2	Minor	Minor legal issues, non- compliances, and breaches of regulation. Minor prosecution or litigation possible.
3	Moderate	Serious breach of regulation with investigation or report to authority withprosecution and/ or moderate fine possible.

4	Major	Major breach of regulation with potential major fine and / or investigation and prosecution by authority. Major litigation.
5	Catastrophic	Investigation by authority with significant prosecution and fines. Very serious litigation, including class actions.
<b>Business Reputation Impacts</b>		
<b>Rating</b>	<b>Severity</b>	<b>Description</b>
1	Low	Public awareness may exist, but there is no concern among the public.
2	Minor	Some local public concern. Attracting some local media and/or local political attention with potentially adverse aspects for company operations.
3	Moderate	Regional public concern. Attracting extensive adverse attention in local media and slight national media and/ or local/ regional political attention. Adverse stance of local government and/or action groups
4	Major	National public concern. Attracting extensive adverse attention in the national media. Regional / national policies with potentially restrictive measures and/or impact on granting of licenses. Mobilization of action groups.
5	Catastrophic	International Public attention. Attracting extensive adverse attention in international media. National / International policies with potentially server impact on access to new areas, granting of licenses / or tax legislation.

**List Existing Control Measure**

For each identified aspect / hazard, all existing controls, normally in place under usual circumstances and situations, shall be identified and listed within the template.

**14.5 Step 5- Determine overall Environmental Impact**

While it is important that all actual and potential Environmental Aspects and Impacts are identified and documented, it is equally important to categorize them according to their magnitude and significance to prioritize their mitigation and treatment. This is done by scoring each aspect with respect to its impact and the probability/frequency of occurrence.

**Table-4: Likelihood (L)**

<b>Almost Certain (05)</b>	<b>Likely (04)</b>	<b>Moderate (03)</b>	<b>Unlikely (02)</b>	<b>Rare (01)</b>
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Almost sure to occur during routine or non-routine activities.  A monthly or more frequent occurrence would be happened.	A high chance of occurrence.  Could occur once in a six month.	Medium chance of occurrence.  Could occur once a year.	The chances of occurrence are low and could happen with a probability of once every 1-5 years.	The chances of occurrence are very low.  Not happened in past 5-10 years.
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- Determining likelihood involves estimating the likelihood of a consequence (including its associated impacts) using qualitative descriptive terms. Table-2 contains an example of likelihood matrix that can be used to rank likelihood.
- Analyzing the potential consequence involves identifying all the possible consequences and associated impacts to the environment (including its various components, protected sites, applicable legislation, business reputation etc.). The impact of consequence ranked qualitatively as shown in Table-3.
- Estimating Impact/Risk involves combining the severity of the consequence resulting from the potential incident and the likelihood of that consequence ( $I = L \times S$ ) consulting Impact/Risk matrix table as shown below.

**Table – 3 Impact Matrix**

Tables		Severity				
		1	2	3	4	5
Likelihood		Low	Minor	Moderate	Major	Catastrophic
		5	Almost certain	5	10	15
4	Likely	4	8	12	16	20
3	Possible	3	6	9	12	15
2	Unlikely	2	4	6	8	10
1	Rare	1	2	3	4	5

<b>Low</b> (1-3)	<ul style="list-style-type: none"> <li>• Low Impact</li> <li>• No mitigation required.</li> <li>• Action must be taken to maintain the impact level and implemented in the long-term plan</li> </ul>
<b>Moderate</b> (4-9)	<ul style="list-style-type: none"> <li>• Medium Impact</li> <li>• Impact mitigation may require maintaining or reducing the impact level.</li> <li>• Implementation plan must be developed and induced in mitigation plan.</li> </ul>

<b>High</b>  <b>(10-16)</b>	<ul style="list-style-type: none"> <li>• High impact, management attention needed.</li> <li>• Impact mitigation is required to lower the impact to an acceptable level.</li> <li>• Implementation plan must be developed and included in the short-term goals.</li> </ul>
<b>Extreme</b>  <b>(20-25)</b>	<ul style="list-style-type: none"> <li>• Critical impact, immediate action required.</li> <li>• Impact mitigation required to lower the impact and to acceptable level.</li> <li>• Action must be taken ASAP (as soon as possible)</li> <li>• No mitigation required.</li> <li>• Action must be taken to maintain the impact level and implemented in the long-term plan</li> </ul>

The impact is represented using an Impact/Risk Matrix Table to plot the Likelihood/consequence-Impact combination. A qualitative Impact/Risk ranking can be read from the position in the impact/Risk matrix where the consequence and likelihood ratings intercept (e.g. A 'moderate' consequence that is 'likely' to occur gives a 'significant' Impact/Risk ranking).

- Team brainstorms and calculates Likelihood (L) and Severity (S).
- For calculating Severity (S), determine effect on environment (including physical, biotic, social, legal as well as business reputation and then take the higher of the two values as the value of S.
- Overall impact /Risk Rating= (L) X (S)
- The Aspects need to be controlled to reduce the Impacts to ALARP levels.

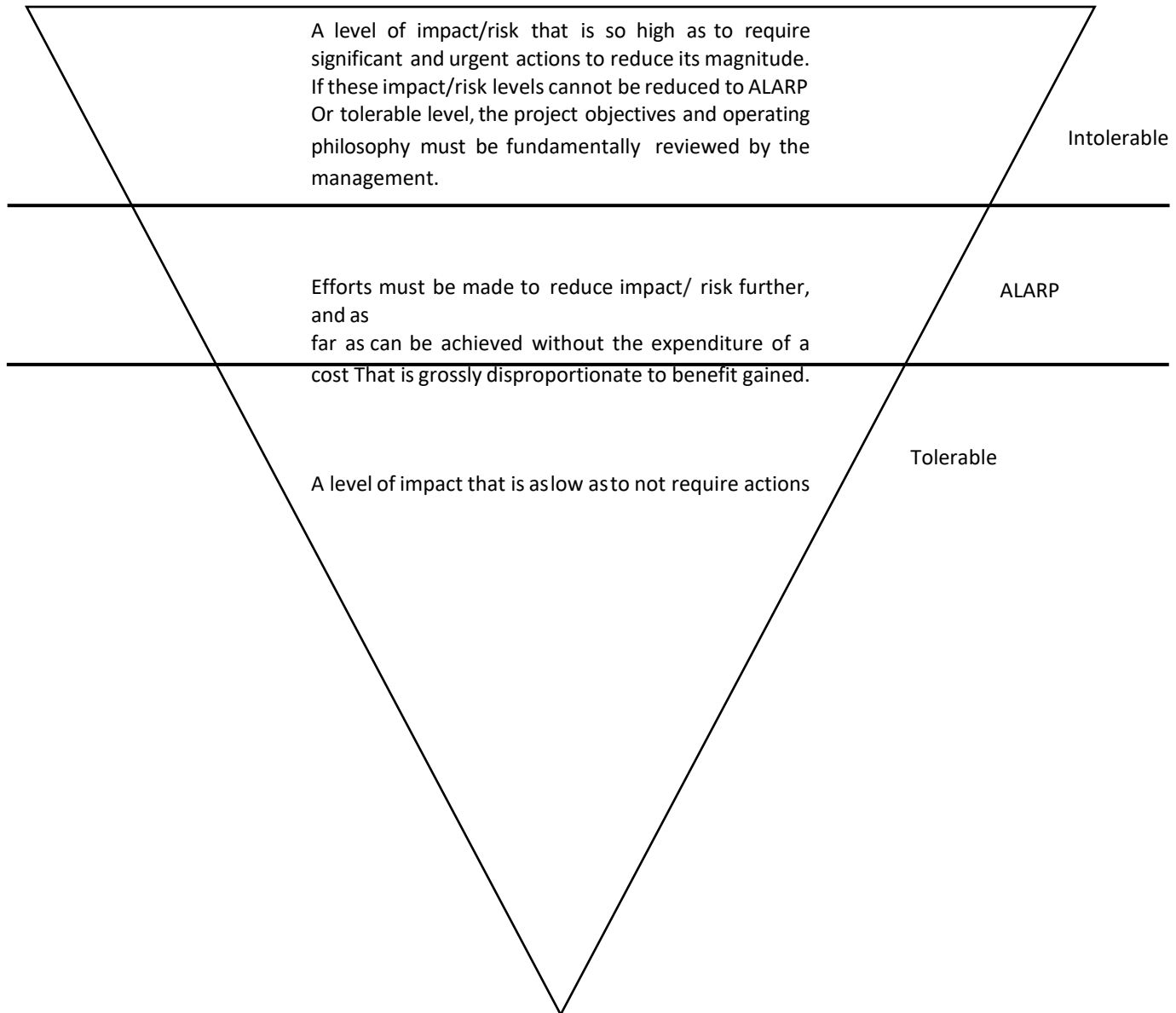
Record Environmental impact Assessment on **Annexure E- Environment Aspect Impact Assessment Form/Register** and maintain as an on-going record of impact assessment.

New aspects identified and impact assessed on an on-going basis are added to the Impact **Annexure E- Environment Aspect Impact Assessment Form/Register**

HSE team/ Representative shall physically verify all activities, items, and equipment that the specific Existing Controls/Mitigations mentioned in **Annexure E- Environment Aspect Impact Assessment Form/Register** have been put in place and are found to be effective.

- All critical activities undertaken for Impact assessment should be on hold, till all additional controls (if identified) have been implemented.
- Final Residual impact /Risk value must be less than moderate in all cases for impact/risk to be acceptable.

Priority will always be given to using measures which prevent or reduce the probability of an Impact being realized. Nevertheless, depending on the phase of the activity, consequence reducing methods may also be adopted. Priority should also be given to passive or inherently safe options. Active protection options which rely on several devices to operate and/or human intervention may fail.



#### 14.6 Step 6- Set Objectives & Targets

Environmental Objectives & Targets will be developed based on the outcome of Environmental Aspects and Impacts Assessment and will take actions accordingly.



### 14.7 Step7: Monitor and Review

Sustainability team will do monitoring & review, review will be conducted on annual basis minimum on below mentioned areas:

- Monitor changes to the strategic and organizational context.
- Monitor aspect to determine whether any new or previously unidentified aspects exist, Monitoring of predicted and actual impacts.
- Review of impacts to check accuracy of consequence severity and likelihood ratings, Review of significant impacts.
- Review the effectiveness of Environmental Management Program in managing impact.

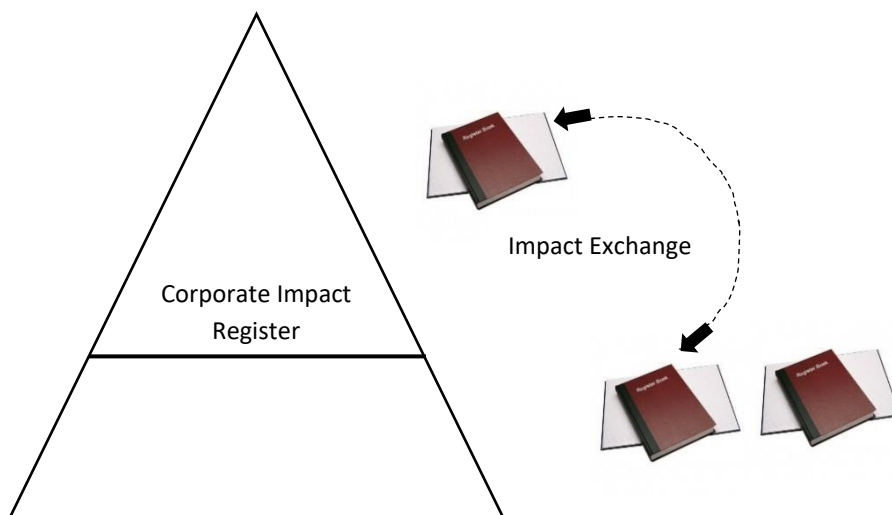
### 14.8 Step 8- Communicate & Consult

Communication and consultation will be done while conducting the EAIA, road shows will be conducted on this SOPs as well within the organization.

## 15. Environmental Impact Register

The output from aspect impact assessment, together with the action plans can be contained in the Environmental Impact Register. [FFBO1] For small projects these can be kept on EXCEL spreadsheet or in WORD document. However, to maintain integrity and to ensure effective tracking and management control actions, impact register should be kept in an Environmental Aspect & Impact Register-

he following schematic diagram shows the hierarchy of Environmental Impact Registers exchange/ elevation process.



## **16. Related Documents**

- Annexure A- Risk Assessment Form
- Annexure B- Hazard Identification Checklist
- Annexure C- Risk Register Template
- Annexure D- Guidelines to Identify Social & Community Risk
- Annexure E- Environmental Aspect impact Assessment Form/Register



# Annexure A- Risk Assessment Form

Doc. #: XX

Rev. #

Risk Assessment Team:

Reviewed By:

Approved By:

Location/Area:

Date: \_\_\_\_\_

Activity/Process: \_\_\_\_\_

#	Hazards	Risks	Who, How	Risk Rating			Control Measures	Residual Risk			Review Date
				P	S	*RR		P	S	**RR	
1											
2											
3											
4											
5											
6											
7											
8											

\*RR: Risk Rating, \*\*RR: Residual Risk, P: Probability, S: Severity

<p><b>Risk Assessment Process</b></p> <p>Risk Assessment Process is a structured process where the hazards associated with each step of a job are identified, rated and control measures put into place to minimize the risk to personnel, environment, and property.</p> <p><i>Risk Assessment Process may be based on work instructions or temporary work instructions or could build on a previously completed Risk Assessments (issue as new revision of the previous Risk Assessment).</i></p> <p><i>Risk Assessment is a team process - all members of the team who will be working on a job, plus others with related experience or expertise, should be involved and should actively contribute.</i></p> <ol style="list-style-type: none"> <li>1. Draw a diagram/Picture of the job to be carried out.</li> <li>2. List alternatives to the overall task. These will be used if any hazard cannot be acceptably controlled.</li> <li>3. For each job step, list hazards - prompted by the Hazard Identification Checklist.</li> </ol> <p><b><u>Hazard Identification Checklist</u></b></p> <p>List of Energy Release Sources / Situations that may not be well controlled and could result in risk/ Things that could go wrong.</p> <ol style="list-style-type: none"> <li><b>1. Mechanical</b> Be struck by anything - impact injury Be caught in, on or between anything</li> </ol>	<ol style="list-style-type: none"> <li><b>2. Kinetic/ Vehicle</b> Be struck by a vehicle (Vehicle certificate required?) Be struck by moving object Vehicle striking equipment, rollover, vehicle poor condition Equipment Safeguarding</li> <li><b>3. Access</b> Slips, trips, and falls Falling or moving objects Obstruction or projection Confined spaces (CSE Certificate required?) High Access/ Scaffolding (Certificate required?)</li> <li><b>4. Handling/ Lifting</b> Strain/ overexertion, non-standard equipment, non-certified</li> <li><b>5. Electricity</b> Electrocution, ignition source, Improper earthing Equipment condition and suitability, Tools suited for task (insulated)</li> <li><b>6. Chemicals/ Wastes</b> Toxic/ poison/ chemical burns Irritant (eg insulation materials) Sensitizing Corrosive Explosive/ flammable/ fire Carcinogen Acute (immediate) &amp; Chronic (long term) effects</li> <li><b>7. Fire &amp; Explosion</b> Pressure – large uncontrolled release of material Loss of pressure – extreme cold</li> </ol>	<ol style="list-style-type: none"> <li><b>9. Radiation</b> Ionising Non-ionizing (Radiography Certificate required?)</li> <li><b>10. Biological</b> Bacterial/ Viral/ Fungal (contamination /infection)</li> <li><b>11. Environmental</b> Noise – hearing damage, poor communication Vibration Light Humidity Ventilation Temperature – burns, dehydration, hot or Cold Climate Pressure/vacuum</li> <li><b>12. Organizational</b> Poor maintenance Lack of supervision Lack of training Lack of information Inadequate monitoring arrangements Poor operator/machine interface Nonstandard isolation</li> <li><b>13. The Individual</b> Individual not suited to work Long hours (sufficient breaks/ rest periods?) High work rate Can the employee hurt a fellow employee? Training, supervision</li> <li><b>14. Pollution of the Environment</b> Water Air Land</li> </ol>
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Strike against anything Be drawn into machine Be struck by ejected material/ fluid Vibration Equipment condition (damaged/ worn)	<b>8. Particles/ Dust/ Fumes/ Gases</b> Inhalation Ingestion Abrasion of skin or eye	Waste/ rubbish Fuel/ oil/ chemical spills <b>15. Damage to Equipment</b> <b>16. Snakes, Scorpions, insects</b>
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<p><b>Hierarchy of Control</b></p> <p>For each hazard/ step, develop control measures - risk reduction or hazard elimination measures - following the Hierarchy of Control:</p> <p>The general Hierarchy of Control Measures, to be used in order, is:</p> <ol style="list-style-type: none"> <li>1. Elimination/ Substitution (removal of the hazard/ use alternative methods)</li> <li>2. Engineering Control (containment, shielding)</li> <li>3. Training and Procedures (administrative controls)</li> <li>4. Personal Protective Equipment (to protect the individual) In more detail, the Hierarchy of Control is as follows:</li> </ol> <p><b>(1) Elimination/Substitution</b></p> <p>Elimination or substitution requires a radical rethink of the job to determine if there is an entirely different way of doing it. Start by defining the goal of the job (i.e. the result) and then explore new ways at accomplishing it. For example:</p> <ul style="list-style-type: none"> <li>• New tools</li> <li>• New materials (i.e. chemicals, etc)</li> <li>• New machinery (i.e. plant and equipment)</li> <li>• New methods</li> </ul> <p><b>(2) Engineering Controls</b></p> <p>Engineering controls means physically modifying plants, equipment or tools. For example:</p>	<ul style="list-style-type: none"> <li>• Improved maintenance: for example, preventive maintenance schedule to prevent failure.</li> <li>• Reduction at source of noise or vibration through various known engineering controls.</li> <li>• Isolating or enclosing the hazard; for example, fume cupboards, barriers, lag surfaces, machine guards, etc.</li> <li>• Use of ventilation to remove fumes and dusts.</li> <li>• Use of mechanical aids to minimize manual handling injuries.</li> <li>• Installation of an alarm or trip system or other safety device.</li> </ul> <p><b>(3) Administrative Controls</b></p> <p>Administrative controls involve changing the work instruction to reduce risk by limiting the exposure of an employee to the hazard.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Organize work schedules to minimize the number of employees exposed to hazards.</li> <li>• Restrict employees from hazardous areas if their job does not require them to be there.</li> <li>• Increase the separation between the employees and the hazard.</li> <li>• Such controls should be indicated on the work instruction as caution notes adjacent to the relevant steps.</li> </ul> <p><b>(4) Personal Protective Equipment</b></p> <p>Personal protective equipment should be used only when other measures have not been able to protect the employee against the hazard or risk of exposure to the hazard. Where personal protective equipment is used, ensure that it fits the employee correctly; training is provided in its need and use, and that the equipment is maintained and serviced regularly. (Examples: Use of chemical resistant suit / Face shield during chemical handling)</p>
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## **Annexure D- Guidelines to Identify Social & Community Risk**

### **1. Preliminary Assessment:**

This stage pertains to the general assessments of basic social and environmental issues which pertain to the specific community. It also identifies the core stakeholders which are directly impacted by the organization in all types of projects. Area profiling is done in this phase identifying core issues which need to be taken into consideration from the inception of Engagement with the community. It considers particularly the religious and the ethnic sensitivities.

### **2. Stakeholders and Engagements:**

Identification of the key stakeholder groups that need to be consulted. Identification of the likely issues that they will wish to discuss.

The mechanism to assess the risks of the community is based on the following methodology:

- Engagements with the Administrative body of the community.
- Engagements with the community political influencers.
- Engagement with the elected representative of the government within the community.
- Engagement with religious influencers and religious centers with the community.
- Engagement with welfare organizations.
- Engagement with major health and educational facility operators.
- Engagement specifically with the marginalized group specifically women, handicapped and any religious minority.
- Engagement with commercial business bodies operating with the community.
- Any other identified group or body.

### **3. Scoping of Priority Issues:**

- Identification of high-risk groups requiring special attention.
- Religious and ethnic sensitivities.
- Consideration of Social Community Engagements especially religious or ethnic events during the span of the project.
- Consideration of Health and Education facilities.
- Any vulnerable groups in the project area or topics that are particularly sensitive or controversial.
- Any Environmental impact which might directly hinder the day-to-day operations of the

community.

- Any health hazard which should be taken into consideration.

#### **4. Techniques of Engagement:**

Identification of techniques and methods will be most effective in communicating with the different stakeholder groups. Participatory methodologies will be employed where appropriate and engaging skilled practitioners, that is the Community Liaison Officer (CLO) will facilitate the process.

The Engagement process will be a long-term partnership-based engagement where any specific issue arising due to the project might be communicated at any given time through the Community Liaison Officer (CLO)

#### **5. Responsibilities:**

- Director HSE & Sustainability is overall responsible for identification of issues within a community.
- Director HSE & Sustainability is also responsible for the Engagement Framework implementation within the community.
- The Timelines for the engagements need to be aligned with the project. Any risk which pertains due to the delay in the projects needs to be timely identified and communicated with management and relevant team.

#### **6. Documentation:**

The Issues and risk which will be identified through the process will be captured, recorded, and tracked in collaboration with other stakeholders working on the project.



