

HSE Recommendations Implementation Priorities

Following are the implementation priorities for HSE recommendations

Implementation Priorities	Action / Response
Critical Risk	Unacceptable in any circumstance. Risk is extremely high where people and asset are in danger. Immediate intervention required by top management to eliminate life threatening situation. Identify and implement Controls and Recovery Measures to reduce the risk to ALARP (As Low as Reasonably Practicable).
High Risk	Undesirable. There is a potential risk but there are administrative and mitigation means available. Needs top management timely intervention to eliminate identified hazards within few weeks. Identify and implement Controls and Recovery Measures to reduce the risk to ALARP.
Moderate Risk	Risk is considerable and condition is not severe but it requires further improvement. Needs management intervention in a reasonable time to improve the situation. Manage for continual improvement through the effective implementation of the HSE Management System.
Low Risk	It may need to be addressed and monitored.

Risk Matrix for Implementation Priorities

Loss Type			Nature and Types of Consequences				
			1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
Occupational Health & Safety			Work-related First Aid Injury/ Illness	Work-related Medical Treatment Injury/Illness	Work-related Loss Time /Restricted Duty Injury/Illness OR Radiation exposure between 2.5 to 7.5 micro-Sievert/hour in a radiation area.	Work-related Single Fatality OR Radiation exposure to a single dose exceeding 7.5 micro-Sievert/hour or is exposed to more than 20 milli-Sievert/year.	Work-related Multiple Fatalities
Natural Environment				Spillage/ release of hazardous chemicals/substances <0.1 MT OR soil contamination requiring remediation of less than 2 Metric Tons of contaminated soil.	Spillage/ release of hazardous chemicals/ substances or hazardous waste between 0.1 – 4 MT in a day OR soil contamination requiring remediation of between 2 to 80 Metric Tons of contaminated soil OR contamination of ground water table up to 500% above the applicable regulatory standard OR emission from vent/stack including dust (except steam) of contaminants greater than the local regulations OR Off spec. discharge greater than Local regulations for Sea Water/ Canal/ River/ Storm/ Rain Water OR 5 minutes of cumulative smoky flaring within any two hours during normal operations.	Spillage/ release of hazardous chemicals/ substances or hazardous waste between 4 – 10 MT in a day OR soil contamination requiring remediation of between 80 -200 Metric Tons of contaminated soil OR Off- Spec. discharge of > 500 % of Local regulations for Sea Water/ Canal/ River/ Storm/ Rain Water.	Spillage/ release of hazardous chemicals/ substances or hazardous waste more than 10 MT in a day OR soil contamination requiring remediation of >200 Metric Tons of contaminated soil OR Off- Spec. discharge to Sea Water/ Canal/ River/ Storm/ Rain Water causing mortality to aquatic life.
				Chemical released of between 1 – 3 times the Process Safety Threshold Values.	Chemical release of 3 – 9 times the Process Safety Threshold Values.	Chemical release between 9 – 20 times the Process Safety Threshold Values.	Chemical release of greater than 20 times the Process Safety Threshold Values.
Fire or Explosion or Property/Equipment Incident resulting in Direct Loss			<US\$ 10,000	US\$ 10,000 to 100,000	US\$ 100,000 to 1 million	US\$ 1 million to 10 million	US\$ 10 million to 100 million
Likelihood	Qualitative	Quantitative	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A (Almost Certain)	Frequent	One fatality in 100 persons or accident once within a year	Moderate Risk	Moderate Risk	Critical Risk	Critical Risk	Critical Risk
B (Likely)	Could easily happen	One fatality in 500 persons or accident once in 5 years	Moderate Risk	Moderate Risk	High Risk	Critical Risk	Critical Risk
C (Possible)	Could happen and has occurred here or elsewhere	One fatality in 1000 persons or accident once in 10 years	Low Risk	Moderate Risk	High Risk	High Risk	Critical Risk
D (Unlikely)	Hasn't happened yet but could	One fatality in 10,000 persons or accident once in 20 years (life time of plant)	Low Risk	Low Risk	Moderate Risk	Moderate Risk	High Risk
E (Rare)	Possible, but only in extreme circumstances	One fatality in 1,000,000 persons or not known to have occurred	Low Risk	Low Risk	Low Risk	Moderate Risk	Moderate Risk