

	EMERGENCY RESPONSE PLAN	Ver-01 27/03/2025
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1. OVERVIEW

This Emergency Response Plan (ERP) has been developed in compliance with IFC Performance Standard 1 (PS1) and PS4. These standards emphasize the need for a structured approach to emergency preparedness, stakeholder engagement, and risk mitigation. This ERP integrates a risk-based methodology to assess and mitigate emergency situations in alignment with Good International Industry Practices (GIIP)."

"The ERP is designed to address both environmental and health and safety emergencies, ensuring an effective response mechanism to safeguard workers, the community, and the environment from potential hazards arising from project activities. And this plan identifies areas where accidents and emergency situations may occur, communities and individuals which may be impacted, response procedures, provision of equipment and resources, designation of responsibilities, communications and periodic training to ensure effective response. This Emergency Response Plan (ERP) is applicable to all activities and components during the construction of the Project. This plan covers both environmental and Health and Safety (H&S) emergencies. The main objectives for this ERP are:

- To identify an emergency quickly and initiate timely and effective response action.
- To control or limit the effect of a range of potential emergency incidents that may occur at site.
- To notify local, state or central agencies quickly so they can assist in emergency response, if necessary.
- To quickly respond and repair damages.
- To ensure the protection of environment and surrounding infrastructure.

2. ROLES AND RESPONSIBILITIES

2.1 EMERGENCY RESPONSE TEAM

The EPC Contractor will form an emergency response team (ERT). This team shall be comprised of trained fire fighters, trained first aiders, and trained rescuers as follows (**Roles and Responsibilities**). Integra Project Manager is responsible for ensuring the ERT is properly trained and aware of their respective roles and responsibilities.

TABLE 2-1 EMERGENCY RESPONSE TEAM

Role	Name & Contact Number	Responsibilities
Incident Commander (Interga)	XXX XXX	<ul style="list-style-type: none">• On receiving the information on the impending emergency, rush to the incident scene.• Ensure all employees, including contractors and visitors are accounted for during an emergency.• Take charge of the site during actual emergency and direct activities.

Role	Name & Contact Number	Responsibilities
		<ul style="list-style-type: none"> Coordinates response teams across subcontractors and KTZ. Alert and summon the teams to attend to emergency. Assess the capability of emergency containment. Communicate, coordinate & guide with all the teams to bring the situation under control as quickly as possible and reduce the impact. Ensure evidence is preserved (arranging photographs/event logging). Ensure the site is safe before operations are resumed. Communicate to all teams about calling off emergency. Incident / Accident review Constitute inquiry committee to investigate into any incident / accident and recommend the corrective measures. Review inquiry committee recommendations Update the emergency plan as per the recommendations Disseminate details to all concerned to prevent reoccurrence.
Emergency Coordinator (KTZ)	XXX XXX	<ul style="list-style-type: none"> On receiving the information on the impending emergency, rush to the incident scene. Collect and process situation information. Determine information and reporting requirements. Provide input to the Incident Commander. Coordinate with any needed outside agency such as ambulance or police station & Ensures synchronization between project contractors with other government emergency services
Evacuation & Rehabilitation Coordinator	XXX XXX	<ul style="list-style-type: none"> Ensuring that all workers are advised to gather at the appropriate 'Assembly Point'. Carrying out the head count and initiating operations to locate the missing workers/ visitors, with assistance from Roll Callers. Getting all workers safely evacuated to the designated rehabilitation centers, if necessary, by stopping work not required during the emergency. Provision to escort visitors, if any, to safe area promptly.
Roll Callers	XXX XXX	<ul style="list-style-type: none"> Assist the Evacuation & Rehabilitation Coordinator. Responsible for arranging assembly of the workers working in the affected sites and take their attendance. Identify the victims. Collect the complete record of victims and informed Integra Human Resources & Admin Officer.
Medical and Safety Team (including trained fire fighters, trained first aiders, trained rescuers)	XXX XXX XXX XXX XXX XXX XXX	<ul style="list-style-type: none"> Establish communication with Incident Commander Members of the team required to be at the incident site to move quickly to the spot. Move adequate number of first aid boxes to the site. Provide first aid to the injured person in the site. Convey the requirement of any resources to the communication team. Send the injured to nearest hospital. Convey any requirement/resources to communication team.

Role	Name & Contact Number	Responsibilities
		<ul style="list-style-type: none"> Team Leader is to communicate to the Incident Commander at regular intervals on the status of emergency situation.
Transportation Coordinator	XXX XXX	<ul style="list-style-type: none"> Arrange to send the vehicles to bring the ERT to the incident site. Arrange transport to bring injured personnel to the hospitals. Arrange vehicles for evacuating workers to designated rehabilitation centers, if so required.
Logistics Coordinator	XXX XXX	<ul style="list-style-type: none"> Arrange for logistical support and equipment Identify additional manpower needed and liaise with HR & Admin Department

2.2 OTHER SUPPORTING ROLES

2.2.1 INTEGRA HUMAN RESOURCES & ADMIN OFFICER

- Report at the Emergency Control Centre.
- Preparation of Call-in-Lists by identifying workers and their area of residence.
- Identify the victims and inform their relatives.
- Prepare plan, for maintaining industrial relations/ public relations; to stop rumors / panics among the workers and their families and rendering welfare measures which may be needed.
- Arrange refreshments and revitalises for personnel engaged in combat and rescue operations.
- Immediate needs of casualties like shelter, food, clothing, medical aid, etc. are channeled/ mobilised.

2.2.2 INTEGRA COMMUNITY LIASION OFFICER

Integra Community Liaison Officer is responsible for ensuring that the onsite emergency response plan is well communicated with the community. He is also responsible in coordinating evacuation drills that involves the community in the event of large-scale emergency.

In the event of a large-scale emergency that affects the nearby communities, Integra Community Liaison Officer is responsible for the following:

- Report at the Emergency Control Centre.
- Communicate and mobilise the nearby community through the community representatives.
- Ensure all affected community members are advised to gather at the appropriate 'Assembly Point' and remain there until further notice issued by the Incident Commander.

2.2.3 WORKERS

- All workers are responsible to inform their supervisors or Integra Project Manager or any mishaps.
- All the employees of the emergency area except involved in the emergency handling must assemble at the designated assembly points or as may be communicated by the Incident Commander.

- Be cooperative and help ensure the safety of each other.

2.3 EMERGENCY CONTROL CENTRE

For the purpose of handling any emergency, the office of Integra Project Manager or any other appropriate office onsite could be set up as the Emergency Control Centre (ECC). The site Incident Commander and Emergency Coordinator will perform their functions from the ECC. All other coordinators will receive communication from ECC.

The Emergency Control Centre (ECC) will contain:

- A copy of the On-Site Emergency Plan (Most Recent and Updated).
- List of important external telephone numbers such as Police, Fire Brigade, Hospitals.
- Dedicated internal telephone (Intercom).
- Portable Personal Addressable (P.A.) Systems, Manual Siren, Torches, Nylon Ropes, First Aid Box, Plastic Chains / tape for Barricading etc.
- Note Pads, Pens, and Pencils to record messages received and any instructions for delivery by workers.
- Premises layout indicating storage of any hazardous materials, location of emergency preparedness equipment (e.g., Fire extinguishers, first aid kits, PPEs).

3. EMERGENCY PREPAREDNESS

Before initiating any high-risk construction activities, a site-specific risk assessment must be conducted to identify potential emergency scenarios and determine appropriate mitigation measures. Risk assessments should be reviewed and updated regularly throughout the project's duration to account for evolving risks, environmental changes, and new construction phases. Emergency response plans must be adapted accordingly, ensuring that personnel are trained in updated procedures.

The EPC Contractor is to ensure the provision of essential life-saving aids and appliances required to handle emergencies including; head or spinal injuries; bleeding; fractures; burns dehydration; paralysis; drowning; sunstroke; frostbite; electrical shock and poisonous bites. The following sections relates to the emergency preparedness facilities proposed to be available at the construction sites that can be utilised during an emergency.

3.1 GENERAL PREPAREDNESS

- The contact details of the Emergency Response Team (ERT) and other emergency numbers should be prominently displayed in the site office and at all construction sites.
- Identify and indicate by proper signage a designated assembly point, which can be used in case of an emergency. Show all workers and subcontractors the emergency assembly point as part of their induction.
- Create, display and share site evacuation plan with all personnel. Display emergency procedures in the site office or other visible location.
- In case of any emergency stop work immediately, vacate the workplace, and assemble at designated assembly points.
- In case of any emergency ensure personal safety first then if required, assist co-worker who may not be familiar with the evacuation procedures.

- Construction work during night-time (10 pm to 6 am) is prohibited or as provided in EPC contract agreements. In case of emergency work at night, approval of KTZ is mandatory.
- Assemble in the nominated assembly points until further instructions are received from the emergency services personnel.

3.2 FIRE FIGHTING EQUIPMENT

- Adequate number of portable fire extinguishers should be provided and maintained as per *Annex H*. Types of portable fire extinguishers to be considered include the following:
 - Dry Chemical Powder Type: For all construction sites including along the alignment, paint storage room.
 - CO2 Type: For electrical panel rooms, compressor room, substations.
 - ABC Type: For office areas.
 - Foam Type: For fire pump room.
 - Fire Sand Buckets: For substations.
- Fire hose
- Fire alarm or PA system for broadcasting emergency announcement.

3.3 PERSONAL PROTECTIVE EQUIPMENT

Provision of Personal Protection Equipment (PPE) to the team members is an essential prerequisite for any emergency combat and rescue operation to be effective. The PPEs not only provide physical protection but also boosts the much-required confidence in the members of emergency squads. Integra Project Manager shall provide the following PPEs for the safety of its employees in **Table 3-1**.

TABLE 3-1 LIST OF PERSONAL PROTECTIVE EQUIPMENT

S.N	Item
1	Self Contained Breathing Apparatus
2	Helmets
3	Gloves
4	Goggles
5	Ear Muffs
6	Boots
7	Fire Proximity Suits
8	Face Masks for Paint booth personnel
9	Fire Escape Masks
10	Water Gel Blanket
11	Flood Lights
12	Flame Lights

S.N	Item
13	Explosimeter

3.4 MEDICAL FACILITIES

Integra Project Manager shall identify nearby Government/fully equipped hospital and make the required arrangements with the hospital to seek health care support including ambulance service for its workers, in case of an emergency. The following hospitals have been identified:

- [Placeholder] XXX, address, telephone, hotline, distance from XXX
- Insert route maps

Basic first aid supplies shall be provided and maintained at construction sites. At the minimum, the first aid kits shall contain the following (**Table 3-2**):

TABLE 3-2 FIRST AID KIT SUPPLIES

Medical Supply	Qty	Medical Supply	Qty
Triangular bandage	2	Scissors	1
Medical gloves	4 pairs	Cold pack	2
Trauma pad	4	CPR barrier	1
5 yard roll of adhesive tape	1	4"x4" gel soaked burn dressing	2
4"x4" sterile pad	2	Antiseptic treatment	50
3"x3" sterile pad	2	Antibiotic treatment	25
Sterile eye pad	2	Burn treatment	25
4" x 4.1 yard roller gauze	1	4 fl oz eye/skin wash	1
2"x 4.1 yard roller gauze	2	Hand sanitizer application	10
1" x 3" adhesive bandage	50	Splint	1
First aid guide	1	Tourniquet	1

4. POTENTIAL EMERGENCIES FROM PROJECT CONSTRUCTION ACTIVITIES

Impacts of an emergency pose potential health and safety risks to the staff and workers involved in the construction activities. The following potential major emergencies for both environmental and OHS have been identified for the construction phase (**Table 4-1**).

TABLE 4-1 LIST OF EMERGENCIES

Category	Description
Internal Emergencies	

Category	Description
Construction Accident/Incident	Incidents related to collapsed structures/excavations (e.g., excavation at site, excavation along railway tracks, cutting, levelling).
	Unexpected and unannounced hit or damage with underground utilities (e.g., gas pipelines, sewer lines, storm water drains, optical fibre cables, electric cables, etc.).
	Incidents related to vehicles/moving equipment's (e.g., overturning of dump trucks, collapse of cranes).
	Incidents/Collisions related to live train movements during construction activities (e.g., laying of tracks, ballast compaction, dynamic track stabilisation/live loads evaluation, track realignment etc.).
	Incidents related to exposure to electrical hazards (e.g., electrical shock, electrocution).
	Incidents related to other work hazards such as burns, exposure to chemicals, bleeding through injury, physical injury.
	Incidents related to snake, insect bites.
	High-Angle Incidents, Workers falling and becoming suspended by a harness, or stranded in elevated locations, such as scaffolding, towers, or crane booms.
	Confined Space Entry Rescue, Accidents occurring in confined environments such as tunnels, underground vaults, tanks, or trenches, leading to entrapment, toxic gas exposure, or oxygen deficiency.
	Excavation Collapse, Workers becoming trapped due to trench or excavation wall failures, particularly in deep or unstable soil conditions.
Fire and Explosions	Incidents related to Electrical Fires (e.g., Fire at electrical substation, Transmission cables).
	General fire incidents at construction sites (e.g., hot working conditions).
Spill and Contamination (*)	Spillage of oil, diesel or other chemical substance on unpaved surface.

Category	Description
(*) Based on the extent of the impact, these categories may also come under external emergencies requiring involvement of authorities in handling of the emergency situation.	
External Emergencies	
Natural Calamities	Flooding, including river flooding at certain locations and extreme rainfall flooding
	Other events such as landslides, earthquakes, extreme heat, extreme cold, wildfires
Major Fires/Explosion incidents	Incidents related to major fires, explosions, spills which require urgent involvement of external authorities.
Others	Terrorism including bomb threat
	Civic unrest or community agitation.

4.1 INTERNAL EMERGENCIES

4.1.1 CONSTRUCTION ACCIDENT/INCIDENT

All incidents will be classified based on severity levels to determine the appropriate response effort

Incident Severity Classification & Response

Severity Level	Incident Examples	Response Actions	Involved Parties
Level 1 – Minor	Minor injuries, small fires, near-misses	Handled by site ERT, first-aid, no external agency needed.	Site Supervisor, First-Aiders
Level 2 – Moderate	Equipment damage, moderate injuries, partial site evacuation	ERT activates full response; external agencies may be called.	ERT, Fire Safety, Emergency Coordinator
Level 3 – Major	Multiple injuries, major fires, site-wide evacuation, fatalities	Full emergency declared; government authorities engaged.	Integra, KTZ, Fire, Medical, Police

4.1.1.1 INCIDENTS RELATED TO COLLAPSED STRUCTURES/EXCAVATIONS

- The individual who is responsible or who discovers the incident would report the incident to the Incident Commander.
- Inform Integra EHS Manager, Integra Project Manager and KTZ Project Manager immediately.

- Immediately stop all construction works in the area.
- Incident Commander to assess the situation, instruct the rest of the workers to reach the nearest assembly point and ask them remain calm.
- Evacuate the workmen to a safe distance / Assembly Point.
- Barricade the area to prevent unauthorised entry.
- Put security guard till the investigation is done by the Incident Commander, together with Integra Project Manager.
- Evacuate the causality (if any) to open area and give first-aid and call for further medical assistance.
- In case of fatal incident, inform Integra Human Resources & Admin Officer, Integra Project Manager and KTZ Project Manager.

4.1.1.2 UNEXPECTED AND UNANNOUNCED HIT OR DAMAGE WITH UNDERGROUND UTILITIES

- The individual who is responsible or who discovers the incident would report the incident to the Incident Commander.
- Inform Integra EHS Manager, Integra Project Manager and KTZ Project Manager immediately.
- Immediately stop all construction works in the area
- Emergency Coordinator to coordinate with external agencies.
- Barricade the area to prevent unauthorised entry.
- As much as possible, contain the spill (e.g., sewerage, water, gas).
- Evacuate the causality (if any) to open area and give first-aid and call for further medical assistance.

4.1.1.3 INCIDENTS RELATED TO VEHICLES/MOVING EQUIPMENT

- The individual who is responsible or who discovers the incident would report the incident to the Incident Commander.
- Inform Integra EHS Manager, Integra Project Manager and KTZ Project Manager immediately.
- Logistics Coordinator to arrange all required facilities like lifting equipment, transport vehicles etc. to clear the road.
- Arrange other facilities through Integra HR and Admin officer for manpower, money & conveyance.
- Cordon-off the area to prevent any public with the help of Security.
- The Incident Commander will assume overall control of the emergency at the site and co-ordinate all Emergency Control activities and make sure that all persons carry out their assigned duties in the pre-determined manner.
- Emergency Coordinator to seek necessary assistance in terms of co-ordination with Government authorities, Fire Brigade, Police Station, etc.
- Inform the finance department to co-ordinate with the Insurer / Surveyor / Loss Assessor and hasten up settlement of claims, if any.
- Constitute a committee to examine / investigate the situations that resulted in the incident and to identify steps to be taken to prevent recurrence of such incidents in future.

4.1.1.4 INCIDENTS/COLLISIONS RELATED TO LIVE TRAIN MOVEMENTS DURING CONSTRUCTION ACTIVITIES

- The individual who is responsible or who discovers the incident would report the incident to the Incident Commander.
- Inform Integra EHS Manager, Integra Project Manager and KTZ Project Manager immediately.
- Immediately stop all construction works and halt all live train movements in the area.
- Barricade the area to prevent unauthorised entry.
- Evacuate the causality (if any) to open area and give first-aid and call for further medical assistance.
- In case of fatal incident, inform Integra Human Resources & Admin Officer, Integra Project Manager and KTZ Project Manager.
- Constitute a committee to examine / investigate the situations that resulted in the incident and to identify steps to be taken to prevent recurrence of such incidents in future.

4.1.1.5 INCIDENTS RELATED TO EXPOSURE TO ELECTRICAL HAZARDS

- Call for help
- Don't touch the electrocuted victim with bare hands
- Disconnect the current supply immediately
- If possible, drag the individual or separate him with the help of wooden stick.
- While tackling this incident, make sure you are wearing safety shoes, if not, stand on wooden planks / platform or rubber / synthetic mat.
- If victim is breathing keep him as such and call for medical assistance.
- If victim is not breathing, give him artificial breathing by following method while waiting to medical assistance:
 - Clean the mouth and oral cavity.
 - Tilt the head backward and open his jaws downwards.
 - Pinch victim's nostrils so that air does not leak out.
 - Take a deep breath and push this air into victim's mouth by approximating your lips with his lips.
 - Carry out this procedure for 12 – 15 times in a minute.
- The individual responsible for or who discovers the incident will immediately report the incident to the Incident Commander.
- Incident Commander to activate the Medical and Safety Team to provide medical assistance.
- Transport Coordinator to coordinate transport to evacuate the victim to the identified nearby hospital.

4.1.1.6 INCIDENTS RELATED TO OTHER WORK HAZARDS

- In case of burn injury or chemical exposure - Refer to material safety data sheet (MSDS) for the first aid assistance and based on the impact of the injury shift the person to the nearest hospital on priority basis.

- In case of cut or muscle injury - immediately provide first aid through designated first aiders or medical personnel and shift the injured person to the nearest hospital on a priority basis.
- In case of any contagious disease - Isolate the infected person on priority basis and send the infected person to the nearest hospital for further treatment if necessary.

4.1.1.7 INCIDENTS RELATED TO SNAKE, INSECT BITES

- Ensure the availability of appropriate PPE inclusive of gumboots, gloves, full sleeves uniform as preventive measures.
- In case of a bee sting – Use a flat object (e.g., a credit card or a stiff piece of plastic) to gently scrape the area where the stinger is embedded. This is to avoid breaking the stinger and pushing more venom into the skin. If scraping does not work and the stinger is still visible, use clean tweezers to gently pull out the stinger. Avoid squeezing the stinger, as this can release more venom. Wash the affected area with soap and water and apply ice packs or cold compress to reduce swelling. Avoid scratching the sting area and consult medical personnel onsite
- In case of a spider bite – Wash the affected area with soap and water and apply ice packs or cold compress to reduce swelling. Monitor for signs of infection (increased redness, warmth, swelling, or pus) and systemic reactions (fever, chills, breathing difficulties). If any of these symptoms occur, seek medical assistance.
- In case of a snake bite – Contact the Medical Personnel on immediate basis, keep the bitten person still and calm. Wash the bite area with soap and water immediately, keep the affected area below the heart level to reduce the flow of venom and cover the bite with clean gauze. Avoid touching or pressing the affected area, applying ice or soaking the wound in water. If possible, remember the colour and shape of the snake (if noticed by other personnel), as it can help with the treatment of the snakebite.

4.1.2 FIRE AND EXPLOSIONS

4.1.2.1 INCIDENTS RELATED TO ELECTRICAL FIRES

- The individual responsible for or who discovers the fire will immediately report the incident to the Incident Commander.
- Cut off power supply and raise alarm.
- Inform Integra EHS Manager, Integra Project Manager and KTZ Project Manager immediately.
- Use fire extinguisher (ABC type) for extinguishing the fire.
- Cool down the construction area.
- Evacuate the causality (if any) to open area and administer first aid.
- If possible, disconnect connection with other equipment / machines.
- Emergency Coordinator would instruct the workers to proceed to the nearest assembly point and ask them to remain calm.

4.1.2.2 GENERAL FIRE INCIDENTS AT CONSTRUCTION SITES

- Ensure availability of firefighting equipment (fire extinguisher, fire hose, fire alarm system, smoke detectors).
- In the event of a fire, the following steps are to be followed to minimise the hazard:
 - The person who recognises the fire must inform the nearest ERT member.

- Disconnect the utilities and equipment unless doing so jeopardises site safety.
- The ERT members will initiate the evacuation of the workers from the incident scene to the assembly point and proceed with the headcount using master roll and visitor register.
- Is possible, the fire should be extinguished by using the appropriate fire extinguisher. There are four categories of Fires, namely:
 - Class A - Ordinary combustibles.
 - Class B - Flammable liquids, Gases, Greases.
 - Class C – Electrical.
 - Class D – Chemical metals.
- Use Dry Chemical Extinguishers common for above A, B, C type of Fires (available at site).
- Direct fire extinguisher at the lower part of the flame.
- Fire extinguishers have limited operation time of 8 to 10 seconds.
- If fire cannot be extinguished by the extinguishers available at the spot, arrange for more extinguishers from surrounding areas.
- Again, if the fire cannot be extinguished immediately call the Fire Brigade.
- Segregate the area and remove possible inflammable & combustible materials from the spot.
- The medical staff at site must attend the injured personnel and inform the local hospitals for further arrangements, if required.
- In case of fatal incident, inform Integra Human Resources & Admin Officer, Integra Project Manager and KTZ Project Manager.
- Emergency Coordinator to seek necessary assistance in terms of co-ordination with Government authorities, Fire Brigade, Police Station, etc.
- Inform the finance department to co-ordinate with the Insurer / Surveyor / Loss Assessor and hasten up settlement of claims, if any.
- Constitute a committee to examine / investigate the situations that resulted in the incident and to identify steps to be taken to prevent recurrence of such incidents in future.

4.1.3 SPILL AND CONTAMINATION

4.1.3.1 SPILLAGE OF OIL, DIESEL OR OTHER CHEMICAL SUBSTANCE ON UNPAVED SURFACE

- The individual responsible for or who discovers the spillage will immediately report the incident to the Incident Commander.
- An immediate response is to control and contain the spillage; trained personnel would use the control equipment such as pit sorbs powder or saw dust.
- All the details of the spillage and remediation actions will be recorded.
- Full detailed procedure can be referred to the Error! Reference source not found. below.

4.2 EXTERNAL EMERGENCIES

4.2.1 NATURAL CALAMITIES

4.2.1.1 FLOODING

- Stop all work at height and cancel any work-at-height permits.
- Disconnect power supply to all electrical machines to prevent electrocution risks.
- Evacuate all site personnel to a safe designated location.
- Inform local authorities and emergency services immediately.
- Provide first aid to casualties and shift victims to the hospital if necessary.
- Request external assistance from the local authority, fire brigade, and other emergency responders if needed.
- Move cranes and other heavy equipment to higher ground if feasible.
- Monitor weather forecasts from the official weather authority before planning or commencing any activities.

Flooding Risk & Response Assessment Parameters

River Level Monitoring

- Install automatic water level sensors along flood-prone railway sections.
- These sensors must send alerts when water levels exceed 70% of the critical flood stage.

Rainfall Thresholds for Emergency Activation

- Yellow Alert (50-75mm rainfall in 24 hours): Heightened monitoring.
- Orange Alert (76-100mm rainfall in 24 hours): Preparation for possible evacuation.
- Red Alert (100+mm rainfall or river levels exceeding 80% flood capacity): Immediate emergency response activation.

Geotechnical Stability Assessments

- Conduct bi-annual soil stability and embankment erosion tests at critical sections.

Mitigation & Preparedness Measures: Drainage & Infrastructure Maintenance

- Inspect and clear railway culverts, drains, and embankments quarterly before and after the monsoon season.

Rapid Response Teams

- Deploy specialized railway flood response teams trained in:
 - Track stabilization
 - Waterlogging management
 - Bridge integrity assessments

Waterproofing & Resilience Measures

- Elevate electrical infrastructure at least 1.5m above expected flood levels.

- Install water-resistant signaling systems at flood-prone railway junctions.

Emergency Drills & Shelter Planning

- Conduct semi-annual (twice a year) flood simulation drills to test evacuation procedures and railway track recovery.
 - Identify high-ground evacuation points for railway staff and passengers, equipped with:
 - Basic shelter
 - Food supplies
 - Emergency medical kits
-

Emergency Response Activation During Flooding:

Pre-Flood Actions (Yellow Alert)

- Notify railway personnel and passengers of potential delays.
- Mobilize drainage maintenance teams to flood-prone zones.

Active Flood Response (Red Alert)

- Halt all train operations if track water levels exceed 20cm above rail height.
- Evacuate non-essential personnel and passengers to designated flood shelters.
- Deploy emergency railway maintenance crews within 2 hours post-flood to inspect track integrity.

Post-Flood Recovery

- Conduct track stability tests within 12 hours after water recedes.
- Resume train operations only after clearance from Kazakhstan's Railway Safety Authority.

4.2.1.2 OTHER NATURAL CALAMITIES EVENTS

- In case of earthquake - Stay calm, move into the open, away from buildings, streetlights, and utility wires and wait for the instructions from the designated official.
- If casualty is there, provide first aid and shift the victim to hospital, if required.
- Seek for external help from local police, fire brigade etc. if required.
- Arrange for vehicles and start evacuation. If vehicles cannot be operated, start evacuation by walking or running.
- If possible, crane and other equipment's may be shifted to a safe place.
- Always get updated about the weather forecast from weather authority before planning or commencing any activities.

4.2.2 MAJOR FIRES/EXPLOSION INCIDENTS

4.2.2.1 INCIDENTS RELATED TO MAJOR FIRES, EXPLOSIONS, SPILLS WHICH REQUIRE URGENT INVOLVEMENT OF EXTERNAL AUTHORITIES

Incident reporting & immediate actions

- The individual who discovers or is responsible for the incident must report it immediately to the incident commander.
- Notify the integra eEHS manager, integra project manager, integra community liaison officer, and KTZ project manager.
- The emergency coordinator must immediately contact external authorities (local police, fire brigade) and coordinate the emergency response.
- The integra community liaison officer must notify community representatives and facilitate the evacuation of nearby communities to a safe location or assembly point.

Wildfire risk zones & mapping

- Conduct an annual gis-based fire risk assessment to identify and map high-risk areas along railway lines.
- Classify wildfire risk levels based on vegetation type, proximity to settlements, and historical fire incidents.
- Install firewatch towers or infrared wildfire detection sensors in high-risk railway zones.

Fire suppression & response preparedness

Firefighting resources & equipment deployment

- Identify and geo-tag water sources (e.g., rivers, lakes, reservoirs) within 5km of railway lines.
- Maintain a list of available aerial firefighting resources, including helicopters and fire suppression drones.
- Deploy firebreaks (30m wide) in wildfire-prone railway areas.
- Equip railway stations with class a and b fire extinguishers, water hose reels, and emergency sand buckets.
- Maintain a standby fleet of fire response vehicles capable of reaching incident sites within 15-20 minutes.

Wildfire training & drills

- Conduct quarterly fire response drills in collaboration with Kazakhstan's national fire service.
- Train railway staff on fire detection, emergency evacuation, and first-response firefighting techniques.

Evacuation & emergency response

Pre-wildfire preparedness

- Restrict operations near forested railway tracks during high wildfire risk periods (July–September).
- Implement aerial monitoring via drones in high-risk areas.

Active fire response

- Attempt to contain the fire with fire extinguishers while awaiting external assistance.
- Halt train operations if visibility drops below 300 meters due to smoke.
- Activate aerial firefighting resources if the wildfire spreads beyond control.
- Coordinate with local fire departments for immediate suppression response.
- Evacuate workmen and community members to designated assembly points.

Medical & fatality response

- On-site medical staff must attend to injured personnel and coordinate with local hospitals for further treatment.
- In case of a fatal incident, notify:
 - Integra human resources & admin officer
 - Integra project manager
 - KTZ project manager

Post-fire recovery & investigation

- Conduct soil integrity tests to assess post-fire erosion risks on railway embankments.
- The emergency coordinator will oversee coordination with government authorities, the fire brigade, and police.
- Inform the finance department to coordinate with the insurer, surveyor, or loss assessor for claim settlements.
- Establish a committee to investigate the incident and implement corrective measures to prevent recurrence.

4.2.3 OTHERS**4.2.3.1 TERRORISM INCLUDING BOMB THREAT**

- In case of bomb attack and terrorist attack - Immediately call external emergency contact number of the police department. Strengthen the security from all entrances to the site and prevent any unauthorised access to the site.

4.2.3.2 CIVIC UNREST OR COMMUNITY AGITATION

- In case of community agitation - The individual who discovers the unrest must notify it to Incident Commander. The Incident Commander will instruct the site security personnel to isolate the site, close all the entry gates and prevent the entry of outsiders inside the site. Based on the magnitude of the issue, the Emergency Coordinator will inform the police station for assistance.
- In case of theft and vandalism - The individual(s) involved in such activity will be identified and the site security, area supervisor and respective contractor agency must be informed. The security person will dis-weapon the individual(s) if safe to do so. Based on the magnitude of the incident, it will be reported to the local police station for follow up action.

5. SPILL RESPONSE PROCEDURE

5.1 OVERVIEW

This ERP aligns with the emergency response and railway safety regulations of the Republic of Kazakhstan, as outlined in the Kazakhstan Law on Civil Protection (2014) and the Railway Transport Safety Regulations (2020).

Government Agency Coordination

- Emergency response coordination with:
 - Ministry of Emergency Situations of Kazakhstan (MESK)
 - Kazakhstan National Railway Authority (KTZ)
 - Kazakhstan Fire and Rescue Services

Spill reporting requirements will be applied to releases to land and water of any contaminant (petroleum products, hazardous materials and chemicals).

Spill events can be classified under two categories:

1. Minor spill: Identified as spills that pose limited risk to workers and environment. An example of a minor spill is a spill of 5 ml of concentrated Sulfuric Acid, which is a small volume that can easily be neutralised and removed.
2. Major spill: Identified as spills that pose large risk to workers and environment. An example of a major spill is the uncontrolled release of ammonia in an unventilated enclosed area. If the volume is large, it may represent a high risk to persons in the area.

Details on spill response and preparedness are detailed in the following sections.

5.2 STOP-CONTAIN-NOTIFY-CLEAN-UP PROCEDURE

The Spill Response Procedure follows the Stop-Contain-Notify-Clean Up Procedure. **Annex A** attached in this Emergency Response Plan is the Stop-Contain-Notify-Clean-Up notice to be displayed at all construction sites.

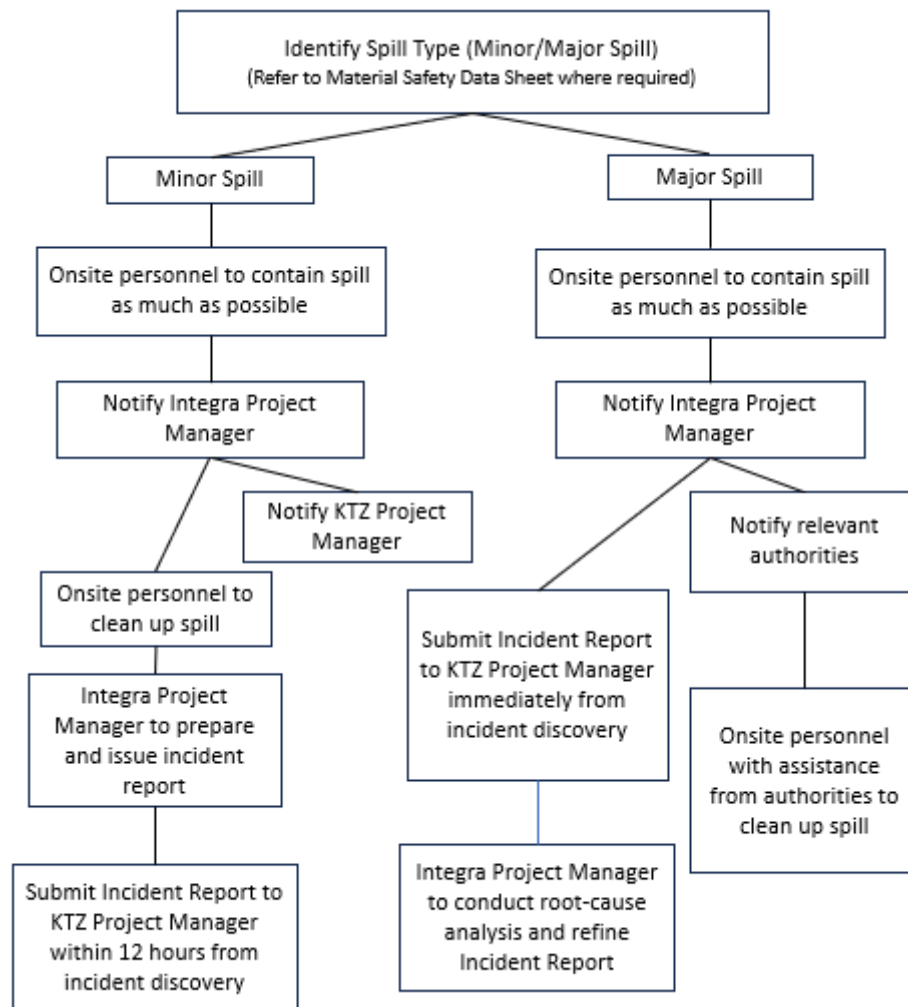


FIGURE 5-1 OVERVIEW OF SPILL RESPONSE PROCEDURE

Figure 5-1 outlines the overall spill response procedure for both minor and major spills. Based on the type of spilled material and quantity, the staff on site is responsible for notifying Integra Project Manager, who will also inform KTZ Project Manager. Wherever possible, hazardous material spills/releases will be controlled by on-site personnel. Reference should be made against the Material Safety Data Sheet (MSDS) where required to understand the hazard potential and appropriate measures to be taken to contain and clean up the spill. In the event of a minor spill, an incident report will be issued to the KTZ Project Manager within 12 hours of the discovery of the incident. For major spills the incident will be reported immediately. The incident report to be submitted to the KTZ Project Manager by Integra Project Manager will include the following information (format as per *Annex J*):

- Location of the spill.
- The reporting staff's name and phone number.
- Date, and type of incident.
- Type and quantity of spilled material.
- Any injury.
- Possible hazards to human health and the environment.
- Clean-up and/or mitigation actions taken.

Integra Project Manager will document the spill in an incident report and provide it to the KTZ Project Manager who will inform the relevant government officials, as required. Records of all

hazardous material releases will be kept. Integra Project Manager will monitor progress of the spill and the associated clean-up effort and document these events in an incident report.

5.3 SPILL PREVENTION

The spill prevention mitigations are intended to minimise the release of contaminant to land or water. Integra Project Manager, with assistance from KTZ Project Manager, will ensure that its personnel, contractors and subcontractors working in the camps and all construction sites are aware of the spill prevention and response responsibilities. The following measures will be implemented:

- A list of emergency contacts will be available to all employees for a prompt spill response.
- All Material Safety Data Sheet (MSDS) will be available on site for review to ensure an adequate spill response.
- Containment bunds or spill trays for the storage of the hazardous material.
- All employees handling fuels and hazardous material will receive proper training during their project inductions. The training will be conducted by the Integra Project Manager or relevant external experts and recorded for audit purposes. Training type and schedule can be referred to **Section 6.3** below.
- Spill drills will be implemented in conjunction with the EHS team.
- Spill equipment and spill kits will be readily available at each construction site where any hazardous material is store. An adequate number of appropriate absorbents are to be in place in "designated maintenance areas" to handle minor leakages.
- In maintenance areas, drip trays and spill kits will be available. All plant/vehicle fluids will be collected during maintenance. The fluids will be disposed of in the hazardous material section of the waste management area.
- All fuel, grease and chemical storage will be located on an impermeable floor, inside and stored in an area which has a secondary containment trays/pallets.
- Filling and re-fueling activities will be strictly controlled and centralised.
- All vehicles, equipment and installations will be checked for any fuel and grease leakage before use and will be regularly monitored for leaks.

5.3.1 REFUELLING

All refuelling at construction sites will be from designated, bounded fuel storage tanks. Refueling of vehicles shall not be performed in proximity to drains, watercourses and areas of natural habitat.

Where refueling on the alignment is required, this will be undertaken by mobile fuel dispensing tankers. Refueling operations on the alignment will utilise drip trays and/or absorbent pads which will be placed prior to the commencement of refueling operations. Refueling will be carried out by a nominated refueling operator who will be specifically trained. There will be a spill kit and fire extinguisher readily available on site. An automatic shut-off valve will be installed and clearly identified on all fuel dispensing units and care will be taken to ensure tanks are not overfilled. All connections will be bonded to prevent static discharge and there will be no smoking during re-fuelling operations.

5.4 SPILL RESPONSE

The use of spill kits will be explained to all workers during the EHS induction training. All oil/fuel/chemical storage, refuelling areas and vehicle maintenance areas will include spill containment kits. These kits will contain absorbent pads, booms, bags and ties. Integra Project Manager is responsible for identifying suitable spill response equipment for responding to spillages and ensuring an adequate supply in the storage room. Integra Project Manager will also be responsible for ensuring that spill kits are allocated to the appropriate locations/vehicles, and ensuring that these are replaced if used. All spills will be treated with a matter of urgency and as such constitute an 'emergency/spillage response'.

Training in spill containment/clearance techniques will be given to workers involved with emergency response plan. Refuelling operators will be trained on appropriate and best practices of refuelling. Drivers will be trained on appropriate refueling practices and response requirement in the event of a spill. Upon the discovery of a spill, all activities within the vicinity of the spill will be stopped to adequately address the spill and the area will be restricted. The spill will be contained with appropriate spill response equipment from the spill kits on site. The workers attending the spill will immediately inform the Integra Project Manager with the following information: location of spill, estimated size of spill, and if any hazards are present. The team attending to the spill will wear proper PPE as per the health and safety requirements. Once the spill is contained, the area will be cleaned up and all contaminated material will be disposed of adequately in the hazardous material section of the waste management area.

In case of a spill to land, the contaminated soil will be stripped to a sufficient depth and transported for disposal, treating it as hazardous waste. An incident report (*Annex J*) will be completed, and all corrective actions will be implemented.

6. IMPLEMENTATION ARRANGEMENTS

6.1 ACTION ON SITE

The action at the accident site depends upon the type of emergency situation so that appropriate action and decision is taken on the spot accordingly. The primary objective of plan being to control and contain the incident so as to prevent it from spreading and causing extensive damage, the following brief action plan is drawn for the emergencies at the construction sites.

The shift-in charge that hears the siren/ public address system will immediately take charge of the situation and proceed to do the following:

- Act as the site HSE officer till other key persons from the ERT (Incident Commander, Emergency Coordinator) arrive.
- Inform the security and Incident Commander to alert the employees within the affected construction site.
- Direct and coordinate fire-fighting operations after ascertaining the severity of the incident.
- On arrival of the key personnel, brief them regarding the action taken in tackling the exigency.

The above actions would not take more than 5 to 7 minutes.

Security: On receipt of the information about emergency, rush to the emergency site with all available persons and emergency equipment. Assist in restricting entry to incident site.

Emergency Control Centre: Effective emergency response requires coordination between project contractors, community representatives, and government response agencies. This plan integrates the following external emergency contacts.

Emergency Contact List;

Agency/Representative	Role in Emergency Response	Contact Details
Local Fire Department	Fire suppression & hazardous material response	+XX-XXXX-XXXX
Emergency Medical Services	On-site medical response & hospital coordination	+XX-XXXX-XXXX
Police Department	Security and evacuation support	+XX-XXXX-XXXX
Local Government	Public safety coordination	+XX-XXXX-XXXX

On receipt of the information of the emergency, inform all key persons in the ERT about the incident. Based on the instructions given by the Incident Commander, they will proceed to perform their respective duties. Announce for evacuation and liaise with external authorities and nearby communities where needed.

6.2 POST EMERGENCY/INCIDENT ACTIVITIES

The cessation of Emergency will be declared only after ensuring that there is absolutely no threat either to personnel or property.

- The Incident Commander will announce the end of emergency through siren/ public address system.
- This will be followed by head count of all the individuals at the assembly point.
- A committee will be constituted to investigate the cause of disaster, which will submit a detailed report of the findings as per *Annex J*, which includes root cause analysis, preventive/corrective actions.
- Based on the findings and lessons learned during emergency, the on-site plan will be suitably modified to make it more effective.
- Mock-drills will be carried out on the on-site plan to check its effectiveness and for identification of areas for improvement.
- Regular training programs through audio-visual aides will be conducted to enhance the preparedness of all workers, specially the emergency combat personnel.

6.3 TRAINING

Integra Project Manager, with assistance from KTZ Project Manager, is to ensure that all workers are effectively informed and trained regarding emergency response and preparedness, including first aid and firefighting training. Trainings include:

6.4 EMERGENCY RESPONSE DRILLS, MONITORING AND REVIEWING

Drills in response to various emergency scenarios are to be conducted on a regular basis (at least twice a year) to familiarise all site personnel, workers and contractors on the emergency response plan. Based on the likelihood and severity of potential emergencies, drills conducted may be in the form of tabletop exercise or physical mock drills as indicated in **Table 6-1**.

Records of the drill and attendance list of the participants involved are to be documented and provided to KTZ Project Manager. A sharing session about the drill conducted (including areas of improvement, corrective actions) is to be conducted after discussions with KTZ Project Manager, Integra Project Manager and the ERT.

TABLE 6-1 EMERGENCY RESPONSE DRILL SCHEDULE

Scenario	Drill Type	Frequency	Key Participants	Objective
Internal Emergencies				
Construction Incidents/Accidents (fall from height, excavation collapse, confined space entry rescue)	Physical Mock Drill	Bi-Annual (2 times/year)	Site Workers, ERT, First Aid Team, Safety Officers	Test response time, evacuation procedures, and rescue operations.
Fire and Explosions (electrical fire, flammable material fire)	Physical Mock Drill	Bi-Annual (2 times/year)	ERT, Fire Response Team, Site Workers, Contractors	Test fire suppression, emergency evacuation, and firefighting equipment readiness.
Spill and Contamination (chemical, oil, fuel spills)	Physical Mock Drill	Bi-Annual (2 times/year)	ERT, Environmental Team, Contractors	Test spill containment, use of PPE, and decontamination procedures.
External Emergencies				
Natural Calamities (flooding, earthquake, extreme weather)	Tabletop Exercise	Annual (1 time/year)	Project Management, ERT, Local Authorities	Ensure coordination with local disaster response agencies, assess evacuation routes.
Major Fire/Explosion (large-scale fire, structural collapse)	Physical Mock Drill	Annual (1 time/year)	Fire Response Team, Contractors, Emergency Services	Test large-scale fire response, coordination with external agencies.
Terrorism, Civic Unrest (security threats, protests, bomb threats)	Tabletop Exercise	Annual (1 time/year)	KTZ Security, Local Law Enforcement, ERT	Test response coordination, lockdown procedures, and law enforcement involvement.

Emergency drills should be documented, evaluated, and improved based on feedback and observations. Corrective actions must be implemented if gaps are identified in response efficiency

ANNEX A STOP-CONTAIN-NOTIFY-CLEANUP NOTICE

Spill Response Procedure

If the spill cannot be safely contained or if the spill is causing a threat to life, evacuate the area and call **999** from a safe location

IF SAFE TO DO SO

STOP > CONTAIN > NOTIFY > CLEAN-UP

STOP

- Stop work immediately
- Stop the leak or eliminate the source of the spill
- Eliminate ignition sources and provide natural ventilation

CONTAIN

- Use pollution control equipment (e.g., spill kits, drip trays, bunds of earth and sand) to contain the spill
- Check the spill has not reached any drains, water courses or other sensitive areas
- Cover all drains/manholes to prevent the spill from entering the drainage system

Notify

- Once the spill has been contained, notify Integra Project Manager. Details at the bottom of the page

CLEAN-UP

- Attempt to soak up the spill using absorbent material
- Dispose of contaminated materials including spill kit/equipment appropriately

EMERGENCY CONTACT DETAILS

NAME:
Anafyia Zhiger

CONTACT:
XXXXXXXXXX

Nearest Spill
Kit

