EXCEL TECHNICAL SERVICES PVT. LTD

EMERGENCY RESPONSE PLAN

ELECTRICAL CONSTRUCTION & PROJECTS

1.	Issued for implementation			

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Section I

A. SCOPE:

This procedure defines the responsibilities and methods to be adopted for identifying potential emergency situations and potential incidents that can have impacts on the environment, on the health of employees or on the operating premises and how the organisation will respond them.

B. REFERENCES:

ISO 14001:2004 : 4.4.7 Emergency Preparedness and Response
OHSAS 18001: 2007: 4.4.7 Emergency Preparedness and Response
HSE MANUAL : Health, Safety and Environment Manual
: Competence, Training and Awareness
: Accident, Incidents, non conformances, corrective and preventive Actions

C. Acronyms and Abbreviations

HSE	: Health, Safety and Environment
ETSPL	: EXCEL TECHNICAL SERVICES PVT. LTD.
SITE	: Construction Site.
ERTL	: Emergency Response Team Leader.
ERTC	: Emergency Response Team Co-ordinator.

D. OBJECTIVES:

This plan is to provide EXCEL TECHNICAL SERVICES PVT. LTD. project management of New Site with guidelines to follow in the establishment of an EMERGENCY EVACUATION PLAN at the project site.

E. PROJECT DATA SHEET:

Annexure: 1

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G. General Information

The emergency action plan should address emergencies we would reasonably expect to occur in relation to project type and physical location. It should develop an emergency evacuation plan during the start - up phase and the plan educated to employees as they receive site safety orientation. The emergency evacuation plan should also be re-educated in a regular basis to keep our personnel well informed of the procedures or any changes implemented.

Site Manager and Safety professionals should act as the consultant, guiding supervisory management through the process of identifying potential emergency events and developing primary plans for response to them. SME's supervisory personnel must be extensively trained to act as evacuation leaders so that employees can be swiftly moved from the danger location to designated safe areas. There should be adequate quantity of supervisory personnel in the workplace to provide adequate guidance and instruction during emergency situations.

After an evacuation is completed, each supervisor shall account and verify that all his employees are in the designated safe areas. They must also be prepared to re act using site procedures for rescuing persons, which are not accounted for.

The use of floor plans or workplace maps which clearly show the emergency escape routes, need to be posted for SME to visually observe. Colour coding these maps and associated exit routes will aid employees in determining their route assignments.

Drills and Exercises

In co-ordination with the Client provide emergency response personnel the opportunity to practice and test the effectiveness of the site emergency plan, procedures and training. A program of drills and exercises, integrated with the training program, should be implemented to develop, maintain, and test emergency response capability, identify areas for improvement, and to serve as a planning basis by indication areas of improvement. A drill is a supervised instruction session, which develops, tests, and/or maintains a specific emergency response capability. An exercise is a large-scale event, which tests the integrated capability and most aspects of the emergency management program associated with your site facility, the operation, or activities.

Section II

A. Employee Evacuation Plan

In accordance with SME's policy, the project site is required to implement a plan for emergency situations. (Varying as below – Remove whichever not applicable)

+ Fire/Explosion.
+ Chemical Leakage
+ Gas Leakage.
+ Toxic gas release.
+ Mob.
+ Vehicle/Site accident.

The emergency plan developed by SME's site management is in accordance with the Client's procedure due to the system for emergency preparedness should be integrated each another in the same area of project site.

Specific Action Plan

Specific action plans regarding this plan should be reviewed as a part of the orientation process. Short action-oriented statements are effective. Management and employees should be continually updated on revisions or modifications to this plan. Detailed information can be covered in training or the procedure section to the Emergency Action Plan.

In case of fire, chemical leakage, Gas Leakage, etc. the evacuation area (Nearest):

Evacuation locations: 1. Assembly Point.
2. Site Office
3. Security Office.

B. EMERGENCY RESPONSE TEAM / ORGANIZATION

Team Leader	: **Site Manager**
Evacuation Command Centre	: **Site Safety Representative**
Medical / First Aid Officer	: **Client Medical Doctor/Site First Aider.**
Field Evacuation Commander	: **Site Supervisors**

C. EMPLOYEES INSTRUCTIONS

"Remain Calm"

Panic often causes more injuries than the emergency situation itself. Remember to remain calm at all times and to follow the instruction given below.

"Communicate "

Communication is essential to cope effectively with a disaster situation. All employees are instructed to call by MCP/Emergency No _____ as main emergency number, to report an emergency. In case of emergency dial _____.

Be prepared to provide the following information:

An emergency call checklist:

During an emergency, it is critical to give the correct and right amount of information to emergency responders. So it is wise to keep an emergency information checklist near phones in case of crisis. Such a checklist would direct callers to:

1. Identify yourself, providing name and title.
2. Give the company's name / working group and exact location.
3. Alert the personnel in the vicinity.
4. Break the glass completely of manual call point, if required.
5. Clearly describe the emergency. Explain the situation so that the proper equipment and personnel can be sent:
   - For **medical emergencies** - identify the victim by sex, age, and known medical problems. Describe the injuries or illness symptoms.
   - For **fire emergencies** - Give the exact location, the fires relative size, and what type of materials are or could soon be burning. Try to extinguish the fire with an appropriate in consultation with plant personnel.
   - For **security emergencies** - When a suspicious or threatening person is on the premises, describe to Security or to the police the person's sex, race, general colouring, hair, height, weight and clothing. If the person is armed, include this information.
   - In case of **gas leak**, observe the wind direction and escape crosswind direction / perpendicular direction to reach nearest assembly point.
   - In case of **chemical spills,** cordon the area and bund the spill. Follow the spill containment / control of emission procedures as per on-site emergency plan.
   - In case of Toxic Gas release, use suitable respirator and escape crosswind direction/ perpendicular direction to reach nearest assembly point.

D. EVACUATION ALARM (SIREN)

Annexure: 2

E. POSTING REQUIREMENT

The written basic evacuation plan shall be maintained at the project site by project management.

F. GENERAL EVACUATION PROCEDURE

Intent: To provide emergency evacuation procedures for site management's supervision.

Description / Definitions:

Types of Evacuations

There are three types of evacuations:

Level-1 Emergency: In this type of emergency, siren is not required. Minor fire/gas leaks/serious injuries requiring medical attention / chemical spills potential to effect the adjacent plants. It can be tackled with the resources available within the section.

Level-2 Emergency: Major fires/toxic gas leaks / chemical spills affecting the neighbouring plants, which can be tackled with the available resources within the factory. (On-site Emergency)

Level-3 Emergency: Major fires / toxic gas leaks / chemical spills which affects the surrounding community. (Off-site Emergency)

Role of Site Manager:

In Case of Level-1:

- Follow line of communication of the shift in- charge of the plant concerned and Client Incident Controller.
- Try to pass information to Fire & Safety and section head of the concern area.

- Take the decision whether to stop or continue the activity.
- Give necessary instructions to the crew to combat emergency.
- Initiate rescue of the personnel affected in the emergency and arrange for immediate First aid the help of rescue squad members.
- Inform Occupational Health Centre.
- If possible try to inform to process control rooms by plant paging system.

In Case of Level-2:

- Follow line of communication of the Client Incident Controller.
- Try to pass information to Fire & Safety and section head of the concern area.
- Suspend all hot jobs, works at higher elevation and all other works in the section affected.
- Give necessary instructions to employees with consultation of Client to employees to combat emergency.
- Inform Occupational Health Centre.
- Take head count of the people working at site and cross check with attendance.
- Assign responsibilities to the Supervisors to rescue the injured persons and organize evacuation of employees to Safe assembly Points.

In Case of Level-3:

Follow the line of communication / command of the Client Incident Controller as per the level –2 chart.

<u>Common Characteristics of Evacuation</u>

Regardless of type of evacuation, local or project/plant, the following are common to both:

+ An evacuation alarm is sounded.
+ A designated assembly place within the business is predetermined for people to:
  - ☞ Received instructions,
  - ☞ Be accounted for,
  - ☞ Be dispersed to the appropriate evacuation area (this assembly place is to have access to the main gate, phone/radio).

+ A designated evacuation area is predetermined depending upon the nature of the emergency. Again, at this location people will:
  - ☞ Received instructions
  - ☞ Be accounted for
  - ☞ Receive an all - clear when appropriate. This evacuation area is to have direct access to the main gate.

+ An all - clear sound will be generated by Client.

Causes of Evacuation

There are three causes that may trigger an evacuation

a. **Fire/Explosion** - This evacuation is local and is particular to a department or building. Any person who detects a fire must initiate the evacuation procedure for that area and notify the Fire & safety Department and reporting the location, nature and severity of the fire/explosion. Upon notification, the Safety / Fire department will determine if further evacuation of the area is warranted.

b. **Chemical Releases** - This evacuation is initiated within a particular department or building upon release of a hazardous chemical. Any person detecting such a release must call Safety Department and report the location, nature and severity of the release, (i.e. chemical involved, amount, etc.). The department or building in which the released, actually occurred must also be notified by the person detecting the release. Immediate local evacuation may be implemented based on the evaluation of the department or building directly involved in the release. The Client's Emergency Response Team will determine other areas needing to be evacuated at the time the release is reported.

c. **GAS LEAKAGE** – In Gas Leakage emergencies, which may warrant evacuation must be reported immediately to Safety Department with a description of the location, nature, and severity of the emergency. The Client's **Emergency Response Team** will then determine if evacuation is warranted and what areas are affected. At this point the appropriate alarms and notifications will be set in motion.

FIRE/CHEMICAL/OTHER EVACUATION GUIDELINES

a. The plan for Fire / Chemical shall be in regard with the Client's procedures, and must include the following:

1. Emergency escape procedures and route assignments
2. Emergency operating procedures - which pieces of equipment need to be and can be shut down in an emergency.
3. "Head Count" procedures for all employees
4. Rescue and medical duties
5. Means of reporting fires/chemicals or spills.

b. The alarm established by Clients should not be able to be confused with any other alarm.

c. The alarm system should be tested at least once per month for adequacy and reliability.

d. Evacuation drills are to hold in regular basis. Records of the following will be kept:
1. Date of evacuation drill
2. Elapsed time for personnel to evacuate
3. Employees "Head Count" drills.

f. Elevators should never be used to evacuate any building

g. Each department building should have evacuation routes drawn up and posted in various places such as work areas, exits, etc. throughout the department/construction.

h. The Safety Department shall designate Notification/shelter locations.

In Case of Fire/Chemical

1. Call Client's Fire & Safety Department or Process Control Rooms to report location and nature of fire/chemical/Gas leakage
2. Observe the wind direction and escape upwind direction, try to isolate the leak if possible by wearing Self Contained Breathing Apparatus. Go to designated Assembly Point.
3. Evacuate building to designated Assembly Point.
4. Take "Head Account" and fill out Accountability Form.
5. Report the number of missing people. **If it is safe!** Locate missing person(s).
6. Wait for "All Clear" message.
7. Follow-up with investigation.
8. Systems correction learning.

Evacuation Procedure:

When the evacuation alarm sounds or the intercom system is activated, supervisors should assemble their crew in a pre-designated area. The supervisor should conduct a quick head count to establish whether or not any of the crew is missing and then proceed to the evacuation area. Once at the evacuation area, report the head count to make certain that all employees have exited the plant/project.

The supervisors should report the status of the crew to the evacuation area co-ordinator. The evacuation area co-ordinator will report to the site management.

If persons are missing, the supervisors should also report to the Site Manager. The following should be provided:
- Name of missing person.
- Their last known location or work assignment.

The Site Manager and the Client's rescue team will arrange for a search to be conducted. Please note that only trained professionals will be authorised to conduct searches.

Improperly trained employees may endanger themselves and others by attempting searches in emergency situations.

Site Evacuation

If the emergency situation is such that the primary evacuation site cannot be used, please proceed to the secondary evacuation site.

Remember!

The basic procedures to be followed are:

- Identify the type of emergency.
- Call Client's Fire & Safety Office Phone Number or listed Mobile Phone Number and give the location and type of emergency.
- Evacuate to designated area in orderly fashion.
- Conduct an accountability check - head count of your crew.
- Supervisor report status to their Site Manager who will report to the Safety Department.
- Safety to arrange search for missing persons.
- Await further instructions.
- Re-enter plant or evacuate premises when notified.

G. EMERGENCY TELEPHONE NUMBERS

N a m e	*Designation*	Phone No.	Ext No.
Client Incident controller			
	SME Site Manager		
Fire & Safety			
Occupational Health Centre			
Security Gate			
Plant Head			
Emergency control room Bagging			
Control room			
Emergency Sick room			
Police		100	
Fire Station, Local	-	101	-

H: FIRE HANDLING PROCEDURES

1. General

The most important factor in handling a fire is personnel safety. Take whatever actions are necessary to assure that all people in the area and then proceed to extinguish the fire.

2. Fire Alarm Reporting

- All fires, regardless of size must be reported.
- Report all fires centrally via the following procedure:
  - Dial _____to inform & report to the Safety Department.
  - Report type and location of fire.
  - Remain on the line until instructed to hang up. This will ensure that the certain Department has all the required information.
  - Break nearest Manual Call Point.

3. Fire Fighting Procedure - Small Fires

If a fire is small and can be quickly extinguished, **do it!**
(If there is any doubt about your ability to extinguish the fire call other personnel or Safety Personnel for assistance).

The following table provides a guide for selecting the right type of extinguisher.

Type of Fire	Proper Extinguisher(s)	Extinguisher Precautions
(Class A) Ordinary Combustibles such Paper, wood	Water type Dry Chemical	Never use on electrical equipment, Or on gas, oil fires
(Class B) Flammable	CO2, DCP Type	Never use in confined spaces as it displaces oxygen
(Class C) Electrical fires	CO2 Type	Never use in confined spaces as it displaces oxygen
	Dry Chemical	May damage

		electrical equip. with coating
(Class D) Combustible	Dry Powder Special Extinguisher	Use on combustible metals only.

Call immediately after the fire has been extinguished.

4. **Fire Fighting Procedure - Larger Fires**

1. Call Safety Personnel and Inform to Process Control Rooms or direct to alert the Client's Fire Department.
2. If you can Safely do so, attempt to contain the fire via: The use of appropriate fire extinguisher, Use of fire hoses, if have been trained to do so.

5. Fire Fighting Training

All employees must be trained regularly in the use of portable fire extinguishers, the hazards of incipient stage fire fighting and recognition of conditions that could lead to an advanced stage fire.

6. Fire Protection Equipment

The following fire protection equipment and facilities must remain accessible and operational:

- Fire Fighting Equipment (e.g.; fire extinguisher, fire blankets, fire hose, fire hydrants etc.)
- Fire walls
- Stairwells (no storage permitted)
- Aisles
- A fusible link must be added if necessary to keep a fire door open.)
- Gas mask and breathing apparatus (by Fire Tender's accessories or from process control rooms)
- All electrical switches and panel boxes.

Fire Walls

- Notify the local fire department of any temporary or permanent opening planned in the firewalls or fireproof stairwell walls.
- Seal around pipe or ductwork penetrating firewalls.

Extinguisher

- Separate fire extinguishers are to be used for welding and burning permits.
- Do not use wall-mounted fire extinguishers for this purpose.
- Contact Safety Department to have an extinguisher refilled or replaced.
- Use fire extinguishers only for fire fighting

Off - the Job Evacuation

- The Response Team will immediately team up at the assigned location.
- The Team Leader will communicate the alert and activated the action.
- Initiate head count base on Staff list from personnel Department.
- Response team leader will immediately report to the Owner/Client Response Team Leader after all Staff and workers are safe and complete at the appointed meeting location.
- Standby for further instruction from Owner/Client Response Team leader.

Evacuation locations: 1. Security Gate
2. Site office
3. Fire & Safety Office

Section III

A. TRAINING REQUIREMENTS

Implementing the emergency action plan requires the Site Safety/Security Department train all employees and each new employee will be informed of the evacuation plan during their orientation process. The Safety/Security Department/Project Management will conduct refresher training regularly with all site personnel, and whenever the plan is changed.
An emergency plan is not meaningful unless training and drills are conducted on a regular basis. Training should meet the following guidelines and record of all training should be kept on site.

Be brief but repeated often. Be sure to notify the Owner/Client of any mock-up evacuations, and work with them in planning the drills. Provide the opportunity for skills to be practised during the mock-up evacuation. Be as realistic as possible and include everyone. Record date of training or mock-up evacuation

B. EMERGENCY DRILL OBSERVATION CHECKLIST

1. Date of Emergency Drill:

2. Emergency Drill was planned/ unplanned. If planned Date & time:

3. Whether emergency siren was audible at all required locations:

4. Whether plant & equipment shut off safely:

5. Was emergency assembly point & routes clear considering obstructions such as vehicles, material stacked &debris etc:

6. Whether all employees evacuated and assembled at assembly point:

7. Whether all emergency telephone numbers are found handy:

8. Was emergency communication system adequate & proper:

9. Was head count carried out & results reported:

10. Was all clear siren audible at Assembly Point:

Name of Observer:
Date