

ONSITE EMERGENCY PLAN

ENVIRONMENT, OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM (ISO 14001-2004 & OHSAS 18001:2007)

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**M/s. Novateur Electrical & Digital Systems Pvt. Limited, CNC Fabrication,
Stabiliser and 3PH UPS Units. (Unit-6, Unit-7 & Unit 12)
SF No.122/1, OMR, Semmancherry, Chennai – 600 119.**

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FIRE

EMERGENCY PLAN

THORAIPAKKAM FIRE SERVICE CONTROL NUMBER IS GIVEN BELOW, IN
CASE OF FIRE PLEASE RING UP
TO THE FOLLOWING PHONE NUMBER: **044 42823338**

IF THE ABOVE NUMBER IS ENGAGED
RING UP TO **101-EMERGENCY FIRE SERVICE**

INTERNAL EMERGENCY COMMUNICATION

IN CASE OF FIRE / EMERGENCY PLEASE

RINGUP TO THE FOLLOWING OFFICIALS

OF OUR COMPANY

SL.No.	SPEED DIAL NOS.	PH. NO. & NAME	PHONE NOS.	Intercom Extension Nos.
1	6000	HEAD OFFICE	46565555	--
2	6001	PALANICHAMY.S	9952034871	105
3	6002	RAMESH.K	9382868007	103
4	6003	KRISHNAO RAO.M.K	9382867949	112
5	6004	SATHIYAMOORTHY.C	9381439006	120
6	6005	SATHYANARAYANAN.R	9381740090	114
7	6006	YUVARAJ – SO	9840661192	--
8	6010	SWARAM HOSPITAL	43036364	--
9	6011	CHETTINAD HOSPITAL	4741000	--
10	6012	GLOBAL HOSPITAL	22777777	--
11	6013	AMBULANCE	101	--
12	6014	FIRE SERVICE	102	--
13	6015	POLICE STATION-J10	100	--
14	6016	TNEB - SEMMANCHERRY	9380915331	--
15	6017	SECURITY HEAD OFFICE-SM	9841063145	
16	6018	Y.JOHN PETER	9840209134	

EXTERNAL EMERGENCY COMMUNICATION

IN CASE OF EMERGENCY PLEASE

RING UP TO THE FOLLOWING TELEPHONE NUMBERS

POLICE STATION

Description	Phone number	Auto dial code
Police Station, Sholinganallur	044-24500707	100

HOSPITALS

Description	Phone number	Auto dial code
ESI Hospital, Adayar	24415767	NA
Global Hospital, Perumbakkam	22777777	NA

ONSITE EMERGENCY PLAN - PREPAREDNESS AND RESPONSE

CONCEPT

I – PREAMBLE

This manual provides guidelines/action plan to handle any type of emergency, which may arise in **Novateur Electrical & Digital Systems Private Limited**.

The main objective of this manual is:

- TO SAVE LIFE/MINIMIZE INJURY
 - TO SAVE PROPERTY/MINIMIZE DAMAGE
 - TO PREVENT BUSINESS DISRUPTION
-
- ❖ This manual outlines procedure for emergency preparation and response with the purpose of preventing and/or mitigating safety impacts. Training, awareness and preparedness will reduce the potential for Emergencies, as well as provide a firm base for proper response to Emergency situations that do occur.
 - ❖ Awareness must be part of the culture of our company. Training for persons working in an organization is **KEY** to the successful implementation of an Emergency preparedness and programme. Employees must be fully cognizant of the requirements of emergency response plan prior to a situation developing. Initial recognition of potential emergencies and emerging emergency situations are priorities, followed by actions and the ability to recognize, when additional resources are needed.

I - EMERGENCY PREPAREDNESS AND RESPONSE CONCEPT

There are several general concepts involved in being prepared for emergency situations regardless of whatever the emergency is. This general concept includes: -

a) **EMPLOYEES SAFETY:**

In the event of an incident, the main priority of all workers is to ensure their own safety and the safety of other co-employees. The second priority is to limit damage to the equipment and environment.

b) **AWARENESS:**

The first step in avoiding an emergency incident is recognizing hazards. Taking steps to minimize the risk of an emergency occurring. An awareness of these significant aspects on hazards and adhering to Safety measures to ensure that risks of incidents are minimized.

c) **TRAINING:**

All persons involved in operations have their training requirements determined and regarded in the training matrix.

d) **TESTING:**

Generally response readiness tests include all fire practices code requirements have been met, equipment is operational and employees are familiar with response requirements and plans.

Tests can be carried out in various forms to include:-

- ❖ Full mock drills
- ❖ Review of procedures
- ❖ Employees interviews
- ❖ Equipment testing.

e) **REPORTING:**

In case of an emergency, it is important that workers must know whom to contact what information will need to be relayed. These contacts will need to be given in **EMERGENCY RESPONSE PLAN** and available at security room.

i) **FOLLOW UP INVESTIGATION:**

All incidents will be investigated by concerned person or other person designated in order to determine causes and implement. Operational changes reduce the possibility of a recurrence.

f) **EMERGENCY RESPONSE TEAM (ERT):**

In order to control and take immediate action during any emergency, we require some trained personnel in each (Department) section. These people can react to the situation and take necessary remedial actions to control the emergency. For this purpose we have selected few persons from each department and these people will be given adequate training to deal with any emergency situations.

COMMUNICATION CHART:

During emergency where we should contact we have a detailed communication chart. In this internal communication, External communication, Police station and Important Government Hospitals have been given. This has been referred for communication. This chart is placed in the front pages of this manual for ready reference by all employees.

III- ON SITE EMERGENCY PLAN

INTRODUCTION TO ON SITE EMERGENCY PLAN:

An Emergency in a Factory is one, which has the potential to cause serious injury or loss of life and cause damage to environment. This emergency may be caused by a number of factors

1. CLASSIFICATION OF EMERGENCY:






This can be classified into three categories: -

- Local Emergency
- Minor Emergency
- Major Emergency

2 a). LOCAL EMERGENCY:

This type of Emergency which occurs due to short circuiting of electricity, spark due to friction in machines, risk of accident due to movement of Lifting equipments in the premises etc.,

ACTION TO BE TAKEN

-  On notice react to the situation.
-  Use the correct fire extinguisher to put off the fire incase of fire.
-  First aid the injured person in case of injury.
-  Report the incident to Plant Head.
-  Plant Head takes corrective action.

2 b). MINOR EMERGENCY:

An Emergency, which requires more workers involvement to control the same.

- Electrical Fire due to short circuit.
- Wooden/Paper Waste fire in the Scrap Yard etc.,

2 b) 1. ACTION TO BE TAKEN :

Whenever fire is spotted by worker, he reacts to the emergency to control the fire. He takes the following action:-

- Shout "FIRE, FIRE, FIRE"!
- Put off the Machine/Electrical Power Supply.
- Reach for appropriate type of fire extinguisher! Or
- Ask his co-worker to bring the same
- Use it to put off the fire.
- Ask the other workers to remove the flammable items.

- Inform the Shift Engineer (Production) about the incident.
- Department In charge carries out investigation for the cause of the Incident.
- Rectify the fault.
- Inform to Plant Head the type of incident occurred
- Re-organize the section for commencement of normal work.

2 c). **MAJOR EMERGENCY:**

An emergency which involves all employees of the factory and also requires outside agencies to handle the incident. The emergency in the plant could be anthropogenic emergency or due to natural calamities. The action Plan for this type of Emergency is given in this **ON SITE EMERGENCY PLAN** in details.

3. **PURPOSE:**

Procedure established to control or mitigate any emergency situation caused by Anthropogenic/ Natural Calamities:

I. ANTHROPOGENIC:

- 1) Fire
- 2) Human Error - Unsafe action accidents
- 3) Bomb Threat

II. NATURAL CALAMITIES:

1. Cyclone / Flood.
2. Earth Quake.

4. **SCOPE:**

Applicable to Anthropogenic and natural calamities emergencies that has potential occurrence within the factory premises at **Novateur Electrical & Digital Systems Pvt. Ltd.** A high standard of prevention of fire is of vital importance and must be the first consideration in every organization. All workers and staff must bear this aspect in mind while entering the factory. Most fires can be prevented by common sense and good discipline and it is very important that the highest possible standard of fire preventive measures should be enforced by all the Heads of the Departments, so that losses by fire may be reduced to the barest minimum.

5. RESPONSIBILITY DURING GENERAL SHIFT:

- a) All Workers available on the spot.
- b) Security.
- c) Department Heads

6. RESPONSIBILITY AT NIGHT:

- (a) Shift Security.

IV - ANTHROPOGENIC

I. FIRE EMERGENCY SITUATION:

The emergency may be caused by: -

1. Fire due to Electrical Short Circuiting.
2. Fire in Liquid Petroleum Gas (LPG) Gas Cylinders.

1. ELECTRICAL FIRE.








Electrical short-circuiting take place normally due to loose wiring, unauthorized connections, faulty electrical circuits, faulty switches etc, If the fire is not noticed at the beginning itself, it may lead to a Major Emergency.

A. POINT OF OPERATION:

Workers on the site:

- Shout FIRE, FIRE, FIRE
- Switch off the power supply.
- Press the "FIRE ALARM" Button to sound the "SIREN" and inform the shift in charge about the fire.
- Ask the Co-worker, or if possible himself to take the CO₂ Fire Extinguisher on the spot to control the fire.

B. SHIFT INCHARGE :

-  Inform the Plant head.
-  Remove all other valuable, flammable Materials from the site of incident.
-  Remove all workers of his Unit to the "**SAFE ASSEMBLY AREA**" of the Factory.
-  Check all workers are present in the Assembly area while taking of "**ROLL CALL**".
-  If any one found missing, check inside and evacuate him to the safe area.
-  Control the fire with available Fire Fighting Equipment.
-  Hand over the situation to Plant head on his arrival.

C. SECURITY:

1. On hearing the FIRE ALARM rush to the spot.
2. Put off/control the fire using the fire extinguisher.
3. If the fire is not in control, inform Fire Service in consultation with Plant head or Admin Manager
4. Be on the site to control the activities.
5. Post one security near telephone to receive all messages and record them.
6. Ensure no unauthorized persons enter the Factory.
7. Ensure all workers are in the SAFE ASSEMBLY AREA and a proper Roll Call is carried out by respective Engineers.
8. Provide all possible help to Fire Service people to control/put off the fire.
9. Once the fire is completely controlled, salvage the materials and dispose them as per orders / Mitigate plan.

D. MANAGER (Admin):

1. Report the incident to Plant Head.
2. Inform the nearby Police station.
3. Inform the Insurance Company to come and assess the damage.
4. Organize to bring Photographer to take photos for insurance.

F. PLANT HEAD:

1. Ensure the entire plant operations is under control & progressing.
2. Study the cause of the incident and submit a proper report for corrective action.
3. Prepare the detailed report on damage, salvage, injuries, hospitalized and cause of the incident / Initiate root cause analysis.
4. Take necessary corrective action, if required and implement the same.

G. MAINTENANCE HEAD:

1. Rush to the Fire spot site.
2. Put off the Electrical power supply.
3. Remove other items from the site.
4. Use CO₂ (Class C) Extinguisher to control the fire.

2. FIRE – LPG GAS CYLINDERS:

In our Factory we are using LPG Cylinders of in our Canteen. Sometime due to human error fire accident may be caused.

(a). WORKERS ON SITE:






1. On seeing the fire from LPG Cylinder, try to close the Valve.
2. If not possible keep the cylinders separately.
3. Pour water to cool the cylinder/wrap it with cool cloth/sack etc.,
4. Remove other items from the site.
5. Press the FIRE ALARM Button.
6. Use CO₂ (Class C) Extinguisher to control the fire.
7. Close the windows/doors.
8. Move LPG Gas Cylinders out of the area.

9. Close the doors/windows of the area.

(b). **MAINTENANCE HEAD:**

5. Rush to the site.
6. Pour water to cool the cylinder/wrap it with cool cloth/sack etc,
7. Put off the Electrical power supply.
8. Remove other items from the site.
9. Use CO₂ (Class C) Extinguisher to control the fire.
10. Close the windows/doors.
11. Move LPG Gas Cylinders out of the area.
12. Close the doors/windows of the area.
13. Move out all unwanted workers from the site.
10. Try to remove other materials if possible.













(c). **SHIFT ENGINEER (Production):**

-  Ask the workers to remove all flammable materials/valuable materials.
-  Inform Production Manager/Asst. Maintenance Manager (Mech. /Elect) and Works Manager.
-  Remove all workers to Safe Assembly Area. Follow the emergency plant lay out to reach the safe assembly area at the earliest.
-  Take a roll call of all workers as per the attendance.
-  If any missing, see he is not inside the plant, if so remove him to "SAFE PLACE".

(d). **SECURITY :**

1. Try to put off the fire.
2. Remove extra filled cylinders from the spot.
3. Inform the Fire Service for help if necessary in consultation with Plant Head/ Admin Manager
4. Control all in/out movement and regulate.
5. If any one missing search and remove him to **SAFE ASSEMBLY AREA**.
6. Safeguard all materials salvaged.
7. On arrival of Fire Service, guide them to the spot and provide all available help.
8. On control of fire take inventory of salvaged items.
9. Dispose the same as per direction of the Management.

(e). **PLANT HEAD:**

-  Inform the incident to Top Management.
-  Position him in a vantage point.
-  Control the activities.
-  Control the move of materials/men in the Factory.
-  Ensure no worker is left behind in the site.
-  After control of fire, carryout a survey in the area.
-  Check the salvage materials as per Mitigative Procedure
-  Dispose them as per instruction as per Mitigative Procedure
-  Carryout a detailed study of the incident / root cause analysis, initiate appropriate corrective action.
-  Give a detailed report with suggestion for remedial action.
-  Study the cause for the incident and submit a detailed report.
-  Take remedial action.

II. EMERGENCY DUE TO HUMAN ERROR:

Some time due to individuals carelessness, accidents take place. These types of accidents may lead to a major incident. The actions taken during this period are given below: -

(a). **INDIVIDUAL WORKER ON THE SPOT:**

- (i.) Remove injured persons from the spot.
- (ii.) Inform the First Aider for providing the required First aid to the injured personals.
- (iii.) Ask near by co-worker to inform the matter to Shift Engineer (Production).
- (iv.) Remove damaged materials from the area.
- (v.) Remove all flammable/valuable materials.
- (vi.) Due to this accident, if it leads to fire, put off the main.
- (vii.) Inform the Maintenance department to take further necessary action.

(b). **SHIFT ENGINEER (production):**

- (i) Rush to the spot.
- (ii) Inform the matter to Plant head
- (iii) See the injured people are moved to organize to move to hospital. if required

(c). **ADMIN MANAGER:**

- ❖ Rush to the accident site.
- ❖ Organize ambulance and additional man power to move the individual to hospital.
- ❖ Inform the next of kin of injured personals if necessary.

(d). **PLANT HEAD:**

1. Rush to the accident site.
2. Evacuate the injured persons to first aid center and further to hospital.
3. Muster contract labor for salvaging the damaged materials.
4. Prepare the detailed report on damage, salvage, injuries, hospitalized and cause of incident/ initiate root cause analysis.
5. See necessary corrective actions are taken and implemented.

III. BOMB THREAT

On receiving the Bomb Threat message the following action will be taken.

(a). **SHIFT SECURITY:**

Tight the Security in all posts.

1. Do not allow any unauthorized persons/vehicle inside the factory with proper scrutiny.
2. Inform about the message to Plant head
3. Check all vehicles parked inside with metal detector and under carriage of vehicles with mirror.
4. Inform Shift Engineer (Production) about this and not to touch any foreign/suspected materials.
5. Go around the Factory and search for any suspected article.
6. If any article is found, immediately cordon the area with sand bags.
7. Inform the Shift Engineer (Production).

(b). **SHIFT ENGINEER (Production)**

1. Move all workers to SAFE AREA.
2. Remove other important materials from that area.
3. Remove flammable material from that area.
4. Switch off power supply.
5. Stop the machines in that area.
6. Open windows and doors of the area.

(c). **PLANT HEAD:**

1. Post Security to guide the Bomb Disposal Squad.
2. Post a Security on telephone to receive the message.
3. Inform the Nearest Police Station and ask for Bomb Disposal Squad.
4. Ask the Thuraipakkam Fire Service for help.
5. Post guide to receive them and place them in a vantage area.
6. On arrival of Bomb Squad, take them to the spot.
7. Provide all possible help to them for defusing the bomb.
8. Make a detailed report and submit the same to the Director/General Manager.

IV-MEDICAL EMERGENCIES:

- a) Food poisoning.
- b) Snake bite.
- c) Heart attack.

a) Food poisoning:

In our factory canteen facility is being provided to prepare and serve the food for employees during working hours. During the preparation of food there could be potential chances of food poisoning due to use of contaminated water, fall of insects or lizard and other unhygienic condition.

On noticing symptoms such as drowsiness, vomiting and un consciousness of employees immediately one should follow the procedure;

- 1) Stop all the employees from eating the food.
- 2) Inform security to call the nearest hospital ambulance.
- 3) Convey the message to Manager-HR and Plant Head for further action.

SECURITY INCHARGE:

- 1) On receiving the call, immediately organize the ambulance from the nearest hospital.

MANAGER –HR & PLANT HEAD:

- 1) Rush the seriously affected employees to nearest hospital for the treatment.
- 2) Investigate the incident.
- 3) Analyse the root cause.
- 4) If the food found poisoned due to fall of insect / lizard, instruct canteen employees to dispose the food in an open trench and cover the soil.
- 5) Inform to prepare fresh food and serve.

b. Heart attack:

If someone has a cardiac arrest or heart attack there are only a few minutes to act before it is too late. It is vital to know what to do beforehand.

How can you tell if someone is having a heart attack?

If the person is unconscious:

- are they breathing? Look at the patient's chest to see if it is rising and falling.
- do they have a pulse? Place two fingers on one or other side of the person's voice box in their throat to feel if they have a carotid pulse.

If the patient has a pulse but is not breathing:

- Could it be because of suffocation? Feel inside the mouth with a finger to see if there is anything blocking it or the windpipe and remove any food or other objects. Provided that dentures are not broken, it is better not to remove them.
- If there is no breathing or pulse, the patient has had a cardiac arrest.
- Call for help immediately, stating that the casualty is not breathing, and inform security to organize ambulance from the nearest hospital.
- Also inform Manger-HR & Plant head about the incident for the further action.
- On arrival of ambulance rush the victim to the nearest hospital for the treatment.

How to give artificial respiration ?

- Tilt the head back and lift up the chin.
- Pinch the nostrils shut with two fingers to prevent leakage of air.
- Take a deep breath and seal your own mouth over the person's mouth.
- Breathe slowly into the person's mouth - it should take about two seconds to adequately inflate the chest.
- Do this twice.
- Check to see if the chest rises as you breathe into the patient.
- If it does, enough air is being blown in.
- If there is resistance, try to hold the head back further and lift the chin again.
- Repeat this procedure until help arrives or the person starts breathing again.

V - NATURAL CALAMITIES

Natural events such as tornadoes, severe storms and hurricanes are frequently threats to life and property. Preparedness is the key to avoiding unnecessary panic and confusion should inclement weather strike.

If there is a threat of a hurricane:

- Contact facilities / building management for assistance.
- Designate a person to monitor the weather alert radio or source of information.
- Assign a team member who is familiar with the geography to monitor the track of the hurricane.
- Test the emergency generator (if available) and make sure the fuel level is full.
- Ensure the facility is prepared as required (shutters or plywood for windows, secure all owned benches, trash containers to inside of space, etc.).

If a hurricane is in the vicinity:

- Remove all paper from floors and desks to locked files.
- All PCs, printers, calculators, etc should be unplugged after the appropriate "power down" procedures have been implemented.
- All window shades should be lowered or blinds closed.
- Vacate perimeter offices.
- Close all doors to perimeter areas.
- Seek refuge in an area near the center of the building on your floor.
- Avoid atriums, skyways or other glass enclosed areas.
- Await the "all clear" signal before returning to your work area.
- Do not leave the building.

If a tornado warning is issued:

- Move to a pre-designated shelter or a safe place of refuge, such as a basement. If an underground shelter is not available, move to an interior room or hallway on the lowest floor and get under a sturdy piece of furniture.
- Stay away from windows and perimeter areas of the building.
- Get out of automobiles.
- Do not try to outrun a tornado in your car; instead, leave it immediately.
- Stay inside, in a protected area until an "all clear" signal is given.

B. EARTH QUAKE:

The following guidelines were given to all employees to response the earthquake.

B1. DURING MAJOR EATHQUARKE:

1. If you are inside the plant – DUCK, COVER & HOLD.
2. Take cover under a desk or table or sit or stand against an inside wall
Preferably under column or pillar.
3. Hold tightly to the rigid items or table until the shaking stops.
4. Move away from windows or objects that may fall on you.
5. After the shaking has stopped, evacuate the building.
6. Avoid use of the telephone.
7. Do not use open flames.

B2. DURING MINOR TREMORS:

1. If you are inside, switch off the total electricity and LPG gas and come out of the building.
2. Assemble in an open area away form the building.
3. After the shaking has stopped, once you get clear communication through Television / Radio, you can re-enter the building.

B3. IF OUTSIDE THE BUILDING:

1. Do not enter any building.
2. Move clear of buildings, falling glass, utility poles, wires and large trees.
3. Get on the ground – DUCK, COVER and HOLD.
4. After the shaking stops, watch for falling glass, electrical wires, poles and other debris.

B4. IF YOU ARE DRIVING (Vehicles / Trucks):

1. Drive away form overpasses and underpasses.
2. Stop in a safe place.
3. Set the parking brake.
4. Stay in the vehicle if wires fall onto the vehicle, stay inside until rescued.

VI -CONCLUSION

The steps given in the above manual are only few examples and action. Each situation demands different methods and actions. One should take these steps as only a guideline and act with presence of mind, imagination to react to the demanding situations.

PREVENTIVE ACTION ON FIRE
" PREVENTION IS BETTER THAN CURE"
VII- PREVENTIVE ACTION ON FIRE

1. GENERAL:

The prevention of fire is of vital importance and must be the consideration by all. "Prevention is better than Cure". So, fire must be prevented by common sense and good discipline. So, it is paramount important that the highest possible standard of fire preventive measures should be enforced by all.

2. STORES IN CHARGE - ACTION TO BE TAKEN:

- ❖ All electrical switches are turned off, when not in use before leaving the Office.
- ❖ Windows of the rooms of the buildings will be kept free from obstruction, So that if any fire broke out can be seen from out side.

3. INFLAMMABLE MATERIALS:

1. Ensure all waste like, rubbish, rags, oil soaked materials; only cotton waste/cloths are deposited in the rubbish bin provided for this in the each Shop Floor.
2. Ensure all these wastes are cleared daily and deposited in correct bin in the Scrap Yard.
3. Ensure no cotton wastes are kept over machines/switch boards/behind stores etc,
4. Ensure no rubbish bin is kept near/under/close to Electrical Switch boxes etc,
5. Only required packing materials of the day will be kept in the packing bay.
6. All left over materials will be removed from the Packing Section.
7. No accumulation of packing material or other inflammable substance will be permitted.

4. ELECTRICITY:

The unauthorized electrical appliances/wires/lamps and heaters should not be used in side the factory. The following precautions should be observed:-

1. No un-authorized persons should be allowed to tamper with electrical fittings.
2. Ensure correct amperage fuses are used.
3. Ensure fuses are examined from time to time and should be replaced if blown.
4. No inflammable or combustible materials should be stored with in 3 feet of any electrical fittings such as fan regulators, switch boards etc,
5. If chafing of wires, over heating or other weakness is noticed, supply will be turned off immediately.
6. The supply will be restored only after the fault is rectified.
7. All alterations to wiring or tightening will only be carried out by Company's Electrical Maintenance Section/authorized contractor.
8. No lopping of appliance to nails, hocks or pining up is allowed.
9. When the supply fails, turn off the switches.
10. Electric connection should be removed from Un-used buildings/rooms
11. Ensure all "FIRE ALARM" Buttons are in working condition. Carry out weekly check and keep a record.

12. Ensure all emergency lights are in working condition.
13. Ensure all night Security Lights are in working condition.

5. LPG STORAGE :

1. Keep cylinders away from heat.
2. Ensure cylinders are not in contact with oil, grease etc,
3. Ensure cylinders are kept in upright position.
4. Use only the key provided for opening and closing of cylinders.
5. Check pressure regulator and rubber tubes for leak and damage before use.
6. After the work, close LPG cylinder valve.
7. Store cylinder in cool and ventilated places.
8. Segregate empty and full cylinders separately.
9. No naked fire or any type to be taken near gas cylinders.
10. Do not cause any damage to cylinder.









6.DIESEL GENERATOR ROOMS:

Diesel generators are built as per rules and regulations. The following general prevention will be observed as ANTI-FIRE-MEASURES: -

- ❖ Cotton waste and oil rags will be kept in suitable containers and disposed off daily.
- ❖ The use of open flame or highly heated parts will not be allowed inside the building.
- ❖ Exhaust piping should be well insulated.
- ❖ Control cocks of fuel supply will be positioned between subsidiary tanks and engine.
- ❖ All switch gear and transformer cubical will be adequately safe-guarded and will normally be kept locked and marked "DANGER".
- ❖ All heavy switch gear panels will be provided with rubber mats and all naked conductors such as bush bars will be kept clean.

7.MACHINERY:

The following basic fire preventive measures should be followed:-

-  Ensure proper lubrication.
-  Ensure proper assembly.
-  Ensure guard, barricade in its position.
-  Prevent sparking and spillage of oil.
-  Avoid over heating and over loading.
-  Check loads and installation for short circuit or damage prior to start.
-  Do not use if machinery is faulty.
-  Oil waste and other refuse items should not be allowed to remain by the side or under the machine.

8.HOUSE KEEPING:

- 1.Ensure no oil waste, paint rags and other industrial waste materials are lying in the shop floor or around machines.
2. These are deposited by the user in the bins provided exclusively for this purpose.
3. These waste materials are removed daily from the bins and dropped in the Scrap Yard as per the Handling and storage Instructions.
4. From Scrap Yard these are cleared on daily basis.
5. Shop floor is kept clean by mopping up from two to three times in a day.
- 6.No material is kept on the gangways. Before closing the work every one will ensure that: -

- ❖ The electricity connection of the section has been switched off.
- ❖ The water taps have been closed.
- ❖ There is no risk of fire arising out after his departure.

7. Electrical Section will ensure periodical check and ensure all electrical fittings are in good condition from safety point of view.

VIII- MITIGATIVE - PROCEDURE / INSTRUCTION

GENERAL:

1. By controlling and stopping the fire incident by all Employees to minimize the injury to persons and damage to material is not only the task, but to take necessary corrective actions to Mitigate the re occurrence of the incident is very important at all level. Once the Mitigative action is taken and implemented at all level, and then only it is considered that the action plan is completed.
2. To carry out the Mitigative action, we require some procedure to be laid down as a guide line. The mitigative actions requirement may defer from situation to situation from time to time.
3. General Mitigative Procedures are: -
 - ❖ Salvage the materials.
 - ❖ Segregate them hazardous, non hazardous
 - ❖ Carryout detailed analysis and study the root cause for the incident.
 - ❖ Carry out necessary rectification:-
 - A. Modification to present procedure/system.
 - ❖ Use of better materials/ Mitigates.
 - ❖ Imposing additional checks.
 - ❖ Proper disposal of salvages.
 - ❖ Imparting more training.

4. SALVAGE OF MATERIALS:

Classification of Salvaged Materials

- (a) Normal
- (b) Hazardous

4 (a)(i) NORMAL MATERIALS:

The materials, which are general in Nature and their handling, will not harm the person handling and the environment around it.

1. Collect these salvage materials in a central point.
2. Segregate them.
3. Inspect the salvage by a qualified Engineer.
4. Assess their serviceability.
5. Take in to account the serviceable materials for re use.
6. Then segregate unserviceable materials as scraps.
7. Dispose the scraps as per lay down in the table

4(a)(ii) HAZARDOUS MATERIALS:

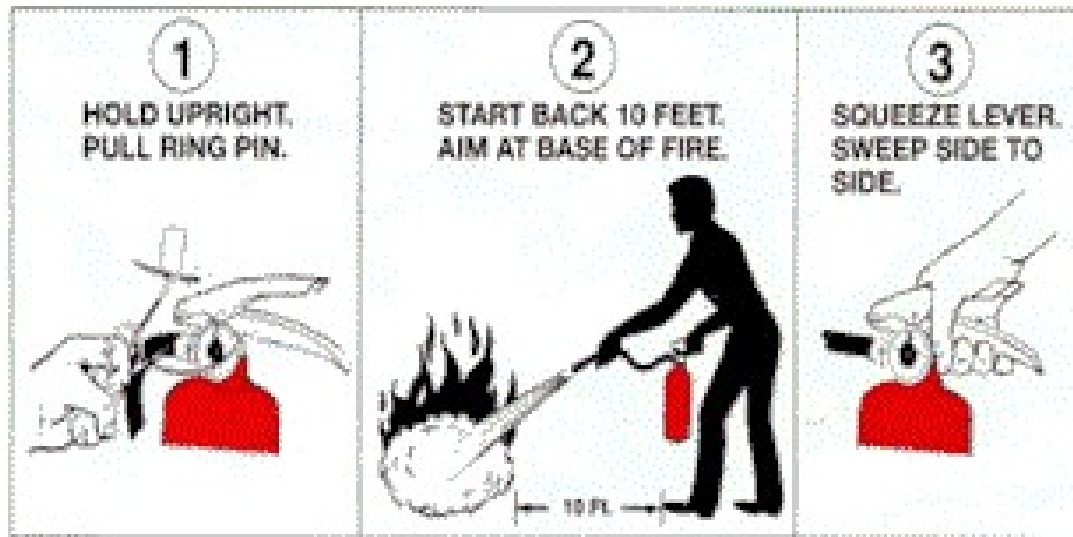
1. Segregate it from other materials.
2. Identify the category of Hazardous materials.
3. Keep them under proper check.
4. Carry out a detailed Inspection of these materials by authorized Engineers.

5. Asses their reusability/disposal method and applicable legal norms.
6. Take charge of the serviceable material for reuse.
7. Dispose the unserviceable materials as per laid down procedure.
8. Ensure all personnel involved in the mitigative tasks are properly clothed with protective equipments.

1. Ensure the additional checks, modification of the procedure, systems are properly implemented and are properly working. Impart training to all employees regulating the new modification of procedure and systems.

2. Ensure necessary revisions in the ON SITE EMERGENCY PLAN MANUAL.

IX. FIRE FIGHTING OPERATION



elements by applying an agent that either cools the burning fuel, or removes or displaces the surrounding oxygen.

Pull the Pin at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.

Aim at the base of the fire, not the flames. This is important - in order to put out the fire, you must extinguish the fuel.

Squeeze the lever slowly. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

Sweep from side to side. Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish. Be sure to

read the instructions on your fire extinguisher - different fire extinguishers recommend operating them from different distances. Remember: Aim at the base of the fire, not at the flames!!!!

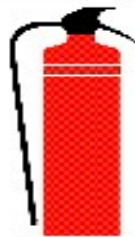
How to Fight a Fire Safely:

- Always stand with an exit at your back.
- Stand several feet away from the fire, moving closer once the fire starts to diminish.
- Use a sweeping motion and aim at the base of the fire.
- If possible, use a "buddy system" to have someone back you up or call for help if something goes wrong.
- Be sure to watch the area for awhile to ensure it doesn't re-ignite.

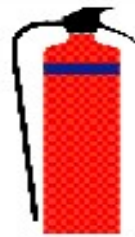
X- TYPES & CLASSIFICATION OF FIRE

TYPES OF FIRE EXTINGUISHERS

their uses and their colour coding according to BS EN 3: 1996



WATER



POWDER



FOAM



**CARBON DIOXIDE
(CO₂)**

For wood, paper, textile and solid material fires

DO NOT USE on liquid, electrical or metal fires

For liquid and electrical fires

DO NOT USE on metal fires





For use on liquid fires

DO NOT USE on electrical or metal fires

For liquid and electrical fires

DO NOT USE on metal fires

The contents of an extinguisher is indicated by a zone of colour on the red body of the extinguisher

CLASSES OF FIRES	TYPES OF FIRES	PICTURE SYMBOL
A	Wood, paper, cloth, trash & other ordinary materials.	
B	Gasoline, oil, paint and other flammable liquids.	
C	May be used on fires involving live electrical equipment without danger to the operator.	
D	Combustible metals and combustible metal alloys.	

XI-Schedule and Procedure for Mock Drill:

The success of this plan is dependant on planned and unplanned Mock Drills. So, Mock Drills should be carried out once in 6 months and records in terms of photographs and time registers. A mock drill helps to familiarize works-employees with their roles and prove the current accuracy of the details of the Onsite Emergency Plan.

Procedure for Mock Drills:

1. Fix the date, location and scenario of the emergency for mock drills.
2. Conduct Table Top Exercise one day before to finalize roles and responsibility of all team and decide action plan for mock drill.
3. Mock drills will be monitored by observers, who will be senior officers not involved in the exercises. All the action and activities will be note down by him with the time span.
4. Inform the neighboring industries about the mock-drill.
5. Act as per action plan for emergency causation.
6. Witness employee will shout loudly to communicate occurrence of emergency.
7. Raise the Siren for Emergency: This will typically be done by Security guard in the form of shrill intermittent signals in form of consequent high & low pitch sound.
8. After hearing the siren, the all the employees (except Emergency Response team) should gather at the safe assembly point.
9. At the same time head count to be performed by the security.
10. Plant Head should alert the Fire-Fighting team to run towards the emergency location along with the appropriate fire-fighting equipment. The map showing locations of fire extinguishers is available at the security gate.
11. At the same time the messenger will make the announcements in the various departments to make the other employees aware of the hazard.
12. If needed, the external agencies should be informed according to the procedures clearly spelt out in the Responsibility list.
13. Rescue/Evacuation Team should work in coordination with Fire-Fighting team.
14. The respective department heads should be present at the emergency location to monitor the successful and smooth operation of the mock-drill.
15. All Clear Signal should be raised about half an hour later. "All Clear" signal will be with two normal 30 seconds duration siren with a gap of 15 seconds in between.

XII. EMERGENCY RESPONSE TEAM (ERT)

NAME OF THE PERSONS IN EMERGENCY RESPONSE TEAM (ERT)

SL.NO.	NAME	DEPARTMENT
1	S.Kamalakannan	CNC FAB Production
2	R.Anandababu	CNC FAB Despatch
3	R.Prabhu	CNC FAB production
4	D.Magesh	CNC FAB Despatch
5	E.Pradhap	Bending
6	Y.John Peter	Admin
7	M.Sankar	U7 QC
8	R.Sathyanarayanan	3PH Division

PREPARED BY

S.Palanichamy

Maintenance- Manager

APPROVED BY

K.Ramesh

Plant - Manager