

<b>Lakshmi Cement Limestone Mine (Area: 390.625 ha), Expansion in production capacity from 8.0 to 13 MTPA</b> <i>At Villages Basantgarh, Rampura, Rohida, Tehsil Pindwara, District Sirohi (Rajasthan)</i>
<b>Risk &amp; disaster man plan</b>

## **1.0 EMERGENCY PREPAREDNESS PLAN**

### **1.1 INTRODUCTION**

Industrial safety is a priority issue attracting everybody's concern in order to provide a working environment, which is safe for the work force. A great deal of efforts and money is spent to reduce the scale & probability of hazards in the industries. However, there remains a finite possibility that certain hazards may occur. They can give rise to suffering and damage to a very great extent. Effective action has been possible in the emergency situation, due to existence of pre-planned and practiced procedure for dealing with such emergencies.

The objective of the emergency plan is to define in advance the action to be taken at Plant level & departmental level and these actions aim at the protection of the people and property within the Plant boundary and outside.

### **1.2 DEFINITION**

A major emergency occurring in the Plant is one that may affect several departments within it and/or may cause serious injuries, loss of life, extensive damage to property or serious disruptions outside the Plant or major environmental damage.

The following essential points should be taken care of for the effective implementation of the Emergency Preparedness Plan:

- a. Periodic review and updating of the Plan.
- b. Periodic rehearsal of the plan by way of Mock Drills.
- c. Review and the strengthening of the resources needed.
- d. Training of the site personnel in handling emergency equipment like the use of various Fire Fighting Equipments.

### **1.3 BASIC OBJECTIVES OF EMERGENCY PREPAREDNESS PLAN**

- a. Reduce risk to human health & life both within the Plant boundary and outside.
- b. Minimize damage to property both within and outside the Plant boundary.
- c. Liaison effectively with the Government Authorities /Public /Press to avoid a panic situation.
- d. Protect the environment.
- e. Bring down the number of near-miss accidents to a minimum.

### **1.4 ESSENTIAL ELEMENTS OF THE EMERGENCY PREPAREDNESS PLAN**

- a) Assignment of specific responsibilities to all categories of personnel

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- b) Effective communication of the nature of emergency to authorities within the organization.
- c) Maintenance of orderly public relation.
- d) Termination of Emergency.
- e) Appraisal of Local Hospitals/Nursing Homes/Doctors on specific emergency treatment required for affected persons.

## **1.5 MAIN DUTIES OF PERSONNEL INVOLVED IN EMERGENCIES**

### **1. Person who notices an emergency situation / fire:**

- a) Informs the Security Gate immediately about the incident.
- b) In the event of small fires fight the fire with the appropriate fire extinguisher.
- c) Helps the Security Personnel as per their instructions.

### **2. Head of the Department / Section In-charge or Incident Controller**

- a) In the event of acting as Incident Controller, carry out the function of Incident Controller. Quickly assess cause/source of the hazards and its effects.
- b) Discuss with the Site Controller and coordinate the necessary action required to control/contain the emergency situation
- c) Continuously monitor the work of fire fighting personnel and other persons engaged in the emergency actions so that all actions are carried out safely.

### **3. Site Controller - Sr. Vice President (Works)**

- a) Responsible for the overall control of the emergency situation.
- b) Discuss with the Incident Controller about the situation and evaluate the Major Emergency situation. The initial assessment of the situation is done by the concerned HOD immediately after the incident happens.
- c) Ensure communication to the following authorities if necessary:-
  - Fire Brigade
  - Local Hospitals
  - Civil Authorities
  - Electricity Board
- d) Ensure communication to the neighboring industries of the incident, if required.
- e) Maintain a speculative continuous review of possible developments and assess these to determine most probable course of events.
- f) Ensure proper preservation of evidence for subsequent investigation.

- Ensure overall safety of the Emergency Operations.
- Assist in controlling the Emergency.
- Keep Central Control Center (CCC) informed of the developments from time to time.
- Mobilize all available resources for controlling the incident
- Help in carrying out search and rescue operations, if required.

#### **4. Security Officer**

- a) Ensure that unauthorized persons do not enter the emergency area.
- b) Ensure cordoning off of the prohibited area.
- c) Ensure availability of the fire fighting personnel.
- d) Act as per the instructions of the Incident Controller

#### **5. Process and Maintenance Personnel of Affected and Non- Affected Areas**

- a) Persons of the unaffected area shall ensure the smooth operation of their own areas and shall not create a crowd at the emergency site. They are to extend their full co-operation to the staff fighting with the emergency, if the need arises.
- b) Persons of the affected area shall not create hue and cry and before arrival of the Security Staff should initiate first aid action against the emergency. They shall extend help to the fire fighting staff as per their requirement. The maintenance staff shall ensure availability of crane, gas cutting and welding facilities to meet any emergency requirement. The electrical staff shall ensure electrical isolation of the area if required and shall arrange emergency lights to lighten the area.
- c) Persons are to remove the materials from emergency area prone to fire / explosion etc.
- d) Conduct emergency control operations as per the instructions of the Incident Controller

#### **6. Role of the Store Personnel**

The Store Department shall ensure that in emergency situation it is open to issue Personnel Protective Equipment (PPEs) and other materials required to tackle the emergency.

#### **7. Role of General Staff**

They have to follow the instructions as given to them from that in-charge of handling an emergency. They also help other occupants and outsiders by providing them with information and assistance as required.

## 8. Role of Visitors

In an emergency, visitors must follow the instructions given to them by the in-charge, the guard or others involved in trying to manage the situation. They also should help in case of evacuation procedures. Information regarding emergency procedures is provided through signs on display in every strategic location of the premises.

## 1.6 CRITERIA FOR PROCLAIMING MAJOR EMERGENCY

A major emergency situation can occur in the event of:

- a. A major, minor fire
- b. Black-out
- c. Explosion followed by fire or fire followed by explosion.
- d. Collapse of a building / Civil Structure
- e. Natural calamities like earthquake, flood etc.
- f. Bomb threat / Terrorism
- g. Snake bite
- h. Skidding of HEMO at mining site

### a. Fire:-

Fire can take place inside the Plant/Various departments/Stores and oil storage yards/offices and other areas inside the site. (Potential areas are Liquid fuel storage tanks, DG Sets, HDPE bags Godown, Coal Stock Pile etc.)

### b. Blackout:-

The premises have a Generating Set which can supply electricity in case of black out. The occupants, staff and visitors are advised by the staff on duty to remain calm and not to panic. They are advised to stay where ever they are at the time of black out. The DG sets shall be serviced on a regular basis to ensure that these remain functional all the times.

### c. Explosion:-

Explosion followed by fire or fire followed by explosion. These could take place inside the Plant/Storage Yards & Stores. (Liquid fuel storage tanks, ESP, Coal Mill area etc. Listing of Potential Emergency Situation identified in the Plant is given in Table no. 7.7.

**d. Collapse of a building / Civil Structure**

Collapse of any building / Civil Structure can take place inside the Plant which may /may not involve loss of life and property. Protective mesh shall be used during any construction, repair work. In case of collapse of any part of the building, the affected person(s) shall be provided first aid, shifted to hospital, nursing home and provided required medical treatment. The collapsed area shall be isolated to avoid other persons going nearby and exposing themselves to potential risks.

**e. Natural calamities like cyclone, earthquake, flood etc.**

They are also major emergency situations as they may involve loss of life / property & effect the Plant very badly.

**f. Bomb Threat / Terrorism**

The local authorities shall be informed and the staff shall proceed strictly in accordance with the instruction of the authorities.

**g. Snake bite**

Bites from venomous snakes are most likely to occur during outdoor activities in warm months in areas where venomous snakes are abundant. In case of snake bite first aid treatment shall be provided and the person will be shifted to the dispensary as fast as safely possible.

**Table no. 1.0**

**EMERGENCY SITES IDENTIFIED IN FACTORY**

NAME OF THE SITES	TYPE OF EMERGENCY
<b>A. Major Emergencies:</b>	
1) HSD storage area near DG set	Fire/Sudden discharge/explosion
2) HSD Tank near Kiln No. 3	Fire/Sudden discharge/explosion
3) Thermal Power Plant	Fire & Boiler Explosion
4) Coal stock pile	Fire
5) HDPE packing bags storage (New & Old Packing Plant)	Fire
6) DG House.	Fire
7) Mines.	Explosion

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8) ESP	Explosion
9) Bag house	Fire / Burning of Filter bags
10) Oil storage area (Fresh/waste)	Fire
11) Electrical supply/transformer	Fire (Short circuiting)
12) Administrative block / Store	Fire
<b>B. Minor Emergencies:</b>	
1) Working at height above 10 feet in Plant or Mine	Fall from height resulting into Permanent disability or Fatal accident
2) Working on moving machinery like Rubber belt conveyor in Plant and Mine material handling sections	Trap between the nip point resulting into Permanent disability or Fatal accident
3) Coal, Gypsum, Fly Ash Storage Yards	Accident with the Heavy Earth Moving Machinery resulting into Permanent disability or Fatal accident
4) Pre-Heater Cyclones Jam removal	Sudden release of hot material resulting into burn injury to the cleaning staff.
5) PC dropout area	Hot discharge

## 1.7 ON SITE CENTERS FOR EMERGENCY CONTROL

The fundamental need of an Emergency Control Plan (ECP) is to establish two control centers, one at the affected site (Incident Control Center) and the other one reasonably away from the affected site (Central Control Center). The later should not be affected by the emergency situation. The Central Control Center is located in the office of Manager (Personnel) at the Main Gate of the Factory.

## 1.8 CENTRAL CONTROL CENTER (CCC) - MAIN GATE

This is a command post. This centre is utilized for receiving and assessing information regarding the situation, directing the resources to Incident Control Center, at the demand of Incident Controller located at ICC, calling in assistance from External Fire Services, ambulance etc. The **Site Controller** will be stationed in the office of Manager

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(Personnel) and will communicate with the **Incident Controller** and the Corporate Office according to need. CCC shall be equipped with:

- a. Internal/External Telephone Nos.
- b. Site-Master Plan
- c. List of important Persons at the site, authorities outside along with their names and telephone numbers.

## **1.9 INCIDENT CONTROL CENTRE (ICC)**

This center will seek the services of the Emergency Task Force and also contact the personnel listed in table no. 7.10 for any assistance during the emergency. The important telephone numbers are listed in the table no. 7.8 for contacting various essential services during the emergency. The residential address of important persons to be contacted for communicating the emergency situation is also listed in table no. 7.9. This center is the communication link between the Emergency services and Central Control Center. The Department-In-Charge takes control of this center and acts as an Incident Controller. Location of ICC for different departments/areas and the respective Incident Controllers are given in table no. 11 & 12. ICC shall be equipped with:

- a. Telephones
- b. Site-Master Plan
- c. A list of Internal/External Telephone numbers of site personnel.

**Table no. 1.1**

### **IMPORTANT TELEPHONE NUMBERS (INTERNAL)**

**Lakshmi Cement Limestone Mine (Area: 390.625 ha), Expansion in production capacity from 8.0 to 13 MTPA**  
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<b>IMPORTANT SERVICES</b>	<b>INTERNAL</b>
Security	2222 /3000
Fire	2222/3232
First Aid	2299
<b>UTILITY SERVICES</b>	
Canteen	3282
<b>Maintenance &amp; Services</b>	<b>2503</b>
Reception	3361 / 90
Transport	3300 / 3200
<b>COMMUNICATION</b>	
EPABX BOARD	3361 / 90
TELE. EXCHANGE	3300 / 3200
<b>ELECTRICAL</b>	
Power control	3284 / 4366
Electrical Complaints	3284 / 4366
<b>SECURITY</b>	
Main Gate	3000/2222
<b>Main Gate (Mines)</b>	<b>4249</b>

**Table no. 1.2**

**RESIDENTIAL ADDRESS OF PERSONS TO BE CONTACTED IN CASE OF AN EMERGENCY**

<b>SN</b>	<b>Name</b>	<b>Designation</b>	<b>Address</b>
1.	Sh. P.L.Mehta	Sr. VP (Jaykaypuram)	J – 1 , Jaykaypuram
2.	Sh. A.K. Bartaria	VP (Prod & QC)	B - 04, Jaykaypuram
3.	Sh. B.B.Wadhavan	VP (Engg)	A –02, Jaykaypuram
4.	Sh. S.N. Sharma	VP (PH)	B-12, Jaykaypuram
5.	Sh.R.C.Nyati	Sr. GM (Mines)	B-7, Jaykaypuram
6.	Sh. Dinesh Pandya	Sr.GM (P & A)	B-1, Jaykaypuram
7.	Sh. R Keshwani	Sr. GM (Engg)	B-5, Jaykaypuram
8.	Sh. R.K Mathur	GM (Mech)	C-14, Jaykaypuram
9.	Sh.S.K.Saini	GM (Elect)	C-32, Jaykaypuram
10.	Sh. Amit Rawat	DGM (Security)	C-42 Jaykaypuram
11.	Dr. VK Gaur	Sr. Manager (Medical)	C-33, Jaykaypuram
12.	Sh. Sujeet Singh	Sr. Manager (Safety)	C -55, Jaykaypuram



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**Table no. 1.3**  
**EMERGENCY TASK FORCE**

The following members would constitute the Emergency Task Force of the Site. The function of this Task Force is to monitor the emergency operations with a view to control the emergency in the earliest possible time period to minimize loss of human lives and property.

S. NO.	Name & Designation	Telephone Number		
		Office	Residence	Mobile
1	Sh.P.L.Mehta Sr. Vice President (Works)	3241	2241	9785455553
2	Sh.A.K.Bartaria VP (Production & QC)	4254	2254	9785455682
3	Sh.B.B.Wadhavan VP (Engineering)	4293	2293	9785455633
4	Sh.S N Sharma, VP (PH)	3214	2214	9785455592
5	Sh. R. C. Nyati Sr. GM (Mines)	4250	2250	9785455667
6	Sh.Dinesh Pandya Sr. GM (P&A)	3204	2204	9785455559
7	Sh. R Keshwani Sr GM (Engg.)	4280	2280	9785455613
8	Sh.R K Mathur GM (Mech)	4370	2221	9694080753
9	Sh.S K Saini GM (Elect.)	4276	2278	9785455599
11	Sh. Alok Kumar Sr. GM (Stores)	3333	2333	9785455714
12	Dr.VK Gaur Sr. Manager (Medical Services)	2277	2377	9694089812
13.	Sh. Amit Rawat DGM (Security)	3216	3248	9785455788
14.	Sh. Sujeet Kr. Singh Sr. Manager (Safety)	3232	2392	9785455789

## **1.10 HANDLING OF AN EMERGENCY SITUATION / DISASTER**

### **1.11 RAISING AN ALARM**

In the event of a major emergency, the Incident Controller with verbal permission of the Site Controller will instruct the Security Office (Phone No. 3000/2222) where the guard on duty will raise an alarm, which should be different from the general siren.

#### **DETAILS:-**

Switch on the Siren (at the Security Office) and switch off after 5 seconds. Repeat 5 more times to make it 6 short duration sirens.

The senior most officer of the concerned Department, present at the site, will act as the temporary Incident Controller of the situation. As soon as the concerned HOD / Manager arrive at the spot he takes the role of the Incident Controller at the Incident Control Center.

### **1.12 ASSESSMENT OF THE MAJOR EMERGENCY SITUATION**

Assessing the Major Emergency situation is to be done primarily by the concerned HOD / Manager. He assesses the situation and conveys information regarding the Emergency situation to the Site Controller and other important persons whose telephone numbers are given in below table:

**Table no. 1.4**

#### **INCIDENT CONTROL CENTRE AND INCIDENT CONTROLLERS FOR VARIOUS AREAS**

<b>S NO</b>	<b>LOCATION OF CENTER</b>	<b>INCIDENT CONTROLLER</b>	<b>INTERNAL TELEPHONE</b>	<b>EMERGENCY SITES COVERED</b>
1	Central Control Room	DGM (Process) (Sh. Rajpal Singh)	4327	Unit I Kiln I, Kiln II, Kiln III, HSD Tank
3	Central Control Room	DGM (Process) (Sh. S.K. Dubey)	4300	Unit I Raw Mill, VRM Phase I, VRM Phase II
4	Cement Mills	DGM (Process) (Sh. Ajay Sharma)	4335	Cement Mills I, II, III, IV, V, VI

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5	DG Control Room	Vice President (PH) (Sh. S N Sharma)	3214	HSD storage area & DG Set, oil storage area (fresh & waste).
6	Thermal Power Plant	Vice President (PH) (Sh. S N Sharma)	3214	Thermal Power Plant
7	Packing Plant	Sr. Manager (Packing Plant) (Sh.R Chaturvedi)	3344	Cement Silos, HDPE bags store, Packers, Railway siding
8	Stores	Sr. GM (Stores) (Sh. Alok Kumar)	3333	Coal yard, Stores, Steel yard, Oil storage area ( fresh)
9	Electrical	GM (Elect) (Sh. S.K.Saini)	4366	Electrical supply, Transformers, Sub stations, Load Centers
10	Mines	Sr GM (Mines) (Sh. R.C.Nyati)	4250	Mines area
11	Adm. block	Sr. GM (P&A) (Sh. Dinesh Pandya)	3204	Administrative Block

**Table no. 1.5**

**SITE CONTROLLER AND OTHER OFFICERS FOR ASSESSING MAJOR EMERGENCY SITUATION**

SL. NO.	NAME & DESIGNATION	INTERNAL TELEPHONES		
		Office	Residence	Mobile
1	Sh. P.L. Mehta Sr. Vice President (Works)	3241	2241	9785455553
2	Sh.A.K.Bartaria VP (Production & QC)	4254	2254	9785455682
3	Sh. B.B. Wadhavan VP (Engineering)	4293	2293	9785455633
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5	Sh. R. C. Nyati Sr. GM (Mines)	4250	2250	9785455667
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14.	Sh. Sujeet Kr. Singh Sr. Manager (Safety)	3232	2392	9785455789

**Site Controller** in consultation with the concerned HOD will take decisions pertaining to any additional resources required from outside in handling the situation. Depending on the level of emergency **Site Controller** will co-ordinate rescue and other emergency activities on site and liaison with the respective authorities (Police, Fire Services, Hospitals & Press) for assistance in firefighting, hospitalization etc.

#### **Fire Fighting Instructions**

The Site Fire-Fighting procedure gives details on fires/fire fighting instructions/location of various fire fighting equipment's etc. personnel are given practical training in fire fighting.

STEP BY STEP PROCEDURE TO BE FOLLOWED ON NOTICING A FIRE/FIGHTING FIRES  
Anyone noticing fire in any area of the works shall immediately inform the Security Office through the Internal telephone No. 3000/ 2222 or by personally going to the Security Office, whichever is quicker.

In case of small fire select/use the suitable fire extinguishers and extinguish the fire (Everyone must get familiarized, on the various types of fire and the operating principles and instructions for each type of extinguisher).

In case of big fire where the use of the extinguisher is insufficient and where the water could be used, Hydrant points are to be used.

<b>Class A or ABC Extinguisher Fire:</b> Wood, paper, textiles, and other ordinary combustibles.
<b>Class B Fire:</b> Flammable liquids, oils, solvents, paint, grease, etc.
<b>Class C Fire: Electrical:</b> Live or energized electric wires or equipment.
<b>Class D Fire:</b> Combustible metals (magnesium, titanium, potassium, etc.)

**Fire Hydrants:** The security guards on duty should rush at the fire place immediately after collecting the hoses & Nozzles from the fire store at main gate. Connect the male coupling of the hose to the hydrant and spread the hose. Connect the nozzle to the other end of the hose. Hold the nozzle firmly, and ask the other man to inform the pump operator to start the fire hydrant pump and then open the hydrant valve slowly. Direct the nozzle towards the base of the fire. In case of one hose length is found insufficient another hose should be connected to the first hose and at the end of second hose the nozzle should be connected.

Type of PPE used - Gum boot, goggles, dust mask, ear plugs, helmet etc.

For fighting fire involving oils and other hydrocarbons, ABC type fire extinguishers, which are installed at various sensitive locations clearly marked as FIRE should be sprayed at the base of the fire & not water. If the fire is small then sand buckets can also be used

In case of big fires where the fire fighting facilities are inadequate water hydrant system should be used.

#### **Assembly Point details**

There are two assembly points at site.

A. Assembly Point No 1 for the Factory is near the main gate

B. Assembly Point No-2 for the Mines is near the Mines Time Office,  
Always assemble at the Main gate of the Factory or near Mines Time Office in case of an emergency.

### 1.13 **TERMINATION OF AN EMERGENCY SITUATION**

When the conditions causing the Emergency are brought under control, the Incident Controller in consultation with the Site Controller will announce the termination of Emergency situation. The declaration of the end of the Emergency shall be made by sounding a siren with continuous pitch for 1 minute. The Incident Controller will keep a record of the attendance of all persons present at the incident site. Before declaration of termination of the emergency he will ensure that all persons are accounted for and injured persons are shifted to the Dispensary / Hospital for proper treatment.

### 1.14 **Preventive Measures To Avoid Accidents & Emergency Situations**

Preventive measures for avoiding emergency situations in various areas are given as under:

#### **A. Safety in Battery Charging**

1. Store battery acid i.e. sulphuric acid in plastic container or glass container.
2. Always add acid slowly to the water when mixing, especially when diluting high gravity acid never add water to the acid.
3. Always wear acid & alkali proof goggles and Rubber gloves when handling acids, Be extremely careful not to spill or splash acid.
4. During charging of the battery connect the battery terminal correctly to the DC source. If the battery is connected incorrectly, then permanent damage may result.
5. The battery must always be recharged immediately after the complete discharge.
6. When adding distilled water, which has evaporated, never fill the cells above the normal level. Overfilling causes loss of acid thus reducing the battery capacity.
7. If battery acid gets in contact with your skin, flush it at once with plenty of water. Apply Baking Soda, if available, on the burnt area baking soda neutralizes the acid.

#### **B. Safety in Arc Welding**

1. Arc welding shall be done on a cast iron bed.
2. Electrodes should be inserted in the holder using insulated gloves.
3. Do not charge tapping when the machine is "ON"

4. Electrodes should be removed from holders when not in use.
5. Always “Switch Off” the welding equipment’s after the use and disconnects the plug.
6. Never direct a “LASER” beam to a job, which reflects the beam back as reflection may result in losing eyesight.
7. Whenever Equipment is transported from place to place, take precautions.
8. Regularly inspect the insulation on electrode holder cables & accessories. Replace worn & damaged cables immediately.
9. Cover the lug terminals to prevent short-circuiting out by a metal object.
10. Ensure cable & power source are free from dirt/grease.
11. Remove combustible materials from work area or cover them with fire resistant blankets, before starting the welding operations.
12. Use all proposed safety/protective Equipment’s.
13. When job is finished, disconnect the welding machine from the power source and remove the electrode from the holder. Store the electrode in safe place.

**C. Safety in Electricity**

1. Do not reuse a blown fuse until you are satisfied that the defect has been rectified.
2. Do not put-off any switch unless you are familiar with the circuit which it controls and know the reason for its being in “ON” position.
3. Do not touch or tamper with any electrical gear or conductor, unless you have made sure that it is dead and earthen.
4. Do not work on the live circuit without the express orders of the supervisors. Make certain that all safety precautions have been taken and you are accompanied by second person to render First-Aid and artificial respiration.
5. Do not connect earthing connection or render ineffective the safety gadgets installed on mains and apparatus.
6. Do not uses or close switch or fuse slowly, do it quickly and positively.
7. Do not use wire/cables with poor insulation
8. Do not touch an electric circuit when your hands are wet or bleeding from a cut or an abrasion.
9. Do not work on energized circuits without taking extra precaution such as the use of rubber gloves.

10. Do not disconnect a plug by pulling a flexible cable when the switch is "ON".
11. Do not use fire extinguisher on electrical Equipments unless it is switched "OFF".
12. Do not throw water on live electrical Equipments in case of fire.

**D. Safety in mines.**

- Before blasting use siren.
- Restrict the entry in during blasting time
- Availability of fire extinguishers in the HEMM
- Water arrangement should be near the magazine area.

**E. Safety in Fuel Storage Area/ Dg House**

- Ensure that fire extinguishers are available.
- The vent line should be cleaned of all the fuel storage tanks periodically.
- On regular basis temp. control system should be checked and ensure if there is no fuel in the tank switch off the heater.
- Fire hydrant line should be checked timely & should be available in emergency.
- No smoking boards should be displayed.
- All the trenches of DG's should be cleaned periodically.
- The waste cloth should not be scattered near DG House & around Fuel storage tank.

**F. Safety in Packing Plant Area:-**

- "No Smoking" board should be displayed.
- The empty bag should not been kept in scattered manner.
- Water hydrant line should be available.

**G. Safety in coal stock pile:**

- No smoking board should be displayed near coal stock pile.
- Fire fighting arrangement should be available near this area.

**H. Safety in PC Drop Out, ESP And Bag House Area:**

- There should be siren or some indication before PC drops out if possible through PA system from CCR.
- The Temperature, CO, DP should be in specified limit in bag house and ESP.
- First aid Fire fighting arrangement should be available.

**1.15 MOCK DRILLS FOR FIRE ACCIDENTS**



In case of Firefighting, mock drills are organized once in six months to tackle emergency situations.

#### **1.16 POST EMERGENCY ACTION**

Whenever there is an emergency, after its control the cause of emergency will be analyzed and corrective / preventive actions will be taken including modifying EPP to prevent its reoccurrence.

#### **1.17 BUILDING EMERGENCY EVACUATION PLAN**

##### **1.18 SCOPE:**

This Plan has been prepared to ensure orderly and complete evacuation of Administrative Building & CCR whenever an emergency occurs, or the alarm sounds.

The primary objectives of this evacuation plan are to ensure that everyone leaves the building safely.

The purpose of this Plan is a total or partial evacuation of building in case of Fire  
General Building Evacuation Procedure

At recognition of Fire / hearing the shouting "Fire", it is the responsibility of all building occupants to evacuate immediately and proceed to predetermined assembly points, away from the building.

Building occupants are also responsible for ensuring that their visitors/customers follow the evacuation procedure described herein, and leave the building along with all other occupants.

Designated essential personnel needed to continue or shut down critical operations, while an evacuation is underway, are responsible for recognizing and/or determining when to abandon the operation and evacuate themselves.

Contract workers will be made familiar with the procedures outlined herein, and are expected to leave the building when the alarm sounds.

#### **Whenever Recognize SMOKE OR A FIRE. --> REMEMBER - R.A.C.E.**

- **RELOCATE** - If it is safe to do so, **Relocate** people in immediate danger. Instruct others to report to their designated gathering areas. Be aware of persons who may need assistance.
- **ALARM** – Sought "FIRE" to alert all occupants. Move to a safe location. Call Security & Fire.

- **CONFINE** - **Close** all doors, windows and other openings to **confine** the fire, if this can be done safely.
- **EVACUATE** - **Evacuate** building & assemble at assembly point

#### **1.19 EVACUATION INSTRUCTIONS**

Whenever hear the building alarm or are informed of a general building emergency,

- Do not be panic
- Do not ignore alarm.
- Leave the building immediately, in an orderly fashion.
- Follow quickest evacuation route from where you are (see posted floor evacuation diagram/map).
- Do not go back to your office area for any reason.
- Proceed to the designated emergency assembly point for your area. If the designated assembly point/area is unsafe or blocked due to the emergency, proceed to the alternate assembly point.
- Report to your Work Area Rep at the assembly point to be checked off as having evacuated safely; also report any knowledge you may have of missing persons.
- Return to the building only after emergency officials or building monitors give the all-clear signal. Silencing the Alarm doesn't mean the emergency is over

#### **1.20 EMERGENCY EVACUATION PERSONNEL**

For the purpose of this Plan, Emergency Evacuation Personnel, and their alternates are regular employees who have been selected to ensure that building evacuation is carried out as planned, evacuated building occupants are directed to assigned assembly points where they will be accounted for, and persons needing assistance to evacuate are attended to.

Building emergency evacuation personnel and their alternates shall be selected among building occupants, and on a voluntary basis.

The following is a list of building emergency evacuation personnel, and their corresponding duties.

PLEASE NOTE: Assigned duties are to be carried out only if you are not putting yourself in danger or risking your personal safety

Personnel	Duties
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Occupants	<ul style="list-style-type: none"> <li>✓ On recognition of fire alert co-worker &amp; other building occupants by shouting "Fire – Fire"</li> <li>✓ Inform Security &amp; Safety department about the location &amp; severity of fire.</li> <li>✓ Extinguish the fire using available fire extinguisher, if it is safe to do so.</li> <li>✓ Shut the door (don't lock it) to confine the fire.</li> <li>✓ Leave the building as soon as possible and go to your assembly area.</li> <li>✓ Check co-workers / Visitors at assembly point.</li> <li>✓ Electrical / Operation shift in charge will ensure safe shutdown of plant / control room power supply as the case may be. He may take help of seniors if feel necessary.</li> </ul>
Incidence controller	<ul style="list-style-type: none"> <li>✓ Collect information on building occupants known or suspected to still be in building from occupants.</li> <li>✓ Meet emergency responders at building entrance.</li> <li>✓ Report information on occupants needing assistance to evacuate and other personnel suspected to still be in building to emergency responders.</li> <li>✓ Transmit the All-Clear signal to floor monitors or other building emergency evacuation personnel.</li> <li>✓ Conduct post emergency meeting if necessary.</li> <li>✓ Help secure building and prevent re-entry.</li> <li>✓ Maintain communication between emergency responders and main site controller.</li> </ul>

#### 1.21 EVACUATION ASSEMBLY POINTS:

When the alarm sounds ("hear Fire") / recognize fire, all occupants within the building must evacuate and report to an assigned evacuation assembly point. The evacuation assembly points are as listed below:

Building	Evacuation Assembly Point

<b>Lakshmi Cement Limestone Mine (Area: 390.625 ha), Expansion in production capacity from 8.0 to 13 MTPA</b> <i>At Villages Basantgarh, Rampura, Rohida, Tehsil Pindwara, District Sirohi (Rajasthan)</i>
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ADM	Parking Area
	In between Store & Workshop
CCR	In front of CCR
	In front of Load centre #3

### **Emergency Exit**

<b>Floor #</b>	<b>Emergency Exit -1</b>	<b>Emergency Exit -2</b>
ADM Ground Floor	Main Gate	Gate near accounts office stair
ADM First Floor	Main gate stair	accounts office stair
CCR Ground Floor	Main Gate	Door near Sample preparation room
CCR First Floor	Main gate stair	Load centre #4 Exit door
CCR Second Floor	Main gate stair	Exit door near DCS Room

Note: If the incident controller feels necessary; he may advice all the occupants to assemble at assembly point near main gate.

#### **1.22 SNAKE BITE**

Bite from a venomous snake, including rattlesnake, copperhead, water moccasin or coral snake. Bites on the extremities are most common, but bites on the head and trunk are most dangerous. They are likely to happen to person working in mines / plant.

#### **1.23 CAUSES**

Bites from venomous snakes are most likely to occur during outdoor activities in warm months in areas where venomous snakes are abundant.

#### **1.24 SIGNS AND SYMPTOMS**

If the bite is from a coral snake, it will have multiple fang marks and small cuts. Coral-snake symptoms may not appear for 3 to 4 hours. If the bite is from another snake, it will have deep single or double-fang marks. Symptoms from other snakes begin quickly. Symptoms of any venomous snakebite include:

- ✓ Severe pain and swelling around the bite.
- ✓ Skin discoloration that resembles bruising around the bite.
- ✓ Bleeding spots under the skin all over the body.
- ✓ Numbness and tingling around the mouth and in the hands and feet.
- ✓ Excessive sweating.
- ✓ Fever.
- ✓ Low blood pressure and life-threatening shock.
- ✓ Breathing difficulty.
- ✓ Blurred vision.
- ✓ Headache.
- ✓ Seizures.
- ✓ Coma.

#### 1.25 **DIAGNOSIS**

- ✓ History of snake bite. Fang marks.
- ✓ Your own observation of symptoms.
- ✓ Medical history and physical exam by a doctor.
- ✓ Laboratory blood studies.

#### 1.26 **FIRST AID**

##### **Reassure the victim**

Calm the victim down. Un-necessary panic will only raise the pulse rate and blood pressure and moves the venom into the system faster. Tell the victim that 70% of snakebites are from non-poisonous species. Of the remaining 30%, only half will actually involve injecting venom. The chances are they are OK!

##### **Immobilize the bitten limb without compression.**

If the bite is on a hand or arm place it in a sling bandage or use a piece of cloth to support the arm. In the case of a leg bite, use a splint to support both legs and bandage them together. Clean the wound and apply a tighter bandage just above the bite, we are only trying to Immobilize not apply any pressure.

##### **Get the patient to Hospital as fast as safely possible.**

Don't waste time, seeking traditional remedies or applying any drugs or chemicals to the victim. Science has shown that traditional remedies do not work and simply waste valuable time. Snakestones do not absorb venom and many herbal remedies make the

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situation worse. Keep the patient as immobile as possible.

**Tell the Doctor any of the following signs appearing on the way to the hospital.**

The Doctor will want to know if any of the following signs or symptoms are noticeable on the journey to the hospital:

- ✓ Difficulty breathing. If the patient stops breathing, give artificial respiration. In Cobra and Krait bites this will save the victims life.
- ✓ Drooping eyelids
- ✓ Bleeding from the gums or any unusual bruising appearing.
- ✓ Increases in any swelling. Carry a pen and mark the limit of the swelling every 10 minutes or so
- ✓ Drowsiness
- ✓ Difficulty speaking
- ✓ Bleeding from the wound that does not seem to stop

## **1.27 PREPAREDNESS PLAN DURING ONSET OF MONSOON**

### **1.28 BEFORE ON SET OF MONSOON**

- ✓ Senior official should visit the mine for a careful assessment of apprehended danger of water & adequate precaution before onset of every rainy season & assign special duty to mine officials.
- ✓ Prepare water drainage, divert culverts so as to avoid abnormal accumulation of water in mines and
- ✓ Fixation of danger mark if required of water level & communication system should be developed.

### **1.29 DURING MONSOON**

### **1.30 GIVING WARNING**

#### **a) Duty of any person**

- As soon as abnormal rise of water level in mine he should intimate to nearest mine official, i.e. foreman or asst manager and all means of help reach the site & extend all means of help.

#### **b) Duty of mines officials.**

- ✓ Mine Foreman and assistant manager on receiving warning shall intimate emergency squad by fastest means for withdrawal of men and equipments.

- ✓ On hearing the danger signal shall immediately collect at emergency assembly point, designated for the purpose of emergency.
- ✓ On receiving emergency warning signal shall immediately inform to manager & agent & senior officials.

### **1.31 WITHDRAWAL OF PERSON**

#### **a) Duties of mines officials**

- ✓ On getting flood warning or on suspicion that mine or part is in danger of water shall remove forth with all person from mines.
- ✓ Withdrawal of person shall be by shortest route and without panic.

#### **b) Duties of mine manger**

- ✓ On receiving warning manger shall be present at control center.
- ✓ He shall take charge of operation.
- ✓ Shall personally ensure that all persons are withdrawn from affected area.

### **1.32 ADMITTANCE OF PERSONS**

- ✓ No person other than those permitted in writing by manager shall be allowed to remain in or to enter in mines.
- ✓ A record shall be maintained of every such entry.

### **1.33 RESUMPTION OF WORK**

Normal work shall not be résumé until manager& Sr mine official inspect the affected area regarding worthiness of haul road, mine face, and stability of reject dump according to as statutorily required.

### **1.34 ENFORCEMENT OF THE ORDER**

- ✓ A copy of this plan shall be posted in shift office and on notice board.
- ✓ Mock rehearsal shall be held for this purpose before onset of monsoon at least once in year.
- ✓ A record of such occurrence shall be kept.

### **1.35 MONSOON PRECAUTIONS**

- 1) Cleaning of drainage system, nallahs, check dam, anycuts.
- 2) Making drainage at each bench to divert rain water to lower most bench.
- 3) Fencing of bottom bench.
- 4) Stoppage of work at lowermost bench during heavy rain.

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- 5) Installation of pumps in Crusher 1 & 2, LSH-5, & LSH-6 tunnel for dewatering of seepage water.
- 6) Keeping 2 Nos. heavy duty portable/submersible pump in case of emergency.
- 7) Temporary stoppage of work during heavy rain till inspected by Mine Manager or senior most officials and declared safe.
- 8) Frequent inspection mine (working benches, waste dump, screen dump, haul roads, drainage system, crusher hopper, tunnels, stock pile, check dam, anicuts etc.) by Mine Manager/Asst. Manager/Mine Foreman in rainy season.

**Table no. 1.6**

**LIST OF OUTSIDE EMERGENCY SERVICES**

<b>S. No.</b>	<b><u>AGENCY</u></b>	<b><u>PHONE NO.</u></b>
A.	<b><u>FIRE STATION</u></b>	
	1. Fire Station, Sirohi	02972-101
	2. Binani Cement, Pindwara	02971 -235005-12
B.	<b><u>POLICE STATIONS</u></b>	
	Superintendent of Police	02972-220718(O),220719(R)
	SHO, Swaroopganj	02971-226222
	Dy. Superintendent of Police(Mount Abu)	02974-238973
	Dy. Superintendent of Police(Sirohi))	02972-222240(O),222241(R)
C.	<b><u>HOSPITALS AND AMBULANCE SERVICES</u></b>	
	Chief Medical & Health Officer, Sirohi	02972-222259 (O),9414448941
		02972-222262 (R),9414445941
D.	<b><u>ELECTRICITY BOARDS</u></b>	
	Assistant Engineer, RSEB, Pindwara	02971-280176
E.	<b><u>WATER MANAGEMENT</u></b>	
	Assistant Engineer, Irrigation, Swaroopganj	02971-280926
F.	<b><u>DISTRICT COLLECTOR</u></b>	
	District Collector-Sirohi	02972-221187 (O)/221188 (R)
	SDM- Mount Abu	02974-238489 (O)/238490 (R)

**Table 1.7**



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#### LIST OF OUTSIDE EMERGENCY SERVICES AT DELHI

S.NO.	AGENCY	PHONE NO.
1.	FIRE STATION Laxmi Nagar Canaught Place	101, 22417747 23414444
2.	POLICE STATIONS Police I P Estate	100 23378474, 23370928
3.	Women Cell Delhi I P Estate PS Daryaganj	1091 23370999 23240100
4.	AMBULANCE SERVICES Ambulance	102
5.	HOSPITALS Loknayak Hospital  Govind Ballabh Pant Hospital  Dr Ram Manohar Lohia Hospital Guru Nanak Eye Centre	23236000, 23233400. 23232400 23234242, 23233001-9. 23234568, 23232140 23234627, 23234621 23966022 26963262, 22226772 27418616, 23234612

Table no. 1.8

#### LIST OF NEIGHBOURING INDUSTRIES

S. No.	NAME OF THE COMPANY	DISTANCE (Kms)	PHONE NO.
1.	Binani Cement, Pindwara	15	02971 - 235005-12

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2.	Wolkem India Limited, Sirohi Road	10	02971- 282045
3.	GAIL Abu Road	40	02974-221249/223995
4.	BEPL, Abu Road	48	02974- 226781 - 785
5.	IOCL, Abu Road	45	02974- 226251/ 226276

**Table no. 1.9**

**List Of Red Cross Society Certified First-Aiders In Plant & Mine**

<b>S/N</b>	<b>Name</b>	<b>E.CODE</b>	<b>Certificate no.</b>
<b>MINES</b>			
1.	Mr. Uday Singh Rajput	0059	31661
2.	Mr. Rukumuddin	2417	31667
<b>PRODUCTION</b>			
3.	Mr. Mohan Lal Purohit	0363	31666
4.	Mr. Umesh Purwar	2145	31671
5.	Mr. Dilip Singh Rathore	2351	31674
<b>P &amp; A</b>			
6.	Mr. J P Joshi	1169	31659
7.	Mr. Sawai Singh	1806	31662
8.	Mr. Dilip Singh	2352	31673
9.	Mrs. Ramani Nair	1079	31677
<b>MECHANICAL</b>			
10.	Mr. M K Jain	0512	31663
11.	Mr. Ranjeet Singh	0228	31670
12.	Mr. G B Patel	2368	31678
<b>E &amp; I</b>			
13.	Mr. Md Ahmed	C-092	31664
14.	Mr. Sobha Ram	1509	31669
15.	Mr. Dharmendra Rao More	2371	31675
16.	Mr. Hari Om Singh Ranawat	2605	31676

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<b>PACKING PLANT</b>			
17.	Mr. N L Prajapat	1910	31665
<b>STORE</b>			
18.	Mr. Sarvesh Mathur	2627	31668
<b>LABORATORY</b>			
19.	Mr. R K Mishra	2161	31660

**table no. 1.10**

### Location -Wise Details of Fire Extinguishers

[illegible]

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### ***Risk & disaster man plan***

[illegible]

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*Risk & disaster man plan*

[illegible]

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### *Risk & disaster man plan*

[illegible]

**Lakshmi Cement Limestone Mine (Area: 390.625 ha), Expansion in production capacity from 8.0 to 13 MTPA**  
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### *Risk & disaster man plan*

[illegible]