SL-NO-93/16

ON SITE EMERGENCY PLAN

DIRECTORATE OF FACTORIES & BOILERS
ACCEPTED
Date 5/11/16
ORISSA, BHUBANESWAR

5.11.16
Director of Factories & Boilers
Odisha, Bhubaneswar

OF

M/S. ARYAN ENERGY (P) LTD.
At- Plot No. 25, Industrial Estate,
P.O: South Balanda, Talcher,
Dist: Angul-759116

CONTENTS

GENERAL INFORMATION ABOUT THE FACTORY:

1.1 INTRODUCTION

M/s Aryan Energy (P) Ltd. has put up a washery in Talcher coalfields, in the district of Angul, Odisha, to beneficiate F/G grade non-coking coal having 38 – 40% ash to produce washed coal having a range of 28-33% ash by washing through wet process.The Plant is designed to produce 2.5 MT per year of washed/clean coal, which can be expanded in subsequent phases up to 5 MT per year depending upon demand of coal from Talcher coalfields.

The product from the washery should cater to the need-requirement of Thermal Power Plants, Sponge Iron, Cement Industries etc., requiring uniform size & quality of non-coking coal.

1.2 LOCATION OF THE PLANT

The plant is located at **PLOT NO. 25 OF DEOJHARAN VILLAGE AT TALCHER INDUSTRIAL ESTATE, SOUTH BALANDA, DISTRICT ANGUL, ODISHA.** The plant is in the heart of Talcher Coalfields of MCL, which is 155 KM west of Bhubaneswar in the District of Angul. The nearest Railway Station is Talcher at 7 KM in East of the plant. The NH 23 is about 10 KM East passing through Talcher town and NH 42 is at 15 KM south leading from Bhubaneswar to Sambalpur. The place is well connected by Rail to Cuttack, Bhubaneswar, Delhi & Kolkata. The location of the plant has got the following advantages:-

(i) Proximity to the Coal Mines of MCL (Within 10 KM)

(ii) Proximity to the Railway network linking with Talcher station (within 7 KM).

(iii) Accessibility by road (NH-23 , NH 42, NH 5, & NH 6) Keonjhar, Rourkela, Cuttack, Sambalpur are well connected.

iv) Transportation of Beneficiated coal Right from the source of mining is resulted in freight saving.

v) Proximity to source of power.

vi) Situated on Govt. land and at a distance from the local habitation / villages etc.

1.3 GEOGRAPHICAL LOCATION:-

Longitude - $85^0 – 10' – 05"$ East

Latitude - $20^0 – 55' – 21"$ North

Altitude - 110 to 115 mtr. above mean sea level.

The site covered under survey of India Topo Sheet No. 73 H/1.

1.4 ADOPTED METHEDOLOGY:

WET SEPARATION:

This method involves size reduction and segregation of coal into defined sizes followed by separation. The size reduction involves crushing of coal, segregation is screening followed by separation of coal of lower ash.

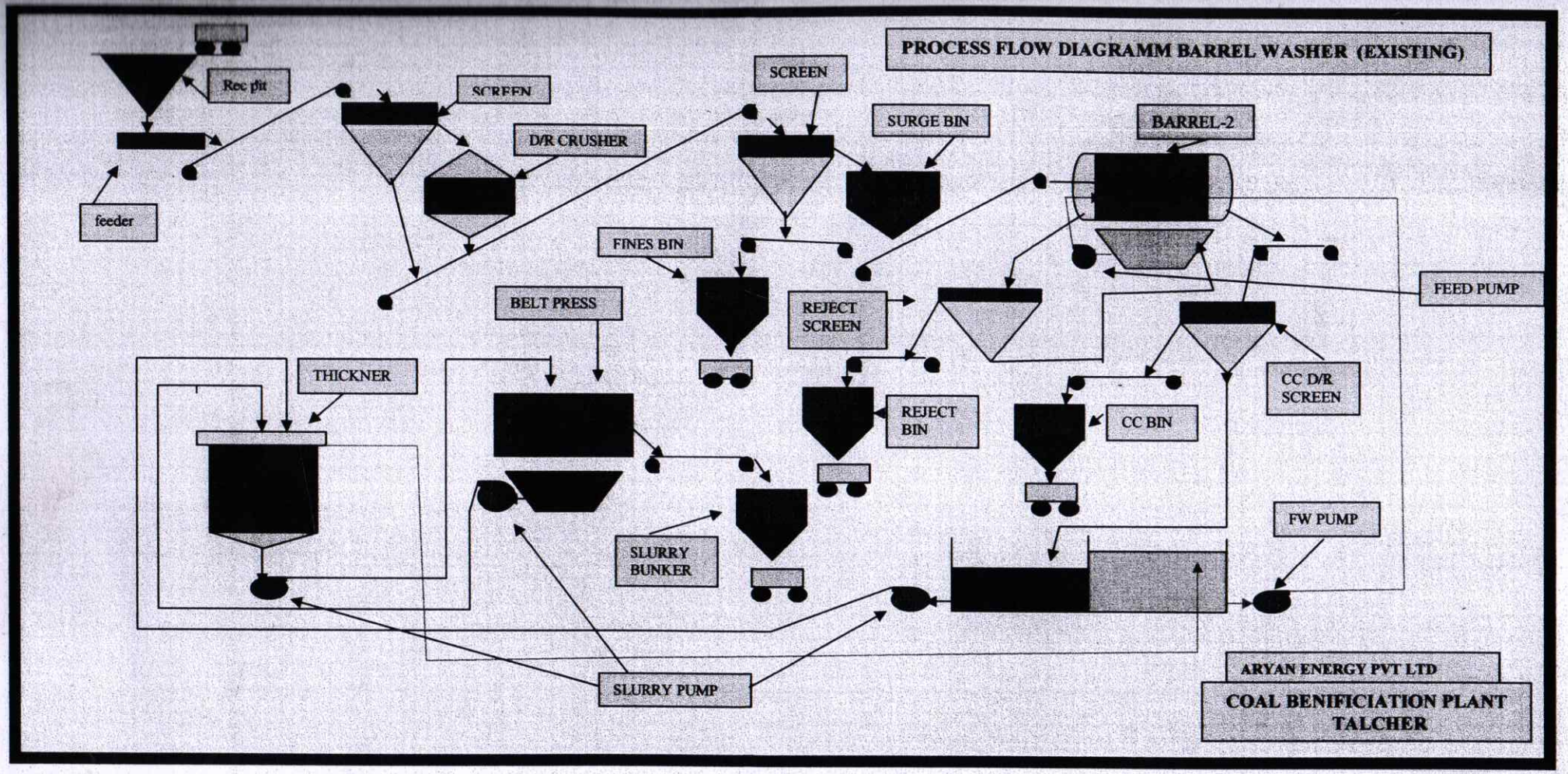
The separation is carried out in barrel washer. The Barrel Washer is a rotating unit and works on the principle of combined hindered flow settlement and dense media separation. The barrel is fitted internally with specially designed spirals. The barrel is installed at a certain inclination and escaped rotating at a certain speed.

The media is made by mixing fine coal/shale particles with water is fed into the Barrel at a constant rate by slurry pump for washing purpose. The Barrel at the top end is fed with 8mm – 50mm sized coal through Double Deck Screen along with the slurry media. The rotation of the barrel makes the feed stalk inside it and roll on itself resulting in stratification of coal particles according to density, the heaviest settling at the bottom.

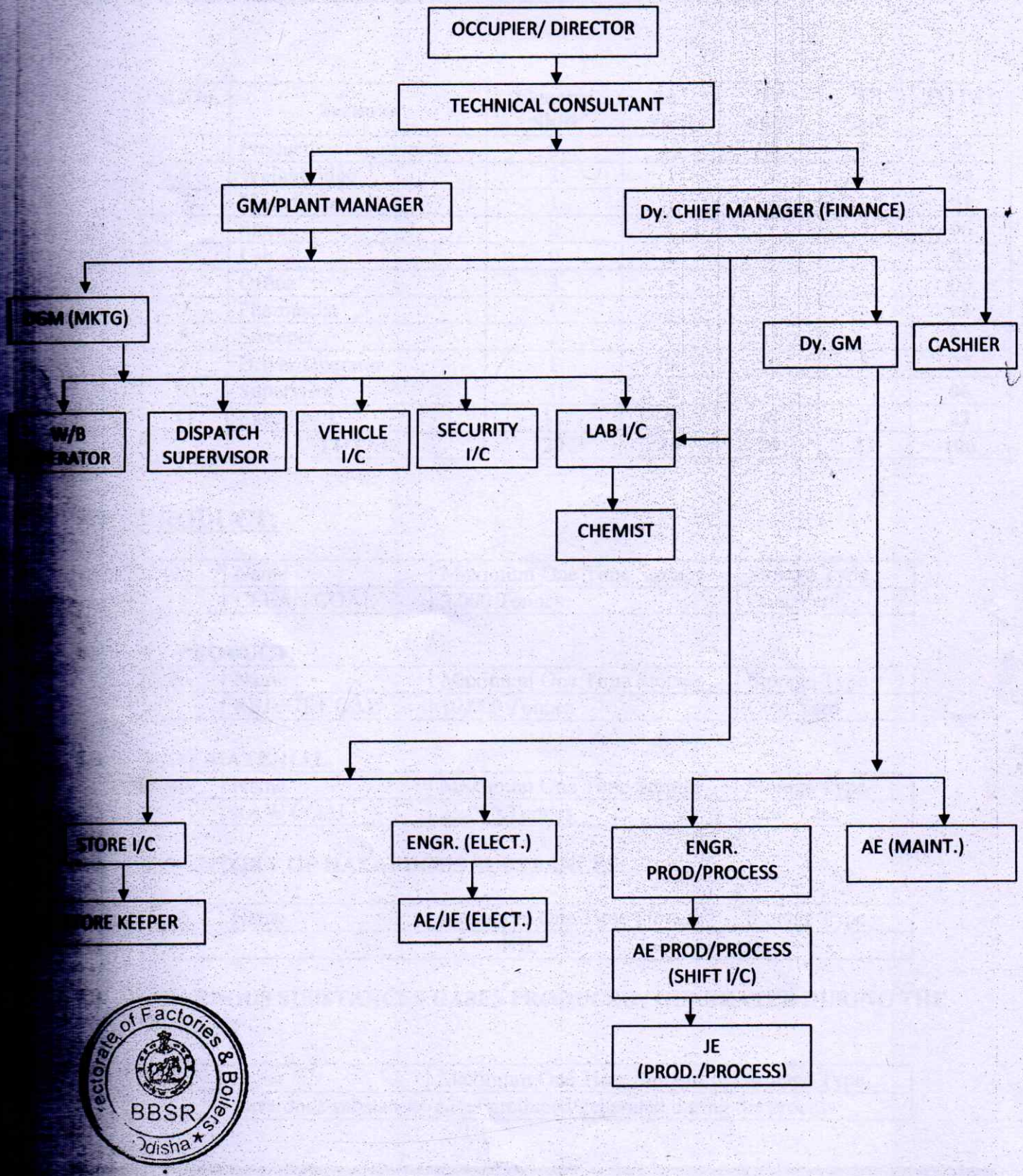
The rotation of the Barrel and the specially fitted spiral inside it produces a spiral action which makes the heavier material lying at the bottom to move backward i.e. to the feed end and is discharged as rejects. The lighter material in the upper stratified layer is carried forward by the flow of the media to the lower end of the barrel and is discharged as clean coal.

Material flowing out from both ends is dewatered i.e. slurry is separated by a set up trammel fitted to the barrel and latter on dewatering screens.

The required density of slurry depends on required quality of end product. An online Radiometric Density Gauge and density controller monitors and controls the density of slurry, which has to be re-circulated. If density of slurry is found to have increased then the density controller pumps fresh water into the tank. The entire process is closed circuit with respect to slurry.



2.0 ORGANISATIONAL SETUP OF ARYAN ENERGY (P) LTD.



3.0 MANPOWER:

Manpower as per license is 200 But shift wise manpower employed is 106.

SL.No.	Sections	General Shift	'A' Shift	'B' Shift	'C' Shift	TOTAL
1	Production/Maintenance	6	10	8	8	**32**
2	Weighbridge	1	1	1	1	**04**
3	Time Office	1	-	-	-	**01**
4	Store	2	1	1	1	**05**
5	Lab	0	1	1	1	**03**
6	Office	3	-	-	-	**03**
7	Pharmacist	1	-	-	-	**01**
8	Sweeper	2	-	-	-	**02**
9	Driver/Operator	1	9	9	8	**27**
10	Supervisor	1	2	2	1	**06**
11	Executives	11	4	4	3	**22**
	TOTAL	**29**	**28**	**26**	**23**	**106**

4.0 PRODUCT:

Sl.No.	Name	Maximum One Time Storage	Storage Type
1	CLEAN COAL	3,000 Tonnes	Coal Yard

4.1 BY-PRODUCT:

Sl.No.	Name	Maximum One Time Storage	Storage Type
1	REJECT COAL	10,000 Tonnes	Coal Yard

5.0 RAW MATERIAL

Sl.No.	Name	Maximum One Time Storage	Storage Type
1	RAW COAL	25,000 Tonnes	Coal Yard

6.0 INVENTORY OF HAZARDOUS SUBSTANCES:

Sl.No.	Name	Maximum One Time Storage	Storage Type
NIL			

7.0 HAZARDOUS SUBSTANCES.GASES PRODUCED / GENERATED DURING THE PROCESS:

Sl.No.	Name	Maximum One Time Storage	Storage Type
No hazardous substances/gases produced/generated during the process			

8. IDENTIFICATION OF HAZARD:

HAZARD	CAUSE	IMPACT
FIRE	Fire hazard may result due to spontaneous heating at raw coal/clean coal stocks.	➢ Raw Coal Stock Yard ➢ Clean Coal Stock Yard

9.0 IDENTIFICATION OF MOST CREDIBLE HAZARD SCENARIO:

During storage of coal in the yard, weathering of coal takes place due to mild oxidation, which is an exothermic process. If the heat liberated is not completely dissipated, the temperature of Coal rises as Coal is a bad conductor of heat. The rate of oxidation is doubled with 10 ^{0} C rising temperature. The bulk of Coal may reach critical temperature i.e. its ignition point 50-80 ^{0}C and may burst into flame. This phenomenon is known as spontaneous ignition of Coal.

(A) MAXIMUM SPREAD DISTANCE OF SIGNIFICANT HEAT RADIATION IN CASE OF FIRE ON RAW COAL STOCK YARD

Mass of coal	Significant heat level Kw/m^2	Experience at distance in Mtrs.			Indication
		Summer	Rainy	Winter	
25000MT	4.5	30	18	22	Causes pain if unable to cover the body within 20 seconds. However blistering of the skin (2nd degree burn) is likely caused with no lethality.
	12.5	15	12	13	Minimum energy required for melting of plastic
	37.5	10	8	9	Sufficient to cause damage to the equipment.

From the above assessment, the maximum effect distance (Iso-risk contour) of heat radiation due to fire hazard in case of fire in Raw coal yard is experienced up to 30 meter in summer season from the source of fire.

(B) MAXIMUM SPREAD DISTANCE OF SIGNIFICANT HEAT RADIATION IN CASE OF FIRE HAZARD AT CLEAN AND REJECT COAL STOCK YARD

Mass of coal	Significant heat level Kw/m^2	Experience at distance in Mtrs.			Indication
		Summer	Rainy	Winter	
13000MT	4.5	20	12	15	Causes pain if unable to cover the body within 20 seconds. However blistering of the skin (2nd degree burn) is likely caused with no lethality.
	12.5	15	10	13	Minimum energy required for melting of plastic
	37.5	10	8	9	Sufficient to cause damage to the equipment.

From the above assessment, the maximum effect distance (Iso-risk contour) of heat radiation due to fire hazard in case of fire in Raw coal yard is experienced up to 20 meter in summer season from the source of fire.

PRECAUTIONS FOR PREVENTION OF SPONTANEOUS IGNITION OF COAL.

The following precautions are taken for prevention of spontaneous ignition of Coal.

- The exposed surface area of the coal heap is restricted to the minimum possible so as to avoid the contract of oxygen with coal.
- The exposed surface area is reduced by avoiding segregation and by packing the coal tightly and uniformly.
- The ventilation at the coal heap is suppressed so that weathering is avoided due to cutoff of oxygen.
- Coals of different sizes stored in a pile so that air voids are reduced to a great extent.
- The coal is consumed before the critical temperature is reached.
- Water Sprinkling is done to reduce the temperature.
- Coal is stored under shed so as to avoid direct contact with the sunlight. Besides it is kept away from the heat source.

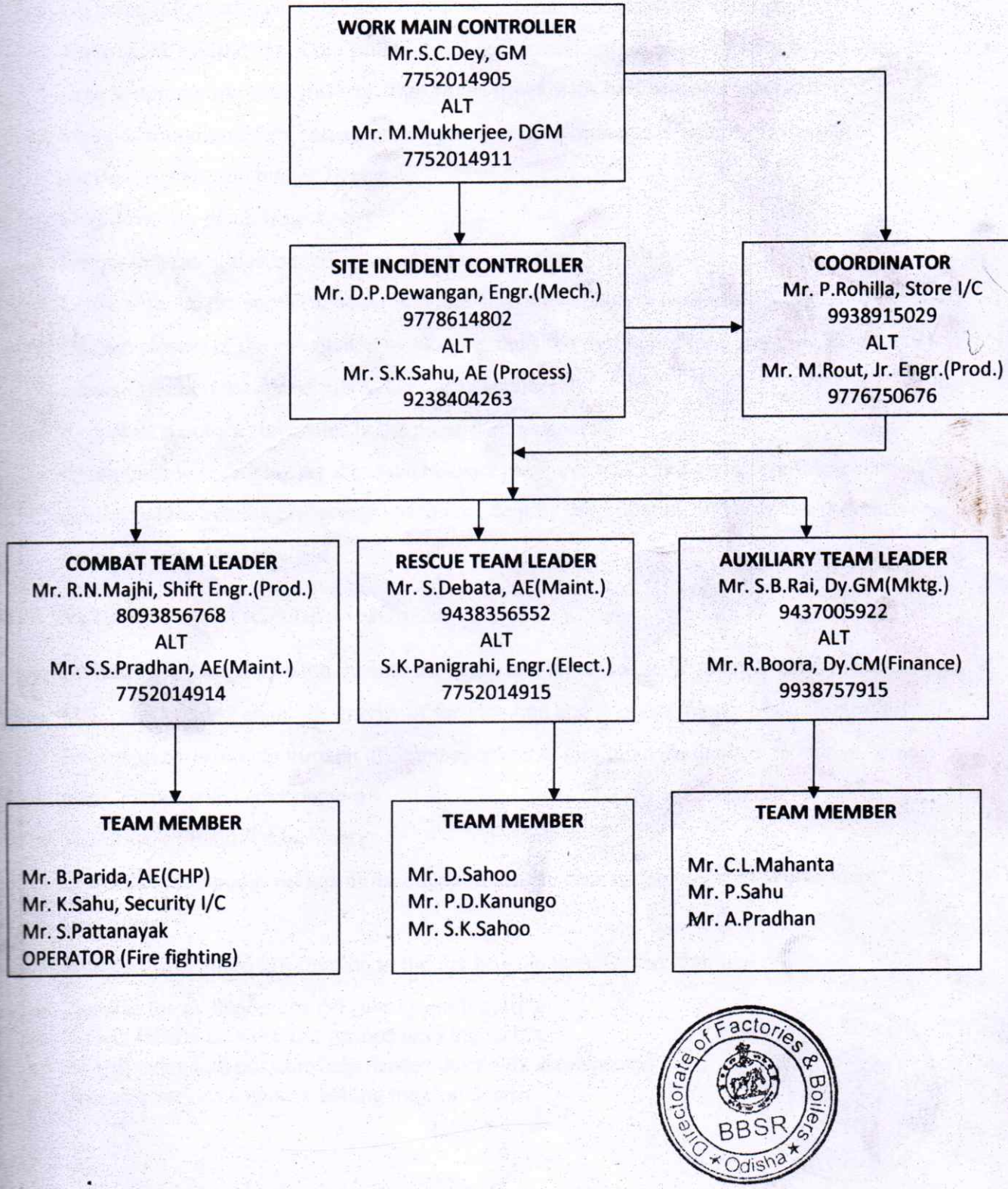
In view of the above consideration it is quite evident that in the present situation the coal is not easily susceptible to catch fire.

10.0 PLOT PLAN:

The plot plan showing the following is given in **Annexure**.

(i) Hazard Zone (HZ)
(ii) Iso-risk Contour around Hazard Zone
(iii) Emergency Control Room (ECR)
(iv) Assembly Point (AP)
(v) Emergency Exit (EE)
(vi) Fire Hydrant line

11.0 EMERGENCY COMMAND STRUCTURE



12. 0 ROLL OF KEY PERSONS:

WORKS MAIN CONTROLLER (WMC):-

⇒ On being informed, rush to the scene and take overall charges of the situation.

⇒ Make quick assessment of the situation and decide declaration of emergency. by blowing the siren in appropriate code **[intermittent three times with half minutes interval]**

⇒ Make continuous review and assess the possible developments to determine the extent of damage to plant and human beings.

⇒ Shut-down the plant, if necessary

⇒ Ensure that casualties are receiving adequate attention

⇒ Liaise with the fire services, police services and other statutory authorities

⇒ Declare closure of the emergency by blowing the siren (only once long siren for 25 seconds)

⇒ Issue the authorized statements to the media services

⇒ Report all statutory authorities in the prescribed manner

⇒ Communicate to employees about the mishap, measures taken and giving confidence to employees for avoiding recurrence of the incident by investigation and ordering preventive measures to be implemented

SITE INCIDENT CONTROLLER (SIC):

⇒ On hearing Emergency siren, rush to the scene and report to the Workers Main Controller

⇒ Make quick assess about the gravity of the situation and appraise Works Main Controller.

⇒ Extend all sorts of help through different agencies to minimize the damage to human beings, plant, property and environment

⇒ Shutdown of Plant & Machinery

⇒ Undertake continuous review of the situation time to time and appraise to Works main Controller.

⇒ Provide the required information to the fire brigade team for fire fighting

⇒ Preserve the evidences for the subsequent inquiries

⇒ He will liaison between the various working teams.

⇒ He will extend all possible help needed during the Emergency.

⇒ Organize various teams by calling the team leader.

CO-ORDINATOR:

- Facilitate the teams for effective functioning to ensure
  a. Shutdown of Plant & Machinery
  b. Medical Aid to the injured
  c. Rescue of the people affected.
- Undertake continuous review of the situation and appraise Site Incident Controller (SIC) & Works Main Controller (WMC).
- Direct all operations required to be stopped.
- He will monitor the incidents / rescue etc from all angles and recommend for closure of the emergency to WMC.

COMBAT TEAM LEADER:-

⇒ On hearing the emergency siren, rush to the scene with fire fighting team with sufficient equipment in the minimum possible time.

⇒ Ensure the team members resume their position with appropriate equipment

⇒ Monitor the fire fighting operation to control the situation

⇒ Ensure that the situation is controlled by arresting, spillage, fighting fire, shutting of the valve and equipment by the team in consultation with Site Incident Controller

⇒ Alert the entire employees through PA System

⇒ Command fire fighting activities. Also review and decide fire-fighting strategies

COMBAT TEAM MEMBERS:-

The team members will assist the team Leader to ensure.

(i) Shutdown the Plant and Machinery & Isolate the effected area.

(ii) Arrange of Isolation of Electrical Power Supplier all around the affected area

(iii) Alert the entire employees through PA System.

(iv) Operation the fire fighting equipments and materials and also to shift to effected site.

RESCUE TEAM LEADER:

⇒ On hearing the emergency siren, rush to the scene

⇒ Ensure the arrival of his team member

⇒ Keep necessary equipments of first – aid for preliminary treatment

⇒ Keep the ambulance ready to carry the injure persons to the hospital

⇒ Ensure the proper personal protective equipments lead the team for rescue operation

⇒ Guide the mutual aid partners for their course of action at the site.

⇒ Guide the non-essential persons to reach assembly point

⇒ Search the missing person on the roll call basis

⇒ Rescue all the effected persons

⇒ Search for casualties and evacuate non-essential person from spot.

RESCUE TEAM MEMBERS:-

⇒ On hearing the emergency siren, rush to the scene with appropriate personal protective equipments

⇒ Rescue all the effected persons.

⇒ Search for casualties and evacuate non-essential person from spot.

⇒ Arrange to send emergency case to hospitals

AUXILIARY TEAM LEADER:-

⇒ On hearing the emergency siren rush to the scene

⇒ Ensure the arrival of his team members

⇒ Intimate mutual-aider over phone

⇒ Keeps the first-aid and primary health center staff, equipment ready to take care of immediate medical needs

⇒ Takes care of victims' family

⇒ Make all arrangement like transport, other needs, arrange finance

⇒ Ensure all casualties are shifted to hospital for medical treatment

⇒ Keep records of casualties and provide information of the matter to Works Main Controller

AUXILIARY TEAM MEMBERS:-

⇒ On hearing the emergency siren rush to the scene

⇒ Carry out the order of the team leader

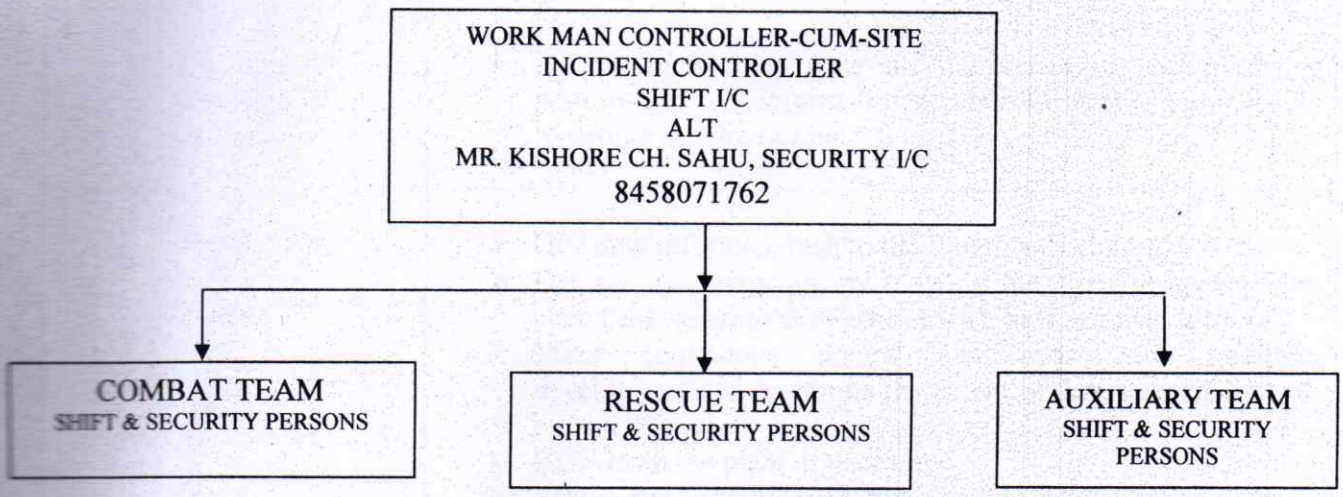
⇒ Provide immediate first-aid treatment to the victims

⇒ Ensure ambulance vehicle ready

⇒ Coordinate with combat team, rescue team, statutory authorities and mutual aid partners

⇒ Takes care of victims' family

13.0 SILENT HOUR COMMAND STRUCTURE



ROLE OF KEY PERSON OF SILENT HOUR COMMAND STRUCTURE.

⇒ Silent Hour is the time when General Shift people are not available.

⇒ The command structure for the silent hour shall be same as during normal hour, however, **during the silent hour the Shift Engineer/ Security In-Charge shall act as Works Man Controller – cum - Site Incidence Controller, till the arrival of the Works Main Controller.**

⇒ **Works Main Controller – cum Site Incidence Controller (Silent Hour) shall inform** Works **Main Controller,** Site Incident Controller, Combat Team Leader, Rescue Team Leader and the Auxiliary Team Leader by telephone or by sending special messenger to their residences.

⇒ On receiving the information the Works Main Controller, Site Incident Controller, Combat Team Leader, Rescue Team Leader and Auxiliary Team Leader shall reach the site at the earliest and simultaneously Combat Team Leader, Rescue Team Leader and Auxiliary Team Leader shall ensure the presence of their respective team members

⇒ Thereafter the action plan as well as the role of key persons shall be same as the normal hour execution of Command Structure.

14.0 ACTION PLAN FOR ON-SITE EMERGENCY :

STEP NO.	INITIATOR	ACTION TO TAKE
1.	The parson noticing the emergency	➢ Inform the Security Gate and the concerned Shift-in-charge who in turn will inform Works Main Controller immediately regarding the fire hazard.
2.	Works Main Controller (WMC)	➢ On being informed, rush to the Emergency Control Room. ➢ Declare of emergency by blowing the siren in appropriate code **(intermittent three times with half minutes interval)** ➢ Make continuous review and assess the possible developments to determine the extent of damage to plant and human beings ➢ Shut-down the plant, if necessary ➢ Ensure that casualties are receiving adequate attention ➢ Liaise with the fire services, police services and other statutory authorities ➢ Declare closure of the emergency by blowing the siren **[only once long siren for 25 seconds]** ➢ Issue the authorized statements to the media services ➢ Report all statutory authorities in the prescribed manner ➢ Communicate to employees about the mishap, measures taken and giving confidence to employees for avoiding recurrence of the incident by investigation and ordering preventive measures to be implemented.
3	Site Incident Controller	➢ On hearing Emergency siren, rush to the scene and report to the Works Main Controller ➢ Make quick assess about the gravity of the situation and appraises Works Main Controller ➢ Extend all sorts of help through different agencies to minimize the damage to human beings, plant, property and environment ➢ Shutdown of Plant & Machinery ➢ Undertake continuous review of the situation time to time and appraise to Works Main Controller ➢ Provide the required information to the fire brigade team for fire fighting ➢ Preserve the evidences for the subsequent inquiries ➢ Make liaison between the various working teams. ➢ Extend all possible help needed during the Emergency.

3	Site Incident Controller	➢ On hearing Emergency siren, rush to the scene and report to the Works Main Controller ➢ Make quick assess about the gravity of the situation and appraises Works Main Controller ➢ Extend all sorts of help through different agencies to minimize the damage to human beings, plant, property and environment ➢ Shutdown of Plant & Machinery ➢ Undertake continuous review of the situation time to time and appraise to Works Main Controller ➢ Provide the required information to the fire brigade team for fire fighting ➢ Preserve the evidences for the subsequent inquiries ➢ Make liaison between the various working teams. ➢ Extend all possible help needed during the Emergency.
4	Coordinator	➢ Facilitate the terms for effective functioning to ensure a. Shutdown of Plant & Machinery b. Medical Aid to the injured c. Rescue of the people affected ➢ Undertake continuous review of the situation and appraise Site Incident Controller (SIC) & Works Main Controller (WMC). ➢ Direct all operations required to be stopped. ➢ He will moniter the incidents / rescue etc from all angles and recommend for closure of the emergency to WMC.
5	Combat Team	On hearing the Emergency Siren ➢ On hearing Emergency Siren, rush to the scene ➢ Shutdown the Plant and Machinery & Isolate the affected area ➢ Arrange of Isolation of Electrical Power Supplier all around the affected area. ➢ Alert the entire employees through PA System. ➢ Operating the fire fighting equipments and materials and also to shift to effected site.
6	Rescue Team	➢ On hearing Emergency siren, rush to the scene ➢ Guide the non-essential persons to reach assembly point ➢ Search the missing person on the roll call basis ➢ Rescue all the effected persons. ➢ Search for casualties and evacuate non-essential person from spot.

7	Auxiliary Team	➢ On hearing Emergency siren, rush to the scene ➢ Inform about the emergency to Statutory Authorities depending upon the situation. ➢ Shift the injured persons to hospital by ambulance after providing necessary first aid. ➢ Seek help of Mutual Aid Partners and Coordinate with Mutual Aid Partners to render their service if required. ➢ Arrange to inform the relatives of Casualties. ➢ Take care of visit of the authorities to the Emergency Site.

15.0 ACTIVATION AND CLOSING PROCEDURE FOR ON-SITE EMERGENCY

⇒ **Anybody** notices FIRE, shout " FIRE, FIRE, FIRE", and informs to Shift-in-charge [or Smoke detector indicates fire alarm installed in the emergency control room]

⇒ Being informed about fire, the **Shift-in-charge** informs **Works Main Controller** and Site Incident Controller.

⇒ On hearing about the fire , Works Main Controller and Site Incident Controller rush to the scene and make quick assessment of the situation

⇒ On quick assessment of the situation, the Works Main Controller rush to the emergency control room and declare emergency by blowing appropriate siren code **[intermittent three times with half minutes interval]**

⇒ On hearing of Emergency siren the key Personal of Emergency Combat structure perform their duties and responsibilities as per the worksheet

⇒ During the emergency operation , the Works Main Controller keeps records of activities

⇒ During the emergency operation, the Works Main Controller keeps records of activities carried on, supervises overall, maintain liaison with mutual aiders, statutory authorities

⇒ After being controller the situation, the Works Main Controller declares normalcy by blowing appropriate siren [three minutes continuously]

ANNEXURE-I

DETAILS OF FACILITIES AVAILABLE

EMERGENCY CONTROL ROOM

- ⇒ P & T phone – 2 nos.
- ⇒ Wind direction and speed indicator
- ⇒ Windsock
- ⇒ Plot Plan showing Hazard Zones, Assembly Points, Emergency Exit, Fire Hydrant System etc.
- ⇒ Switch for actuating the siren, drinking water arrangement, tables, chairs, etc.
- ⇒ Details of address and telephone numbers of key personnel of emergency command structure, statutory authorities and mutual aiders.
- ⇒ Worksheet of key personnel of emergency command structure
- ⇒ Applicable siren code
- ⇒ Safety manual
- ⇒ List of emergency telephone numbers (external and internal)
- ⇒ Local P & T telephone directories
- ⇒ List of people working in the installation , location wise
- ⇒ List of residential addresses of employees/ contract workers and casual workers
- ⇒ Red / Green flag – 6 nos. each

ASSEMBLY POINTS:-

In case of an emergency, it will be necessary to evacuate people from the affected zones or the zones likely to be affected, to safe areas. The safe areas are identified and designated as Assembly Points (AP). The location of the assembly point is the vacant space shown in the Plot Plan. Arrangements for taking head count of persons, reconciling, the head count with the attendance rolls, temporary shelter and further evacuation if necessary to safer place outside factory campus can be made.

WIND SOCKS:-

During emergencies, the knowledge of exact wind direction helps the factory personnel to decide on the escape route to be taken for safe evacuation of personnel and also the safe assembly point and Emergency Control Center. Therefore, the windsock is provided at the top-most point of the factory building for easy identification of the wind direction.

COMMUNICATING THE EMERGENCY AND MEDICAL AID

For communicating the declaration of emergency and evacuation decision to the plant personnel, it is envisaged that the siren would be utilized.

Declaration of emergency	:- Intermittent three times with Half – minute interval
Normal factory siren	:- Continuous for 30 secs.
All-clear signal	:- Continuous for 3 mins.

EMERGENCY MEDICAL ARRANGEMENT:-

The first – aid box is available in each Department and adequate stock of essential medicines, bandages and other appliances are being maintained.

- **FIRE HYDRANT SYSTEM**

  Fire Hydrant points are provided inside the plant as shown in plot plan. Fire hydrant hoses are 63 mm. dia in size. Two motors along with two kiloskar make Monoblock pumps of 7.5 KW, Size 65cm X 65cm having head range 32-49 Mtrs. which can discharge 9LPS of water are provided to main header to maintain a pressure of 7kg.cm2. In case of temporary power failure, the fire pumps are run through DG. Two water reservoirs of capacity 4800KL & 5082 KL are supplying water to the fire main line.

❖ FACILITIES FOR EMERGENCY COMBAT & RESCUE:

Sl.No.	EQUIPMENT	QTY/NO.	LOCATION
1	Portable Fire Extinguishers	25 Nos.	As Under
2	Trolly Wheel Fire Extinguishers	01 No.	As Under
3	Manila Rope	50 Mtrs.	Store
4	Rechargeable Light	04 Nos.	Admn. Office, Time Office, Control Room, Store
5	AC/Generator operated siren	1 Sets	Control Room
6	Rescue Ladder	1 No.	Control Room
7	Safety Gloves	5 Pairs	D.G.Room, Control Room, Welding Shade, Lab
8	Safety Belt	5 Nos.	Store
9	First Aid Box	03 Nos.	Main Gate, Control Room, Store
10	First Aid Room	1 No.	Near Office Building
11	Sufficient Sand Buckets	12 Nos.	Control Room, D.G.Room, Switch Yard

❖ FIRE EXTINGUISHERS

Required types of fire extinguishers have been provided at different locations of the plant as given below:

SL. NO.	LOCATION IN THE PLANT	TYPE OF FIRE EXTINGUISHER	Qty.	REMARKS
1	Control Room	POWDER	1	At the time of Emergency any nos. of equipments can be used collecting from any place point as per requirement
2	Control Room	CARBON DIOXIDE	1	
3	D.G. Room	POWDER	1	
4	D.G. Room	FOAM	1	
5	D.G. Room	FOAM	1	
6	Diesel Room	POWDER	1	
7	Diesel Room	FOAM	1	
8	Store	POWDER	1	
9	Store	POWDER	1	
10	Store	POWDER	1	
11	Barrel	POWDER	1	
12	CRUSHER	POWDER	1	
13	LAB	POWDER	1	
14	BELTPRESS	POWDER	1	
15	BC-12 CLEAN COAL BUNKER	POWDER	1	
16	F F SCREEN	POWDER	1	
17	MAIN GATE	POWDER	1	
18	LOADER - 33	POWDER	1	
19	P.C. 90	FOAM	1	
20	HYVA-5475	POWDER	1	
21	HYVA-5476	POWDER	1	
22	HYVA-5477	POWDER	1	
23	HYVA-5478	POWDER	1	
24	LOADER - 2	POWDER	1	
25	LOADER - 1	POWDER	1	
26	DOUBLE DECK SCREEN	POWDER	1	

❖ FIRST AID EQUIPMENTS:

1. Oxygen Fittings
2. Stretchers
3. Thermometer
4. First Aid Kits
5. Kidney Tray
6. Blankets

ANNEXTURE- II

MUTUAL AID

Sl.No.	Name of Mutual aider	Distance in K.M	Facilities to be provided	Contact person & Telephone Number
1	M/s Global Coal & Mining (P) Ltd., Plot No- 23 & 24, Indi. Estate, South Balanda,Talcher, Angul	2 K.M	Water Tanker with pumping arrangement, Ambulance, Trained First Aidder, First Aid Materials 1.Fire Extinguisher 2.Breathing Apperatns 3.Emergency light 4.First Aid 5.Ambulance Van 6.Water Tanker with pump 7.Trained First Aid persons	Sri S.K.Mitra Sr. GM/Plant Manager Mobile: 7752010902

GLOBAL COAL & MINING PVT. LTD.

CIN - U10102DL1998PTC094328

(An ISO 9001 : 2008, 14001 : 2004, 18001 : 2007 (OHSAS) & ISO/IEC 17025 : 2005 NABL Certified Unit)

Plant & Office : Plot No. 23 & 24, Industrial Estate, P.O. - South Balanda, Talcher, Dist. : Angul (Odisha), Pin : 759116
Ph. : 06760-268901, 902, 981, 983, Fax : 06760-268980, E-mail : globaltalcher@gmail.com

Regd. Office : #2, First Floor, Sector-8 Market, R.K. Puram, New Delhi-110022, Ph.: 011-26712592/93, 26712988, Fax: 011-26712591
E-mail : info@globalcoal.net

Corp. Office : 7th Floor, Corporate Tower, Ambience Mall, NH-8, Gurgaon (Haryana), Pin -122001, Ph. : 0124 -2719000, Fax : 0124-2719090

Branch Office : C-30, Palaspali, Aerodrome Area, Bhubaneswar, Pin- 751020, Ph. : 0674-2593710, Telefax : 0674-2591305
E-mail : gcmplbbsr@gmail.com

Ref No.: GCMPL/TAL/15-16/755 Date: 16.11.2015

To
The General Manager (Washery)
M/s Aryan Energy Pvt. Ltd.
Plot No. 25, Industrial Estate,
PO-South Balanda, Talcher,
Dist-Angul

Sub: Mutual Aid in case of Emergency

Dear Sir,
On your request for Mutual Aid, we are agreed to provide you the following assistance in case of your emergencies.

(1) Fire Extinguisher
(2) Breathing Apparatus
(3) Emergency Light
(4) First Aid
(5) Ambulance Van
(6) Water Tanker with Pump
(7) Trained First Aid Persons

Contact Person - Mr. S.K. Mitra, Sr. General Manager / Plant Manager
Mobile No -7752010902

Thanking you,

Yours faithfully,
For Global Coal & Mining Pvt. Ltd.

For Global Coal & Mining Pvt. Ltd.

(S.K. MITRA)

(S.K. Mitra)
Sr. General Manager / Plant Manager
Sr. General Manager / Plant Manager

Directorate of Factories & Boilers
BBSR
Odisha

ANNEXURE- III

TELEPHONE NUMBERS OF STATUTORY AUTHORITIES & KEY PERSONS

(A) TELEPHONE NUMBERS OF STATUTORY AUTHORITIES:

SL.NO.	NAME & ADDRESS	OFFICE	RESIDENCE
1	Collector, Angul	06764-230567	06764-230234
2	Addl. Dist Magistrate, Angul	06764-230491, 233609	06764-231252
3	Sub- Collector, Talcher	06760-240720	06760-240444
4	Superintendent of Police, Angul	06764-230316	
5	Dy. S.P., Talcher	06760-240657	06760-240337
6	Chief District Medical Officer, Angul	06764-231302	
7	C.I of Police, Talcher	06760-240364	06760-236094
8	OIC, 4 No. Colliery P.S	06760-240728	
9	OIC Bikrampur P.S	06760-260036	
10	Fire Bridge, Talcher	06760-240222	
11	Fire Bridge, Angul	06764-230222	
12	Fire Bridge, Nalco	06764-220323	
13	Fire Station, TTPS/NTPC	06760-243441	
14	Dist. Hospital, Angul	06764-230333	
15	N.S. Central Hospital (J.A.) Exch. MCL , Talcher	06760-269183, 269184	
16	N.S. Central Hospital (J.A) Exch. MCL , Talcher	06760-269183, 269184	
17	Asst. Director of Factories & Boilers, (Odisha), Angul	06764-220164	
18	Dy. Director of Factories & Boilers, (Odisha), Angul	06764-220106	
19	Director of Factories & Boilers, (Odisha), Bhubaneswar	0674-2396070	

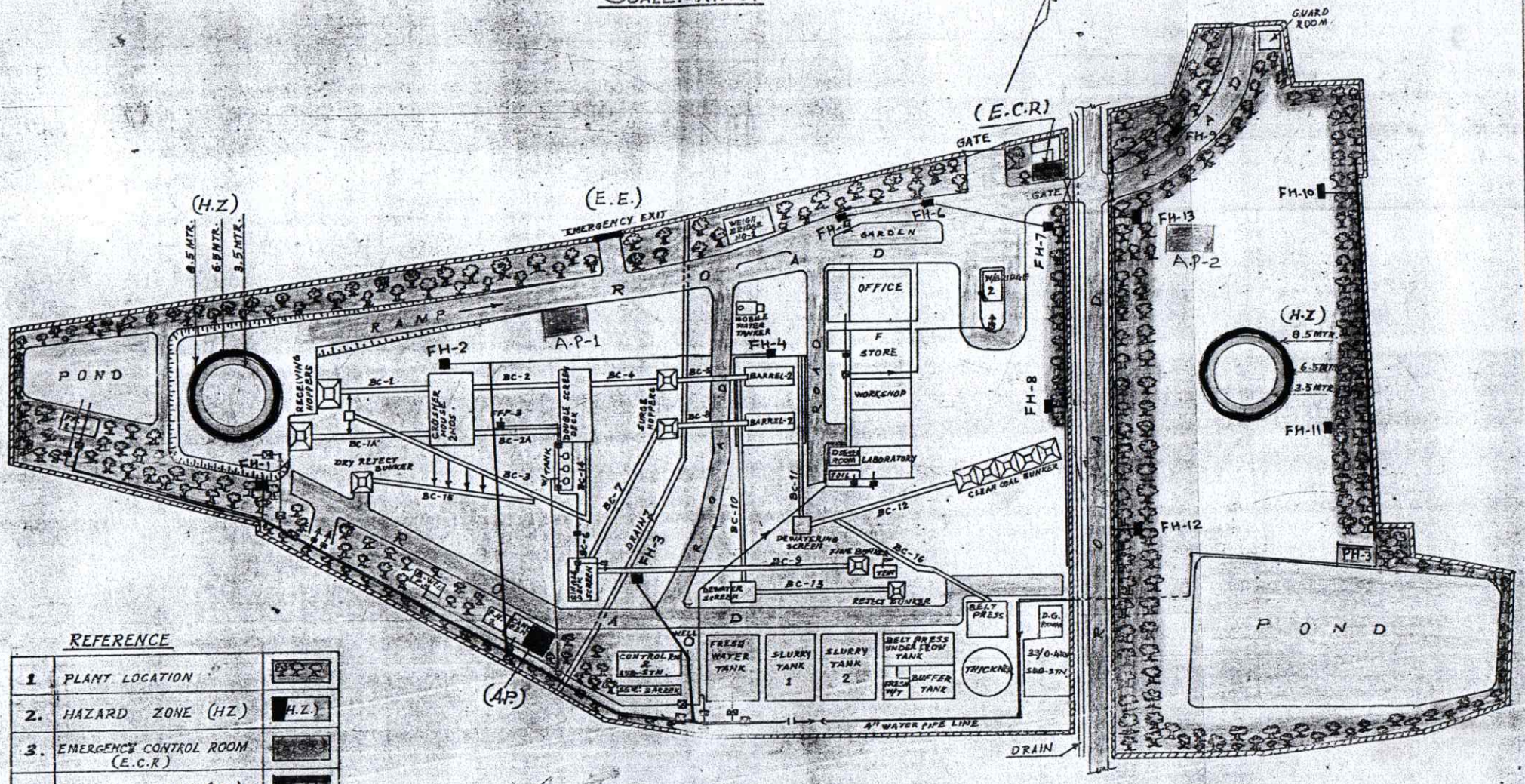
(B)DETAILS OF TELEPHONE NUMBERS OF KEY PERSONNEL

Sl.No.	Name & Designation	Designation as per emergency command structure	Telephone Numbers
01	Sri S.C.Dey, GM/Plant Manager	Work Main Controller	7752014905
02	Sri M. Mukherjee, DGM	Alternate Work Main Controller	7752014911
03	Sri D.P.Dewangan, Engr. (Mech.)	Site Incident Controller	9778614802
04	Sri S.K.Sahu, AE (Process)	Alternate Site Incident Controller	9238404263
05	Sri R.N.Majhi, AE(Prod.)	Combat Team Leader	8093856768
06	Sri S.S.Pradhan, AE (Maint.)	Alternate Combat Team Leader	9238455412
07	Sri S.Debata, AE(Maint.)	Rescue Team Leader	9438356552
08	Sri S.K.Panigrahi, Engr.(Elect.)	Alternate Rescue Team	9238455413
09	Sri S.B.Rai, Dy.GM (Mktg.)	Auxiliary Team Leader	9437005922
10	Sri R.Boora, Dy.CM(Finance)	Alternate Auxiliary Team Leader	9938757915
11	Sri P.Rohilla , Store I/C	Coordinator	9938915029
12	Sri M.Rout, JE(Prod.)	Alternate Coordinator	9776750676
13	Sri K.Sahu, Security I/C	Work Main Controller-Cum-Site Incident Controller of Silent Hour	9861979642

LAY-OUT PLAN OF ARYAN ENERGY PVT. LTD.

25-INDUSTRIAL ESTATE, SOUTH BALANDA, TALCHER

SCALE:- N.T.S.



REFERENCE

1	PLANT LOCATION	
2.	HAZARD ZONE (HZ)	H.Z.
3.	EMERGENCY CONTROL ROOM (E.C.R)	E.C.R.
4.	ASSEMBLY POINT (A.P.)	
5.	EMERGENCY EXIT (E.E)	
6.	ROAD & OTHER RELEVANT DETL.	
7	FIRE HYDRANT POINT	
8	PUMP HOUSE	