CHAPTER – VII

ADDITIONAL STUDIES, RISK ASSESSMENT & DISASTER MANAGEMENT REPORT

7.0 INTRODUCTION – ABOUT THE COMPANY

M/s.HLL Lifecare Limited [HLL] was set up as a corporate entity under the Ministry of Health and Family Welfare, Government of India in 1969 in naturally rubber rich state of Kerala, for the production of male contraceptive sheaths for the National Family Welfare Programme. The Plant was established in technical collaboration with Mis Okamoto Industries Inc. Japan.

HLL today is a Mini Ratna and upgraded as a Schedule B Central Public Sector Enterprise. HLL is the only company in the world manufacturing and marketing the widest range of Contraceptives. It is unique in providing a range of Condoms, including Female Condoms, Intra Uterine Devices, Oral Contraceptive Pills - steroidal, non-steroidal and Emergency contraceptive pills; and Tubal Rings. HLL produces today 1.316 billion condoms annually making it one of the world's leading manufacturers of condoms, accounting for nearly 10 percent of the global production capacity.

HLL's Health care products range include: Blood Collection Bags, Surgical Sutures, Auto Disable Syringes, Vaccines, In - Vitro Diagnostic Test Kits, Pharma products for Women, Natural products, Hydrocephalus Shunt, Tissue Expanders, Surgical and Examination Gloves, Blood Banking equipment, Neonatal equipment, Blood Transfusion and Intravenous sets, Vending Machines, Iron and folic acid tablets, sanitary napkins, Oral rehydration Salts and medicated plasters

HLL has also launched several initiatives in the services sector - for medical infrastructure development, diagnostic centres and procurement consultancy. These have been conceived to bring about a whole new realm of accessible, affordable healthcare delivery to every citizen. Over the years each of the initiatives taken up by HLL are targeted at reaching quality healthcare at the doorstep of every family. Associate Institutions of HLL namely HLFPPT and Life Spring Hospitals have ensured this to the nation's underserved and vulnerable populace, at affordable cost. With a vast array of innovative products and social programmes to meet the nation's health care needs, **HLL Lifecare Limited** [HLL] is firmly on track, with its vision of innovating for Healthy Generations.

The Kanagala plant in Belgaum, Karnataka commenced its operation with production of condoms in 1985 using Japanese technology. This unit underwent diversification in 1992 with the tabletting facility for birth control pills - Mala-D / N and the formulation and tabletting of Saheli (Centchroman) the indigenous, non-steroidal once-a-week pill. The tabletting of Emergency Contraceptive pills was started in 2003. Manufacturing facility for Centchroman bulk drug was added in 2004. In 2006, commercial manufacturing of women health care products was satarted. The manufacturing unit has GMP as well as ISO 9001, ISO 13485, and ISO 14001 and OHSAS 18001 certifications

7.1 EHS POLICY

SAFETY, HEALTH AND ENVIRONMENT POLICY

HLL Lifecare Limited is committed to protect environment,eliminate occupational hazards and ensure safety of employees & sub contractors through :

- Monitoring and control of the impact of its activities, products and service on a continual basis
- Compliance of applicable legal and other requirements
- Adopting safe operating practices with an emphasis on social accountability measures
- Facilitating employees training and their involvement
- Pollution mitigation through adoption of best practices
- Conserving materials, energy and reducing waste at source, and/encouraging usage of renewable energy sources
- Periodic review of safety, health and environment management system.

7.2 MANUFACTURING ACTIVITY

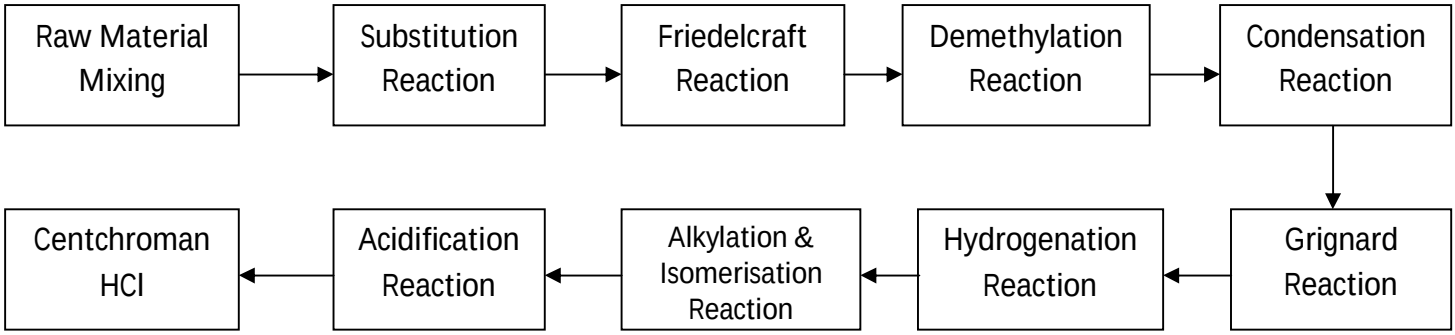
Manufacturing activity is carried out in the following areas that are classified into major groups as below:

1. Condom Manufacturing plant
2. Bulk drug formulation plant
3. Oral Contraceptive pill manufacturing plant

Manufacturing involves handling of many chemicals and conducting of chemical reactions. The Process flow diagrams depict the manufacturing process of different products.

MANUFACTURING PROCESS FLOW DIAGRAM

Bulk Drug Formulation

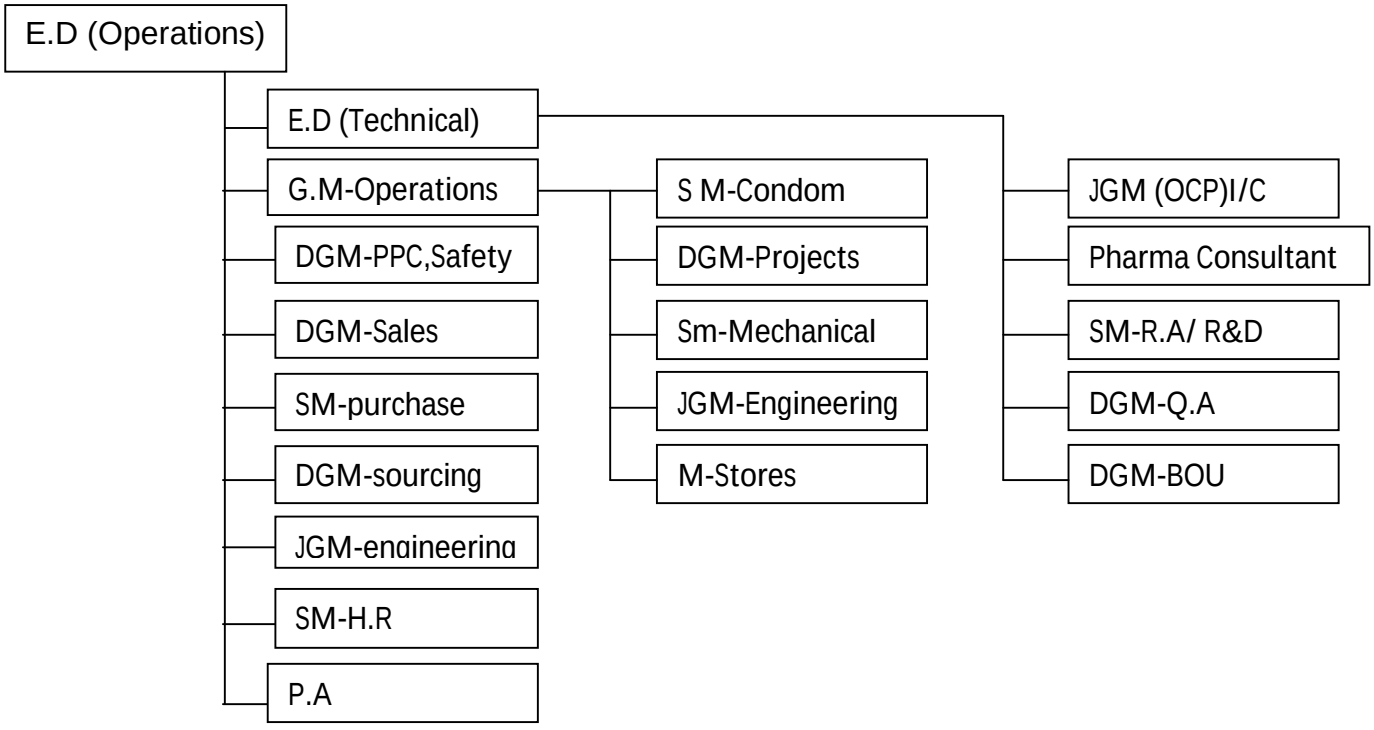


7.3 WORKING PATTERN
FACTORY WORKING HOURS

S.NO	SHIFT	WORKING HOURS
1	GENERAL	09.15 – 17.15
2	FIRST	06.00 – 14.00
3	SECOND	14.00 – 22.00
4	THIRD	22.00 – 06.00

WEEKLY HOLIDAY – Sunday

7.4 ORGANISATION STRUCTURE



7.5 CHEMICAL INVENTORY/ DATA

Bulk Drug Formulation

S.NO	CHEMICAL NAME	MAXIMUM STOCK AVAILABLE AT STORE	METHOD OF STORAGE
1	Resorcinol	1000 Kgs	Polythene/woven bags
2	Dimethyl Sulphate	1000 Kgs	Plastic Cans
3	Sodium hydroxide flakes	1000 Kgs	Polythene/woven bags
4	Benzene	1.5 Kl	Tin barrels
5	HCL Commercial	3000 Ltrs	Plastic Cans
6	Vacuum salt	10 Tons	Paper Bags
7	P-hydroxyl benzoic acid	1000 Kgs	Paper Bags
8	Stannic Chloride	1000 Kgs	Tin barrels
9	Acetic Acid	1600 Liters	-do-
10	Acetic anhydride	2000 Liters	Tin Cans
11	Phenyl Acetic Acid	1500 Kgs	Bags
12	Triethylamine	1000 Liters	Tin barrels
13	Calcium chloride	300 Kgs	Plastic Cans
14	Ethylene di chloride	1500 Liters	Carboys
15	Methanol Ur	2000 Liters	Carboys
16	Hyflo supercel	500 Kgs	Paper Bags
17	Nitrogen gas	70 CM3	Cylinders
18	Diethyl ether (dry)	200 Liters	Tin drums

The above chemicals are stored in stores and have access control to permit entry of authorized personnel only. Chemicals limited to 2 days requirement on the shop floor are issued only to personnel trained and authorized for chemical handling.

7.6 UTILITIES

S. NO.	ITEM DESCRIPTION	MAX QTY	STORAGE LOCATION	METHOD OF STORAGE
1	LPG	2100 Kgs	Boiler house	45 Kgs cylinders
2	High Speed Diesel	16KL	Fuel yard	Underground Horizontal Storage tank
3	Furnace Oil	66KL	Fuel yard	Horizontal Storage tank

CHARACTERISTICS OF HAZARDOUS CHEMICALS/ SOLVENTS/FUELS

S.NO	NAME OF CHEMICAL	HAZARD	FLASH POINT – °C	EXPOSURE LIMITS	
				TWA [ppm]	STEL [ppm]
1	Ammonia	Toxic	-	25	35
2	Benzene	Flammable& Carcinogenic	11	0.5	2.5
3	Dimethy Sulphate	Toxic & Corrosive	84	0.1	-
4	Ethylene Dichloride	Toxic, Flammable & Carcinogenic	13	75	-
5	Hydrogen	Flammable	-	-	-
6	Hydrochloric acid	Corrosive	-	Not defined	Not defined
7	Sulphur	Flammable Solid	168^0 C	Not defined	Not defined
8	Sodium hydroxide	Corrosive	-	$2mg/m^3$	$2mg/m^3$
SOLVENTS					
1	Acetone	Flammable	-20^0C	500ppm	750ppm
2	Hexane	Flammable	-22^0C	500ppm	1000ppm
3	IPA	Flammable	11^0C	200ppm	400ppm
FUELS					
1	Furnace Oil	Combustible	66^0C	$5mg/m^3$	-
2	High Speed Diesel	Flammable	32^0C	800ppm	Not Applicable
3	LPG	Flammable	-104.4^0C - 60^0C	1000ppm	Not listed

***TWA - Total weight average [8 Hours]**
****STEL - Short term Exposure Limit [15 mts]**

7.7 IDENTIFICATION OF HAZARDS

- Hazard identification is carried out to ascertain the controls required and available in order to mitigate the risk of exposure to the hazards. This would substantially help in overcoming costly errors and prolonged delays that may be caused due to the design changes that may be required on a later date.

- Hazard assessment is carried out at the equipment design stage and the control / mitigation measures are put in place overcome them to avoid costly errors at a later stage.

- Hazard assessment in HLL is carried out examining the, material storage, type of operations, locations to find out the facilities in place to overcome the risks of exposure to the hazards.

- In our organization, the major hazards are due to the use of LPG for boiler operation, use of ammonia for condom manufacture, continuous chemical reactions in the bulk drug formulation unit and the storage of Sulphur.

- After a critical analysis of the chemicals used, stored, defined safe operating procedures and the different manufacturing processes, the following table lists the safety measures / installations in place and mitigation measures to overcome the hazards.

Following are the main hazards identified in the factory premises:

- Fire Hazards
- Spillage of chemicals
- Explosion Hazards
- Toxic gas release
- Noise

AREA WISE IDENTIFIED HAZARDS, PRECAUTION TAKEN WITH MITIGATION MEASURES.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
1	OCP plant & Bulk drug stores [IPA, Methylene Chloride,]	Spillage of chemicals	Low to medium 10 persons	1. Approved layout as per legal requirements. 2. Flame proof electrical fittings installed 3. Chemical powders stored in safe containers with secondary containment to prevent spillages. 4. Storage quantity is limited 5. Manufacturing area is ventilated by a forced air ventilation system. 6. Material accessed only by authorized personnel using mechanized systems 7. Double door entry to ensure a clean atmosphere. 8. Body provided showers for decontamination.	1. Area is cordoned off. 2. Emergency control center is informed. 3. Information is given to the declarer of emergency on the scale of leakage. 4. Emergency Response teams are kept on alert for swift response. 5. All hot works being carried out in the surrounding areas are stopped 6. Personnel working in the area are evacuated.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
				9. Personnel are provided with full body protection suits and nose masks to prevent exposure to chemicals. 10. Separate cells in the drug manufacturing plant to limit exposure 11. Isolation of the area by locking the leakage rooms 12. Fire hydrant system with hydrant points with hose reels and nozzles installed to mitigate fire hazards 13. Fire extinguishers deployed adequately 14. Fully fledged medical center with medical officer and nursing staff operating round the clock. 15. Periodical occupational health checks to personnel working in the area to assess health effects, if any.	7. Spilled powders are collected by vacuum cleaners. 8. The spillage is cleared and the area is made fit to work

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
2	Bulk drug formulation unit [Benzene, IPA, Dimethyl sulphate, Ethyl Dichloride, HCl, NaOH]	Formulation Spillage Fire	Medium to high 3 persons	1. Flame proof electrical fittings installed 2. Material stored in safe containers with secondary containment to prevent spillages. 3. Freight lift installed for movement of material. 4. Earthing and bonding carried out for all reactor vessels and pipelines 5. Work permit system implemented for hazard assessment in case of any hot work / height work. 6. All pipelines are of flame proof type and pipeline colors confirm to IS 2379 specifications. 7. Storage of material / formulation quantity is limited .	1. Area is cordoned off. 2. Power supply is cut off to the area to prevent accidental fire. 3. All hot work carried out in the vicinity is stopped. 4. Emergency control center is informed. 5. Information is given to the declarer of emergency on the scale of leakage. 6. Emergency Response teams are kept on alert for swift response. 7. Personnel working in the area are evacuated. 8. Spilled powders are collected in vacuum cleaners.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
				8. Manufacturing area is ventilated by a forced air ventilation system. 9. Material accessed only by authorized personnel using mechanized systems 10. Eye wash fountain / Body shower provided for decontamination. 11. Personnel are provided with full body protection suits and nose masks to prevent exposure to chemicals. 12. Fire hydrant system with hydrant points with hose reels and nozzles installed to mitigate fire hazards 13. Fire extinguishers deployed adequately 14. Emergency exit glass door with glass breaking hammer provided for safe escape in case of any emergencies.	

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
				15. Emergency stair case provided for safe evacuation in case of any emergencies 16. Fully fledged medical center with medical officer and nursing staff operating round the clock.	
3	Sulphur storage room	Fire & Explosion	Medium to high	1. Storage facility located in isolated area 2. Natural ventilation for supply of fresh air 3. No electrical fittings in the area to prevent any fire hazard. 4. No electrical gadgets or items capable of generating static electric charges permitted inside the area.	1. Area is cordoned off. 2. Hot work being carried out in the vicinity is stopped to prevent accidental spread of fire. 3. Personnel working in the area are evacuated 4. Emergency control center is informed

				5. Personnel are trained about Do's & Don'ts during emergency.	
S.NO	**AREA**	**IDENTIFIED HAZARD**	**SEVERITY & NO. OF PERSONS EXPOSED**	**PRECAUTIONS TAKEN**	**MITIGATION MEASURES**
4	Boiler House	Fire / Explosion	Low to medium Approx 5	1. All requirements specified under Boiler Act and Boiler license is adhered to. 2. All electrical fittings are of flame proof type. 3. Entry restricted only to trained and authorized personnel to work in the area. 4. Fire extinguishers are positioned at different locations in case of any emergencies. 5. No material storage is permitted in the area. 6. Area is well ventilated and illuminated for safe working. 7. 24 x 7 manning of the area for monitoring the operation.	1. Shutting down the plant, declaring the emergency. 2. Electrical supply is isolated. 3. Type of emergency is informed to the emergency declarer/ central authority. 4. Emergency response teams are kept on alert for swift action. 5. Movement of personnel and vehicles are prohibited. 6. Affected persons are evacuated from the area for first aid / medical treatment as necessary. 7. External help will be availed if the mitigation is not feasible with in-house facilities.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
				8. All maintenance /repair works are carried out after issuing work permits and under constant supervision of experts. 9. Periodical cleaning of soot in furnace to prevent formation of explosive mixtures. 10. Monitoring the boiler operational parameters and periodical cleaning 11. Checking of boiler internals to prevent accidents. 12. Signages are displayed to inform personnel about the hazards present in the area.	

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
5	LPG cylinder storage near boiler house.	Fire due to gas leakage	Medium 8 - 10 persons	1. Site conditions as per legal requirements. 2. Leak detectors provided to sense leakages. 3. Power supply is cut-off in case of an emergency. 4. All electrical fittings are of flame proof and confirm to IS 2148 standards 5. Training to personnel posted at site in emergency response techniques. 6. Cylinders are checked for leakage at the time of delivery and stock acceptance 7. Mock drills regularly conducted to test and improve emergency response and identify shortcomings	1. Limit the no. of cylinders stored in the facility. 2. Leakage detectors trigger audio alarm 3. LPG supply to boiler is cut off to eliminate major risks. 4. Hot work being carried out in the vicinity is stopped immediately. 5. Cut-off power supply to eliminate explosion risk. 6. Water spray using triple action nozzles to dilute the leaked LPG 7. Cap of the leaking cylinder will be closed and shifted to an isolated location.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
6	Furnace oil storage yard	Spillage Low	Unmanned	1. Tank made as per PESO requirements 2. Adequate no. of fire extinguishers are kept to handle emergency. 3. Fire hydrant system point provided. 4. Training provided to users on safe unloading / decanting of furnace oil from tankers. 5. Personnel trained in fire fighting activity are deployed at site. 6. Entry access to the area controlled	In case of leakage: 1. Information is given to Emergency control center. 2. Power supply is cut off to the storage area to prevent accidental fire. 3. All work around the area is stopped and the area is cordoned off. 4. The concerned maintenance personnel carry out repairs using non-sparking tools to mitigate the leakages . 5. Emergency Response Team is kept on alert at site for swift response

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
7	Diesel Generator	Noise & Fire	Low to the medium 2to3 persons	1. Noise abatement thru' modular acoustic paneling of D.G sets 2. Secondary containment to prevent Diesel leakage from day tanks. 3. Adequate no. of fire extinguishers are kept to handle emergency . 4. Entry access to the area controlled	1. Information is given to Emergency control center. 2. Power supply is cut off to the storage area to prevent accidental fire. 3. All hot work around the area is stopped and the area is cordoned off . 4. The concerned maintenance personnel carry out repairs to mitigate the leakages. 5. Emergency Response Team is kept on alert for swift response. 6. Periodical occupational health checks to personnel working in the area to assess exposure to noise.

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
8	Electrical sub stations	Electric shock / fire	Low to medium 2-3 persons	1. Layout confirms to legal requirements specified under Indian Electrical Rules. 2. Entry restricted to licensed and authorized personnel only. 3. Earthing provided for leakage of stray currents. 4. Electronic mimic panels installed for fault indication at the entry of the sub-station. 5. Insulating rubber mats confirming to IS 15652:2006 provided in front of all electrical switchgear. 6. Periodical inspection and maintenance carried out to ensure good health of the equipment. 7. CO2 / DCP fire extinguishers deployed to handle emergency fires	1. Information is given to Emergency control center. 2. Power supply is cut off from incoming source. 3. Electricity supply company is alerted for cut off power supply in case of major risks 4. All hot work around the area is stopped and the area is cordoned off. 5. The concerned maintenance personnel carry out repairs to restore normalcy. 6. Emergency Response Team is kept on alert for swift response

S.NO	AREA	IDENTIFIED HAZARD	SEVERITY & NO. OF PERSONS EXPOSED	PRECAUTIONS TAKEN	MITIGATION MEASURES
9	Hazardous waste storage room	Fire	low to medium Unmanned	1. Storage shed in an isolated location. 2. Conditions specified in hazardous waste authorization issued by KSPCB implemented. 3. Compatible wastes are stored in separate enclosures 4. Layout provides adequate ventilation and illumination	1. Information is given to Emergency control center. 2. Power supply is cut off from incoming source. 3. All hot work around the area is stopped and the area is cordoned off. 4. The concerned maintenance

				5. Secondary containment provided to prevent leakages / spillages 6. Storage quantity is limited 7. Periodical disposal of accumulated waste to authorized landfills /recyclers. 8. Flame proof electrical fittings installed to prevent fire / explosion hazards. 9. Eye wash / body shower is provided for decontamination in case of spillage on body parts. 10. PPE box is equipped with gum boots, splash proof safety goggles, aprons for use during handling of chemicals. 11. Access to the area restricted to authorize personnel only. 12. Fire hydrant point with hose reels provided for fire mitigation	Personnel carry out repairs to restore normalcy. 5. Emergency Response Team is kept on alert for swift response. 6. Support of external agencies is sought in case situation poses major risks and is not controllable by in-house infrastructure

7.8 OCCUPATIONAL HEALTH

Hazardous and toxic substances are defined as those chemicals present in the work place which are capable of causing harm.

[In this definition, the term chemicals include dust, mixtures and common materials-solvents.]

- For handling hazardous chemicals and to take care of employee's health, and predictive maintenance looking to the nature of hazardous chemicals being handled/processed, all the equipment in the plant areas shall be inspected / tested by an outside agency.
- The various safety equipments like breathing apparatus and critical instrumentation provided on various equipments are inspected and tested frequently to ensure their operability all the times. Besides, all the first aid, fire fighting devices are also regularly inspected, tested and maintained by a competent third party and kept all the time in ready to use condition.
- Health of all the employees in plant area is regularly monitored by outside physician. If any abnormality is found necessary treatment is also being given time to time. Necessary history cards, records are also maintained which are up-dated time to time.
- Medical Records are Enclosed as Annexures

MITIGATION MEASURES POSSESSED BY THE INDUSTRY

S.NO	ITEM DESCRIPTION	AVAILABILITY
1	Portable fire extinguishers	128 Numbers
2	Jockey pump	1Number
3	Main hydrant pump	1Number
4	D.G driven pump	1Number
5	Water storage in Fire Hydrant tank	400 KL
6	Fire hydrant points with hose reels	29 Numbers
7	SCBA sets	1Number
8	First Aid box	7 Numbers
9	Eye wash and body shower	10 Numbers
10	Stretchers	1Number
11	Toxic / flammable gas leakage detector	1number-Portable

7.9 EMERGENCY SHUTDOWN PROCEDURES

Shut down of plant infrastructure and facilities are carried out by authorized personnel after receiving instructions from Central authority in case of total emergency and the concerned department head in case of local emergency.

- Boiler temperature is reduced and the load is removed to prevent any fire and explosion hazards.
- Power supply is cut off to the plant at the main incoming switchgear
- Generators are switched off by operating the Emergency off switches.
- Fuel supply lines to the generator are closed by operating the main line valves.
- All roads are kept clear to help in smooth vehicular movement.

7.10 PLANT SHUTDOWN

In the event of any emergency like major Ammonia leakage, fire or explosion or chemical spillage, plant is shut down to

- Minimize the loss of life and property
- Ensure a quick evacuation of all personnel
- Keep the area clear for smooth hazard mitigation by the Emergency Response team.

7.11 EMERGENCY TRANSPORT FACILITY

For transportation of inured personnel to hospitals vehicles available in the organization are shall be used. In case of complex situations, ambulances from major hospitals / private service providers/ state emergency care will be used. For evacuation of personnel from the plant premises, available transport resources within the organization are mobilised. In case, bulk evacuation becomes essential, the support of the transport department is sought to avail the necessary vehicles.

7.12 EMERGENCY CONTROL CENTRE

In the event of any emergency in the factory, the mitigation activities are controlled from one location that has all the required resources for coordination. The facility is located at security office, a safe zone free from exposure to hazard or hazardous material. The emergency control center is manned round the clock and has phone numbers and details of emergency service providers like hospitals and statutory bodies.

Following facilities are available in the emergency control center.

- Telephones – Land lines and mobile phones
- Plant layout.
- Telephone numbers of factory key personnel.
- Telephone numbers of neighboring organizations, Emergency service providers.
- List of all Emergency Response Team members.
- Copy of Master chemical list.

- Keys to unlock all entrance / exit doors and gates.
- Fire proximity suit
- CO2 & DCP fire extinguishers.
- Helmets for Emergency response team members
- PPE for Emergency Response Team members
- Self Contained Breathing apparatus
- Battery operated Megaphones.
- Tool kit including non-sparking tools to carry out repairs in LPG areas.

TELEPHONE NUMBERS OF ALL THE STAKE HOLDERS

PUBLIC AUTHORITY

S.NO	NAME OF THE DEPARTMENT	PHONE NUMBERS
1(a)	Dy. Commissioner,Belgaum	08333 - 265036
1(b)	Tahsildhar	0831- 2407200
2	Fire services Sankeshwar Nippani	08333-273892 08338-220101
3	Police Control Room	08333 – 273303 / 273 727
4	Superintendent of police	0831- 2405211/ 2405204
5	Environmental officer ,Regional Office,KSPCB	0831 – 2459121 0831- 2459956
6	Director of factories & boilers office	0831-2428066
7	Police Station	0833 – 273303/ 273727
8	Traffic police station	08333 - 273803
9	Regional Fire Office	08333 - 273892

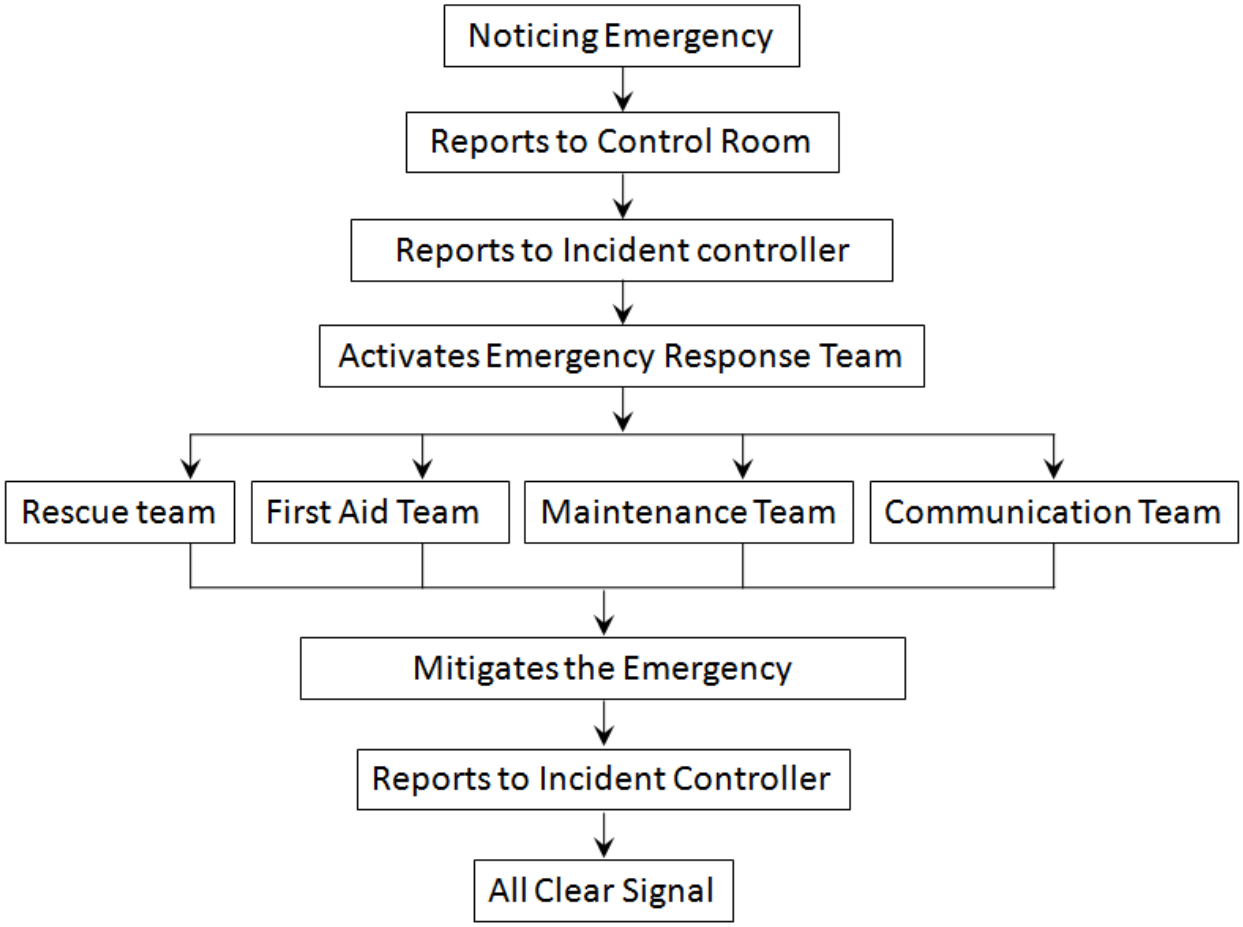
KEY PERSONNEL OF THE INDUSTRY

S NO	NAME	DESIGNATION	PHONE NO
1	M. Ayyappan	Occupier	9847062377
2	G. Satheesh Kumar	Unit Chief	9449839244
3	R.B. Bhosale	Factory Manager	9480222104
4	Manjnath Hegada	HR	9449335321
5	P. M. Varale	Safety Manager	9448403825
6	Dr. N. D. Chavan	Medical Officer	9370790602
7	K. Yogish kumar	Manager-Engineer Dept	9980387482
8	B. Gururaja	Dept Head-Manufacturing Area	9481560104
9	A. P. Ijari	Security Manager	9448191463
10	A. S. Badiger	Mech Dept Manager	9449074180

LIST OF HOSPITALS FOR EMERGENCY CARE

S .NO	NAME OF HOSPITAL	CONTACT NO
1	Geetha Nursing Home, Nippani	08338-221615
2	Lafyette Hospital, Nippani	08338-221129
3	KLE Hospital, Belgaum	0831-2473777

ALERT ACTION PLAN DURING WORKING / NON WORKING HOURS



EMERGENCY ORGANISATION CHART

Hindustan Lifecare Limited.,	Emergency Management Organization Chart				Date: - 16.01.2012
Declarer of Emergency					
Executive Director (Operations)					
Phone - Office	08333 279244 ext-301				
Mobile Number	9449839244				
Alternate Declarer of emergency			**Transport, Welfare, Medical & Finance co-ordinator**		
Executive Director (Technical)			**Dy. General Manager (Human Resources)**		
Phone - Office	08333 279244 ext-303		08333-279244 Ext 311		
Mobile Number	9448135942		9449335321		
General Manager (Operations)					
Phone - Office	08333 279244 ext- 304				
Mobile Number	9448163840				
Incident controllers					
Area of Responsibility	**Condom Plant**	**Bulk Drug formulation unit**	**OCP unit**	**Maintenance**	**Stores**
Names	B Gururaj	T Ganesan	U.L.Pai	K.Yogishkumar	M.R. Salimani
Phone Numbers	08333-279244 ext-381	08333-279244 ext-452	08333-279244 ext-431	08333-279244 ext-411	08333-279244 ext-371
Mobile Number	9481560104	9632420503	9448692238	9980387482	9980976731
Area Safety Leaders					
Area of Responsibility	**Condom Plant**	**Bulk Drug formulation unit**	**OCP unit**	**Maintenance**	**Stores**
Names	M.D.Otari	Q.S.Kazi	S. M. Nagraj	A.S. Badiger	S.K.Chavan
Phone Numbers	08333-279244 ext-382	08333-279244 ext-453	08333-279244 ext- 408	08333-279244 ext-421	08333-279244 ext-375
Mobile Number	9449405984	9448102220	9945321345	9449074180.	9731095744
Safety & Environment Coordinators					
Area of Responsibility	**Safety**		**Environment**		
Name	P.M.Varale		Y.A.Inamdar		
Phone numbers	08333- 279207 Ext 322		08333-279244 Ext 321		
Mobile number	9448403825		9449562779		
Maintenance Services - Mechanical					
Area of Responsibility	**Condom plant**		**OCP plant & Bulk drug formulation**		**Engineering & Maintenance**
Name	S.A.Hosuri		RajeshKumar.R		S.B.Gangadhar
Phone Number	08333-279244 Ext-423		08333-279244 Ext-423		08333-279244 Ext- 424
Mobile number	9448331632		8762465171		9449908946
Maintenance Services - Electrical					
Area of Responsibility	**Condom plant**		**OCP plant & Bulk drug formulation**		**Engineering & Maintenance**
Name	M.Y.Satare		S.P.Magdum		M.D.Mulla
Phone Number	08333-279244 Ext-411		08333-279244 Ext-413		08333-279244 Ext-416
Mobile number	9880614428		9482003820		9449518711
Specialized Services					
Area of Responsibility	**Fire fighting team**		**Rescue / First Aid**		
Name	G.B.Powar		Dr. N.D.Chavan		
Phone Numbers	08333-279244 Ext-329, 330		08333-279244 Ext- 325		
Mobile number	9741780588		9370790602		

7.13 MOCK DRILLS

The effectiveness of the on-site emergency preparedness and response plan is tested during mock rehearsals as per the annual mock drill plan approved by the factory manager. This would also aid in making course corrections and improvements in the system to make it more effective and train personnel on their roles and responsibilities.

Following are the situations that may result in the review / modification of the on-site emergency preparedness and Response Plan.

- Observations made during testing of the emergency plan in mock rehearsals
- Major changes in technology / facility that lead to changes in the hazards in the organization.
- Changes in Legal regulations applicable to HLL.
- Changes in systems and guidelines introduced by HLL management.
- Major personnel changes in HLL
- In case of learnings from actual emergencies

7.14 ONSITE EMERGENCY PLANNING
LINE OF CONTROL – RESPONSIBILITY

CHIEF EMERGENCY CONTROLLER (DECLARER OF EMERGENCY)

- He has control over the entire operations and retains the overall responsibility of the industry and employees.
- On receiving the information about emergency depending upon the gravity of the situation, visits the emergency site.
- Depending upon the seriousness of the emergency,contacts Statutory agencies like Directorate of Factories & Boilers, Pollution Control Board, Police, Fire dept, etc.,
- Keeps seamless communication with other co-ordinators to have the latest status of emergency situation.

DEPUTY CHIEF EMERGENCY CONTROLLER.

- Advises the emergency coordinator in the Emergency Control Center to declare emergency.
- Advises the plant manager on the modalities of personnel evacuation.
- Advises electrical department head on power supply shut down to the affected areas or the entire plant as the case may be.
- Ensures that all the evacuated personnel reach safe assembly points.
- Co-ordinates for the required external aids like ambulance, fire tender etc., through control room.

TRANSPORT, WELFARE, MEDICAL & FINANCE COORDINATOR.

- The coordinator has to arrange transport facility to shift the injured to nearest hospitals.
- In case of mass evacuation, shall organize for transport facility to move all personnel in the company premises to a safe location and provide them food and shelter.
- Shall intimate nearest fire station for aid to control the situation if required.
- Shall call all the HOD’s to procure required manpower.
- Shall call the concerned for seeking external help.
- Shall intimate all the department heads regarding the emergency situation.
- To intimate the Government Officials if required regarding incident.

7.15 ROLES AND RESPONSIBILITY OF TEAMS

1. RESCUE TEAM

- The rescue team shall be active at the time of emergency.
- Should call other team members to the emergency spot.
- Shall do the head counts of all workers who have reported for the duty.
- Should co-ordinate with the shift in-charge and discuss how to overcome the present situation/emergency.
- The team leader should have regular contact with incident controller and other team leaders till the situation brought to control.
- Immediate intimation shall be given to in-charge of fire hydrant operator for switching on the pumps and motors.
- The fire fighting trained staff shall be called on the spot by the team leader for the operations and their names and mobile numbers shall be displayed at control rooms for making aware of other people.

2. FIRST AID TEAM

- The first aid team shall call their team members to the affected area.
- The team shall bring all the first aid materials to the emergency spot.
- The injured persons shall be given first aid and if required they must be shifted to the nearest hospitals for further course of treatment.
- Should help the rescue team for safe operation of the situation.

3. SAFETY TEAM

- To ensure safety at the time of handling the emergency situation.
- Precautionary measures shall be taken to control the situation.
- If required all the fire hoses / fire extinguishers are to be collected from nearby locations for controlling the situation.

4. MAINTENANCE PERSONNEL

- Isolate electrical power supply at the emergency site and report to the incident controller.
- Organise the required tools and tackles required to correct the faults that caused the emergency.

- Receive instructions from safety officer on the hazards at site and the precautions to be taken to prevent exposure to hazards.

- Wear the requisite PPE and carry out the necessary repairs and restore the site to the original condition.

- Report the activities carried out to the incident controller and stand-by for further instructions.

5. AUXILIARY TEAM

- The team members reach the emergency site based on the communication received from the control room.
- Report to the incident controller at the emergency site to receive the details of the emergency and instructions on the activities to be carried out.

- Support the fire fighting team by providing the necessary movement of equipment and facilities to control the emergency.

- Cordon the affected area to avoid overcrowding and movement of unauthorized personnel.

- Stand-by for further instructions till the emergency is mitigated.

7.16 DISCIPLINE OF PERSONNEL PRESENT IN THE PREMISES IN CASE OF ANY EMERGENCY

1. EMPLOYEES

- On hearing the Emergency Siren, immediately switch off the machinery/equipment and wait for further instructions.

- When Evacuation is announced, walk out of the plant through the main gangway or nearest Emergency exit in an orderly manner without creating a panic. Do not wander as a curious on-looker. Do not spread rumours assuming the situation.

- Do not go to the emergency area until you are a member of any Emergency response team.

- Do not hinder the movement or activity of the Emergency Response Team members.

- Assemble at Safe Assembly place. Do not crowd near gangways, exits.

- The H.R department / time office will then take attendance. Report your presence.

- Inform whereabouts of your missing colleagues, if you are aware.
- After the All Clear Siren is sounded, return to your respective work places in a disciplined manner.

2. CONTRACTORS AND VISITORS

- Follow the instructions given by your host / team leader.
- Assemble at the identified location in the safe assembly point.
- Do not go out of the factory premises until you receive the instructions
- Once all clear siren is sounded, return to your work place as advised by your host / team leader.

7.17 NOTIFICATION OF EMERGENCY

- The person observing the fire / leakage / explosion / toxic gas release, will inform alarm his nearest supervisor.
- On receiving the information, the incident controller will establish contact with site controller and Emergency Control Center.
- Based on the information received, ECC will mobilize the required equipment and Emergency Response Teams to reach the site for mitigation of the emergency.
- The ECC in-charge will receive instructions from the incident controller and announce the appropriate siren to warn all personnel in the factory regarding the on-going emergency.
- The emergency area will be cordoned off for routine activities and Movement of vehicles / personnel will be regulated by security department

7.18 DECLARATION OF EMERGENCY

The authority to declare total emergency and order evacuation is only with the site controller (declarer of emergency) and this responsibility cannot be delegated.

7.19 EVACUATION / RESCUE / ESCAPE ROUTES / ASSEMBLY POINTS

In all the working areas, safe means of access shall be provided with adequate platforms, staircases so that in case of eventuality all can escape through these means without exposing to dangerous points.

All the employees shall be required to assemble at the designated places of assembly as depicted in the plant layout.

7.20 EMERGENCY COMMUNICATION TO PERSONNEL IN THE FACTORY PREMISES

Emergency situations are communicated to the employee by means of sirens and megaphones. Once the communication is made, all the employees should assemble at the assembly point to get guidelines / advice / brief on the situation from the incident controller.

Electrically operated siren which is audible to the entire factory area is installed and this emergency siren will be blown to announce the emergency. After controlling / mitigating the situation the siren will be blown again to declare all clear signal.

7.21 EVACUATION PROCEDURE

On hearing the Fire siren all persons including contract workmen, who are not involved in the emergency should be asked to move towards the identified safe assembly point. The visitors will be guided to move swiftly towards the assembly point. The persons in charge of this works will also assist in swift movement of persons who are handicapped and unwell.

The exit routes / escape routes are highlighted in the plant layout for swift movement of the persons towards the assembly point.

7.22 ACCOUNTING OF PERSONNEL

At any time the names of the employees working inside the plant is available from time office attendance records.

Once the employees assemble at the SAFE PLACE / assembly point, a roll call will be taken and the accounting of the personnel will be made. This will be cross verified with the records maintained at the H.R department. In case of any missing personnel immediate steps are to be taken to locate the personnel and if those personnel are trapped in the Fire, the Fire fighting Personnel will be asked to help in the evacuation.

7.23 MEDICAL TREATMENT

HLL has a full fledged medical center with medical officer, nursing staff & an ambulance which is kept ready round the clock to attend any unexpected emergency. HLL has kept we have first aid boxes in various sections apart from the occupational Health Center. Minor injuries will be treated in the Health Center. Cases requiring expert attention will be shifted to the nearest hospital for further treatment.

7.24 INFORMATION TO RELATIVES OF THE AFFECTED PERSONS

The HR in charge or his designated officer shall maintain updated information and records of all the employees, working at the plant, with latest addresses and inform, either over phone or in person, as required, the relatives on the stats of affected persons after obtaining necessary instruction and advice from the declarer of emergency.

7.25 INFORMATION TO GOVERNMENT AUTHORITIES

On the instructions of the central authority (declarer of emergency), the designated officer shall inform statutory authorities in the local office of Directorate of Factories, boilers, industrial health and safety, Karnataka State Pollution Control Board, D.C office and the district crisis group.

LAW AND ORDER

Any emergency normally induces panicky situation. In case of any major situations, assistance of Police personnel is sought for the following actions in the vicinity of the plant: -

1. Traffic Regulation & Control.
2. Maintaining of Law & Order.
3. Helping in taking injured workers to hospitals.
4. Evacuation of Public, if necessary.

ALL CLEAR SIGNAL

Once the emergency is mitigated, based on the inputs received from his teams, the declarer of Emergency will take a decision on declaring “All Clear” signal. The siren will inform all personnel to return to their workplaces and restore their routine duties.

7.26 SCOPE OF THIS ON-SITE EMERGENCY PREPAREDNESS & RESPONSE PLAN

1. To provide resources and methods for effective control of emergencies arising out of fire, explosion, leakages or spillages.

2. Synchronized action from Emergency Response Teams and public authorities to initiate hazard mitigation and relief actions

3. Minimize damage to property, life and work environment.

4. Effective rescue operations and treatment of the causalities.

5. Train personnel to act efficiently and effectively with confidence in case of an Emergency

6. To prevent the recurrence of the emergency.