

EXECUTIVE SUMMARY
OF
M/s. RAICHUR LABORATORIES PVT.LTD.

FOR

NEW BULK DRUG MANUFACTURING UNIT

AT

PLOT NOS: 126 - 129,
RAICHUR GROWTH CENTRE INDUSTRIAL AREA,
CHICKSUGUR VILLAGE, RAICHUR DISTRICT,
KARNATAKA.

PREPARED BY:



Rightsource Industrial Solutions Pvt. Ltd

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1. INTRODUCTION

M/s. Raichur Laboratories Pvt. Ltd. proposes to establish a Bulk Drug and Intermediate manufacturing unit in Plot No: 126,127,128 &129 Raichur Growth centre, an industrial area at Chiksugur village, Raichur District, in an area of 4.0 Acres (16193.30 SQM). The project cost for proposed project is about 10.0 Crores.

The proposal is to obtain Environmental Clearance from the Ministry of Environment and Forests (MoEF) and Consent Orders from KSPCB to manufacture proposed products (given in Table 2) with a total production capacity of **22.00** MT/Month. EIA report is prepared considering the Terms of Reference (ToR) issued by MoEF vide F. No. J-11011/20/2013-IA II (I) dated 10th September 2013.

1.1. PROJECT DESCRIPTION

The salient features of the unit are furnished below.

TABLE 1: SALIENT FEATURES OF THE PROJECT

Name of the project	M/s. Raichur Laboratories Pvt. Ltd
Location of the project	Plot No: 126,127,128 &129, Raichur Growth centre, Industrial Area, Chiksugur village, Raichur District.
Latitude &Longitude	Latitude: 16 ⁰ 18' 27.56" North Longitude: 77 ⁰ 21'25.42" East
Land acquired for the plant	4.0 Acres (16193.30 SQM)
Land use	Industrial Land (Notified Industrial Area)
Nearest Village	Chiksugur - 1.5 Kms (WNW)
Nearest Town	Raichur -10.3 Kms (SSE)
Nearest Highway	State Highway (SH-51) - 1.26 Kms (W) (Raichur and Wadi Road)
Nearest Railway station	<ul style="list-style-type: none"> • Yermaras - 4.12 Kms (SSW) • Raichur- 13 Kms (S)
Nearest Airport	Hyderabad Airport -153 Kms (NE)
Water bodies (within 10Kms radius)	Krishna River - 8.2 Kms (N) Konad Halla - 1.3 Kms (NNW)

2.0 PROCESS DESCRIPTION

The manufacturing process of bulk drugs consists of chemical synthesis extending to stages of processing involving different type of chemical reactions.

Total production capacity of proposed unit will be **22.00** MT/Month (given in Table 2).

The unit will take adequate control measures for storage and handling of Raw materials, solvents and cylinders with in factory premises.

TABLE 2: PROPOSED PRODUCTS AND QUANTITIES

S. No	Name of the Product	CAS No 'S	Therapeutic Category	Quantity In Kg/Month	Quantity In Kg/Day
1	Meropenem	119478-56-7	Antibiotic	1000.00	33.33
2	Biapenem	120410-24-4	Antibiotic	300.00	10.00
3	Feropenem	106560-14-9	Antibiotic	1000.00	33.33
4	Imipenem	74431-23-5	Antibiotic	1000.00	33.33
5	Dorepenem	148016-81-3	Antibiotic	1000.00	33.33
6	Candesartan	139481-59-7	Anti hypertension	500.00	16.67
7	Celecoxib	169590-42-5	Anti inflammatory	5000.00	166.67
8	Clopidogrel Besilate	113665-84-2	Anti platelet	3000.00	100.00
9	Ketaconazole	65277-42-1	Anti fungal	2000.00	66.67
10	Levo cetirizine dihydrochloride	130018-87-0	Anti histamine	500.00	16.67
11	Levetiracetam	102767-28-2	Anti convulsant	3000.00	100.00
12	Pantoprazole Magnesium	102625-70-7	Anti Ulcer	1000.00	33.33
13	Phenylephrine Hydrochloride	61-76-7	Nasal decongestant	3000.00	100.00
14	Prasugrel Hydrochloride	389574-19-0	Anti platelet	500.00	16.67
15	Quetiapine fumarate	111974-72-2	Anti psychotic	1000.00	33.33
16	Rabeprazole Sodium	117976-90-6	Anti-ulcerative	1000.00	33.33
17	Solifenacin	242478-37-1	Anti cholinergic	500.00	16.67
18	Tamsulosin Hydrochloride	106463-17-6	Anti-adrenergic	1000.00	33.33
19	Telmisartan	144701-48-4	Anti hypertensive	2000.00	66.67
20	Bortezomib	179324-69-7	Anti neoplastic	50.00	1.67
21	Trimebutine Maleate	34140-59-5	Anti spasmodic	500.00	16.67

22	Caberogoline	81409-90-7	Miscellaneous Endocrine Agent	500.00	16.67
23	Mycophenolate Mofetil	128794-94-5	Immuno suppressant	500.00	16.67
24	Raloxifene Hydrochloride	82640-04-8	Osteoporosis	1000.00	33.33
25	Febuxostat	144060-53-7	Anti- Gout Medication	500.00	16.67
	Total			31350.00	1045.00
We Will Manufacture Maximum of Any 10 Products at a Point of Time				22000.00	733.33

2.1 RESOURCE REQUIREMENT INFRASTRUCTURE FACILITIES

A) Land Use Details:

The plot area of **M/s. Raichur Laboratories Pvt. Ltd.**, is 4 Acres (16193.30 SQM) and the land use data is presented below.

TABLE 3: LAND USE DETAILS

S. No	Description	Area(SQM)
1.	Total Area	16193.30
2.	Built up Area	3856.80
3.	Green Belt	7402.85

B) Water Requirement

The total water requirement of the Plant is 121.75 KLD. The breakup of water required is given here under. Industry will be drawn the water from KIADB (water supply).

Water consumption details given in below Tables

TABLE 4: WATER CONSUMPTION DETAILS

S. No	Purpose	Water Consumption In KLD
1	Process	30.75
2	Washings	5.00
3	Daily Boiler Makeup	35.00
4	Daily Cooling Towers Makeup	40.00
5	DM Plant	1.00
6	Scrubbing system	2.00

7	Domestic Usage	3.00
8	Gardening	5.00
	Total	121.75

☞ Total **23.71 KLD** of water will be recovered, reused and **98.04 KLD** of fresh water is required and Industry will be drawn the water from KIADB (water supply).

➤ **Worst Combination of Any 10 Products Manufacture At A Point of Time**

C) Energy Requirement

Power requirement of proposed project will be made available through Public supply. Total power requirement of proposed plant shall be 800 KVA.

D) Utilities:

The Industry proposes to install 2 Nos. of 3.0 TPH boilers for Plant operations. The coal requirement will be met from government allocation or from local authorized sources.

DG sets of 250 & 380 KVA will be installed & used during the power failures. The emission details are presented in below table.

TABLE 5: EMISSION CHARACTERISTIC DETAILS OF BOILER

Particulars	Units	3.0 TPH Coal fired Boilers
Type of Fuel	--	Indian Coal
Coal Consumption	TPD	7.5
Ash Content	%	47
Sulphur Content	%	0.8
Nitrogen Content	%	1.07
No. of Stacks	No	1
Height of Stack	M	30
Diameter of Stack	M	0.60
Temperature of Flue Gas	°C	100
Velocity of Flue Gas	m/s	7.5
Particulate Matter at outlet of Bag filter (Based on 115 mg/Nm ³ at outlet)	gm/sec	0.24
Sulphur dioxide emission	gm/sec	0.69
Oxides of Nitrogen emission	gm/sec	0.93

TABLE 6: STACK EMISSION DETAILS OF DG SET

Capacity In KVA	Emission Of SPM in Mg/NM ³	Emission Of SO ₂ in Mg/NM ³	Emission of NO _x in Mg/NM ³	Stack dia. In (m)	Flue Gas Temp. in °C	Stack Height in (m)	Flue gas Velocity In m/sec.
250 KVA	65.0	110.0	135.0	0.50	180	10	18.5
380 KVA	74.0	150.0	185.0	0.50	220	10	21.0

3. BASELINE ENVIRONMENTAL STATUS

3.1 Study Area Included In Environmental Setting

Studies were carried out in about 10 km radius area from the proposed site with respect to meteorology, flora, fauna, land and socio-economies of the area. Further sampling and analysis of air quality, water quality, noise level and soil quality were carried out. The air quality, water quality, noise level and soil quality in the study area is evaluated based on this physical sampling and analysis.

The base line data were monitored during study period of **November 2013 - January 2014**. The study team conducted site surveys and field experiments for gathering the information on air quality, water quality, noise quality and soil quality.

3.2 CLIMATE OF THE STUDY AREA

➤ **Relative Humidity**

During study period at project site, the maximum relative humidity was recorded as 65 % and minimum as 40 %.

➤ **Temperature**

During the study period the maximum and minimum temperatures were recorded as 32.6°C and 12.6°C respectively.

➤ **Rainfall**

No rainfall during the study period at project site. The normal annual rainfall in the District is 737.6mm (Source: IMD climatologically Normal's1961-1990).

➤ **Wind**

The analysis of the average wind pattern shows predominant winds from E and N with wind frequencies 69.2 % and 5.1 % respectively. The calm conditions were prevailed for 15.9 % of the total time. Average wind speed is 1.80 m/s.

3.3 SAMPLING LOCATION DETAILS

Total Eight locations were selected for the Base line status. The Water, Noise results are presented in Table 4 and Table 5.

3.4 AMBIENT AIR QUALITY

- The ambient air monitoring was carried out for 24 hours a day twice a week for 12 week per location in the study area. Ambient Air Quality Monitoring (AAQM) was carried out at eight locations during period of **November 2013 - January 2014**.
- Particulate Matter (PM₁₀): Maximum value of 58.9 µg/ m³ was recorded at Project Site.
- Particulate Matter (PM_{2.5}): Maximum value of 19.7 µg/ m³ was recorded at Project Site.
- Sulphur Dioxide (SO₂): Maximum value of Sulphur dioxide of 12.0 µg/ m³ obtained near the sampling location Project Site.
- Oxides of Nitrogen (NO_x): A maximum value of 16.1 µg/ m³ was prevailing at the time of sampling at Project site sampling station.
- Carbon Monoxides (CO): Maximum value of Carbon Monoxide of 0.62 µg/ m³ obtained near the sampling location Project Site.
- VOCs: Volatile Organic Compounds (Vocs) concentration in study area was found to be BDL.

TABLE 7: THE MAXIMUM, MINIMUM & 98TH PERCENTILE VALUES FOR ALL THE SAMPLING LOCATIONS

Code	Name of Sampling Location	PM ₁₀			PM _{2.5}			SO ₂			NO _x			CO		
		Min	Max	98 th	Min	Max	98 th	Min	Max	98 th	Min	Max	98 th	Min	Max	98 th
A1	Project Site	51.9	59.1	58.9	15.2	19.9	19.7	8.7	12.1	12.0	12.10	16.5	16.1	0.32	0.62	0.62
A2	Chicksugur	40.20	48.80	48.62	8.60	16.80	16.57	8.10	10.90	10.90	12.10	14.90	14.81	0.22	0.56	0.56
A3	Vadlur	40.70	48.90	48.90	8.70	16.90	16.81	8.10	10.90	10.85	12.40	14.90	14.85	0.22	0.59	0.59
A4	Yagasanhalli	40.80	48.90	48.62	8.50	16.60	16.51	8.10	10.80	10.71	12.30	14.90	14.85	0.21	0.58	0.57
A5	Naglapur	40.20	48.90	48.85	8.20	16.90	16.62	8.10	10.90	10.81	12.10	14.90	14.90	0.21	0.58	0.57
A6	Kuknur	41.20	47.90	47.67	8.30	16.30	16.21	8.10	10.90	10.72	12.20	15.00	14.95	0.21	0.55	0.55
A7	Yagnur	40.10	48.80	48.48	8.50	16.60	16.46	8.10	10.80	10.71	12.10	14.90	14.81	0.21	0.59	0.58
A8	Yamars	41.30	47.40	47.35	8.30	16.30	16.16	8.20	10.50	10.50	12.20	14.90	14.90	0.21	0.59	0.57
CPCB Standards'		100			60			80			80			2		

*** All Values are in µg/M³**

*** VOCs Values monitored was Below Detectable Limit - i. e, 1 ppm**

3.5 WATER QUALITY

Water sampling and subsequent analysis was carried out to determine both the groundwater and surface water quality of the study area.

Ground water samples are collected at 8 locations and surface water samples was collected at 2 locations in the study area. These samples were analyzed for physico and chemical parameters to ascertain the Baseline status in the existing surface water and ground water bodies.

TABLE 8: WATER ANALYSIS RESULTS

S. No	Parameters	Ground water		IS 10500 Standards Permissible	Surface water		IS 2296 Standards Class 'A'
		Min	Max		Min	Max	
1	pH	7.48	8.13	6.5 – 8.5	8.13	8.26	8.5
2	Total dissolved solids (mg/l)	435.2	1216.0	2000	469.39	490.5	500
3	Total hardness (mg/l)	230.0	530	600	240	240	300
4	Chlorides (mg/l)	29.0	214.9	1000	89.8	99.8	250
5	Fluoride (mg/l)	<1.0	<1.0	1.5	<1.0	<1.0	1.5
6	Sulphates (mg/l)	14.7	191.7	400	73.9	83	400

- Ground water samples collected from 8 locations within 10 km radius of the proposed site showed all parameters well within the drinking water standards specified as per IS 10500.
- Surface water samples collected at upstream and downstream of Krishna River of compliance of all parameters with the drinking water standard as per IS 2296 Class A.

3.6 NOISE ENVIRONMENT

Noise level monitoring was carried out at eight locations during period of **November 2013 - January 2014**.

During monitoring period, the LEQ (dB (A)) noise levels varied between 63.94 dB (A) to 66.27 dB (A) during Day time in study area respectively.

Noise levels varied between 54.02 dB (A) to 56.91dB (A) during night time in study area respectively.

The noise level varied at the same place at different times due to fluctuations in traffic movements as well as commercial and domestic activities going on in the study area but it was under the permissible limit prescribed by CPCB.

TABLE 9: NOISE LEVELS OF THE STUDY AREA

S. No	Name of the place	Day Time In Leq	Night Time In Leq	CPCB NORMS (Day time)	CPCB NORMS (Night time)
1	Plant Site	65.81	55.74	75dB (A)	70dB (A)
2	Yeramaras	65.82	56.51		
3	Yagasanhalli	63.94	54.48		
4	Yagnur	65.70	56.91		
5	Kuknur	65.26	54.02		
6	Nagalpur	64.39	55.19		
7	Vadlur	65.00	56.15		
8	Chiksugur	66.27	55.00		

3.7 SOIL ENVIRONMENT

On data obtained, it is ensured that the soil quality at around the site is appropriate and no abnormality in terms of soil contaminants is reported.

3.8 LAND USE OF THE STUDY AREA

Land use / land cover map is prepared by visual interpretation of high-resolution satellite data with the help of Survey of India Topographic maps on 1:50,000 scale. Two seasons' data (Rabi year 2013) is used for the delineation of different units. The units are confirmed by the ground truth/field visits.

TABLE 10: LAND USE OF THE STUDY AREA

S. No.	LANDUSE	Area in SQM	Area in Percentage
1.	Built- Up Land	10.05	3.2
2.	Water bodies	32.66	10.4
3.	Crop Land	237.4	75.6
4.	Wastelands	33.9	10.8
	TOTAL	314.0	100

3.9 BIOLOGICAL ENVIRONMENT

Proposed Project site is an Industrial Land (Notified Industrial Area). There is no negative impact on the Biological Environment.

3.10 DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE

The baseline demographic and Socio - Economic data have been collected at Seven Villages falling within 10 KMs study area.

- The total population of the study area is 13,267.
- The Demographic distribution is 100% & 00% for Semi-Urban & Rural Areas, respectively.
- The Literacy Rate in the study areas is 71.72% & 39.36% for Male & Female population
- All Villages, in the study area, are electrified – both for common facilities like, Street Lights, Public Water Pumping, etc.

4.0 IDENTIFICATION, PREDICTION & MITIGATION MEASURES

4.1 Air Environment

The predicted process emissions from reactions are HCl, SO₂, CO₂ and H₂ these gases will be Neutralized / Recovered / Dispersed through scrubber / Flame arrester and let into atmosphere to control the gaseous emissions.

PROCESS EMISSION CONTROL SYSTEM

Scrubbers with 300 mm X 3 Mtrs & 300 X 4 Mtrs Capacities will be installed for control of emission from process. The Schematic diagram of emission control system is given below.

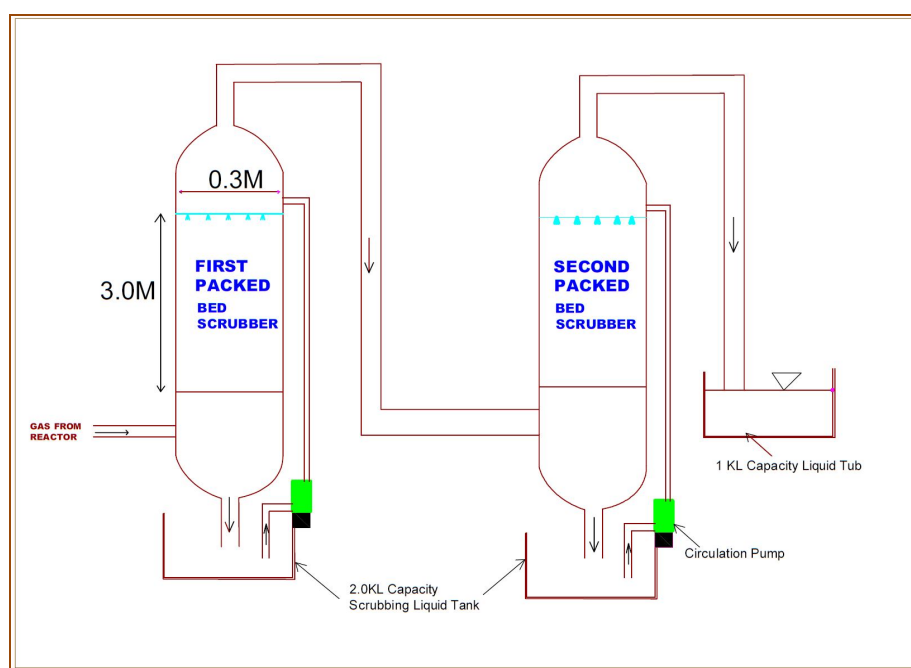
➤ POLLUTING PROCESS EMISSION DETAILS

S. No	Name of The Gas	Quantity In Kg/Day	Method of Treatment
1	Hydrogen Chloride	25.82	Scrubbed by using Chilled water media
2	Sulfur Dioxide	26.33	Scrubbed by using Caustic Lye Solution
3	Ammonia	2.65	Scrubbed by using water media

➤ **NON- POLLUTING PROCESS EMISSION DETAILS**

S. No	Name of The Gas	Quantity In Kg/Day	Method of Treatment
1	Hydrogen	2.04	Diffused by using Nitrogen through Flame arrestor
2	Carbon dioxide	53.31	Dispersed into Atmosphere
3	Nitrogen	0.67	Dispersed into Atmosphere

FIGURE 1: SCHEMATIC DIAGRAM OF EMISSION CONTROL SYSTEM



The Particulate matter generated from 2 Nos. of 3.0 TPH Boiler will be controlled by using cyclone separator followed by bag filters. The sulphur dioxide (SO₂) from boiler will be dispersed to atmosphere by providing adequate stack height of 30 m for effective dispersion and dilution.

From the dispersion modeling studies conducted, it is concluded that the maximum ground level concentration will occur. These predicted ground level concentrations when added to Baseline scenario, the overall scenario levels of PM, SO₂ and NO_x are well within the permissible limits specified by CPCB.

4.2 Water Environment

The total water requirement for proposed project is 121.75 KLD and total waste water generated will be 53.84 KLD which is from process, floor & reactor washes,

cooling tower blow down, boiler blow down, scrubber, DM plant and domestic usage. The effluent generation and HTDS & LTDS details are given below.

TABLE 11: EFFLUENT GENERATION DETAILS

S.No	Purpose	Effluent Generation In KLD
1	Process	32.34
2	Washings	5.00
3	Boiler Blow down	5.00
4	Cooling Towers Blow down	6.00
5	DM Plant Regeneration	1.00
6	Scrubbing System	2.00
7	Domestic	2.50
8	Gardening	0.00
	Total	53.84

➤ **Worst Combination of Any 10 Products Manufacture At A Point of Time**

TABLE 12: HTDS & LTDS DETAILS

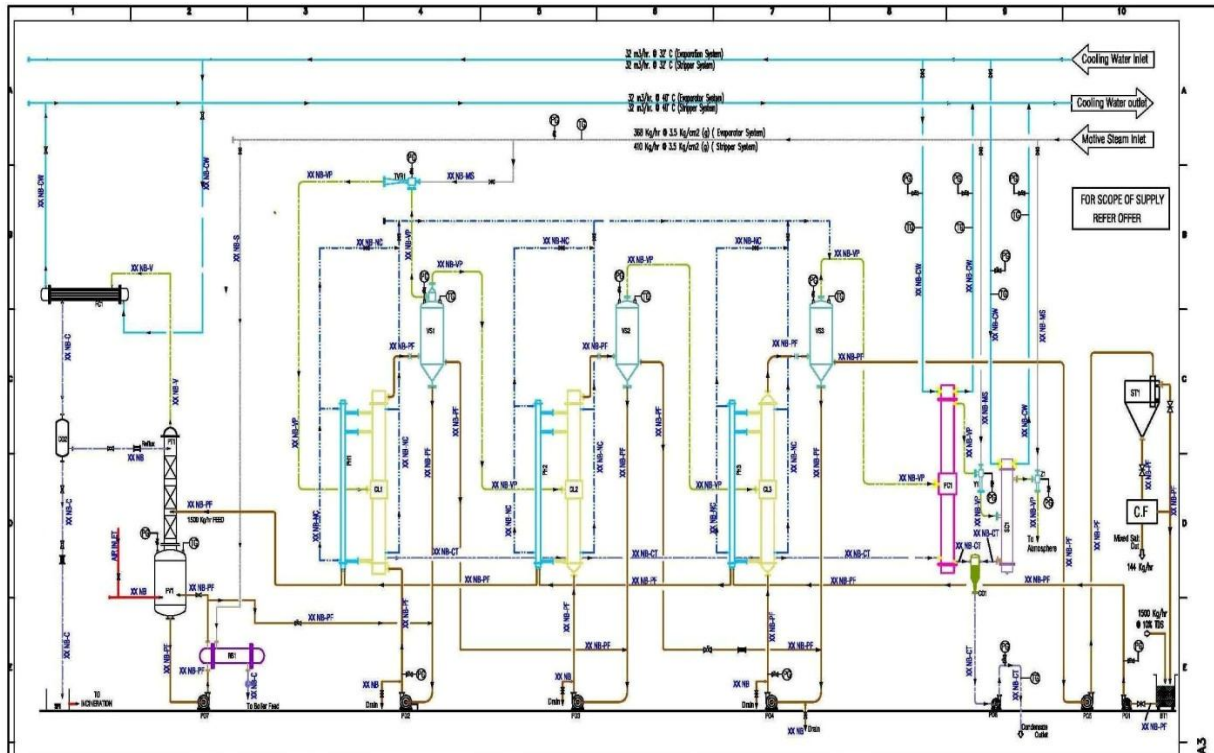
Unit	HTDS KLD	LTDS KLD	Effluent Generation in KLD	Method of Disposal
Process	31.14	1.20	32.34	HTDS Effluent sent to ETP with MEE System
Washings	0.00	5.00	5.00	
Boiler Blow Down	5.00	0.00	5.00	LTDS Effluents treated in ETP – RO Plant / RO Rejects to MEE System and RO permeate to reuse, Condensate from MEE to reuse and MEE residue to ATFD.
Cooling towers Blow Down	0.00	6.00	6.00	
DM Plant Regeneration	1.00	0.00	1.00	
Scrubbing System	2.00	0.00	2.00	
Domestic	0.00	2.50	2.50	Septic tank followed by soak pit
Total	39.14	14.70	53.84	

Effluent Treatment / Disposal: Zero Liquid Discharge (ZLD) concept consisting of steam stripper, MEE system, ATFD, Biological Treatment and RO will be installed to treat the effluents generated from plant and to reuse the treated water.

The MEE System with 70 KLD capacities and RO system with 60 KLD Capacity will be installed for treatment of effluents generated from plant operations. The

Schematic Diagram of MEE System is given below. The details of MEE system given in DREIA Chapter II.

FIGURE 2: SCHEMATIC DIAGRAM OF MEE SYSTEM



4.3 Noise Environment

The main sources of noise pollution in the plant are Boiler, Reactors, DG Sets, compressors and other Noise generating units. Vehicular movements during operation phase for loading / unloading of raw materials and finished products and transporting activity may also increases the noise levels.

All the noise generating equipment like motor's, gear boxes and compressors are regularly maintained with lubricating material to avoid noise generation. All the DG sets are providing with accoustic enclosures. A thick greenbelt of 6 -13 m width will be developed along the periphery of the plant boundaries to minimize the noise pollution from the source.

4.4 Land Environment

The proposed plant activities are unlikely to alter the land-use pattern in the project site. The unit will take adequate measures for storage, handling and disposal of

hazardous waste. Hence, there will be no significant adverse impact on land environment.

4.5 Ecological Environment

Detailed flora and fauna studies were carried in the study area. As per baseline studies, there are no endangered, threatened & protected plants and Animal species were recorded in the study area. Hence, no significant adverse impact is envisaged on ecology.

4.6 Solid Waste

The Solid waste generated and disposal method from proposed project is given below.

TABLE 13: SOLID WASTE GENERATION

S. No	Name of the Solid Waste	Quantity Kg/Day	Disposal Method
1	Inorganic Solid Waste	94.13	Sent to TSDF
2	Organic solid waste	438.45	Sent to Cement Industries
3	MEE Salts	871.09	Sent to TSDF
4	Spent Carbon	66.53	Sent to Cement Industries
5	ETP Sludge	50.00	Sent to TSDF
6	Coal ash from Boiler	3500 .00	Sent to Brick Manufacturers
7	Solvent Distillation Residue	1190.00	Sent to Cement Industries

TABLE 14: HAZARDOUS WASTE DETAILS

S. No	Description	Quantity	Mode of Disposal
1	Waste Oils & Grease	1.5 KL/Annum	SPCB Authorized Agencies for Reprocessing/Recycling
2	Detoxified Containers	300 No's / Month	After Detoxification sent back to suppliers / SPCB Authorized Parties
3	Used Lead Acid Batteries	4 No's/ Annum	Send back to suppliers for buyback of New Batteries

4.7. Risk Assessment and Disaster Management Plan

The risk assessment studies have been conducted for identification of hazards, to calculate damage distances and to spell out risk mitigation measures. The details of system is discussed and detailed in Chapter – 6 of Draft REIA.

5.0 ENVIRONMENTAL MANAGEMENT PLAN

5.1 ENVIRONMENT MANAGEMENT PLAN FOR CONSTRUCTION PHASE

Adequate and effective environment protection measures will be planned and designed to minimize the impacts due to activities related to pre-construction (preparatory phase) of the project, machinery installation and commissioning stages and end with the induction of manpower and start up. The impacts identified during the construction phase are mainly due to site preparation, foundation work, material handling, and construction of buildings and installation of the machinery.

All possible care will be taken to reduce the noise level due to construction activity. Also, noise prone activities shall be restricted to the extent possible during night particularly during the period 10 PM to 6 AM in order to have minimum environmental impact.

5.2 ENVIRONMENT MANAGEMENT PLAN FOR OPERATIONAL PHASE

A) Air Pollution Management

- Gases emissions from reactions shall be scrubbed in a two stage scrubber to control the gaseous emission into the atmosphere.
- Fugitive emissions will be reduced by providing vent condensers to the storage tanks and all the reactors are will be provided with primary and secondary condensers with chilled brine circulation to avoid fugitive emission and solvent losses which ensures the recovery of 93-97% and also controlled by closed operations and suitable handling methods.
- Adequate stack height of 30 Mtrs will be provided to the proposed boiler for effective dispersion of pollutants' and stack monitoring facilities for the periodic monitoring of the stack to verify the compliance of the stipulated norms.
- To prevent the particulate matter delivering from the boiler will be arrested by providing Cyclone separator followed by Bag filters.

B) Water Pollution Management

The HTDS effluents will be collected and treated in steam stripper, MEE system & ATFD. Condensate along with LTDS effluent will be sent to biological treatment including R.O system for treatment and reuse.

There will be no discharge of effluent outside the plant premises, the unit will be treated as ZLD unit. Salts from ATFD and sludge from the ETP will be sent to TSDF for land fill.

C) Noise Pollution Management

- Extensive oiling, lubrication and preventive maintenance will be carried out for the machineries and equipments to reduce noise generation.
- Green Belt Development around plant boundaries and within plant in an area of 5849.00 SQM.
- A thick Greenbelt of 6-13 m width along the periphery of the compound wall arrests the Noise pollution from the plant.

D) Solid Waste Management

The hazardous wastes generated from the industry will be residue from distillation/process, ETP sludge, Process organic residues, process Inorganics, MEE salts, spent catalyst/spent carbon, discarded containers and bags which will properly stored in a hazardous waste storage area with leachate collection system and then transported and properly disposed.

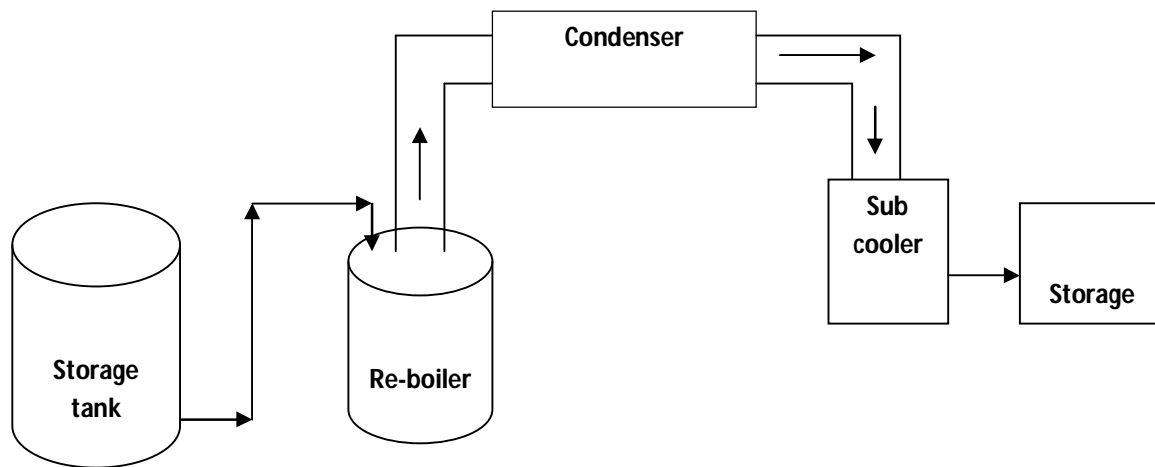
The entire organic residue will be disposed to cement industries for incineration and Inorganics sent to TSDF for secure land fill.

E) Green Belt

The Industry Proposed to develop greenbelt of 5 m width on all sides of the industry in an area of 1.2 Ac. with an amount of Rs.1, 20,000/- for greenbelt .The amount will be spent in three years after construction, erection and fabrication of the industrial units at the rate of Rs.70, 000 during the first year and Rs.25, 000/- each during the next two years. A list of plants suitable for greenbelt and to the local agro climatic conditions is given in the EIA report.

F) Solvent Recovery

The solvents like. Acetone, Acetonitrile, Iso Propyl alcohol, Methanol and Toluene will be recovered up to 95 % by using distillation and the remaining 5% will be the lose. Remaining solvents which require water wash and will be recovered about 99.5%.

FIGURE 3: SCHEMATIC DIAGRAM FOR RECOVERY OF SOLVENTS

5.3 ENVIRONMENT MANAGEMENT CELL

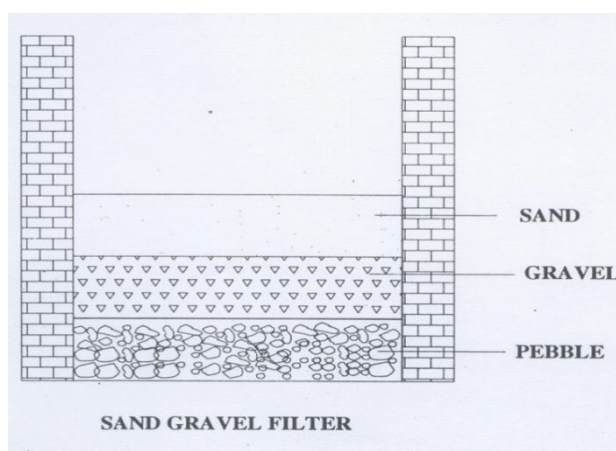
M/s. Raichur Laboratories Pvt. Ltd will provide a dedicated Environmental Management Cell with trained staff to look after the proper environmental management of the proposed plant including operation & maintenance of all facilities.

5.4 ENVIRONMENT MONITORING PROGRAM

Regular monitoring of environmental parameters is of immense importance to assess the status of environment during project operation. The regular monitoring will be carried out with the MoEF/NABL recognized laboratory.

6.0 ROOF WATER HARVESTING

Roof water harvesting structures shall be provided to recharge the groundwater resources in the region. The run-off water from the roof top of the structures and paved areas shall be collected through storm water drainage system and led to rain water harvesting structure. The typical rain water harvesting structure is given below.

FIGURE 4: SCHEMATIC ROOF WATER HARVESTING STRUCTURE

7.0 EMP BUDGET

The unit has proposed 106 lakhs as capital cost 15.65 lakhs as recurring cost, 10.0 Lakhs Environment Pollution Control measures.

TABLE15: BUDGETS FOR ENVIRONMENTAL MANAGEMENT PLAN

S.NO	Particulars	Proposed Capital Cost (Rs. Lac)	Recurring Cost (Rs. Lac) Per Annum
1.	Pollution Control Equipment	10.0	1.75
2.	ZLD System	90.0	8.0
3.	Rain Water Harvesting	3.0	0.0
4.	Green Belt Development	1.5	0.4
5.	Health & Safety	1.5	2.5
6.	Environmental Monitoring	0.0	3.0
	Total	106	15.65

8.0 SOCIO-ECONOMIC DEVELOPMENT

It is predicted that socio-economic impact due to this project will positively increase the chance of more employment opportunities for local peoples. There are no Resettlement and Rehabilitation issues involved in this project. The project infrastructures will be of use to people of the area. The revenue of the village will be definitely increasing due to the project.

9.0 PROJECT BENEFITS

Proposed project will result in considerable growth and up liftments of local community in the nearby villages by providing the employment. The proposed project will generate direct and indirect employment to the nearby villages and the unavailable technical persons will be recruited from outside.

10. CONCLUSION

Raichur Laboratories Private Limited has committed to implement all the pollution control measures to protect the surrounding environment – adapting Zero-Liquid-Discharge System for all its Effluents, by controlling process emissions and Safe-Disposal of all Solid Wastes – generated either as process wastes or packing wastes.

The project can definitely improve the regional, state and national economy. Industrial growth is an indication of all-round Socio-Economic Development – by generating local Employment and Business Opportunities. The implementation of this project will definitely improve the physical and social infrastructure of the surrounding area.