FORM-1

FOR

PROPOSED SPECIALTY CHEMICALS MANUFACTURING UNIT

OF

M/s. SULFA CHEM INDUSTRIES

PLOT NO. 1916, GIDC INDUSTRIAL ESTATE, PANOLI-394 116, TALUKA: ANKLESHWAR, DISTRICT: BHARUCH, GUJARAT

Prepared by:

Aqua-Air Environmental Engineers Pvt. Ltd.
(Pollution Control Consultants & Engineers)

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APPENDIX I

(See paragraph - 6)

FORM 1

Sr. No.	Item	Details
1.	Name of the project/s	M/s. Sulfa Chem Industries
2.	S. No. in the schedule	5 (f)
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled	Proposed Capacity = 80 MT/Month Total Plot Area = 1,140 m^2
4.	New/Expansion/Modernization	New
5.	Existing Capacity/Area etc.	For detail Please refer **Annexure – I**
6.	Category of Project i.e. 'A' or 'B'	'A'
7.	Does it attract the general condition? If yes, please specify.	Yes. Located within 5 km of critically polluted area (Ankleshwar).
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location	
	Plot/Survey/Khasra No.	Plot No. 1916
	Village	GIDC Industrial Estate, Panoli
	Tehsil	Ankleshwar
	District	Bharuch
	State	Gujarat
10.	Nearest railway station/airport along with distance in kms.	Railway Station: Ankleshwar (4.5 km) Airport: Surat (60 km)
11.	Nearest Town, city, District Headquarters along with distance in kms.	Panoli Village (3 km) Bharuch (15.5 km)
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, local body (complete postal address with telephone nos. to be given)	Notified Area Authority, Panoli
13.	Name of the applicant	M/s. Sulfa Chem Industries
14.	Registered Address	Plot No. 1916, GIDC Industrial Estate, Panoli-394116, Taluka: Ankleshwar, District: Bharuch, Gujarat
15.	Address for correspondence:	
	Name	Mr. Piyushkumar Baldevbhai Patel
	Designation (Owner/Partner/CEO)	Proprietor
	Address	M/s. Sulfa Chem Industries

		Plot No. 1916, GIDC Industrial Estate, Panoli-394116, Taluka: Ankleshwar, District: Bharuch, Gujarat
	Pin Code	394116
	E-mail	sulfachem@gmail.com bschem_panoli@yahoo.com
	Telephone No.	--
	Fax No.	--
	Mobile No.	+919426807043
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	NA
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	No
19.	If yes, date of submission	No
20.	If no, reason	No
21.	Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980? (b) The Wildlife (Protection) Act, 1972? (c) The C.R.Z. Notification, 1991?	No
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Forest land involved (hectares)	No
24.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	No

- Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr. No.	Information/Checklist confirmation	Yes/ No	Details thereof with approximate quantities frates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase intensity of land use (with respect to local land use plan)	No	Proposed project activity is within the Panoli GIDC Industrial Estate.
1.2	Clearance of existing land, vegetation and Buildings?	Yes	Minor site clearance activities shall be carried out to clear shrubs and weed.
1.3	Creation of new land uses?	No	The project site is located on level ground, which does not require any major land filling for area grading work.
1.4	Pre-construction investigations e.g. bore Houses, soil testing?	No	--
1.5	Construction works?	Yes	Please refer **Annexure – II.**
1.6	Demolition works?	No	There will be not any demolition work at the site.
1.7	Temporary sites used for construction works or housing of construction workers?	No	--
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Please refer **Annexure – II.**
1.9	Underground works mining or tunneling?	No	--
1.10	Reclamation works?	No	--
1.11	Dredging?	No	--
1.12	Off shore structures?	No	--
1.13	Production and manufacturing processes?	Yes	Please refer **Annexure – III.**
1.14	Facilities for storage of goods or materials?	Yes	Areas for storage of raw materials and finished products will be developed.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	For Facilities for treatment & disposal of liquid effluents please refer **Annexure – V.** For Hazardous waste details please refer **Annexure – VII.**

1.16	Facilities for long term housing of operational workers?	No	--
1.17	New road, rail or sea traffic during Construction or operation?	No	--
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	--
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in Traffic movements?	No	--
1.20	New or diverted transmission lines or Pipelines?	No	--
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	--
1.22	Stream crossings?	No	--
1.23	Abstraction or transfers of water form ground or surface waters?	Yes	Water requirement will be met through Panoli GIDC water supply.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	--
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Transportation of personnel or raw material and products will be primarily by road only.
1.26	Long-term dismantling or decommissioning or restoration works?	No	--
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	--
1.28	Influx of people to an area either temporarily or permanently?	No	--
1.29	Introduction of alien species?	No	--
1.30	Loss of native species or genetic diversity?	No	--
1.31	Any other actions?	No	--

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr. No.	Information/checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	Proposed project activity will be within GIDC Industrial Area, Panoli, District: Bharuch, Gujarat.
2.2	Water (expected source & competing users) unit: KLD	Yes	Water Source: Panoli GIDC Water Supply. For details please refer **Annexure – IV.**
2.3	Minerals (MT)	No	--
2.4	Construction material – stone, aggregates, and / soil (expected source – MT)	Yes	Construction materials, like steel, cement, crushed stones, sand, rubble, etc. required for the project shall be procured from the local market of the region.
2.5	Forests and timber (source – MT)	No	--
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	**Power required is 75 KVA** Source: DGVCL **Fuel Requirement:** Natural Gas = 250 M^3/Day
2.7	Any other natural resources (use appropriate standard units)	No	--

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	Please refer **Annexure – VIII.**
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	--
3.3	Affect the welfare of people e.g. by changing living conditions?	No	--
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly	No	--

	etc.		
3.5	Any other causes	No	--

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	--
4.2	Municipal waste (domestic and or commercial wastes)	No	--
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Please refer **Annexure – VII.**
4.4	Other industrial process wastes	Yes	Please refer **Annexure – VII.**
4.5	Surplus product	No	
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Please refer **Annexure – VII.**
4.7	Construction or demolition wastes	No	--
4.8	Redundant machinery or equipment	No	--
4.9	Contaminated soils or other materials	No	--
4.10	Agricultural wastes	No	--
4.11	Other solid wastes	Yes	Please refer **Annexure – VII.**

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Please refer **Annexure – VI.**
5.2	Emissions from production processes	Yes	Please refer **Annexure – VI.**
5.3	Emissions from materials handling storage or transport	Yes	Solid raw materials shall be charged through close pipeline into reactors and the dust collection hopper shall be connected to a bag filter and ID fan.
5.4	Emissions from construction activities including plant and equipment	No	--
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	No	--

5.6	Emissions from incineration of waste	No	--
5.7	Emissions from burning of waste in open air e.g. slash materials, construction debris)	No	--
5.8	Emissions from any other sources	No	--

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	The Noise level will be within the prescribed limit. At noisy areas adequate preventive & control measures will be taken. No significant noise, vibration or emission of light & heat from the unit.
6.2	From industrial or similar processes	Yes	-Do-
6.3	From construction or demolition	No	--
6.4	From blasting or piling	No	--
6.5	From construction or operational traffic	No	--
6.6	From lighting or cooling systems	No	--
6.7	From any other sources	No	--

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	Please refer **Annexure – VIII.**
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	For details please refer **Annexure – V.**
7.3	By deposition of pollutants emitted to air into the and or into water	No	--
7.4	From any other sources	No	--
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	--

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Yes	Please refer **Annexure – VIII.**
8.2	From any other causes	No	--
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	--

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g. • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industry • supply industry • other	Yes	Please refer **Annexure – IX.**
9.2	Lead to after-use of the site, which could have an impact on the environment	No	--
9.3	Set a precedent for later developments	No	--
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	--

(III) Environmental Sensitivity

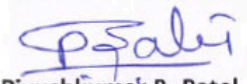
Sr. No.	Areas	Name/ Identity	Aerial distance (within 5 km) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	No protected area within 5 km from the proposed project site.
2	Areas which important for are or sensitive Ecol logical reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	River Narmada = 11 km
3	Area used by protected, important or sensitive Species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	--
4	Inland, coastal, marine or underground waters	No	--
5	State, National boundaries	No	--
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Yes	Public transportation
7	Defense installations	Yes	Ankleshwar
8	Densely populated or built-up area	Yes	Panoli village 3 km and Ankleshwar City around 4.5 km from the proposed project site.
9	Area occupied by sensitive man-made land uses Hospitals, schools, places of worship, community facilities)	No	--
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	--
11	Areas already subjected to pollution environmental damage. (those where existing legal environmental standards are exceeded)	Yes	Ankleshwar
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquake s, subsidence ,landslides, flooding erosion, or extreme or adverse climatic conditions)	No	--

IV). Proposed Terms of Reference for EIA studies: Please refer Annexure - X

I hereby given undertaking that, the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost.

Date:
Place: Panoli

For **Sulfa Chem Industries**



Piyushkumar B. Patel
(Proprietor)

NOTE:

1. The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z. map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.

2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC).

3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project.

LIST OF ANNEXURES

SR. NO.	NAME OF ANNEXURE
I	List of Products and Raw materials along with their Production Capacity
II	Layout Map of the Plant
III	Brief Manufacturing Process Description
IV	Details of water consumption & waste water generation
V	Details of Effluent Treatment Scheme
VI	Details of Air Pollution Control System
VII	Details of Hazardous Waste Generation and Disposal
VIII	Details of Hazardous Chemicals Storage & Handling
IX	Socio-economic Impacts
X	Proposed Terms of Reference
XI	Copy of Plot Allotment Letter
XII	Copy of GIDC Water Supply Certificate
XIII	Membership Certificate of CETP (M/s. PETL)
XIV	Membership Certificate of Common Solid Waste Disposal Facility (M/s. PSWML)
XV	Toposheet

ANNEXURE - I

LIST OF PRODUCTS ALONG WITH THEIR PRODUCTION CAPACITY

SR. NO.	NAME OF PRODUCTS	CAS NO.	PRODUCTION CAPACITY (MT/MONTH)
GROUP-1			
1	4 - Methoxy 2 Nitro Aniline (Bourdex G.P. Base)	96-96-8	20
2	4 - Methylene 2 Nitro Aniline (M.N.P.T.)	89-62-3	
3	2-Methoxy 4-Nitro Aniline (Red B Base) and 2-Methoxy 5-Nitro Aniline (Scarlet R Base)	97-52-9 99-59-2	
GROUP-2			
4	Napthol AS (3 Hydroxy - 2 Napthanilide)	92-77-3	25
5	Napthol ASBS (3 Hydroxy - 3 Nitro - 2 Napthanilide)	135-65-9	
6	Napthol ASD (3 Hydroxy - 2 Naptho - O Toludine)	131-61-5	
7	Napthol ASE (4 Chloro - 3 Hydroxy - 2 - Napthanilide)	92-78-4	
8	Napthol- ASOL (3 Hydroxy - 2 - Napth - o - Anisidine)	135-62-6	
9	Napthol ASBO (3 - Hydroxy - N - 1 - Napthyl - 2 - Napthamide)	132-68-3	
10	Napthol ASSW (3 Hydroxy - N - 2 - Naphthyl - 2 - Napthamide)	90-15-3	
GROUP-3			
11	3,4 Dichloro NitroBenzene	99-54-7	25
12	5 Nitro 1,2,4 Tri Chloro Benzene	89-69-0	
13	2,5 Dichloro Nitro Benzene	89-61-2	
14	M-Dinitro Benzene	99-65-0	
GROUP-4			
15	2,4,5 Tri chloro Aniline	636-30-6	10
16	3,4 Dichloro Aniline	95-76-1	
17	M-Nitro Aniline	99-09-2	
	Total		**80**

LIST OF RAW MATERIAL

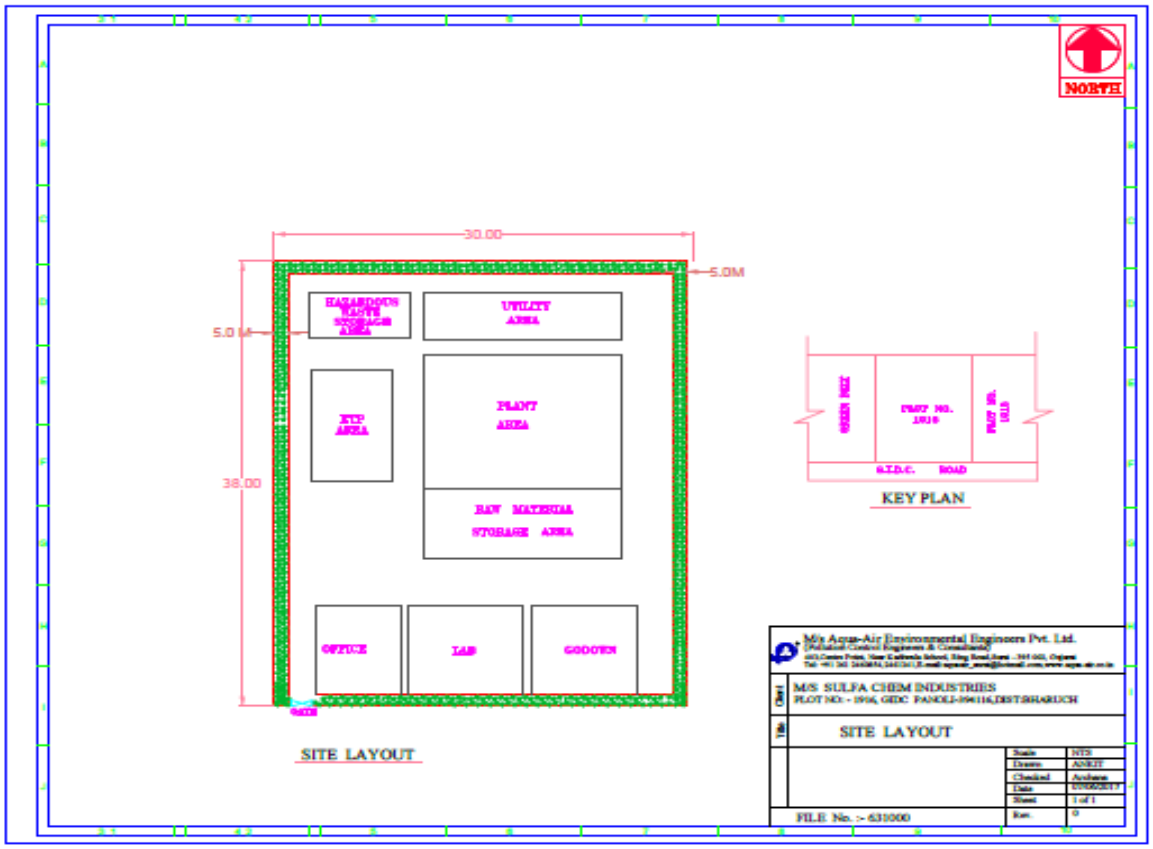
SR. NO.	PRODUCTS	RAW MATERIAL	MT/MONTH
[1]	4 - Methoxy 2 Nitro Aniline (Bourdex G.P. Base)	Para Anisidine	20.0
		Acetic Anhydride	17.6
		Methylene Dichloride	2.12
		Nitric Acid - 60%	26.0
		Sodium Hydroxide	7.6
[2]	4 – Methylene 2 Nitro Aniline (M.N.P.T.)	Para Toludine	16.6
		Acetic Anhydride	16.3
		Methylene Dichloride	3.9
		Nitric Acid	15.0
		Sodium Hydroxide	6.6
[3]	2-Methoxy 4-Nitro Aniline (Red B Base) and 2-Methoxy 5-Nito Aniline (Scarlet R Base)	Ortho Anisidine	20.0
		Acetic Anhydride	17.6
		Methylene Dichloride	2.12
		Nitric Acid	26.0
		Sodium Hydroxide	7.6
[4]	Napthol AS (3 Hydroxy - 2 Napthanilide)	Bon Acid	18.15
		Caustic Lye	3.85
		Toluene/MCB	5.95
		PCL3	13.25
		Aniline Oil	8.95
[5]	Napthol ASBS (3 Hydroxy - 3 Nitro -2 Napthanilide)	Bon Acid	15.75
		Caustic Lye	3.3
		Toluene/MCB	5.95
		PCL3	11.5
		M.N.A.	11.5
[6]	Napthol ASD (3 Hydroxy - 2 Naptho - O Toludine)	Bon Acid	17.5
		Caustic Lye	3.7
		Toluene/MCB	5.95

		PCL3	12.77
		O.T. Liquid	9.9
[7]	Napthol ASE (4 Chloro - 3 Hydroxy - 2 - Napthanilide)	Bon Acid	16.0
		Caustic Lye	3.38
		Toluene/MCB	5.95
		PCL3	11.7
		Para Chloro Aniline	10.8
[8]	Napthol - ASOL (3 Hydroxy - 2 -Napth - o - Anisidine)	Bon Acid	16.3
		Caustic Lye	3.4
		Toluene/MCB	5.95
		PCL3	11.9
		Ortho Anisidine	10.7
[9]	Napthol ASBO (3 - Hydroxy - N - 1 - Napthyl - 2 - Napthamide)	Bon Acid	15.25
		Caustic Lye	3.25
		Toluene/MCB	5.95
		PCL3	11.12
		Alpha Napthyl Amine	11.5
[10]	Napthol ASSW (3 Hydroxy - N - 2 - Naphthyl - 2 - Napthamide)	Bon Acid	15.25
		Caustic Lye	3.25
		Toluene/MCB	5.95
		PCL3	11.12
		B. Napthol	11.5
[11]	3,4 Dichloro Nitro Benzene	Dichloro Benzene	20.0
		Nitric Acid	11.7
		Sulphuric Acid	20.0
		Sodium Carbonate	0.65
[12]	3 Nitro 1,2,4 Tri Chloro Benzene	1,2,4 Tri Chloro Benzene	20.0
		Nitric Acid	10.0
		Sulphuric Acid	22.0
		Sodium Carbonate	0.55

[13]	2,5 Dichloro Nitro Benzene	Para Di Chloro Benzene	20.0
		Nitric Acid	11.7
		Sulphuric Acid	20.0
		Sodium Carbonate	0.65
[14]	M - Dinitro Benzene	Nitro Benzene	18.3
		Nitric Acid	9.7
		Sulphuric Acid	20.0
		Sodium Carbonate	1.0
		Sodium Sulphide	2.25
[15]	2,4,5 Tri chloro Aniline	5 Nitro - 1,2,4 Tri Chloro Nitro Benzene	11.5
		Fe Powder	6.4
		Acetic Acid	1.25
		Soda	1.12
[16]	3,4 Dichloro Aniline	3,4 DiChloro Nitoro Benzene	11.85
		Fe Powder	7.8
		Acetic Acid	1.54
		Soda	1.35
[17]	M-Nitro Aniline	M-Dinitro Benzene	12.18
		Sodium Hydro Sulphide 30% (NaHS)	14.2

ANNEXURE - II

LAYOUT OF MAP OF THE PLANT



ANNEXURE - III

BRIEF MANUFACTURING PROCESS DESCRIPTION

GROUP-1

[1] 4 - METHOXY 2 NITRO ANILINE (BOURDEX G.P. BASE)

MANUFACTURING PROCESS:

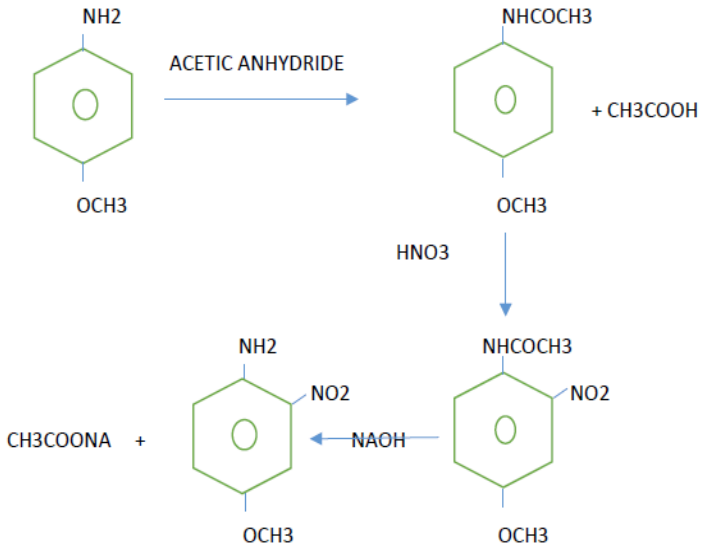
STAGE 1:-

1. Charge MDC in to Reactor.
2. Charge P-Anicidine in to reactor
3. Add Slowly Acetic Anhydride for 3 hours.
4. Maintain temperature for 2 hours and check the reaction completion test.
5. After completion of reaction, add slowly 60% HNO3.
6. After completion of addition, stir for 2 hours.
7. Cool the reaction mass and transfer the material in to nautch filter.

STAGE 2:-

1. Charge Water into reactor
2. Charges filter cake in reactor.
3. Add NaOH up to 7.5 pH.
4. After completion of NaOH addition, stir for 3 hours.
5. After completion of reaction, transfer the mass into nautch filter.
6. Collect the Product for Drying and Packing.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
Para Anicidine	500	4 – Methoxy 2 Nitro Aniline	500
Acetic Anhydride	440	Acetic acid	240
Methylene Dichloride	2000	Methylene Dichloride	1980
Nitric Acid 60%	650	Effluent	2500
Water	3500	Hepta Hydrate Sodium Acetate	320
NaOH Lye	190	Water	1500
		M/C Loss	240
Total	**7280**	**Total**	**7280**

[2] 4 - METHYLENE 2 NITRO ANILINE (M.N.P.T.)

MANUFACTURING PROCESS:

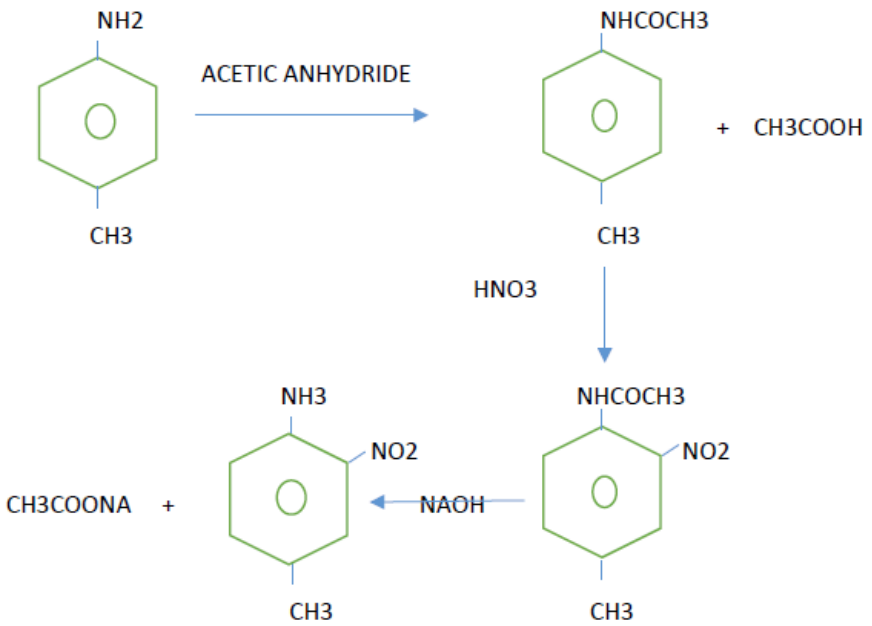
STAGE 1:-

1. Charge MDC in to Reactor.
2. Charge P-Toluidine in to reactor.
3. Add Slowly Acetic Anhydride for 3 hours.
4. Maintain temperature for 2 hours and check the reaction completion test.
5. After completion of reaction, add slowly 60% HNO3.
6. After completion of addition, stir for 2 hours.
7. Cool the reaction mass and transfer the material in to nautch filter.

STAGE 2:-

1. Charge Water into reactor
2. Charge filters cake in reactor.
3. Add NaOH up to 7.5 pH.
4. After completion of NaOH addition, stir for 3 hours.
5. After completion of reaction, transfer the mass into nautch filter.
6. Collect the Product for Drying and Packing.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
Para Toludine	500	4 Methylene 2 Nitro Aniline	600
Acetic Anhydride	490	Acetic Acid	280
Methylene Dichloride	2000	Methylene Dichloride	1980
Nitric Acid 98%	450	Wastewater	2000
Water	4500	Hepta Hydrate Sodium Acetate	360
NaOH Lye	200	Effluent	2500
		M/C Loss	420
Total	**8140**	**Total**	**8140**

[3] 2-METHOXY 4-NITRO ANILINE (RED B BASE) AND 2-METHOXY 5-NITRO ANILINE (SCARLET R BASE)

MANUFACTURING PROCESS:

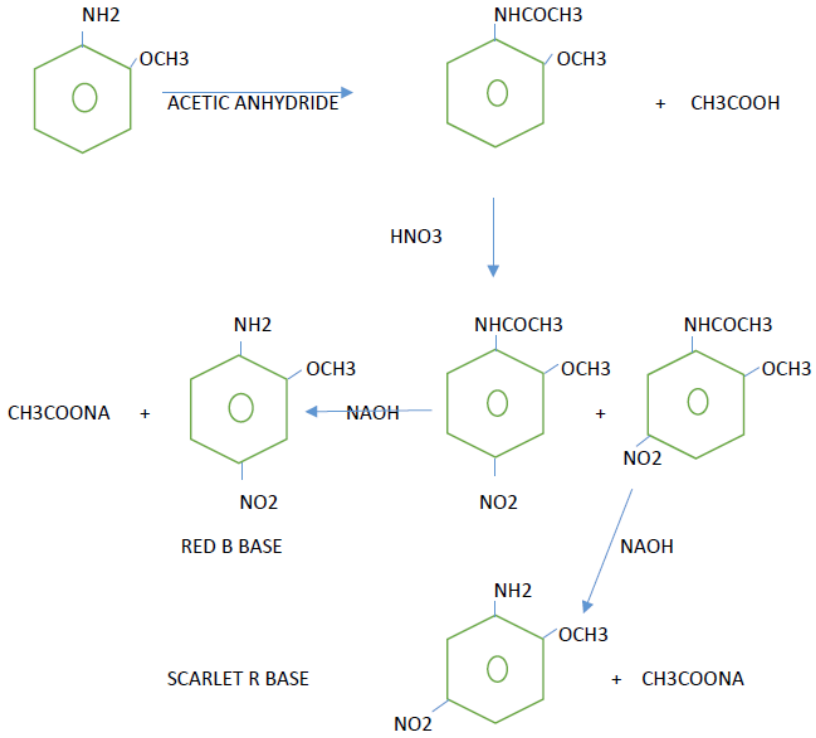
STAGE 1:-

1. Charge MDC in to Reactor.
2. Charge O-Anicidine in to reactor.
3. Add Slowly Acetic Anhydride for 3 hours.
4. Maintain temperature for 2 hours and check the reaction completion test.
5. After completion of reaction, add slowly 60% HNO3.
6. After completion of addition, stir for 2 hours.
7. Cool the reaction mass and transfer the material in to nautch filter.

STAGE 2:-

1. Charge Water into reactor
2. Charge filters cake in reactor.
3. Add NaOH up to 7.5 pH.
4. After completion of NaOH addition, stir for 3 hours.
5. Separate the both product Red B Base and Scarlet R Base.
6. After completion of reaction, transfer the mass into nautch filter.
7. Collect the Product for Drying and Packing.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
Ortho Anicidine	500	2-Methoxy 4-Nitro Aniline	400
Acetic Anhydride	440	2-Methoxy 5-Nitro Aniline	100
Methylene Dichloride	2000	Acetic Acid	240
Nitric Acid 60%	650	Methylene Dichloride	1980
Water	3500	Effluent	2500
NaOH Lye	190	Hepta Hydrate Sodium Acetate	320
		Water	1500
		M/C Loss	240
Total	**7280**	**Total**	**7280**

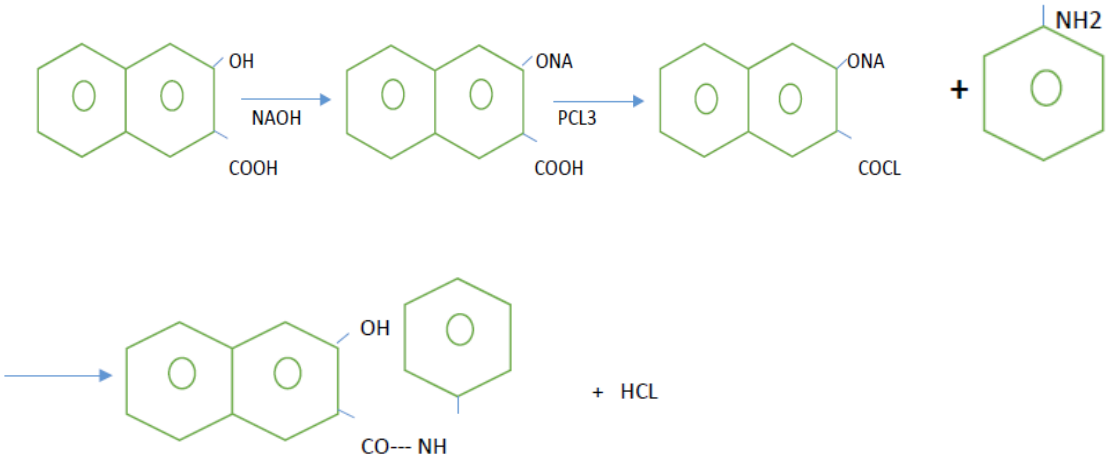
GROUP-2

[4] NAPTHOL AS (3 HYDROXY - 2 NAPTHANILIDE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add Slowly PCl2 for 3 hours and stir for 1 hours.
5. Add Aniline into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

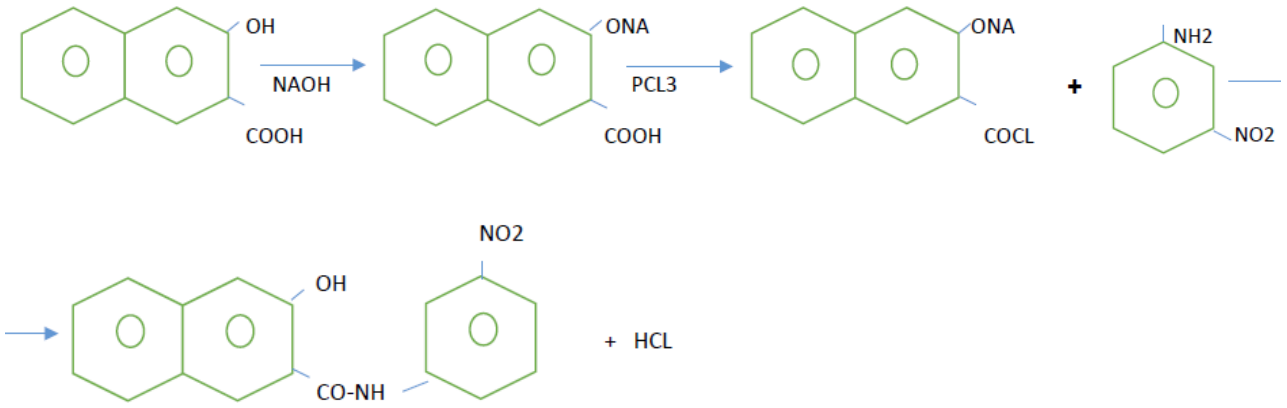
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol AS	260
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
Aniline Oil	93	Water	18
Water	400	Moisture Loss	155.5
Total	**2860**	**Total**	**2860**

[5] NAPTHOL ASBS (3 HYDROXY - 3NITRO - 2 NAPTHANILIDE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add Slowly PCl2 for 3 hours and stir for 1 hours.
5. Add M-Nitro Aniline into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

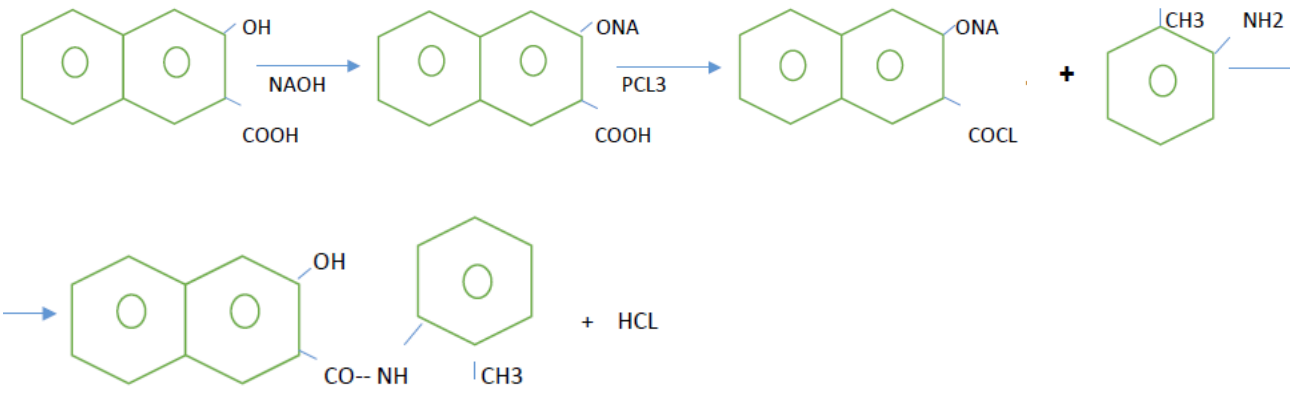
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASBS	300
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
M.N.A	139	Water	18
Water	400	Moisture Loss	161.5
Total	**2906**	**Total**	**2906**

[6] NAPTHOL ASD (3 HYDROXY – 2 NAPTHO -O TOLUDINE)

MANUFACTURING PROCESS:

1. Charge Tolune/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add Slowly PCl2 for 3 hours and stir for 1 hours.
5. Add O-Toludine into reaction.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACT ION:



MASS BALANCE:

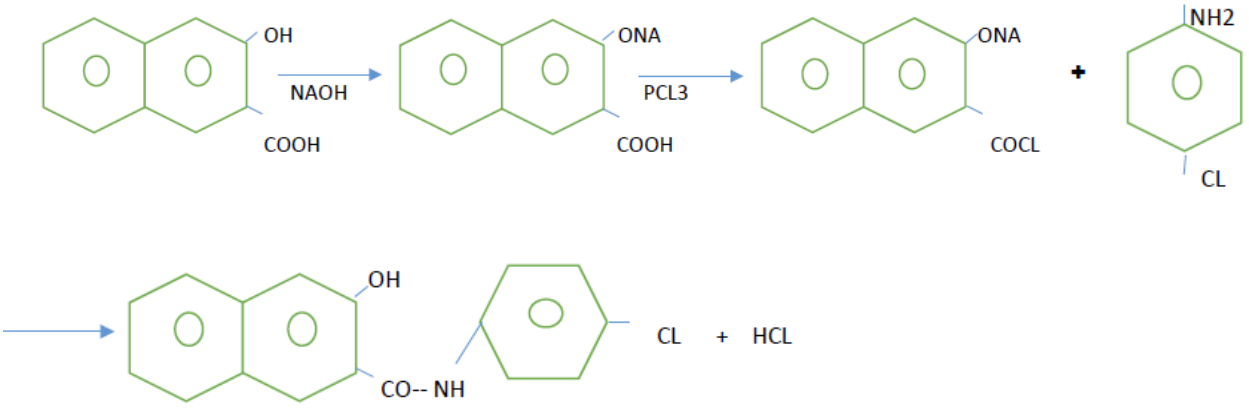
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASD	270
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
O.T. Liquid	107	Water	18
Water	400	Moisture Loss	159.5
Total	**2874**	**Total**	**2874**

[7] NAPTHOL ASE (4 CHLORO - 3 HYDROXY - 2 - NAPTHANILIDE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add slowly PCl2 for 3 hours and stir for 1 hours.
5. Add P-Chloro Aniline into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

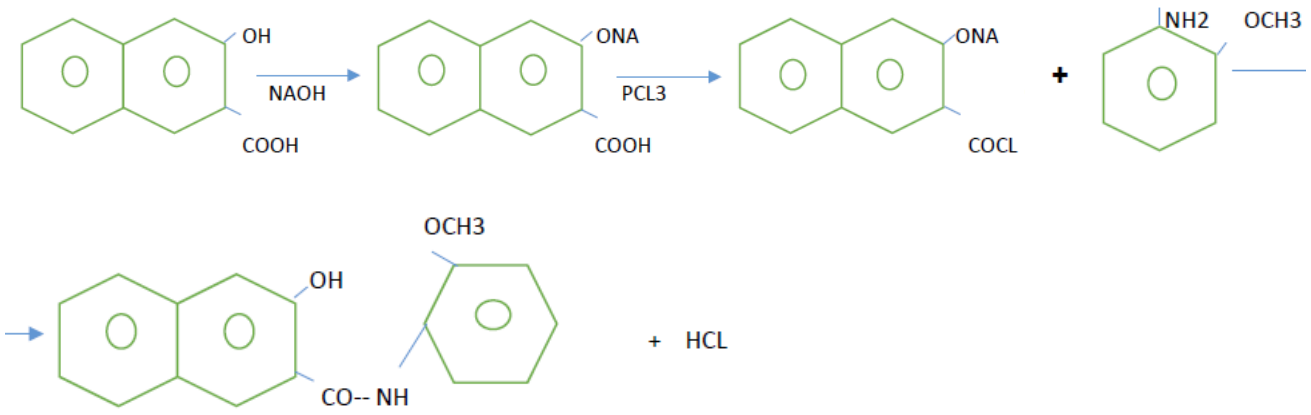
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASE	295
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
Para Chloro Aniline	127.5	Water	18
Water	400	Moisture Loss	155
Total	**2894.5**	**Total**	**2894.5**

[8] NAPTHOL - ASOL (3 HYDROXY - 2 - NAPTH - O - ANISIDINE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add slowly PCl2 for 3 hours and stir for 1 hours.
5. Add o-Anicidine into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

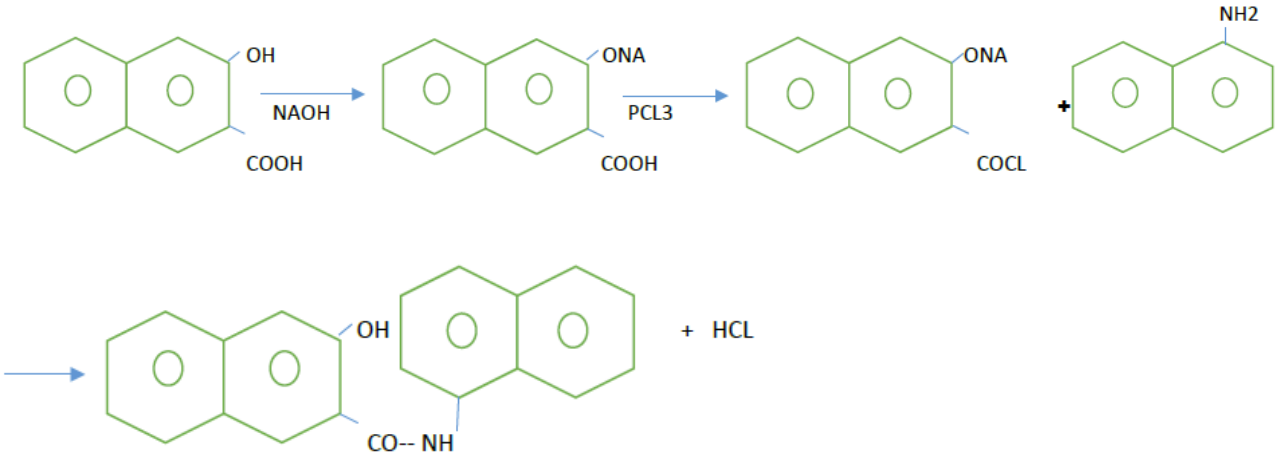
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASOL	290
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
Ortho Anicidine	124	Water	18
Water	400	Moisture Loss	156.5
Total	**2891**	**Total**	**2891**

[9] NAPTHOL ASBO (3 - HYDROXY - N - 1 - NAPTHYL - 2 - NAPTHAMIDE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add Slowly PCl2 for 3 hours and stir for 1 hours.
5. Add Alpha Napthyle Amine into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

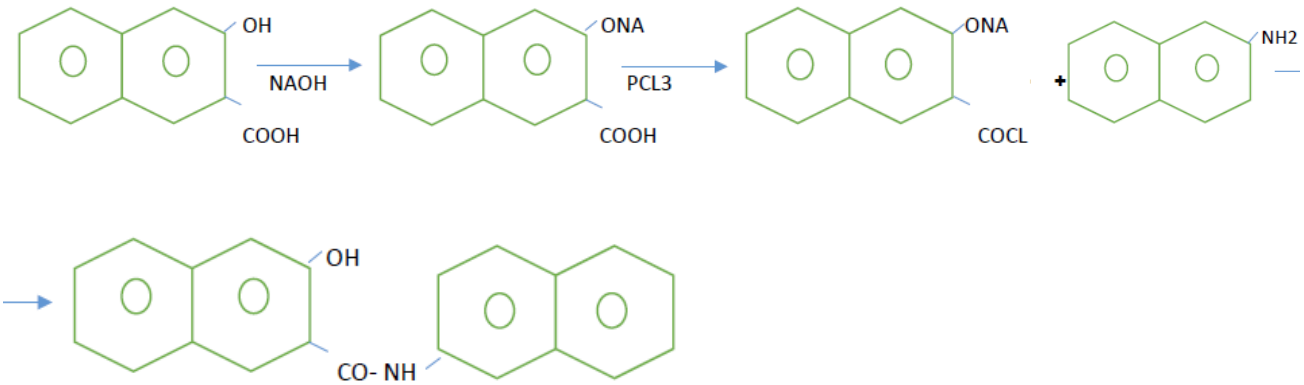
Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASBO	310
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
Alpha Napthyl Amine	143	Water	18
Water	400	Moisture Loss	155.5
Total	**2910**	**Total**	**2910**

[10] NAPTHOL ASSW (3 HYDROXY - N - 2 NAPHTHYL - 2 - NAPTHAMIDE)

MANUFACTURING PROCESS:

1. Charge Toluene/MCB into reactor.
2. Charge Bon Acid into reactor.
3. Add Slowly NaOH into Reactor and slowly increase temperature up to starting of water distilled out.
4. After completion of water distillation, add slowly PCl2 for 3 hours and stir for 1 hours.
5. Add Beta Napthyle Amine into reactor.
6. Stir for 5 hours and check the reaction completion.
7. After Completion of reaction distilled solvent and add water.
8. Add Sodium carbonate up to 7 pH.
9. Filter the mass and Dry the material for packing.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	Qty(Kg)	Material Output	Qty(Kg)
BON Acid	189	Napthol ASSW	310
Caustic Lye	40	HCl	36.5
Toluene	2000	Toluene Recover	1990
PCL3	138	Effluent	400
B. Napthol	143	Water	18
Water	400	Moisture Loss	155.5
Total	**2910**	**Total**	**2910**

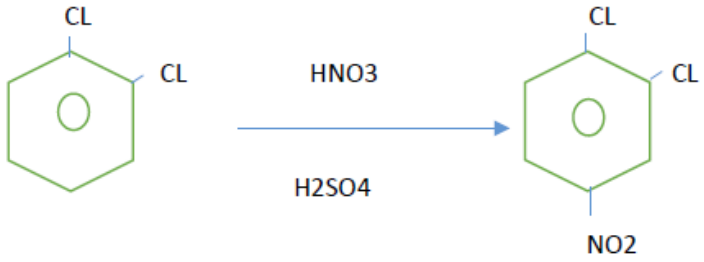
GROUP-3

[11] 3,4 DI CHLORO NITRO BENZENE

MANUFACTURING PROCESS:

1. Charge H2SO4 into reactor.
2. Charge O-Di Chloro Benzene into reactor.
3. Add Slowly HNO3 into Reactor for 4 Hours.
4. Stir for 2 hours.
5. After completion of Reaction, Separate Spent Acid and add Water.
6. After Slowly Sodium Carbonate up to pH 7.
7. Transfer the organic Layer for Flacking.

CHEMICAL REACTION:



MASS BALANCE:

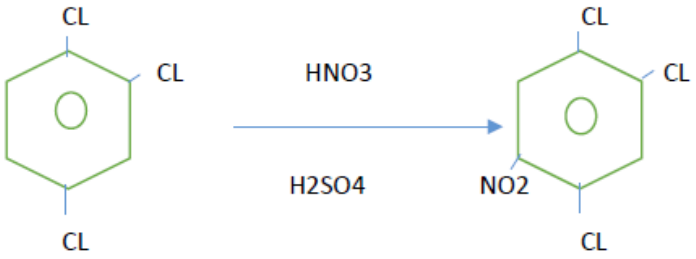
Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
Di-Chlorobenzene	735	3,4 Di Chloro Nitro Benzene	960
Nitric Acid	450	Effluent	775
H_2SO_4	750	Spent H_2SO_4	975
Water	750		
Sodium Carbonate	25		
Total	**2710**	**Total**	**2710**

[12] 5 NITRO 1,2,4 TRI CHLORO BENZENE

MANUFACTURING PROCESS:

1. Charge H2SO4 into reactor.
2. Charge 1,2,4 Tri Chloro Benzene into reactor.
3. Add Slowly HNO3 into Reactor for 4 Hours.
4. Stir for 2 hours .
5. After completion of Reaction, Separate Spent Acid and add Water.
6. After Slowly Sodium Carbonate up to pH 7.
7. Transfer the organic Layer for Flacking.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	Qty(Kg)	Material Output	Qty(Kg)
1,2,4 Tri Chloro Nitrobenzene	726	5 Nitro 1,2,4 Tri Chloro Benzene	906
Nitric Acid	360	Effluent	820
H_2SO_4	800	Spent H_2SO_4	980
Water	800		
Sodium Carbonate	20		
Total	**2706**	**Total**	**2706**

[13] 2,5 DICHLORO NITRO BENZENE

MANUFACTURING PROCESS:

1. Charge H2SO4 into reactor.
2. Charge P-Di Chloro Benzene into reactor.
3. Add Slowly HNO3 into Reactor for 4 Hours.
4. Stir for 2 hours.
5. After completion of Reaction, Separate Spent Acid and add Water.
6. After Slowly Sodium Carbonate up to pH 7.
7. Transfer the organic Layer for Flacking.

CHEMICAL REACTION:

MASS BALANCE:

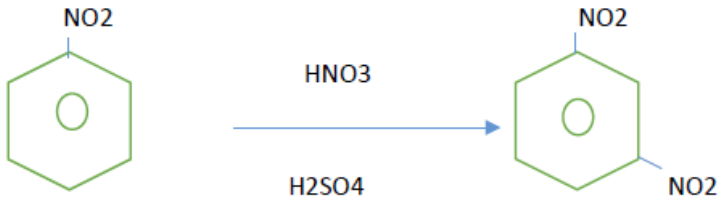
Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
P-Dichloro Benzene	735	2,5 Dichloro Nitro Benzene	960
Nitric Acid	450	Effluent	775
H_2SO_4	750	Spent H_2SO_4	975
Water	750		
Sodium Carbonate	25		
Total	**2710**	**Total**	**2710**

[14] M - DI NITRO BENZENE

MANUFACTURING PROCESS:

1. Charge H2SO4 into reactor.
2. Charge Nitro Benzene into reactor.
3. Add Slowly HNO3 into Reactor for 4 Hours.
4. Stir for 2 hours.
5. After completion of Reaction, Separate Spent Acid and add Water.
6. After Slowly Sodium Carbonate up to pH 7.
7. Charge Sodium Sulphide and Stir for 3 Hours.
8. Transfer the organic Layer for Flacking.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
Nitro Benzene	615	M-Dinitrobenzene	840
Nitric Acid	325	Effluent	1360
H_2SO_4	750	Spent H_2SO_4	850
Water	1250		
Sodium Carbonate	35		
Sodium Sulphide	75		
Total	**3050**	**Total**	**3050**

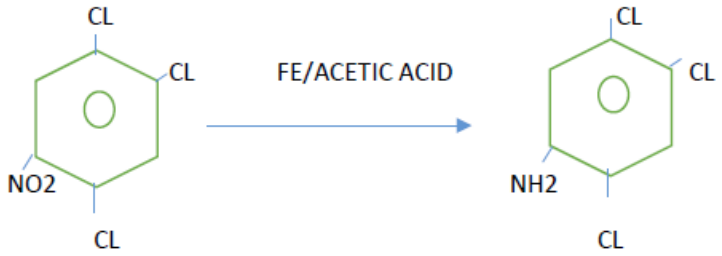
GROUP-4

[15] 2,4,5 TRI CHLORO ANILINE

MANUFACTURING PROCESS:

1. Charge Water into reactor.
2. Charge Cast Iron Powder and Acetic Acid into reactor.
3. Add Slowly 5 Nitro 1,2,4 Tri Chloro Nitro Benzene in to Reactor for 3 Hours.
4. After completion of Reaction, Filter the mass and collect the filtrate for distillation.
5. Distill the material and Packing into drum.

CHEMICAL REACTION:



MASS BALANCE:

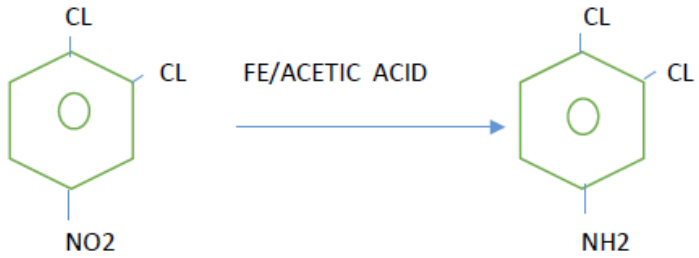
Material Input	**Qty(Kg)**	**Material Output**	**Qty(Kg)**
5 Nitro 1,2,4 Tri Chloro Nitro Benzene	679.5	2,4,5 Tri Chloro Aniline	589.5
Fe Powder	378	Fe Sludge	555
Acetic Acid	75	Distilled Water	1554
Water	1500		
Soda	66		
Total	**2698.5**	**Total**	**2698.5**

[16] 3,4 DI CHLORO ANILINE

MANUFACTURING PROCESS:

1. Charge Water into reactor.
2. Charge Cast Iron Powder and Acetic Acid into reactor.
3. Add Slowly 3,4 Di Chloro Nitro Benzene in to reactor for 3 Hours.
4. After completion of Reaction, Filter the mass and collect the filtrate for distillation.
5. Distill the material and Packing into drum.

CHEMICAL REACTION:



MASS BALANCE:

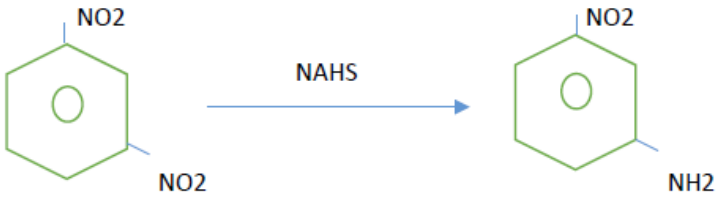
Material Input	Qty(Kg)	Material Output	Qty(Kg)
3,4 Di Chloro Nitro Benzene	768	3,4 Di Chloro Aniline	648
Fe Powder	504	Fe Sludge	740
Acetic Acid	100	Distilled Water	1672
Water	1600		
Soda	88		
Total	**3060**	**Total**	**3060**

[17] M-NITRO ANILINE

MANUFACTURING PROCESS:

1. Charge Water into reactor.
2. Charge M-Di Nitro Benzene into reactor
3. Heat the mass and Slowly Add NaHS solution for 1 Hours.
4. After completion of Reaction, Cool the mass and Filter the material and Dry the materials.

CHEMICAL REACTION:



MASS BALANCE:

Material Input	Qty(Kg)	Material Output	Qty(Kg)
M-Di Nitro Benzene	504	M-Nitro Aniline	414
Sodium Hydro Sulphide (30%)	588	Effluent	1803
Water	1200	Drying Loss	75
Total	**2292**	**Total**	**2292**

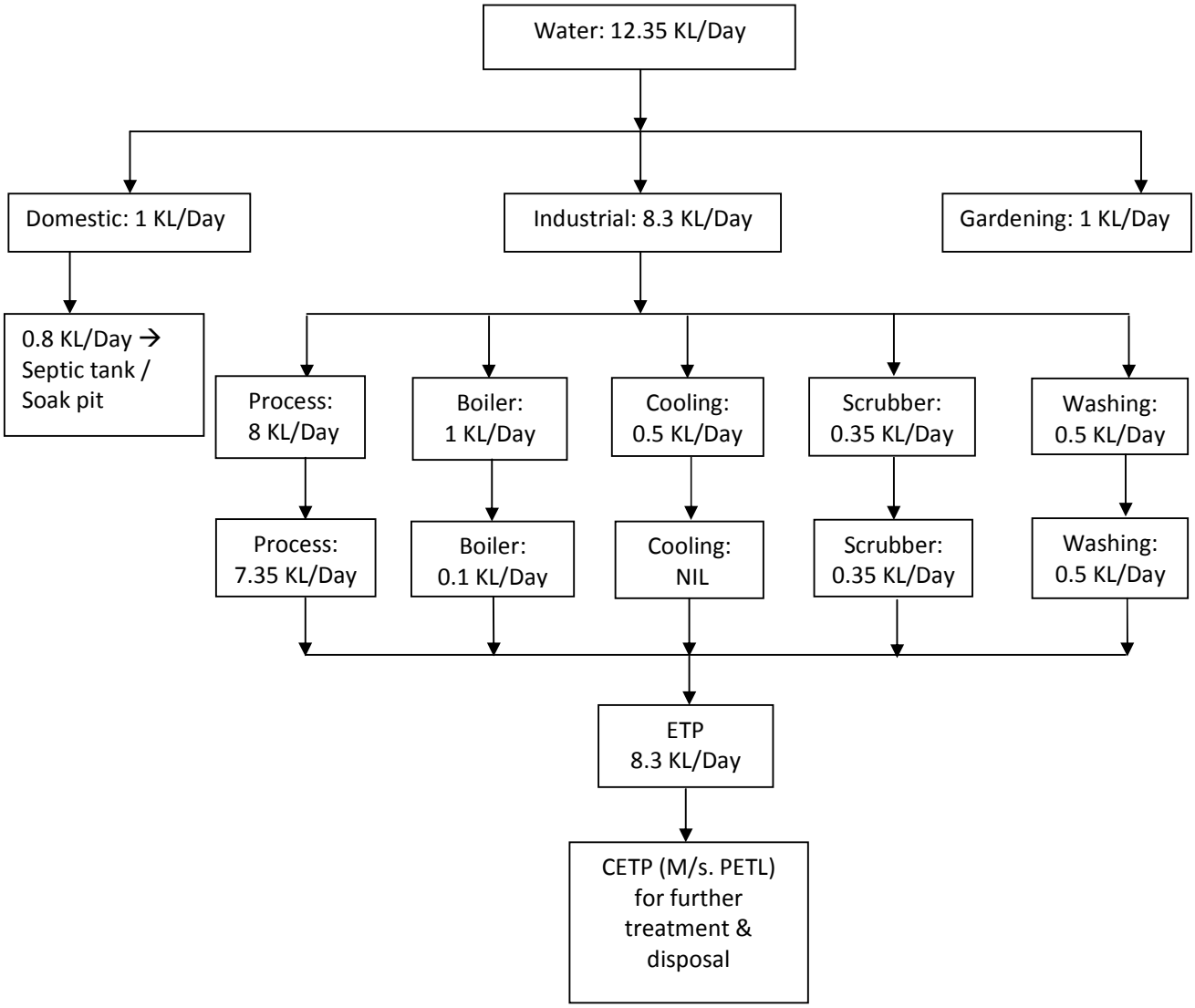
ANNEXURE - IV

DETAILS OF WATER CONSUMPTION AND WASTEWATER GENERATION

WATER CONSUMPTION & WASTEWATER GENERATION:

Sr. No.	Category	Proposed Scenario (KL/Day)	
		Water Consumption	Wastewater Generation
1. Industrial			
	Process	8.0	7.35
	Boiler	1.0	0.1
	Cooling	0.5	NIL
	Washing	0.5	0.5
	Scrubber	0.35	0.35
	Total (Industrial)	**10.35**	**8.3**
2.	Gardening	1.0	NIL
3.	Domestic	1.0	0.8
Total		**12.35**	**9.1**

Water Balance Diagram:



ANNEXURE - V

DETAILS OF EFFLUENT TREATMENT PLANT (ETP)

PROCESS DESCRIPTION OF EFFLUENT TREATMENT PLANT:

M/s. Sulfa Chem Industries shall have an Effluent treatment plant consisting of primary treatment units. The effluent confirming to inlet standards of CETP of PETL. The details of ETP are as follows.

First all non-toxic and biodegradable streams (low & medium COD) of wastewater shall be collected in Equalization cum Neutralization tank (ENT-01) where the continuous addition and stirring of Caustic solution is done to maintain neutral pH of wastewater from Caustic Dosing Tank (CDT-01) as per requirement by gravity. Mixer is provided in the tank ENT-01 to keep all suspended solids in suspension and for proper mixing.

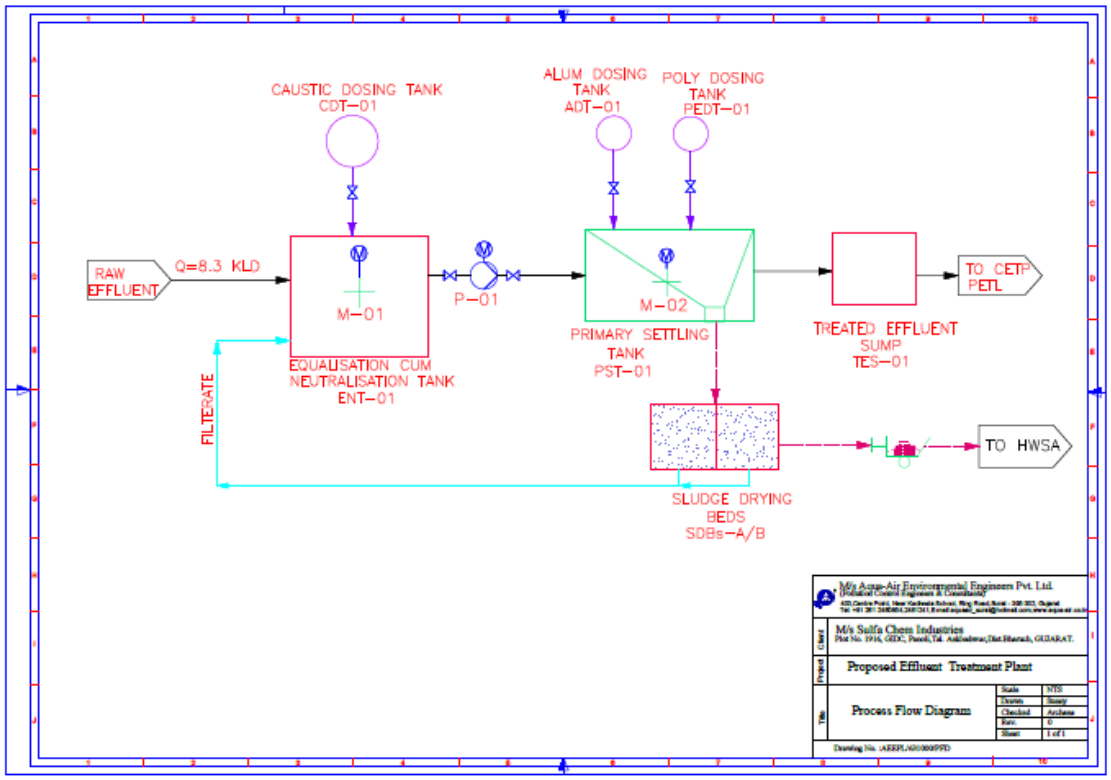
Then after, wastewater shall be pumped to Primary Settling Tank provided with Flash Mixer Mechanism (FM-01). Here Alum and Polyelectrolyte shall be dosed from Alum Dosing Tank (ADT-01) and Polyelectrolyte Dosing Tank (PEDT-1) respectively by gravity to carry out coagulation by using a Flash Mixer. Then after, Flash mixer will be stopped and wastewater shall be allowed to settle in Primary Settling Tank (PST-01). Clear supernatant from PST-01 shall be collected in Treated Effluent Sump (TES-01) before final disposal to CETP of M/s. PETL.

Sludge settled in PST-01 shall be collected in Sludge Drying Beds (SDBs-01-A/B) where, dewatering shall be carried out before storage in HWSA and ultimate disposal to TSDF. Filtrate from SDB shall be sent back to ENT-01 for further treatment.

Effluent Treatment Plant (Dimension):

S.N.	Name of unit	Size (m x m x m)	No.	MOC/ Remark
Stream Flow 8.3 KLD				
1	Equalization cum Neutralization Tank (ENT-01)	2.5 m x 1.5 m x (2.5 m +0.3 FB)	1	RCC M30+ A/A Bk. Lining
2	Primary Settling Tank (PST-01)	1.5 m x 1.5 m x (1.5 m + 0.5 HB+0.3 FB)	1	RCC M30
3	Treated Effluent Sump (TES-01)	3.0 m x 2.5 m x (2.5 m+0.3 FB)	1	RCC M30
4	Sludge Drying Beds (SDBs-01-A/B)	2.0m x 2.0 m	2	Bk. Mas. With PCC Bedding

Flow Diagram of Effluent Treatment Plant:



- **EFFLUENT CHARCTERISTCS (CONFIRMED TO INLET NORMS OF CETP, PETL)**

SR. NO.	PARAMETERS	UNTREATED EFFLUENT CHARACTERISTIC	TREATED EFFLUENT CHARACTERISTIC
1	Flow	8.3 KLD	8.3 KLD
2	pH	5 - 6	6.5-8.5
3	COD (mg/L)	$\leq$ 3500	$\leq$ 2500
4	BOD_3 (mg/L)	$\leq$ 1500	$\leq$ 1200
5	SS (mg/L)	$\leq$ 250	$\leq$ 80

ANNEXURE - VI

DETAILS OF AIR POLLUTION CONTROL SYSTEM

Flue Gas Emission:

The flue gas emission through stack attached to Steam Boiler & Hot Air Generator shall conform to the following standards:

Stack No.	Stacks Attached To	Stack Height	Parameters	Permissible Limit
1	Steam Boiler (400 kg/hr)	11 meter	PM SO_2 NOx	150 mg/Nm^3 100 ppm 50 ppm
2	Hot Air Generator (1 Lac. Kcal/Hr)	11 meter	PM SO_2 NOx	150 mg/Nm^3 100 ppm 50 ppm

Process Gas Emission:

The details of process gas emission from reaction vessel are as below:

Stacks Attached To	Stack Height	Parameters	Permissible Limit	APCM
Reaction Vessel	12 meter	HCl	20 mg/Nm^3	Two Stage Scrubber

ANNEXURE - VII

DETAILS OF HAZARDOUS WASTE GENERATION, STORAGE & DISPOSAL

Sr. No.	Type of waste	Category	Quantity	Disposal Method
1	ETP Sludge	35.1	10 MT/Month	Collection, Storage, Transportation & Disposal to TSDF site (M/s. PSWML)
2	Discarded Bags/ Drums/ Carboys	33.1	100 Nos./Month	Collection, Storage, Transportation, Decontamination and Reuse or sell to GPCB authorized vendors
3	Used oil	5.1	0.075 KL/Month	Collection, Storage, transportation and Disposal by Sell to registered reprocessor
4	Iron Sludge	26.1	10 MT/Month	Collection, Storage, transportation and sell to cement industries or disposal in TSDF site (M/s. PSWML)
5	Acetic Acid	--	10 MT/Month	Collection, Storage, transportation and sell to end users
6	Spent Sulphuric Acid	--	25 MT/Month	Collection, Storage, transportation and sell to end users

ANNEXURE - VIII

DETAILS OF HAZARDOUS CHEMICALS STORAGE & HANDLING

Sr. No.	Raw Materials	Storage Capacity	Type of Storage & MOC	No. of Vessel	Vessel Capacity	Type of Hazard
1.	Para Anisidine	1 MT	Bags	20	50 kg	Corrosive
2.	Para Toludine	1 MT	Drums	5	200 Kg	Corrosive
3.	Ortho Anisidine	1 MT	Drums	5	200 Kg	Corrosive
4.	Acetic Anhydride	1 MT	Drums	5	200 Kg	Corrosive
5.	Methylene Dichloride	2 MT	Drums	10	200 Kg	Corrosive
6.	Nitric Acid	1 MT	Carboys	20	50 kg	Corrosive
7.	Bon Acid	1 MT	Bags	40	25 kg	Corrosive
8.	Iron Powder	0.5 MT	Bags	10	50 kg	Irritant
9.	Toluene	1 MT	Drums	5	200 Kg	Flammable
10.	Phosphorous Trichloride	1 MT	Drums	5	200 Kg	Corrosive
11.	Sulphuric Acid	1 MT	Carboys	20	50 kg	Corrosive

ANNEXURE - IX

SOCIO - ECONOMIC IMPACTS

1) Employment Opportunities

The manpower requirement for the proposed expansion project is being expected to generate some permanent jobs and secondary jobs for the operation and maintenance of plant. This will increase direct / indirect employment opportunities and ancillary business development to some extent for the local population.

This phase is expected to create a beneficial impact on the local socio-economic environment.

2) Industries

Required raw materials and skilled and unskilled laborers will be utilized maximum from the local area. The increasing industrial activity will boost the commercial and economical status of the locality, to some extent.

3) Public Health

The company regularly examines, inspects and tests its emission from sources to make sure that the emission is below the permissible limit. Hence, there will not be any significant change in the status of sanitation and the community health of the area, as sufficient measures have been taken and proposed under the EMP.

4) Transportation and Communication

Since the existing factory is having proper linkage for the transport and communication, the development of this project will not cause any additional impact.

In brief, as a result of the proposed there will be no adverse impact on sanitation, communication and community health, as sufficient measures have been proposed to be taken under the EMP. The proposed scenario is not expected to make any significant change in the existing status of the socio - economic environment of this region.

ANNEXURE - X

PROPOSED TERMS OF REFERENCE FOR EIA STUDIES

1. **Project Description**

- Justification of project.
- Promoters and their back ground
- Project site location along with site map of 5 km area and site details providing various industries, surface water bodies, forests etc.
- Project cost
- Project location and Plant layout.
- Existing infrastructure facilities
- Water source and utilization including proposed water balance.
- List of Products & their capacity
- Details of manufacturing process of proposed products
- List of hazardous chemicals
- Mass balance of each product
- Storage and Transportation of raw materials and products.

2. **Description of the Environment and Baseline Data Collection**

- Micrometeorological data for wind speed, direction, temperature, humidity and rainfall in 10 km area.
- Existing environmental status Vis a Vis air, water, noise, soil in 10 km area from the project site.
- Ground water quality at 8 locations within 10 km.
- Complete water balance

3. **Socio Economic Data**

- Existing socio-economic status, land use pattern and infrastructure facilities available in the study area were surveyed.

4. **Impacts Identification And Mitigatory Measures**

- Identification of impacting activities from the proposed project during construction and operational phase.
- Impact on air and mitigation measures including green belt
- Impact on water environment and mitigation measures
- Soil pollution source and mitigation measures
- Noise generation and control.
- Solid waste quantification and disposal.
- Control of fugitive emissions

5. **Environmental Management Plan**

- Details of pollution control measures
- Environment management team
- Proposed schedule for environmental monitoring including post project

6. **Risk Assessment**

- Objectives, Philosophy and methodology of risk assessment
- Details on storage facilities
- Process safety, transportation, fire fighting systems, safety features and emergency capabilities to be adopted.
- Identification of hazards
- Consequence analysis
- Recommendations on the basis of risk assessment done
- Disaster Management Plan.

7. **Information for Control of Fugitive Emissions**
8. **Information on Rain Water Harvesting**
9. **Green Belt Development plan**

ANNEXURE - XI

COPY OF PLOT ALLOTMENT LETTER

Gujarat Industrial Development Corporation

(A Govt. of Gujarat Undertaking)
Office of the Regional Manager,
RCL/B/4, GIDC Housing Sector-I, Valia Road, ANKLESHWAR-393 002. Dist. Bharuch.

By REGD. A. D.

No. : GIDC/RM-A/ALT/PL/~~SHD~~/ CH / 170 / 1965 Date : ~~/12/1988.~~ 3-1-89

To,
M/s. Sulfa Chem Industries
16, Kadamp ally society,
Ground floor, Timilwad,
Nanpura, SURAT-395001.

Our Ref. :Our offer letter dtd. 9.8.88 Your Ref. : Your letter dtd.16.11.8

Sub. : **Allotment of Plot/~~Shed~~ No.** 1916 **at** Panoli **Indl. Estate.**

Dear Sir,

We are indeed happly to welcome you in our Panoli estate and accordingly we are sending this allotment letter to you. We are enclosing herewith the form of Agreement/Agreement for sale in triplicate which you may duly execute and return to us. It is not necessary for you to execute this agreement to this office.

1. The agreement forms are required to be signed by all the partners firm on each page. In case of a private/public limited company it is necessary to send a copy of the Resolution authorising the Director/Officer who is to sign. the agreement.
2. It may be noted that if you fail to execute the agreement within a period of 30 days from date of allotment letter you will be leable to pay the interest on outstanding capital from the date of allotment till you get the allotment letter rescinded at your request.
3. The sketch map of your plot/shed along with the relevant section of the detailed development plan/drawing of shed design is enclosed for your information. You have already been advice and about the procedure of obtaining water/power-supply connections as well as other infrastructure conditions along with our earlier letter in the form of a printed booklet.
4. On your sending the agreement duly executed to us, we will send you a possession advice and you will be required to obtain possession from our Asstt Engineer/Sub-Engineer
5. Terms of payment of this balance amount : You have already paid an amount of Rs. 16302/- (Rupees Sixteen Thousand Three Hundred Two only) being 20% of the total price of plot/shed. This is the offer amount. You are required to make the payment of remaining amount of Rs. 65205/- (Rupees Sixty Five Thousand Two hundred Five only) in the following manner :
   (a) During the first 2 years, only interest at 14 % in 8 quarterly instalments, each instalment being of Rs. . The first quarterly instalment falls due on 31.3.89 and thereafter every quarter, you will be required to send the above mentioned amount by a cheque/draft drawn in favour of GIDC to us. After the moratorium period of 2 years is over, the balance amount of Rs.65208/- being the remaining outstanding amount shall be payable with interest on reducing balance in 32 quarterly instalment with 14 % rate of interest as mentioned in the enclosed Annexure-'A'.
   (b) The rate of interest mentioned above is subject to revision from time to time at the descretion of the Corporation and the interest would be payable at such revised rates from such dates as may be specified by the Corporation from time to time.

(P. T O)

(c) You may please note that the Corporation levies penal interest at the rate of 3% over above the the normal rate of interest for the amount in default.

(d) You will be happy to note that the Corporation gives 3% rebate in the balance price of plot/shed if the remaining amount in fully paid. This facility is also available even in case when the GSFC make payment of the entire amount to us when you obtained loan from them (excepting NES cases).

6. You shall have to comply with the provisions of water (prevention and Control of Pollution) Act. 1974 and accordingly to obtain conser from the State water preventios and Control Board, Gujarat State before discharging sewage or treated effluents from you plant and you shall not discharge such sewage or treated effluent without getting such consent and failure to observe this condition would entitle the Corporation to disconnect your water-supply and to resume possession of land/shed,

7. Detailed about your plot/shed are as under :-

a. Type of shed and shed Number : -

b. Price of shed Rs. : -

c. Plot number : 1916 Area of plot : 1140 sq. mtrs.

d. Premium price at the rate of Rs. : 65/-

(i) Premium price at the rate of Rs. : 65/-
for 1140.00 sq. mtrs. Rs. : 74100.00

(ii) Frontage at the rate of Rs. : 6.50
for 1140.00sq.mt. Rs. : 7410.00

Total Rs. : 81510.00

8. According to the policy of the Corporation you shall put the shed to Industrial use manufacturing the products mentioned in your application within a period of 6 months from the date of allotment failing which corporation is entitled to obtain the possession back. In case of plots, you are required to get the building plans approved within a period of 6 months and you shall start the production at the end of 2 years from the date of allotment of the plot failing which the Corporation is entitled to take back the possession of the plot unless exetension is given by the Corporation.

9 Other Points : (Please see Annexure-B)

Once again we welcome you to our estate & we now request you to send us the forms of agreements duly executed at your earliest but not later than 30 days, in order to enable us to hand over the possession of the plot/shed.

In the meanwhile assuring you of best of our services.

We remain,

Yours faithfully,

10. NB: You shall have to pay the interest 3366 on blocked up capital of Rs. ~~2778/-~~ by DD before taking possesion of plot.

Regional Manager,
GIDC., Ankleshwar.

Copy f.c.s. to :

1. Ex. Engineer, GIDC. Dn. X/II Ankleshwar,
2. Dy Ex. Engineer, GIDC, Sub. Dn. Panoli ~~Ankleshwar/Panoli~~.
3. Audit Officer, GIDC, Ankleshwar.
4. Notified Area Branch, GIDC Ankleshwar

Encl : Agreement forms (in triplicate) 2. Annexure-A, 3 Annexure-B.
Your water requirement 10000 ltrs. per day & Electricity 60HP kW

ANNEXURE - XII

COPY OF GIDC WATER SUPPLY CERTIFICATE

ANNEXURE - XIII

MEMBERSHIP CERTIFICATE OF CETP (M/s. PETL)

PANOLI ENVIRO TECHNOLOGY LIMITED

Plot No. 619-619/1, GIDC Estate, Panoli - 394116, Dist. Bharuch (Gujarat)
Ph. : (02646) 272822, Fax : (02646) 272022, e-mail : petlpanoli@gmail.com

ENVIRONMENT MANAGEMENT SYSTEM ISO 14001
International Standards Certifications Pty. Ltd.

JAS-ANZ Accredited

MEMBERSHIP CERTIFICATE

Ref : PETL/48/2017

To Whom So Ever It May Concern:

This is to certify that **M/s. SULFA CHEM INDUSTRIES** having their unit located at **Plot No.1916**, GIDC Estate, Panoli-394116, Dist. Bharuch is member of our Common Effluent Treatment Plant (C.E.T.P.).

Their total booked quantity of waste water with PETL is as under :

01. Industrial Effluent	:	13.33 -M^3/Day.
Total Booked Qty.	**:**	**13.33 -M^3/Day**

For, PANOLI ENVIRO TECHNOLOGY LTD.

B. S. PATEL
DIRECTOR

PANOLI ENVIRO TECHNOLOGY LTD.

Date : 25-01-2017
Place : Panoli

ANNEXURE - XIV

MEMBERSHIP CERTIFICATE OF COMMON SOLID WASTE DISPOSAL FACILITY (M/s. PSWML)

PANOLI SOLID WASTE MANAGEMENT LIMITED

PlotNo. 18, GIDC, Panoli - 394 116. Dist. Bharuch (Guj.) India.
E-mail : pswmlpanoli@yahoo.com

23rd February 2017

TO WHOM IT MAY CONCERN

This is to certify that we have initiated action to establish TSDF site at Panoli GIDC estate and the execution work of the same is in progress

For the above project, M/s. Sulfa Chem Industries, Plot No.1916, GIDC ,Panoli has made payment for membership.

This certificate is issued on the request of M/s. . Sulfa Chem Industries

For PANOLI SOLID WASTE MANAGEMENT LIMITED

B.S. PATEL
DIRECTOR

Address for Communication
L-913/9 to 20, GIDC Estate, Panoli - 394 116, Dist. Bharuch.
Phone : (02646) 272275 Telefax : (02646) 272828 E-mail : piapanoli@yahoo.com

ANNEXURE - XV

TOPOSHEET