FORM–I

For ToR of Proposed Project

of

MANUFACTURING OF SYNTHETIC ORGANIC DYES
(5 ‘f’ B IND II)

By

POOJA DYE CHEM INDUSTRIES

PLOT NO. 2110, PHASE-III,

GIDC, VATVA, AHEMADABAD-382445,

GUJARAT, INDIA

M-9825320835,

E Mail- info@poojadyes.com

APPENDIX – I

(See paragraph – 6)

FORM 1

(I) Basic Information:

S.No.	Item	Details
1	Name of the project/s:	**POOJA DYE CHEM INDUSTRIES**
2	S. No. in the schedule	5 'f' 'B1'
3.	Proposed capacity/ area/ length/ tonnage to be handled/command area/ lease area/ number of Wells to be drilled.	**110 MT/Month of S.O. Dyes** Product & Raw Materials Details are enclosed as **Annexure-I**
4.	New/Expansion/Modernization	Expansion
5.	Existing Capacity Area etc.	995 m^2
6.	Category of Project i.e.' A' or 'B'	'B'
7.	Does it attract the general condition? If yes, Please specify.	No
8.	Does it attract the specific condition? If 'yes, Please specify.	No
9.	Location	Plot No. 2110
	Plot/Survey/Khasra No.	Phase-III, GIDC, Vatva
	Village	Vatva
	Tehsil	Ahmedabad
	District	Ahmedabad
	State	Gujarat-382445
10.	Nearest railway station/airport along with Distance in kms.	Rly. Station: 2.8 km Vatva, Ahmedabad: Airport Ahmedabad:10.50 km
11.	Nearest Town, city, District Headquarters along with distance in kms.	Ahmedabad (AMC Area)
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal Address with telephone nos. to be given)	Ahmedabad Municipal Corporation
13.	Name of the applicant	**Mr. T. C. PATEL**
14.	Registered Address	Pooja Dye Chem Industries, Plot No 2110, Phase-III, GIDC, Vatva, Ahmedabad.
15.	Address for correspondence:	

	Name	**Mr. T. C. PATEL**
	Designation (Owner/Partner/CEO)	Proprietor
	Address	Pooja Dye Chem Industries, Plot No. 2110, Phase-III, GIDC, Vatva, Ahmedabad
	Pin Code	382445
	E-mail	info@poojadyes.com
	Telephone No.	+91-9825320835
	Fax No.	-
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	No.
17.	Interlinked Projects	No.
18.	Whether separate application of interlinkedProject has been submitted?	No
19.	If yes, date of submission	NA
20.	If no, reason	-
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, GIDC notified land
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.)

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	Proposed project location is in GIDC notified area.
1.2	Clearance of existing land, vegetation and buildings?	No	NA as Proposed project location is in GIDC notified area.
1.3	Creation of new land uses?	No	Proposed project location is in GIDC notified area.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Proposed project location is in GIDC notified area.
1.5	Construction works?	No	GIDC shed is allotted Allotment letter of the same is enclosed.
1.6	Demolition works?	No	Existing Factory
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	No	-
1.9	Underground works including mining or tunneling?	No	-
1.10	Reclamation works?	No	-
1.11	Dredging?	No	-
1.12	Offshore structures?	No	-
1.13	Production and manufacturing processes?	Yes	Enclosed as Annexure-II
1.14	Facilities for storage of goods or materials?	Yes	Factory Layout is enclosed as Annexure-III
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Having membership of CETP & MEE of GESCSL, and membership of Society for Clean Earth, Vatva for effluent disposal. Membership of GESCSL & Eco Care Infrastructure Pvt. Ltd. for solid waste disposal. Membership certificates are enclosed.
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	GIDC Vatva shall supply water
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?	No	
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 in 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):

S.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	Land is of GIDC notified area, Vatva, Ahmedabad
2.2	Water (expected source & competing users) unit: KLD	Yes	52.3 m^2 GIDC Supply
2.3	Minerals (MT)	No	-
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	No	Not Applicable
2.5	Forests and timber (source – MT)	No	Not Applicable
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	After proposed Wood/White Coal shall use as fuel: 2.8 MT/day. Electricity (Torrent Power):Max.200 kw
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.

4.

S.No.	Information/Checklist confirmation	Yes /No	Details thereof (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	MSDS will be followed to handle the Materials.
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?	Yes	Improved as getting employment
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	-
3.5	Any other causes	No	-

id wastes during construction or operation or Decommissioning (MT/month)

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (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)	**Yes**	VIA facility is available for domestic waste
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	**Yes**	TSDF membership Details of the same is enclosed as Annexure-VI
4.4	Other industrial process wastes	**No**	-
4.5	Surplus product	**No**	-
4.6	Sewage sludge or other sludge from effluent treatment	**Yes**	ETP waste shall discharge to TSDF site of GESCSL, Vatva, Ahmedabad and Eco Care Infrastructure Pvt. Ltd. Surendranagar. Membership certificates are enclosed.
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**	GIDC land
4.11	Other solid wastes	**No**	Refer Annexure VI

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

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (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**	Flue gas emission from Boiler.
5.2	Emissions from production processes	**Yes**	As per ANNEXTURE VII
5.3	Emissions from materials handling including storage or transport	**Yes**	Fugitive emission
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:

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (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**	Within the norms
6.2	From industrial or similar processes	**Yes**	Within the norms
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:

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	**Yes**	MSDS will be followed.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	**Yes**	Sewage shall discharge to soak pit Sullage and process waste will be discharged to CETP , Vatva, Ahmedabad
7.3	By deposition of pollutants emitted to air	**No**	As APCM will be provided.

	into the land or into water		
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

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (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**	Safety measures will be followed.
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, Cloudburstetc)?	**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

S. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. facilities, 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 industries • supply industries • other	**No**	GIDC land.
9.2	Lead to after-use of the site, which could havean impact on the environment	**No**	GIDC land.
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

S. No.	Areas	Yes /No	Aerial distance (within 15 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**	-
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	**No**	-
3	Areas 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**	GIDC land
5	State, National boundaries	**No**	-
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	**No**	-
7	Defense installations	**No**	-
8	Densely populated or built-up area	**No**	-
9	Areas 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 or Environmental damage. *(those where existing legal environmental standards are exceeded)*	**No**	-
12	Areas susceptible to natural hazard which could cause the project to present environmental problems(*earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions*)	**No**	-

(IV) **Proposed Terms of Reference for EIA studies**

I hereby given undertaking that the data and information given in the application and enclosure 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: 24.05.2017

Place: **Ahmedabad**

For: **M/s. POOJA DYE CHEM INDUSTRIES**

PROPRIETOR

Signature of the applicant

With Name and Full Address
Mr. T.C. PATEL
Plot. No. 2110,
Phase-III, GIDC, Vatva,
Ahmedabad
(Project proponent /Authorized Signatory)

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 showing by chief wildlife warden showing these features vis-a-vis the project location and the Recommendation 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/Environment Clearances, 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.

ANNEXURE-I

PRODUCTION DETAILS

Sr. No.	Name of Product	Production Capacity MT/Month		
		Existing	Proposed	After Proposed
1	Direct Red 5 BL	1.0	**104.8**	**110**
2	Reactive Red- H	0.5		
3	L.F. Blue G	0.4		
4	Reactive Black HEBL	0.5		
5	Reactive Orange 2R	0.5		
6	All Pigment Emulsion	1.0		
7	Direct Blue GLL	0.5		
8	Direct Grey IIRL	0.3		
9	Reactive Nevy Blue M3K	0.5		
1	Reactive Black 5/8/39	-		
2	Reactive Blue 13/19/49/171/198/220/221/250			
3	Reactive Brown 11			
4	Reactive Violet 46			
5	Reactive Orange 2R/ 12/13/16/W3R 35/84/107/122			
6	Reactive Red 3.1/24.1/31/45/111/120/195/198/218/245/ 278			
7	Reactive Yellow 15/18/42/57/84/85/86/95/135/145/186/210			
Total		**5.2**	**104.8**	**110**

List of Products with CAS No.

Sr. No.	Name of Product	Production Capacity
		CAS No.
1	REACTIVE BLACK 5	12225-25-1
2	REACTIVE BLACK 8	12225-26-2
3	REACTIVE BLACK 39	68259-02-9
4	REACTIVE BLUE 13	14692-76-3
5	REACTIVE BLUE 19	2580-78-1
6	REACTIVE BLUE 49	12236-92-9
7	REACTIVE BLUE 171	77907-32-5
8	REACTIVE BLUE 198	124448-55-1
9	REACTIVE BLUE 220	128416-19-3
10	REACTIVE BLUE 221	93051-41-3
11	REACTIVE BLUE 250	93951-21-4
12	REACTIVE BROWN 11	12225-68-2
13	REACTIVE VIOLET 46	--
14	REACTIVE ORAGNE 2R	--
15	REACTIVE ORANGE 12	12225-84-2
16	REACTIVE ORANGE 13	70616-89-6
17	REACTIVE ORANGE 16	12225-83-1
18	REACTIVE ORANGE W3R	--
19	REACTIVE ORANGE 35	12270-76-7
20	REACTIVE ORANGE 84	91261-29-9
21	REACTIVE ORANGE 107	90597-79-8
22	REACTIVE ORANGE 122	79809-27-1
23	REACTIVE RED 3.1	92307-87-4
24	REACTIVE RED 24.1	72829-25-5
25	REACTIVE RED 31	12237-00-2
26	REACTIVE RED 45	12226-22-1
27	REACTIVE RED 111	88232-20-6
28	REACTIVE RED 120	61951-82-4
29	REACTIVE RED 195	93050-79-4
30	REACTIVE RED 198	145017-98-7
31	REACTIVE RED 218	113653-03-5
32	REACTIVE RED 245	340977-00-6
33	REACTIVE RED 278	68248-10-2

Sr. No.	Name of Product	Production Capacity
		CAS No./C.I. No.
34	REACTIVE YELLOW 15	12226-47-0
35	REACTIVE YELLOW 18	12226-48-1
36	REACTIVE YELLOW 42	12226-63-0
37	REACTIVE YELLOW 57	61969-35-5
38	REACTIVE YELLOW 84	61951-85-7
39	REACTIVE YELLOW 85	71872-81-6
40	REACTIVE YELLOW 86	61951-86-8
41	REACTIVE YELLOW 95	84045-63-6
42	REACTIVE YELLOW 135	68991-98-0
43	REACTIVE YELLOW 145	93050-80-7
44	REACTIVE YELLOW 186	10041-73-7
45	REACTIVE YELLOW 210	--

ANNEXURE-IA

RAW MATERIALS DETAILS

Raw Materials in kg For 1 kg of Black 5 (Black B)	
VS	0.45
H Acid	0.25
HCl	0.11
Sodium Bicarbonate	0.047
Sodium Nitrate	0.11
Soda Ash	0.11

Raw Materials in kg For 1 KG of Black 8 (Black PN)	
H Acid	0.271
4 Nap	0.13
Chromium Chloride	0.11
HCL	0.26
$NaNO_2$	0.059
Sulphamic Acid	0.001
Soda Ash	0.17
Acetic Acid	0.03
Sodium Hydroxide	0.04
Cobalt Sulphate	0.001
Cyanuric Chloride	0.15
Ammonium Liquor	0.045

Raw Materials in kg For 1 KG Black 39 (Navy Blue P2R)	
Anilin 2,5 Di Sulfonic Acid	0.21
H acid	0.26
Cyanuric Chloride	0.17
MPDS	0.17
Ammonia Liquor	0.05
Caustic Soda	0.12
Soda Ash	0.24
HCl	0.44
sodium nitrate	0.12

Raw Materials in kg For 1 KG of Blue 13 (Blue PX-5R)	
Cyanuric chloride	0.135
H Acid	0.22
C acid	0.21
Copper Sulphate	0.18
Hydrogen Peroxide	0.17
Soda Ash	0.24
Caustic	0.03
Sodium Nitrite	0.05
Ammonia Liquor	0.04

Raw Materials in kg For 1 kg Blue 19 (Blue R)	
Bromamine acid	0.74
Meta Base VS condense	0.47
Sulphuric acid	0.25
Cuprous Chloride	0.04
Oleum (65%)	0.56
Sodium Bicarbonate	1.5
HCL	0.25
Calcium Carbonate	3.5
Oxylic Acid	0.125

Raw Materials in kg For 1 KG Blue 49 (Blue P3R)	
M acid	0.3
Soda Ash	0.64
Bromamine Acid	0.54
Cuprous Chloride	0.07
Cyanuric Chloride	0.18
Metanilic Acid	0.18
HCl	2.3

Raw Materials in kg For 1 KG Blue 171 (Navy Blue HER)	
Cyanuric Chloride	0.15
MPDDSA	0.15
H acid	0.258
Metanilic Acid	0.14
HCl	0.16
Sodium Nitrite	0.055
Soda Ash	0.08

Raw Materials in kg For 1 KG Blue 198 (Blue HEGN)	
Ethylene diamine	1.17
Chloranil dry	0.4
Kaliumpersulfat	0.75
Sodium hydroxide	5
2-cl-5-nitro-benzene-1-sa na salt dry	0.93
Sulfuric acid 98%	5
Iron powder	1.1
Sodium chloride	2.5
Oleum 66%	1.32
Caustic Soda Pearls	0.2
Acetic Acid	0.1
HCl	1.5
Cyanuric Chloride	0.7
Aniline 2:4 disulfonic acid	1

Raw Materials in kg For 1 kg Blue 220 (Blue BB)	
Sulfo OAVS	0.41
4 Sulfo Hydrazone	0.35
Copper Sulphate	0.26
Soda Ash	0.16
Sodium Nitrate	0.08

Raw Materials in kg For 1 KG Blue 221	
Hydrazone of 4 Sulfo Anthranilic Acid	**0.24**
Caustic Soda	**0.3**
6 Acetyl OAPSA	**0.2**
HCl	**0.61**
Sodium Nitrite	**0.053**
Copper Sulphate	**0.17**
N-ethyl M base	**0.35**
Soda Ash	**0.16**

Raw Materials in kg For 1 KG Blue 250 (Blue RGB)	
VS	0.18
HCl	0.14
$NaNO_2$	0.09
Caustic Soda	0.015
H acid	0.2
OAVS	0.03
Sodium Bicarbonate	1.6

Raw Materials in kg For 1 KG Brown11 (Brown P-6R)	
Anilin 2,5 Di Sulfonic Acid	0.23
Mix Clevs Acid	0.21
Peri Acid	0.21
Cyanuric Chloride	0.2
Ammonia Liquor	0.06
Caustic Soda	0.1
Soda Ash	0.16
HCl	0.3

Raw Materials in kg For 1 KG Violet 46 (Magenta HB)	
HCl	0.3
Para Anisidine	0.1
Sodium Nitrite	0.06
H acid	0.27
Caustic Soda	0.12
Sodium Bivarbonate	0.23
Cyanuric Chloride	0.16
Soda Ash	0.08
5-Sulfo Anthranilic Acid	0.19

Raw Materials in kg For 1 KG Orange 2R	
VS	0.47
Sodium Napthionate	0.4
Soda Ash	0.13
HCl	0.17
Sodium Nitrate	0.11

Raw Materials in kg For 1 KG Orange12 (Golden Yellow PX-GR)	
K acid	0.4
MUA	0.16
Cyanuric Chloride	0.2
Ammonia Liquor	0.06
Sodium Bicarbonate	0.32
HCl	0.1
Sodium Nitrite	0.07

Raw Materials in kg For 1 KG Orange13 (Orange PX-RN)	
Cyanuric Chloride	0.2
N-Methyl J Acid	0.37
Acetic Anhydrite	0.25
Sulpho Tobias Acid	0.45
Sodium Nitrite	0.1
Ammonia Liquor	0.06
Caustic Soda	0.38
Soda Ash	0.32
Sodium Bicarbonate	0.18

Raw Materials in kg For 1 KG Orange 16 (ORANGE 3R)	
Gamma Acid	0.42
Caustic Soda	0.1
Acetic Andydrite	0.27
Soda Ash	0.23
HCl	0.38
VS	0.47
Sodium Nitrite	0.11

Raw Materials in kg For 1 KG Orange W3R	
Sulpho VS	0.35
J acid	0.22
VS	0.26
HCl	0.3
Sodium Nitrate	0.13
Soda Ash	0.25

Raw Materials in kg For 1 KG Orange 35 (Orange P-4R)	
Aniline 2,5 DSA	0.3
2:5 xyledene	0.15
Peri Acid	0.25
Cyanuric Chloride	0.25
Ammonia Liquor	0.07
Sodium Nitrate	0.17
Caustic Soda	0.14
Soda Ash	0.21

Raw Materials in kg For 1 KG Orange 84 (Orange HER)	
Cyanuric Chloride	0.17
J acid	0.2
Acetic Anhydrate	0.14
Sulpho Tobias Acid	0.26
BDSA	0.15
Caustic Soda	0.17
Soda Ash	0.2
Sodium Bicarbonate	0.1

Raw Materials in kg For 1 KG Orange 107 (Golden Yellow RNL)	
VS	0.51
Acetyle MPDSA	0.42
HCl	0.18
Sodium Nitrite	0.12
Soda Ash	0.2

Raw Materials in kg For 1 KG Orange 122 (Orange ME2RL)	
Cyanuric Chloride	0.16
J acid	0.23
Acetic Anhydrate	0.16
Sulpho Tobias Acid	0.3
VS	0.25
Caustic Soda	0.3
Soda Ash	0.25
Sodium Bicarbonate	0.45

Raw Materials in kg For 1 KG Red 3.1 (Red PX-4B)	
Cyanuric Chloride	0.2
H acid	0.35
Orthanilic Acid	0.2
HCl	0.14
Ortho Toluidine	0.15
Sodium Nitrite	0.08
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 24.1	
Cyanuric Chloride	0.2
H acid	0.35
Orthanilic Acid	0.2
HCl	0.14
N Ethyl Aniline	0.15
Sodium Nitrite	0.08
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 31 (Red PX-8B)	
H acid	0.3
Acetic Anhydrate	0.2
Tobias Acid	0.26
Cyanuric Chloride	0.16
5 sulpho anthranilic acid	0.2
Caustic Soda	0.2
Soda Ash	0.2
HCl	0.7
Sodium Nitrate	0.07

Raw Materials in kg For 1 KG Red 45 (Red P2B)	
Cyanuric Chloride	0.2
H acid	0.35
4 B acid	0.22
HCl	0.14
N Methyle Aniline	0.15
Sodium Nitrite	0.08
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 111 (Red BS)	
Cyanuric Chloride	0.11
H acid	0.36
VS	0.33
HCl	0.12
Sodium Bicarbonate	0.11
Sodium Nitrite	0.08
Soda Ash	0.1

Raw Materials in kg For 1 KG Red 120 (Red HE3B)	
Cyanuric Chloride	0.2
H acid	0.35
Orthanilic Acid	0.2
HCl	0.14
Ortho Toluidine PPD	0.16
Sodium Nitrite	0.08
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 195 (Red ME4BL)	
VS	0.2
Cyanuric Chloride	0.13
H acid	0.23
Sulpho Tobias Acid	0.22
HCl	0.08
Sodium Nitrite	0.05
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 198 (Blue HEGN)	
Vs	0.4
Cyanuric Chloride	0.13
H acid	0.23
HCl	0.08
Sodium Nitrite	0.05
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 218 (Red P6B)	
H acid	0.3
Acetic Anhydrate	0.2
tobias Acid	0.26
Cyanuric Chloride	0.16
N Ethyle Aniline	0.15
Caustic Soda	0.2
Soda Ash	0.2
HCl	0.7
sodium nitrate	0.07

Raw Materials in kg For 1 KG Red 245 (Red PX-5B)	
Cyanuric Chloride	0.2
H acid	0.35
Sulfo Tobias Acid	0.3
HCl	0.14
N Methyle Aniline	0.15
Sodium Nitrite	0.08
Soda Ash	0.3

Raw Materials in kg For 1 KG Red 278 (Deep Red CD)	
Sulpho VS	0.3
J acid	0.2
PCVS	0.27
HCl	0.34
Soda Ash	0.2
Sodium Nitrite	0.11

Raw Materials in kg For 1 KG Yellow 15 (Yellow GR)	
PCVS	0.45
SPMP	0.38
Sodium Bicarbonate	0.2
HCl	0.19
Sodium Nitrite	0.1

Raw Materials in kg For 1 KG Yellow 18 (Yellow H4G)	
Cyanuric Chloride	0.2
MPDSA	0.21
SPCP	0.25
Metanilic Acid	0.2
HCL	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
Caustic Soda	0.15

Raw Materials in kg For 1 KG Yellow 42 (Yellow FG)	
VS	0.36
SPCP	0.36
sodium Bicarbonate	0.2
HCl	0.13
Sodium Nitrite	0.08

Raw Materials in kg For 1 KG Yellow 57 (Yellow H7GL)	
Cyanuric Chloride	**0.23**
MPDDSA	**0.33**
2 Piridon	**0.25**
VS	**0.35**
HCl	**0.3**
Sodium Nitrite	**0.07**
Soda Ash	**0.2**
Caustic Soda	**0.15**

Raw Materials in kg For 1 KG Yellow 84 (Yellow HE4R)	
K acid	0.3
MUA	0.13
Cyanuric Chloride	0.16
BDSA	0.15
Soda Ash	0.075
Sodium Bicarbonate	0.23
HCl	0.1
Sodium Nitrite	0.06

Raw Materials in kg For 1 KG Yellow 85 (Yellow PX-8G)	
Cyanuric Chloride	0.23
MPDDSA	0.33
2 Piridon	0.25
Metanilic	0.23
HCl	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
Caustic Soda	0.15

Raw Materials in kg For 1 KG Yellow 86 (Yellow M8G)	
Cyanuric Chloride	0.23
MPDDSA	0.33
2 Piridon	0.25
HCl	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
Caustic Soda	0.15

Raw Materials in kg For 1 KG Yellow 95 (Yellow P6GS)	
Cyanuric Chloride	0.2
MPDSA	0.21
Sulpho Methyle Piridon	0.3
Metanilic Acid	0.2
HCl	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
Caustic Soda	0.15

Raw Materials in kg For 1 KG Yellow 135 (Yellow HE6G)	
Cyanuric Chloride	0.23
MPDDSA	0.33
2 Piridon	0.25
Dasda	0.23
HCl	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
Caustic Soda	0.15

Raw Materials in kg For 1 KG Yellow145 (Yellow MERL)	
K acid	0.3
MUA	0.12
Cyanuric Chloride	0.14
Ammonia Liquor	0.22
Sodium Bicarbonate	0.35
HCl	0.1
Sodium Nitrite	0.06
VS	0.23

Raw Materials in kg For 1 KG Yellow 186 (Yellow 3GL)	
Cyanuric Chloride	0.2
MPDSA	0.21
2 Piridon	0.2
VS	0.3
HCL	0.3
Sodium Nitrite	0.07
Soda Ash	0.2
sodium bicarbonate	0.15

Raw Materials in kg For 1 KG Golden Yellow 210 (Golden Yellow R)	
VS	0.44
MPDSA	0.3
HCl	0.15
Sodium Nitrite	0.11
Soda Ash	0.18

ANNEXURE-II

MANUFACTURING PROCESS

All the dyes manufactured here are manufactured by almost same type of processes. The basic difference in the process to achieve different product is addition of Raw material according to stoichiometric requirement and the temperature at which the reaction is carried out. The typical process for manufacturing of dyes is as follows:

1. Diazotization: (STAGE-1)
In Primary Diazo chemical like (VS/H-Acid/K-Acid/Gamma Acid/Sulpho Tobias Acid/DASDA/Aniline etc.) are to be diazotized in acidic medium using HCL and reducing temperature by Ice and Sodium Nitrite to be added to complete diazotization. This diazo is then to be used to couple with various coupling components.

2. Cyanuration : (STAGE-2)
Intermediate like H acid/K acid/Peri acid/MPDSA are reacted with cyanuric chloride at low temperature using ice.

3. Coupling of diazo with cynurated mass (STAGE 1+STAGE 2):
Now ready diazo is Couple with cyanurated mass and pH is adjusted by Soda Ash and stirring is to be done for completion of coupling.

4. Condensation:
Adding desire intermediate in above mass for condensation reaction. Second chlorine of cyanuric Chloride is replaced by desire intermediate.

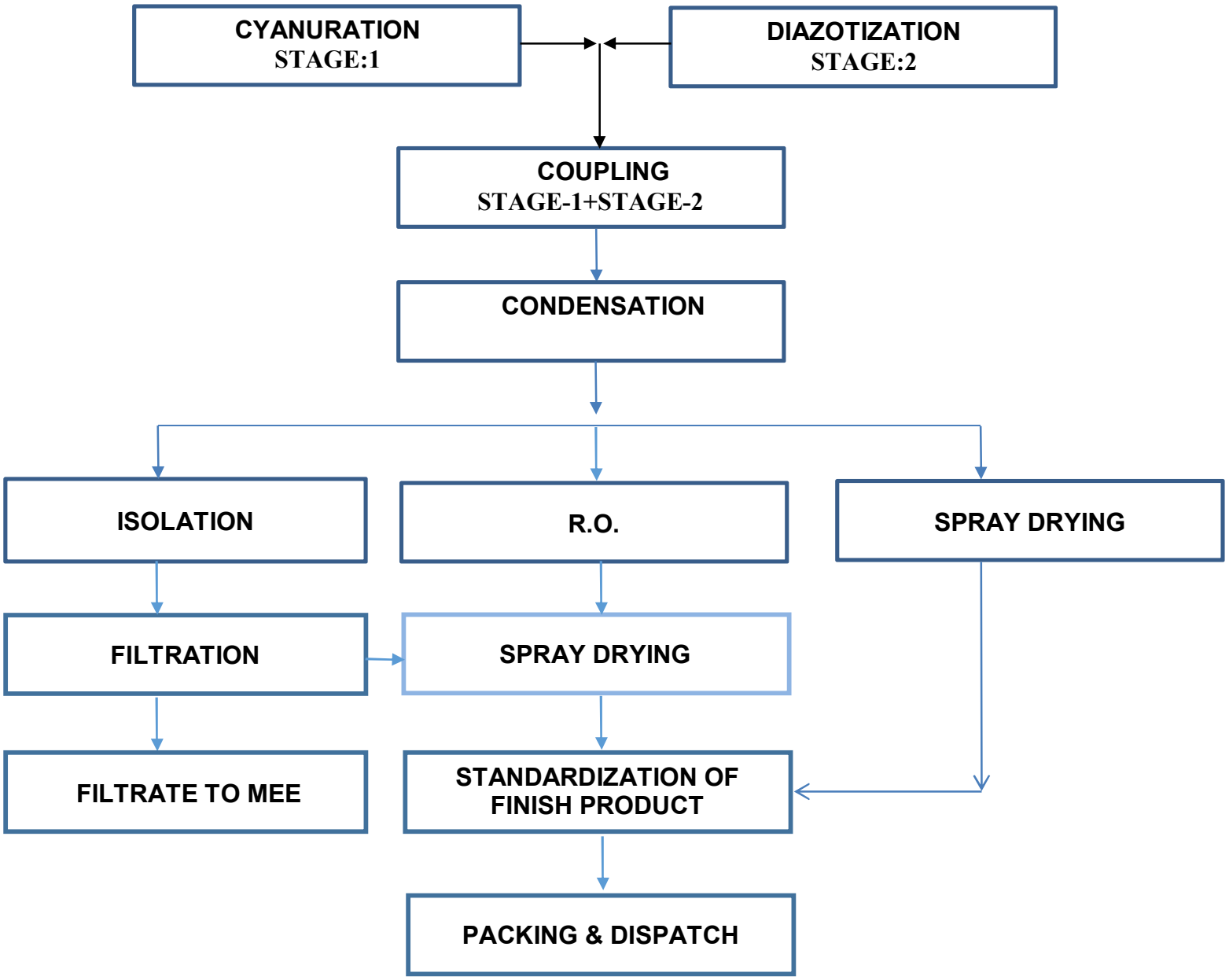
5. Isolation or RO process
After all the reaction is completed, the mass is isolated or RO process depend upon the product

6. Spray Drying
The concentrated mass produce after all the process is sent for spray drying.

7. Strength Equalization and Standardization
The said obtained crude due strength into be equalization by adding Sodium sulphate and then to be blended to obtain as per the parties standard requirement.

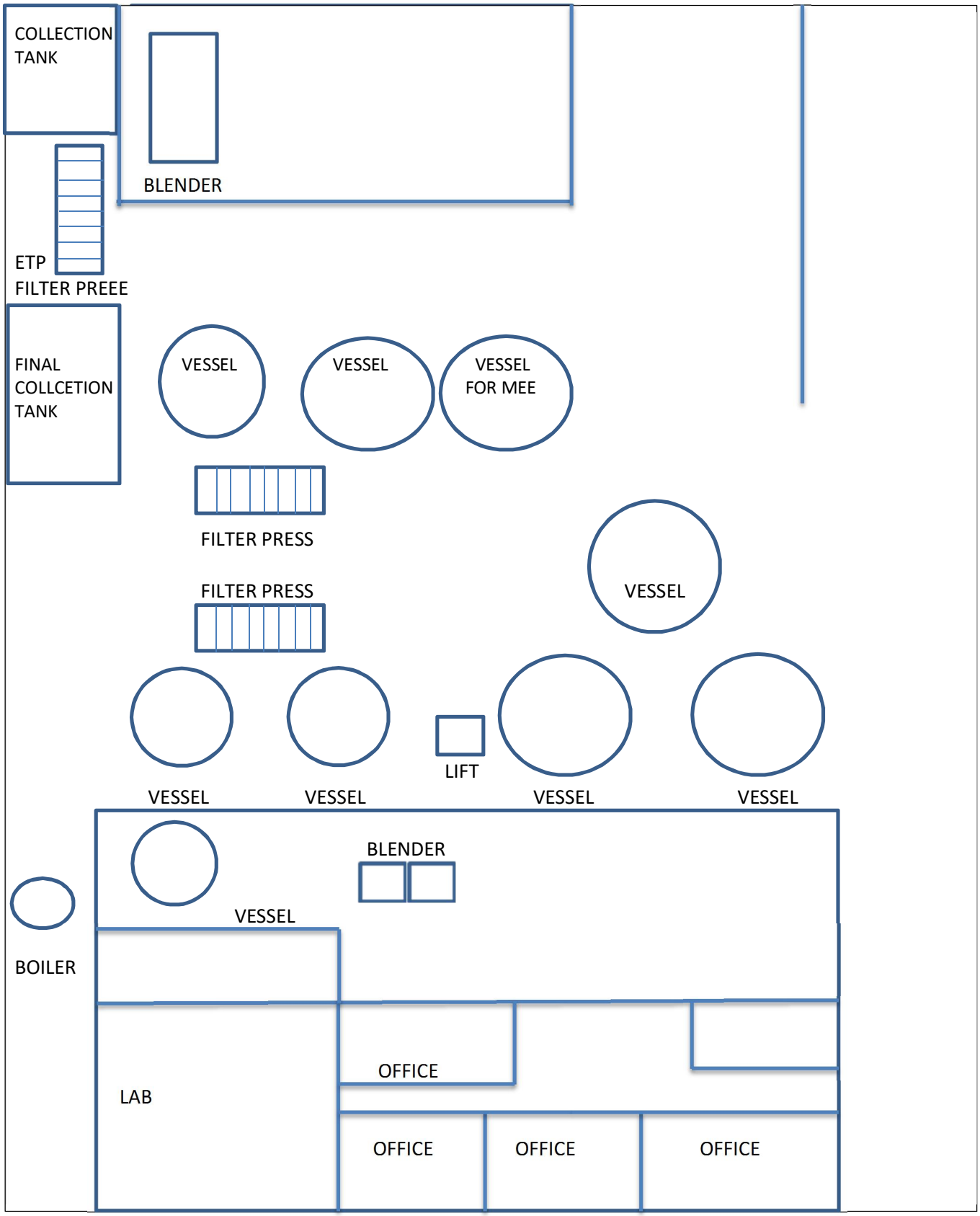
8. Packing& Labeling
The standard dye is to be packed and labeled as per party requirement

PROCESS FLOW DIAGRAM OF DYES



ANNEXURE-III

SITE PLAN & FACTORY LAYOUT



ANNEXURE-IV

WATER BALANCE

- **WATER CONSUMPTION**

Sr. No.	Water required for	Quantity (lit/day)		
		Existing	**Proposed**	**After Proposed**
(1)	Domestic	1500	1500	3000
(2)	Gardening	-	300	300
	Industrial			
(3)	Process	1000	38000	39000
(4)	Cooling	-	-	-
(5)	Boiler	-	5000	5000
(6)	Washing & Scrubber	1500	3500	5000
	Total (Industrial)	**2500**	**46500**	**49000**
	Total (Industrial + Domestic)	**4000**	**48300**	**52300**

- **WASTE WATER GENERATION**

Sr. No.	Waste Water Generation	Quantity(lit/day)		
		Existing	**Proposed**	**After Proposed**
(1)	Domestic	1000	1200	2200
(2)	Gardening	-	-	-
	Industrial			
(3)	Process	1000	27750	28750
(4)	Cooling	-	-	-
(5)	Boiler	-	250	250
(6)	Washing & Scrubber	1500	6500	8000
	Total (Industrial)	**2500**	**34500**	**37000**

- Industrial process waste water @ 13000 lit/day will be disposed to MEE.
- Washing and other diluted streams after treatment @ 24000 lit/day will be discharged to the CETP, Vatva, Ahmedabad.
- Domestic Sewage waste water is discharged to soak pit.

ANNEXURE: V

POWER REQUIREMENT OF THE PLANT

Detail of Power

Sr. No.	Electricity (KW) Existing	Total (KW) Proposed	Total After (KW) Proposed	Source of Supply
1	58.93	141.07	200	Torrent Power

ANNEXURE: VI

HAZARDOUS WASTE MANAGEMENT AND STORAGE

Sr. No.	Types of Waste	Category	Quantity Existing	Quantity Proposed	Quantity After Proposed	Mode of Disposal
1.	ETP Sludge	34.3	0.6 MT/Year	199.4 MT/Year	200 MT/Year	Collection, Storage, Transportation and disposal to TSDF site.
2	Process/Iron sludge	26.1	--	200 MT/Year	200 MT/Year	Collection, Storage, Transportation and disposal to TSDF site.
3.	Used Oil/ Spent Oil	5.1	15 Lit/Year	85 Lit/Year	100 Lit/Year	Collection, Storage, Transportation and Sold to Recycler, Re processor or used as Lubricants for Machineries.
4.	Discarded Container / Drum Bags	33.3	2.0 MT/Year	33 MT/Year	35 MT/Year	Collection, Storage, Transportation and Sold to Registered Recycler Or Send back to Raw material supplier Or Use for ETP sludge packing

ANNEXURE: VII

TYPE OF FLUE GAS EMISSION

- **Flue Gas Emission**
  After Proposed

Sr. No.	Stack Attached to	Stack Height (m)	Fuel Used	Quantity of Fuel	APCM	Pollutants
1.	Steam Boiler (1 Existing +2 proposed)	11	Wood/White Coal	2.5 MT/day	-	PM 150 mg/Nm^3 SO_2 100 ppm NO_x 50 ppm
2	HAG (1 Nos.)	11	Wood/White Coal	0.3 MT/day	-	
3.	D.G. Set (10 KVA) (Stand by)	5	Diesel	10 Lit/Hr.	-	

- **Process Gas Emission**
  After Proposed

Sr. No.	Stack Attached to	Stack Height (m)	APCM System	Expected Pollutant	Pollutants
1.	Reactor	7	(Water Scrubber or Alkali Scrubber)	SO_2 HCl	SO_2<40 mg/Nm^3 HCl<25 mg/Nm^3

ENCLOSURE: VIII

TOR

The Terms of reference is prepared as per the guidelines of MoEF for EC.

1. **To prepare the EIA/EMP report as per standard and additional ToR of MoEF& CC.**
2. To prepare the details of various manufacturing process, methods and production capacity of proposed products along with the flow diagrams.
3. To collect the details of the generation of pollutants.
4. To collect the details of the treatment provided for liquid, gaseous and solid waste.
5. To collect the details regarding flue gas emissions discharge through each stack.
6. To study about the mean of transportation of raw materials handling as well as products handling.
7. To study about the details of storage of raw materials and finished products.
8. To quantify the wastewater generation.
9. To study about the disposal method of the treated effluent and its impact on final disposal point for the present discharge.
10. To study about the quality and quantity about the sludge and other solid waste.
11. To collect the details regarding potential noise source of the project.
12. To identify environmental and safety hazards, also to suggest the measures for prevention and control it.

12 To predict and assess the impact on water environment due to raw water consumption, effluent disposal, and emission from the plant and solid waste generation.