FORM-1

for

PROPOSED EXPANSION OF EXISTING DYES & DYE INTERMEDIATES UNIT

of

M/s. COLOURTEX INDUSTRIES PVT. LTD. (UNIT-1)

Block Nos. 272/P, 273/P, 274, 278/P, 283/P, 284/P,
285 to 288, 294 to 297, 310,
Plot Nos. 288/1, 288/2, 289/1, 289/2, 8108/2, 364, 801, 268/3,
GIDC Sachin, Dist. Surat - 394 230 **(GUJ.)**

APPENDIX I

(See paragraph - 6)

FORM 1

(I) Basic Information

Sr. No.	Item	Details
1.	Name of the project/s	M/s. Colourtex Industries Pvt. Ltd. (Unit-1)
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	Plot area: 3,04,074 sq. mt. For detail Please refer **Annexure – I**
4.	New/Expansion/Modernization	Expansion
5.	Existing Capacity/Area etc.	For detail Please refer **Annexure – I**
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/Survey/Khasra No.	Block Nos. 272/P, 273/P, 274, 278/P, 283/P, 284/P, 285 to 288, 294 to 297, 310, Plot Nos. 268/3, 288/1, 288/2, 289/1, 289/2, 8108/2, 364, 801, GIDC Sachin, Dist. Surat - 394 230
	Village	GIDC Estate, Sachin,
	Tehsil	Choryasi
	District	Surat
	State	Gujarat
10.	Nearest railway station/airport along with distance in kms.	Sachin: 1.5 km Surat: 10 Km
11.	Nearest Town, city, District Headquarters along with distance in kms.	Surat: 10 Km
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, local body (complete postal address with telephone nos. to be given)	Not applicable
13.	Name of the applicant	M/s. Colourtex Industries Pvt. Ltd. (Unit-1)
14.	Registered Address	M/s. Colourtex Industries Pvt. Ltd. (Unit-1) Plot No.158, GIDC Estate, Pandesara, Dist: Surat, Gujarat – 394 221
15.	Address for correspondence:	
	Name	Mr. Kirit Gandhi
	Designation (Owner/Partner/CEO)	General Manager (A & P)
	Address	M/s. Colourtex Industries Pvt. Ltd. Plot No.158, GIDC Estate, Pandesara, Dist: Surat, Gujarat – 394 221
	Pin Code	394 221
	E-mail	kirit.gandhi@colourtex.co.in ashish.pathak@colourtex.co.in
	Telephone No.	0261-2890122

	Fax No.	0261-281011
	Mobile	+919825056865
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not Applicable
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	No
19.	If yes, date of submission	Not Applicable
20.	If no, reason	Not Applicable
21.	Whether the proposal involves approv-al/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 there of 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 expansion is within existing unit in Sachin GIDC Industrial Estate
1.2	Clearance of existing land, vegetation and Buildings?	No	
1.3	Creation of new land uses?	No	Industry is located in the industrial estate of G.I.D.C., Sachin.
1.4	Pre-construction investigations e.g. bore Houses, soil testing?	No	
1.5	Construction works?	Yes	
1.6	Demolition works?	No	There will not be 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	
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	For detail Please refer **Annexure -II**
1.14	Facilities for storage of goods or materials?	No	Existing areas for storage of raw materials and finished products will be used for the proposed expansion project.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	The details of Effluent Treatment Plant, Multiple Effect Evaporator, Liquid waste Incinerator and Solid Waste Incinerator are given as **Annexure – IV, V, VI & VII** respectively.
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	No	

	altered routes and stations, ports, airports etc?		
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, which is reserved for industrial purpose, will be drawn from the Irrigation Canal and water from G.I.D.C. will also be used.
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	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 there of (with approximate quantities frates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	
2.2	Water (expected source & competing users) unit: KLD	Yes	The details of water consumption are given at **Annexure-III**. Water, which is reserved for industrial purpose, will be drawn from the Irrigation Canal and water from G.I.D.C. will also be used.
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	Additional Power required for proposed expansion project will be met from DGVCL. The details of fuel consumption are given as **Annexure-IX.**
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	The list of Hazardous Chemicals required for total Production is given as **Annexure – X.**
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	Direct/Indirect 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	

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 VIII**
4.4	Other industrial process wastes	No	
4.5	Surplus product	No	
4.6	Sewage sludge or other sludge from effluent treatment	No	
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	No	

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 **as Annexure –XI**
5.2	Emissions from production processes	Yes	Please refer **as Annexure –XI**
5.3	Emissions from materials handling storage or transport	Yes	
5.4	Emissions from construction activities including plant and equipment	No	
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	No	
5.6	Emissions from incineration of waste	Yes	Please refer as Annexure – XI
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 is within the prescribed limit. At noisy area, adequate preventive & control measures are provided. No significant noise, vibration or emission of light & heat from the unit.
6.2	From industrial or similar processes	Yes	Please refer Annexure-XVI.
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	Adequate Lighting is provided in unit and also local ventilation system is provided.
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	Safe handling practices are followed for handling hazardous chemicals. For detail please refer **Annexure –X.**
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	The details of wastewater generation are given at Annexure-III. Domestic effluent is passed through septic tank and then is treated with industrial effluent in the Effluent Treatment Plant. The final treated effluent is discharged into the underground drainage system of G.I.D.C., Sachin.
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	
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	For detail please refer **Annexure – X**
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)?	Yes	The earthquake proof design of the plant.

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 No No Yes -	For detail please refer **Annexure – XII.**
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	

(II) Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	--	N.A.
2	Areas which are important or sensitive Ecol logical reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	--	N.A.
3	Area used by protected, important or sensitive Species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	--	N.A.
4	Inland, coastal, marine or underground waters	--	N.A.
5	State, National boundaries	-	N.A.
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	-	N.A.
7	Defense installations	-	N.A.
8	Densely populated or built-up area	Surat	Surat is around 10 km from the proposed expansion project site.
9	Area occupied by sensitive man-made land uses Hospitals, schools, places of worship, community facilities)	-	N.A.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	-	N.A.
11	Areas already subjected to pollution environmental damage. (those where existing legal environmental standards are exceeded)or	-	N.A.
12	Are as susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence ,landslides, flooding erosion, or extreme or adverse climatic conditions)	-	N.A.

IV). Proposed Terms of Reference for EIA studies: For detail please refer **Annexure – XIII.**

Date: 14/06/2018
Place: Surat

For Colourtex Industries Pvt. Ltd.

(General Manager (A & P))

LIST OF ANNEXURES

SR. NO.	NAME OF ANNEXURE
I	List of products with their production capacity
II	Brief Manufacturing Process Description with Mass Balance
III	Details of Water Consumption Wastewater Generation.
	A Copy of Permission letter for Drawing Water from Canal
IV	Details of Effluent Treatment Plant
V	Details of Multiple Effect Evaporator & Spray Dryer
VI	Details of Liquid Waste Incinerator
VII	Details of Solid Waste Incinerator
VIII	Details of Hazardous Waste Generation, Handling and Disposal
IX	Details of Fuel Consumption
X	Details of Hazardous Chemicals
XI	Details of Air pollution Control System (Stack & Vent)
XII	Socio-economic Impacts
XIII	Proposed Terms of Reference for EIA studies
IXV	Layout Map
XV	CSR Activities
XVI	Noise Level at Different Places within the Premises
XVII	The Copies f Allotment Letters For Land From G.I.D.C.
XVIII	A Copy of Consolidated Consent & Authorization
XIX	A Copy Of CTE NO. GPCB/CCA-SRT-311(15)/ID_20632/418510 dated 25/07/2017
XX	Toposheet
XXI	A Map of 10 Km Radial Distance From Project Site
XXII	➢ A Copy of Environmental Clearance Dated 8-02-2006 Issued By MoEF ➢ A Copy of Environmental Clearance Dated 25-02-2008 Issued By State Level Environment Impact Assessment Authority ➢ A Copy of Environmental Clearance Dated 09-11-2009 Issued By State Level Environment Impact Assessment Authority
XXIII	Environmental Clearance Compliance Report

ANNEXURE – I

LIST OF PRODUCTS WITH THEIR PRODUCTION CAPACITY

Sr. No.	Product	Total Quantity As per Existing CCA Order in MT/Month	Total Quantity As per TOR Amendment Granted on 17/5/2018 in MT/Month	Change in Quantity in MT/Month	Total Quantity in MT/Month
1.0	**Dyes**				
1.1	**Synthetic Organic Dyes-1** • Azo Disperse Dyes- 1(A1+A2) • Azo Acid & Solvent Dyes	**2250**	**2550**	**350**	**2900**
1.2	**Synthetic Organic Dyes-2** Azo Disperse Dyes –2(A3)	**100**	**100**	**-100**	**0**
1.3	**Synthetic Organic Dyes-3** Anthraquinone Disperse Dyes & Vat Dyes	**100**	**50**	**-50**	**0**
1.4	**Synthetic Organic Dyes-4** • Anthraquinone Acid & Solvent Dyes	**25**	**25**	**0**	**25**
1.5	**Synthetic Organic Dyes-5** • Azo Reactive Dyes-1	**500**	**1000**	**-300**	**700**
	• Solvent Dyes for Automotive		**200**	**0**	**200**
1.6	**Synthetic Organic Dyes-6** TPM Dyes	**75**	**0**	**0**	**0**
1.7	**Synthetic Organic Dyes-7** Azo Reactive Dyes-2**	**1500**	**3500**	**0**	**3500**
1.8	**Synthetic Organic Dyes-8** Azo Reactive Dyes-3	**0**	**400**	**-200**	**200**
	Total	**4550**	**7825**	**-300**	**7525**
2.0	**Intermediates**				
2.1	**Ethoxylated and Acetylated Tertiary Amines** (CI-101, CI-108, CI-182, CI-101A, CI-108A, CI-105, CI-104, CI-113, CI-182A, CI-307, CI-313, CI-203, CI-102)	**600**	**600**	**300**	**900**
2.2	**Cyanoethylated Amines** **(**NCEA, CEMAA, CAMA, NCENEA, CI-107, CI-208)	**150**	**150**	**150**	**300**
2.3	**Textile Auxiliaries, Binders, Fixtures**** **(Non Ionic/Anionic/ Cationic/ & their Blends)** (e.g. P-400, L.C. DFT, L.C. PC, L.C.	**1500**	**4000**	**0**	**4000**

	HTS, L.C. NID, L.C. NOD, L.C. TFL, L.C. SCR, L.C. ASD, L.C. PES, L.C. KBI, L.C. DDO, L.C. D 45, L.C. CE, L.C. SO 600, L.C. SR 16, L.C. FBOL, L.C. LSF, L.C. CTPC, L.C. SMK LC SWL, L.C. SDBL, L.C. PB, L.C. OA, FX, WET, NZ, LCS, Adr, CRL, VI, TEA, T-96, SQ, Levofin IS, Levofin BS, LFD, FBSE, ELA, 4398, BDLS, Esr, LV, L.C.DSS, L.C.LA, L.C.MDF, L.C.CAN, L.C.C-DFX, L.C.ECA, L.C.DFL, L.C.SAR, MB070, MB030).				
2.4	**Textile Finishing Chemical****	**150**	**150**	**0**	**150**
2.5	**Primary Amine** (Para Nitro Aniline, Meta Nitro Aniline, 2 Chloro 4 Nitro Aniline, Meta chloro Aniline, Para Anisidine, 3 Amino 4 Methoxy Acetanilide, Meta Aminio Acetanilide, DCPNA, 6 Br DNA, 6CL DNA, DB PNA, 2:6 DBPT, Metanilic Acid, MPDDSA, MAP, MAMS, CI-4102, CI-4006, CI-1010, CBPNA, MUA, BDSA, CNBPNA)	**600**	**300**	**300**	**600**
2.6	**2 : 4 Dinitro Chloro Benzene**	**100**	**0**	**0**	**0**
2.7	**Anthraquinone Intermediates**	**75**	**75**	**-75**	**0**
2.8	**Anthraquinone**	**160**	**0**	**0**	**0**
2.9	**Benzanthrone**	**50**	**50**	**0**	**50**
2.10	**Ethylated Tertiary Amines**	**200**	**400**	**-100**	**300**
2.11	**Quinoline** (Dioxy Quinoline, Hydroxy Methyl Quinoline, 3-Hydroxy Quinoline)	**30**	**0**	**30**	**30**
2.12	**Pyridone derivatives** (Butyl Pyridone, Methyl Pyridone, Ethyl Pyridone, Dichloro Pyridines, ECA, MDN)/ Alkylated Amino Pyridine	**50**	**50**	**0**	**50**
2.13	**Optical Whitener (Optical Brightening Agent/ OBA)**	**100**	**300**	**0**	**300**
2.14	**Dispersing Agent SCS/045/CS-28/ MN/MF****	**350**	**350**	**650**	**1000**
2.15	**Disperse DDP****	**1000**	**1000**	**1000**	**2000**
2.16	**B.D.S.A****	**17**	**0**	**0**	**0**
2.17	**G. Base****	**8**	**0**	**0**	**0**

2.18	**(I) Naphthalene 2:7 D.S.A (II) E Acid (III) E.B.M.T.S.A. (IV) Benzaldehyde Ortho Sulfonic Acid**	**66**	**0**	**0**	**0**
2.19	**PZL- Chloride Hydrochloride**	**10**	**0**	**0**	**0**
	Or	**Or**	**Or**	**Or**	**Or**
	• 3-(Phenyl Hydrazone) Cyclohex-anone	**4.5**	**0**	**0**	**0**
	• 4-Oxo Carbazole	**3.5**	**0**	**0**	**0**
	• 4-Hydroxy Carbazole	**3**	**0**	**0**	**0**
	• 4-Oxyranylmethoxy Carbazole	**2**	**0**	**0**	**0**
	• 2,6-Dichloro Diphenyl Amine	**10.5**	**0**	**0**	**0**
	• N-Chloroacetyl-2,6-Dichloro Diphenyl Amine	**13.5**	**0**	**0**	**0**
	• N-2,6-Dichloro phenyl-2-Indolinone	**10.8**	**0**	**0**	**0**
	Total	**47.8**	**0**	**0**	**0**
2.20	**Phenyl Ethyl Alcohol**	**44**	**0**	**0**	**0**
2.21	**Methoxy Ethyl Benzene**	**36**	**0**	**0**	**0**
2.22	**Methoxy Ethyl Nitro Benzene**	**18**	**0**	**0**	**0**
2.23	**Methoxy Ethyl Aniline**	**15**	**0**	**0**	**0**
2.24	**Methoxy Ethyl Phenol**	**10**	**0**	**0**	**0**
2.25	**CPL-ME.HCl (Res)**	**7**	**0**	**0**	**0**
2.26	**CPL-Tosylate**	**7**	**0**	**0**	**0**
2.27	**AD-Enol Ether**	**1.5**	**0**	**0**	**0**
2.28	**AD-Oxiran**	**1.5**	**0**	**0**	**0**
	Or	**Or**	**0**	**0**	**0**
	• 5-Chloro-6-Aminobenzene-1,3-Disulfonamide	**1.5**	**0**	**0**	**0**
2.28.1	**5-Chloro-6-Aminobenzene-1,3-Disulfonamide**	**18.5**	**0**	**0**	**0**
2.29	**AD-Lactone**	**1.5**	**0**	**0**	**0**
2.30	**Sulfapyridine**	**6.0**	**0**	**0**	**0**
	Or	**Or**	**0**	**0**	**0**
	• 10-Methoxy iminostilbene	**1.7**	**0**	**0**	**0**
	• 10,11-Dibromo Iminodibenzyl Carbonyl Chloride	**3.5**	**0**	**0**	**0**
	• Schiff Base	**2.5**	**0**	**0**	**0**
	• 7-(4-Bromobutoxy)-3,4-Dihydro Quinolinone	**0.5**	**0**	**0**	**0**
	Total	**8.2**	**0**	**0**	**0**
2.31	**Spirodiene**	**5**	**0**	**0**	**0**
2.32	**Epoxide**	**5**	**0**	**0**	**0**
2.33	**1- Amino 1-Cyano cyclopentane**	**2**	**0**	**0**	**0**

	oxalate				
2.34	1- Amino Cyclopentane Carbox-amide	2	0	0	0
2.35	2- Butyl, 1,3 - Diaza spiro [4,4] non - 1-en- 4 one Hydrochloride	2	0	0	0
2.36	2- [N-(p- Fluorobenzyl) Amino] Ethanol	1.5	0	0	0
2.37	2- Chloromethyl 4 - (4- Fluoroben-zyl) Morphelin	1.5	0	0	0
2.38	N- (2 - Morpholino methyl) phthalimide	1.5	0	0	0
2.39	N - (2- Aminomethyl) - 4 (4- fluo-robenzyl) morpholine	1.5	0	0	0
2.40	Imidazomethyl Cyanobiphenyl	0.75	0	0	0
2.41	N - Acetyl Iminodibenzyl	3.0	0	0	0
2.42	3- Nitro N- Acetyl Iminodibenzyl	1.5	0	0	0
2.43	2-Chloro-5-Nitrobenzoic Acid	7	0	0	0
2.44	N- Methyl - 4 - Oxo Carbazole	0.5	0	0	0
2.45	Isochroman	3	0	0	0
2.46	Isochromanone	3	0	0	0
2.47	Dibenzo Suberone	4	0	0	0
2.48	Otrichloride	0.75	0	0	0
2.49	Otrinitrile	0.75	0	0	0
2.50	5- Chloromethyl- 6- t- Butyl -2,4-Xylenol	0.75	0	0	0
2.51	(6 - t Butyl -5-Hydroxy- 2, 4- di-emethyl) Phenyl Acetonitrile	0.5	0	0	0
2.52	2 - (3, 5 - Dimethyl phenoxy me-thyl) oxirane	1	0	0	0
2.53	3-(3,5 - Dimethyl phenoxy) - 2 Hy-dropropyl amine Hydrochloride	1	0	0	0
2.54	4-Methyl Cyclohexanone Oxime	1.5	0	0	0
2.55	4-Methyl Cyclohexyl Amine Hy-drochloride	1.5	0	0	0
2.56	Isoveratronitrile	3.0	0	0	0
2.57	N-Methyl Homoveratryl amine	4	0	0	0
2.58	Chloro base	6	0	0	0
2.59	Cyanothiophene	1.5	0	0	0
2.60	Olanzonitro	2.5	0	0	0
2.61	Olanz - amine Hydrochloride	1.5	0	0	0
2.62	3, 4 - Di chlorobenzophene	1.0	0	0	0
2.63	3 - (Ethoxy carbonyl) - 4 (3,4 - dich-lorophenyl) -4 Phenyl 3 - Butenoic acid	1.5	0	0	0
2.64	4 -(3,4 - Dichlorophenyl) -4 - Phenyl -3- Butenoic acid	4.5	0	0	0

2.65	4- (3,4 -dichlorophenyl) - 4 - Phenyl butanoic acid	1.5	0	0	0
2.66	4 - (3,4 -dichlorophenyl) -4- dihy- dro -1 –Naphthalenone	1.0	0	0	0
2.67	2-[(amino carbonyl) amino] - 4,5 - dimethoxy benzoic acid	4.5	0	0	0
2.68	6,7 - dimethoxy - 2, 4 -dihydroxy quinazoline	4.5	0	0	0
2.69	2, 4 - Dichloro - 6,7 Dimethoxy quinazoline	4.5	0	0	0
2.70	2- Chloro- 4 - amino - 6, 7 - dime- thoxy quinazoline	4.5	0	0	0
2.71	Amino Bromo Methyl Uracil (ABMU)	10	0	0	0
2.72	N - Methyl Uracil (NMU)	10	0	0	0
2.73	Carboxy Octahydroindole	1	0	0	0
2.74	Benzyl Ester PTS- Salt	1	0	0	0
2.75	Ethyl nor valinate hydrochloride	1	0	0	0
2.76	Carbethoxy butyl alanine	1	0	0	0
2.77	Octahydroindole Carboxy acid	1	0	0	0
2.78	4 - Hydroxybenzaldehyde Oxime	5	0	0	0
2.79	4 -Hydroxy benzonitrile	5	0	0	0
2.80	3- Nitro - 4- Hydroxy Benzonitrile	5	0	0	0
2.81	2- Bromo Hexanoic Acid	3	0	0	0
2.82	2- (2 - Formyl Phenoxy) Hexanoic Acid	3	0	0	0
2.83	2 - Butyl Benzofuran	3	0	0	0
2.84	Mannich Base Hydrochloride	10	0	0	0
2.85	4 - Chloro Butyryl chloride	2.5	0	0	0
2.86	4 -Chloro -1 -(4- Isobutyl phenyl) - 1- Butanone	2.5	0	0	0
2.87	2,2 - Di phenyl - 4 - Piperidine Me- thanol	2.5	0	0	0
2.88	Terfenadone	2.5	0	0	0
2.89	Thia Dibenzo cycloheptenone	5	0	0	0
2.90	Thioehter	3	0	0	0
2.91	Benzothiophene	3	0	0	0
2.92	Methyl Paraben ester	3	0	0	0
2.93	Acid Hydrochloride	3	0	0	0
2.94	Acid Chloride Hydrochloride	3	0	0	0
2.95	Bromo methyl butane	5	0	0	0
2.96	Oxime	5	0	0	0
2.97	2-(2-chloro benzoyl)-4-chloro aniline (Methanone)	5	0	0	0
2.98	Methanone Oxime	5	0	0	0
2.99	Quinazoline-N-Oxide	5	0	0	0

2.100	Glutarimide	4	0	0	0
2.101	Tetra methylene glutaricacid	4	0	0	0
2.102	2-(2-Fluorobenzoyl) -4- chloroaniline	4	0	0	0
2.103	Benzo diazepinone	4	0	0	0
2.104	N-(3-Chlorophenyl) piperazine HCl	7	0	0	0
2.105	1-(3- Chloropropyl)-4-(3-Chlorophenyl) piperazine	7	0	0	0
2.106	Naphthalene Derivatives (H-Acid, J-Acid, G Salt, Amido G Salt, K-Acid, Gamma Acid, NMJ Acid)	400	400	0	400
2.107	Vinyl Sulphone Derivatives (Para Base Vinyl Sulphone Ester, VS, Sulpho OAVS, OAVS, PCVS, Sulpho VS, m-Base VS, O-Base VS)	800	800	0	800
2.108	D.A.S.A.	20	20	0	20
2.109	2 NAPDSA	10	10	0	10
2.110	4 NAPDSA	8	8	0	8
2.111	F.C. Acid	5	5	0	5
2.112	6 Chloro Metanilic Acid	10	10	0	10
2.113	Nitrosylsulfuric Acid	250	250	0	250
	Total	7167.5	8928	2255	11183
3.0	Ferrous Sulphate including Metal/ Mineral Sulfate	500	500	0	500
4.0	Specialty Chemicals			0	
4.1	Antioxidant/Coating chemicals, Polymer emulsion, Adhesive/ Resins	300	300	0	300
5.1	Formulation & Spray Drying of Disperse Wet Press Cake	400	1000	0	1000
5.2	Formulation & Spray Drying of Acid & Reactive Dyes wpc				
6.1	Disperse/ Vat Dyes/Pigment Ink Formulation	0	200	0	200
6.2	Reactive/Acid/Direct Dyes Ink Formulation				
7.0	By Product				
7.1	$Al(OH)_3$	760	0	0	0
7.2	Mix Salt (NaCl + Na_2SO_4)	615	615	0	615
7.3	Potassium Chloride	3.4	0	0	0
7.4	Potassium Bromide	0.9	0	0	0
	Total	1379.3	615	0	615

** Zero Discharge Products

ANNEXURE – II

MANUFACTURING PROCESS WITH MASS BALANCE

PROCESS DESCRIPTION

1.0 Disperse Azo Dyes

Aromatic Primary Amines are diazotised with Sodium Nitrite in acidic media and coupled with Tertiary Amines. The products are then isolated and filtered followed by washing with water and acid to get the desired quality. The dye product is then ground in a wet grinding mill to obtain proper particle size distribution. The slurry so formed is spray dried at suitable temperature to obtain the dry dye product which is finally standardised as required and packed in drums.

2.0 Azo Acid Dyes & Solvent Dyes

Different shades of Acid Dyes (azo, diazo and metal complex) are manufactured by various combinations of raw materials. The unit operations and processes employed during the production of acid dyes are briefly described as below,

Primary Amines like Para Amino Azo Benzene 4 Sulfonic Acid (PAAB4S), 4 Nitro Amino Phenol, Para Nitro Aniline, Aniline Oil, Amino Resorcinol are diazotised with Sodium Nitrite in acidic media and coupled with H.Acid, Gamma Acid, 1:2:4 Diazo Acid, NAPSA, Sodium Naphthionate, Metanilic Acid, Sulfanilic Acid. Chemicals like Basic Chromium Sulphate, Caustic Soda Lye, Soda Ash and Glauber Salt are also added during the diazotisation of amines.

Another set of chemicals like Peri Acid, Beta Naphthol, Resorcinol, Phenyl Peri Acid and Alpha Napthyl Amine are dissolved in water (suitable media) to make a coupler solution.

The diazotised mixture and the coupler solution are coupled and stirred well at controlled temperature. The reaction mass is then hydrolysed. The dye product is isolated from the mother liquor by adding Vacuum Salt and dewatered through Filter Press. The filtered cake is then dried in a spray drier. Before packing, the spray dried product is ultimately standardised to attain the desired quality of the acid azo dye.

For acid diazo dyes, the wet cake of monoazo dye is further diazotised with sodium nitrite and hydrochloric acid and then coupled with another coupling component followed by the subsequent remaining steps of hydrolysis, isolation / salting, filtration, drying, pulverising and standardisation.

In case of metal complex dyes, the mono azo dye is condensed with certain metal salts to form the product which is either filtered and dried or directly spray dried.

Solvent Dyes

Aromatic primary amines are diazotised with sodium nitrite in acidic medium and coupled with various couplers at optimum temperature. The product is stabilized and filtered in a filter press. It is washed with water to get quality product and dried. The dry crude is converted into metal complex formusing required metal salt. The metal complex dye is con-

verted into amine salt, which is filtered at acidic pH and washed with acidic water followed by hot water. W/C is dried, pulverized and packed in drums.

3.0 Anthraquinone Disperse Dyes

Aromatic primary amines or Aromatic phenols are condensed with Dihydroxy derivative or heloginated derivative of Anthraquinone in solvent media at required temp. & pressure to get desire product. Product is finally isolated either by cooling or by diluting it with solvent & filter to get wet press cake of product. Then it is further standardized & milled to get desire quality in wet slurry form. Finally this slurry is spray dried to get final product.

4.0 Vat Dyes

Fusion

The Benzanthrone/cyclised product is subjected to alkali fusion in solvent media at optimum temperature and the product is subsequently oxidized by either with steam/air or with both. Then the product is isolated, filtered and washed with water for getting product. The wet cake is dried, pulverized and used for next stage depending upon the product process requirement**.**

Hydroxylation

The Fused Product is hydroxylated in Acid media in presence of metal oxide and subsequently the hydroxylated product is isolated, filtered, washed with water. The wet cake is dried, pulverized and used for alkylation.

Diazotisation and Reduction

Amino Anthraquinone is diazotised with nitrosyl sulphuric acid and subsequently reduced with sodium sulfite and the product is isolated, filtered and washed with water for getting the product product.

Benzoylation and Halogenation

Anthraquinone amines are Benzoylated and or subsequently chlorinated in solvent media and then the product is subjected to Vacuum/steam distillation to remove the solvent and products are isolated, filtered and washed with water. The wet cake is dried, pulverized and used for next stage depending upon the product process requirement.

Condensation

Anthraquinone amines are condensed with halogenated Anthraquinone in solvent media in presence of metal catalyst at optimum temperature. Then the product is subjected to Vacuum/steam distillation to remove the solvent and products are isolated, filtered and washed with water. The wet cake is dried, pulverized and used for next stage depending upon the product process requirement.

Cyclisation

The condensed/ reduced product is cyclised in acid media/solvent media in presence of Catalyst at optimum temperature. Then the product is isolated, filtered and washed with water for getting product.

Alkylation

The Fused/hydroxylated product is alkylated in solvent media at optimum temperature and solvent is recovered by either steam distillation or vacuum distillation and the product is isolated, filtered and washed with water (Say alkylated product). The wet cake is dried, pulverized and used for Acid pasting.

Acid Pasting

The alkylated product is treated in sulphuric acid and isolated, filtered and washed with water. The wet cake is dried, pulverized and packed in drums.

5.0 Anthraquinone Acid

Bromamine Acid condensed with primary amines at require temp. and at atmospheric pressure in alkaline condition. Drawn in water, filter, washed, dry & packed in drum. Qunizarine is condensed with primary amine at optimum temp. & at atmospheric pressure. Then filtered, washed and dried. The dry product is sulphonated & dumped in water, filter, washed up to required pH, dried & packed.

6.0 Azo Reactive Dyes-1

(A) Aromatic primary amines are diazotised with sodium nitrite in acidic media than coupled with couplers in aqueous media than clarified the mass and finally spray dried.Then standardised against commercial standard.

(B) Aromatic primary amines are diazotised with sodium nitrite in acidic media than coupled with couplers in aqueous media than isolate the product by salting and filtering. Wetcake is further cyanurated with cyanuric chloride in aqueous media & then condensed with amines to get final product, which is clarified and spray dried.

7.0 TPM Dyes

Condensation

E.B.A., D.E.A. or D.E.M.A.P is condensed with B.D.S.A. at required temperature and well stirred. The solution is filtered in a nutch to obtain wet cake

Purification

The wet cake from condensation process is taken in water and stirred well with the addition of sulphuric acid. The slurry is filtered in a nutch to obtain wet cake.

Oxidation

Wet cake from the purification process is taken in water and sulphuric acid, sodium bichromate, oxalic acid or lead peroxide is added. The slurry is filtered in a press. Vacuum salt or sodium sulfate is added to the mother liquor and then filtered, dried, pulverised and blended prior to packing.

8.0 Azo reactive Dyes-2

Aromatic primary amines are diazotised with sodium nitrite in acidic media then coupled with couplers in aqueous media then cyanurated with cyanuric chloride in aqueous media & then condensed with amines to get final product, which is clarified and spray dried.

9.0 Azo Reactive Dyes-3

CPC base are sulphonation in acidic media at require temp. Then drawn it in below require temp. Then filter it. Collect w/c & condensed with amines to get final product. Which is clarified & spray dried.

10.0 Ethoxylated And Acetylated Tertiary Amines

Primary and Secondary Amines are ethoxylated in aqueous media under inert atmosphere at optimum parameters (pressure & temperature). Finally, the product is isolated by filtration and separation.

Ethoxylated tertiary amines are dried under vacuum and acetylated with acetic anhydride at required temperature. After cooling, the material is tested and sold/delivered as such on purity basis. These products with a theoretical yield of 88-92% are used in the manufacture of dyestuffs.

11.0 Textile Auxiliaries & Textile Finishing Chemical

LC-PCI, LC-DFT, LC-HTS, LC NID, LC HCR

Purified castor oil is ethoxylated with ethylene oxide at optimum temperature and pressure under conditions of inert atmosphere. After completion of reaction, the product is neutralized by acid and diluted with water to maintain the required standard. The product is sold/utilized as such as a textile auxiliary.

PC-400

Ethylene glycols are ethoxylated with ethylene oxide at optimum temperature and pressure under inert atmosphere. After completion of reaction, the product is neutralized by acid and sold / used as such as a textile auxiliary.

12.0 Cyanoethylated Amines

Primary or secondary amines are cyanoethylated in moderately acidic condition in presence of anti polymerising agent at require temperature and pressure. Isolate the product by fil-

tering & washed till purity product. Some of these products are further used in ethoxylatation process & some of these products are directly used in S.O. Dyes.

13.0 Primary Amines

1) Chloro Nitro Benzene & Dichloro Nitro Benzene is aminolysed with ammonia at optimum temperature and pressure. Excess ammonia is recovered and then product is isolate by filtering & washing with water till purity product is achieved.

2) Chloro Nitro Benzene is Methoxylated with sodium Methoxide, isolate the product by filtering and then reduced by reducing agent**.**

3). Para Anisidine, Meta nitro Aniline is acetylated using Acetic anhydride, isolated the product by drowning and filtering and then reduced by reducing agent**.**

4). M.D.N.B., Nitro Anisole, Nitro Chloro Benzene, Nitro Acetanilide, Nitro Methoxy Acetanilide are reduced using reducing Agent like Iron filling & Sodium Hydrosulfite, isolate the product by salting & filtering.

14.0 2: 4 Dinitro Chloro Benzene

Chloro Benzene are chlorinated using liquid chlorine at optimum temperature, isolate the product by drowning and washed with water till purity product obtained.

15.0 Anthraquinone Intermediates

Anthraquinone is sulfonated in acidic media at optimum temperature then drawn in water, isolated by filtering and then ammonolysed with Ammonia at optimum temperature and pressure. Excess Ammonia gas is recovered and then product is isolated by filtering, washing with water till purity of the product is achieved.

16.0 Anthraquinone

Phthalic anhydride and Benzene is condensed using aluminum chloride. Excess benzene is distilled off, isolate the product by filtering & washing, then this product is cycled in acidic media, isolate the product the by Drowning & filtering.

17.0 Benzanthrone

Anthraquinone is condensed with Glycerine using iron in acidic condition isolate the product by drowning & filtering, then purified in solvent.

18.0 Ethylated Tertiary Amines

Primary or Secondary Amines are ehtylated with Ethyl Chloride / D.E.S. / Alkyl Sulfonyl Chloride in moderately acidic / basic condition at required temperature and pressure. This product is then filtered, washed, packed in bag as w/c and used in dyestuff.

18.0 Quinolines

Primary Amine is condensed with Methyl Ester / Acetic Anhydride in solvent media at required temperature. The product is isolated from solvent and is vacuum distilled and reused. Intermediate product is cyclised in alkali condition at required temperature, then neutralized with acid, filtering the product and purified in acidic condition at required temperature. The product is isolated by filtering and washing till it is neutral. The product is then dried in a dryer. The yield is about 55 % on a theoretical basis. This product is used as dyestuff intermediate.

19.0 Pyridone Deratives

Alkyl Amine is condensed with Methyl Ester and E.C.A. at optimum temperature. The product is then isolated by acidifying and filtering. These products are used in dyestuff without further treatment.

20.0 Optical Whitener (Optical Brightening Agent/ OBA)

For Polyester:

Aryl nitrile is chlorinated at optimum temp. Excess chlorine and HCl are scrubbed in alkali scrubber. Then transfer in condensation vessel & condense with alkyl phosphite at optimum temperature & then transfer in another vessel and condense with aryl aldehyde in aqueous media at optimum temperature then filter, sand mill and packed.

For Cotton, Polyamide and Paper:

A) Primary or secondary alkyl/ cyclic amines or alcohol is condense with Cynuric chloride and subsequently aryl amines are condensed which is further subjected to condensation with DASDSA or similar diamino compounds, this final product is filter and further formulated with diluting agents to get finished Product for cotton, polyamide and Paper.

B) Diamino compounds like DASDSA, DASA, diaminodiphenyl sulphone etc are tetra azotized and coupled with primary aromatic amines and resulted tetra azo dyes are further oxidized in presence of catalyst to get final optical whitening agent. This final product is further formulated with diluting agents to get finished Product for cotton, polyamide and Paper.

21.0 Dispersing Agent SCS/DDP /CS-28/MN/MF/045

Naphthalene / Phenol/ 2 Methyl Naphthalene/ Lignine/ CI Oil/ Creoseto Oil is sulphonated with Sulphuric Acid / Oleum/ Sodium Sulfite and then condensed with Formaldehyde to give dispersing agent which is then neutralised, clarified and packed in bag or filled directly into the drum.

22.0 PZL - Chloride Hydrochloride

- **Methyl Maltol**

Raw Material Acetone, Maltol, Potassium carbonate & DMS are charged in to the reactor to form thick slurry. The slurry is to be cooled and filtered. The filtrate and washings are collected and it is concentrated to remove acetone completely.

- **Methyl Pyridone**

Methyl maltol and isopropyl alcohol are charged in to the reactor and pressurized with ammonia gas at required temperature. Release the pressure and cool it to room temperature. Vacuum is applied to remove isopropyl alcohol. Then, Acetone is charged and filter with acetone washes.

- **Chloromethoxy pyridine**

Methyl pyridone, Phosphorus oxychloride and MDC are charged in to the reactor. MDC is distilled out till temperature reaches reflux. Excess $POCl_3$ is distilled out. Then cool it to required temperature and add water & caustic lye. To the aq. Layer add methylene chloride. Separate layers and organic layer is distilled to get the product.

- **N-Oxide**

Chloromethoxy pyridine, Methene Sulfonic acid, water and Sodium tungstate and Hydrogen peroxide are charged in to the reactor and stirred for required time. It is allowed to cool. Then sodium thiosulfate is added, stirred and extracted with MDC. It is concentrated and degassed to get the product.

- **Hydroxy compound**

N-Oxide and Sodium methoxide are charged in to the reactor and solution is refluxed for required time. Acetic acid is added. Methanol is distilled. Acetic anhydride is charged and stirred for required time. Then, Methanol is added. Methanol and Acetic acid is distilled out. Water and Caustic lye is added. It is then filtered, wash and dried.

- **PZL-Chloride Hydrochloride**

Hydroxy compound and Methylene chloride are charged in to the reactor and cooled at required temperature. Then Thiony chloride is added and agitated for required time. Methylene chloride is distilled off completely. Acetone is added to the residue and stirred. It is then filtered and dried.

23.0 Methoxy Ethyl Phenol

- **Methoxy Ethyl Benzene**

Phenyl ethyl Alcohol is treated with Dimethyl Sulphate in presence of Aqueous Sodium Hydroxide to give Methoxy Ethyl Benzene as an organic layer. The aqueous layer is sent for treatment.

- **p-Methoxy Ethyl Nitro Benzene**

Ethyl Nitro Benzene. The product formed is centrifuged and dried to give p- Methoxy Ethyl Methoxy Ethyl Benzene is nitrated with furning nitric acid in presence of sulphuric acid to give Methoxy Nitro Benzene.

- **p-Methoxy Ethyl Aniline**

p-Methoxy Ethyl Nitro Benzene is reduced to p-Methoxy Ethyl Aniline.

- **P-Methoxy Ethyl Phenol**

p-Methoxy Ethyl Aniline is Diazotized in presence of sodium Nitrite to give p-Methoxy Ethyl Phenol.

24.0 CPL-ME.HCL (RES)

2-(2-Chlorophenyl)-α-amino glycine is treated with MeOH and Thionyl chloride is charged and maintain for require time at require temperature. After the reaction is complete solvent MeOH is distilled out. Toluene is added. It is filtered and dried. Toluene is distilled & re-moved. The product is isolated.

25.0 CPL- (+) Tosylate

Toluene, PTSC, Thiophene-2-ethanol are charged in to the reactor. Water with Caustic lye is added and stirred. The toluene layer is separated. Toluene layer is charged back to the flask with conc. HCl and refluxed for required time. Org. layer is separated and solvent is distilled out to get CPL-Tosylate.

26.0 AD- Enol Ether

Androst-4-ene-3, 17-dione on protection with Trimethyl orthoformate gave AD-Enol Ether.

27.0 AD- Oxiran

AD-Enol Ether on treatment with Trimethyl sulfonium Bromide gave AD- oxirane.

28.0 AD-Lactone

AD-oxirane on condensation with Diethyl malonate in presence of sodium methoxide gave AD-lactone,

29.0 SULFAPYRIDINE

The Acetylsulphenillyl Chloride is reacted with 2 Amino Pyridine, Toluene & Pyridine. The entire reaction mass is carried out in a moisture free conditions. Once the reaction is com-plete Aq. Sodium Hydroxide is added to the mass. The excess toluene & pyridine is distilled out. The product is isolated after the acidification with Aq. HCL.

30.0 Naphthalene Derivatives

Stage-1: Naphthalene is sulphonated with Mix acid (sulphuric acid+ Olieum)

Stage2: Sulhonated mass is nitrated with Nitric acid

Stage3: Nitro mass is neutralized with lime and filtered and washed. Gypsum is bi-product. Filtrate is collected for reduction.

Stage4: Nitro Solution is reduced with Fe/HCL , neutralized with Soda ash and filtered and washed. Sludge is bi product.

Stage 5: Amino mass is concentrated

Stage 6: Concentrated amino mass is treated with caustic soda and methanol under pressure. Methanol is recovered by distillation.

Stage 7: Fusion mass is isolated with sulphuric acid, filtered, centrifuged and dried.

31.0 Vinyl Sulphone Derivatives

Stage-1: Acetanilide is chlorosulphonated with chloro-sulphonic acid. The chlorosulphonated mass is drowned into ice+water and filtered. Wet cake is washed with minimum ice water, aerated and unloaded. Filtrate is drained into ETP for treatment.

Stage-2: Reducing agent is prepared by dissolving SBS in caustic soda solution and the stage –1 wet cake is reacted with it at controlled temperature. The mass is clarified. Sludge obtained is incinerated.

Stage-3: Stage-2 clarified mass is condensed with EO at controlled temperature and neutral pH condition. The product is filtered. Filtrate is incinerated or spray-dried. Spray-dried product (mixed salt) is bi-product.

Stage-4: Stage-2 wet cake is dried and esterified with 98% sulphuric acid. Acetic acid is distilled out and dry product is obtained.

32.0 5-Chloro-6-Aminobenzene-1,3-Disulfonamide

M – Chloro Aniline is reacted with Chloro Sulfonic Acid and Thionyl Chloride to give 4 – Chloro-6-Amino Benzene-1, 3 – Disulfonyl Chloride. The reaction mass is quenched in ice water and filtrate. The wet cake is dissolved in MIBK, water removed, charcoalised and filtered. The clear filtrate is treated with Ammonia followed by Hydrochloric Acid to give 5- Chloro –6 Amino Benzene –1,3 –Disulfonamide. Which is isolated by filtration and drying.

33.0 10-Methoxy iminostilbene

The Dibromo derivative is treated with Potassium Hydroxide and Sodium Methoxide to give 10- Methoxy Iminostilbene.

34.0 2- Chloro –5- Nitro Benzoic Acid

2-Chloro Benzoic acid is nitrated with fuming nitric acid in ethylene dichloride. The reaction mixture is quenched in water. Ethylene Dichloride is distilled off and the product filtered and crystallized from methanol –water mixture.

35.0 D.A.S.A.

Chlorosulfonation of Acetanilide.

- Drawning in Ice, Do washing.
- Do condensation with liquid PPD.
- Reduction of PNA.
- Do hydrolysis with caustic lye of the condensation mass.
- Do clarify & isolate the filtrate with dilute Acid.
- Filter it, do centrifuge & Dry the product.

36.0 2-NADPSA, 4-NADPSA, F.C. Acid

- Do Bechamp reduction of PNA to make liquid PPD.
- Do Condensation of ONCBSA with PPD to make 2-NADPSA & PNCBSA with PPD to make 4-NADPSA.
- Clarify the reaction mass.
- Isolate it with dilute Acid.
- Filter, Centrifuge & dry the product.
- Do reduction of 4-NADPSA to make F.C. Acid.
- Filter & isolate the filtrate.
- Filter, Centrifuge & Dry the product.

37.0 6- Chloro Metanilic Acid

- Do reduction of ONCBSA.
- Filter when the reduction is OK.
- Isolate with dilute Acid.
- Filter, Centrifuge & Dry the product.

38.0 Ferrous Sulphate

Iron is treated with spent Sulphuric Acid at required temperature for optimum time and then cool the mass to RT to isolate the product. Filterate is reused in next batch.

39.0 3-(Phenyl Hydrazone) Cyclohexanone

Charged sodium Acetate tirhydrate, phenyl hydrazine HCl in to the reactor. Stirred, Heated and then cooled to R.T. Added Acetic Acid, water and 1 3 cyclohexane dione, at the end filtered wash with water to get product.

40.0 4-OXO CARBAZOLE

Charged HCl, water and wet cake of Hydrazone in to the reactor. Heated to reflux, for 8 hrs. Cooled to 5^0C. Added sodium Hydroxide till neutral pH. Centrifuged & isolated the product after dissolving in methanol.

41.0 4-Hydroxy Carbazole

Charged wet cake of Oxocarbazole, water, Raney Nickel, Potasium hydroxide, hydrogen gas in to the reactor. After the reaction is complete acidify with HCL and filter. Final product isolated after treatment with water and methanol.

42.0 4-Oxyranylmethoxy Carbazole

Charged wet cake of Hydroxycarbazole, methanol, potasium carbonate and epichlorohydrin in to the reactor and stirred it reaction is complete. Distilled out excess methanol and epichlorohydrin. The product is isolated after treatment with ethyl acetate and Activated carbon.

43.0 2,6-Dichloro Diphenyl Amine

Aniline is treated with Chloro Acetyl Chloride to form the amide. This is treated with 2, 6-Dichlorophenol in presence of Sodium Methoxide to give Dichloro Diphenyl Amine as step I.

44.0 N-Chloroacetyl-2,6-Dichloro Diphenyl Amine

Dichloro Diphenyl Amine is reacted with Chloro Acetyl Chloride in Toluene to give N- Acetyl Dichloro Diphenyl Amine which is isolated by filtration and drying as step II.

45.0 N-2,6-Dichloro phenyl-2-Indolinone

The Step -II product is reacted with Aluminum chloride at elevated temp. The reaction mass is quenched in ice water to isolate Indolinone as step –III. The product is isolated by filtration.

46.0 10,11-Dibromo Iminodibenzyl Carbonyl Chloride

Iminostilbene Carbonyl Chloride is brominated with liquid bromine to give the Di-bromo derivative.

47.0 Schiff Base

2,3 Dichlorobenzonitrile is reacted with amino-guanidine bicarbonate in presence of catalyst in toluene to give the schiff base.

48.0 7-(4-Bromobutoxy)-3,4-Dihydro Quinolinone

7-Hydroxy – 3,4-dihydro carbo styril is condensed with 1,4-di bromo butane to give the 7-(4-bromo methoxy) compound.

49.0 Spiro Diene

Ad Lactone is reacted with chloranil in Acetone. Acetone is distilled and toluene and caustic is added. Layers are separated and toluene is distilled off to give Spiro diene.

50.0 Epoxide

p- Hydroxy phenyl acetamide is reacted with epichlorohydrin in alkaline medium to form the Epoxide . The mass is filtered and washed with water to give the Epoxide.

51.0 1-Amino –1- Cyano Cyclopentane Oxalate

Cyclopentanone is reacted with aq. Solution of sodium cyanide and ammonia. The product is extracted in methylene dichloride. Methylene chloride is distilled off and the residue is treated with oxalic acid in methanol to form the oxalate salt, which is isolated by filtration.

52.0 1-Amino –Cyclopentane Carboxamide

1-Amino –1- cyano cyclopentane oxalate is reacted with sulfuric acid. The reaction mass is quenched in ammonia solution and extracted with methylene dichloride. The methylene dichloride is distilled off and residue is treated with hexane and filtered to give 1- Amino – Cyclopentane Carboxamide.

53.0 2-Butyl –1,3- Diazo spiro [4:4]non –1-en –4-one hydro chloride

1-Amino –cyclopentane carboxyamide is condensed with valesyl chloride in methylene dichloride in presence of triethylamine. Methylene dichloride is distilled off and the residue is treated with potassium hydroxide solution in methanol, at elevated temp. Methanol is distilled off and residue treated with water and extracted in ethyl acetate and treated with hydrochloride acid to form the hydrochloride which is isolated by filtration.

54.0 2-[N-(P-Fluorobenzyl)amino] ethanol

p- Fluoro benzaldehyde is reacted with ethanolamine in methanol. The schitt base is reduced with sodium borohydride . The product is isolated by filtration.

55.0 2-Chloromethyl –4-(4-flurobenzyl)morpholine

2-[N-(p-flurobenzyl)amino] ethanol is reacted with epichlorohydrin and sulfuric acid. The reaction mass is quenched in water and extracted with methylene dichloride. Distillation of methylene dichyloride and degassing affords the diol as an oily mass.

56.0 N-(2-Morpholinomethyl) phthalimide

The 2-chloro methyl –4- (4-fluorobenzyl) morpholine is reacted with potassium phthalimide in DMF at elevated temp .The reaction mass is quenched in water and filtered to afford the N-(2-morpholinomethyl) phthalimide.

57.0 N- (2-Amino methyl) –4-(4-Fluorobenzyl) morpholine

N- (2-Morpholinomethyl) phthalimide is reacted with hydrazine hydrate in methanol at 60-65^{0}c. The mass is cooled and filtered to remove the phthalal hydrazide .The filtered is distilled to remove methanol, degassed to give N- (2-Amino methyl) –4-(4-flurobenzyl) morpholine as a yellow to reddise colored liquid.

58.0 Imidazomethyl Cyano biphenyl

2-(n-butyl) –4- chloro –5- formyl imidaodle is condensed with 4-Bromomethyl –2-cyano biphenyl and the product is further treated with sodium borohydride. The mass is quenched with water and filtered . The product is crystallized from ethyl acetate.

59.0 N-Acetyl Iminodibenzyl

Imonodibenzyl is reacted with acetic anhydride at elevated temp. The reaction mass is quenched in water, cooled and filtered to give N –acetyl iminodibenzyl.

60.0 3 – Nitro – N- Acetyl Iminodibenzyl

N-acetyl iminodibenzyl is nitrated with 70 % Nitric acid in presence of sulfuric acid. The reaction mix is quenched in water, extracted with methylene dichloride. Methylene chloride is distilled off. The residue is crystallized form ethyl acetate to give 3- Nitro –N- acetyl iminodibenzyl.

61.0 2- Chloro –5- Nitro Benzoic Acid

2-Chloro Benzoic acid is nitrated with fuming nitric acid in ethylene dichloride. The reaction mixture is quenched in water. Ethylene Dichloride is distilled off and the product filtered and crystallized from methanol –water mixture.

62.0 N –Methyl –4- -Oxo Carbazole

4-Oxo Carbazole is N –methylated with dimethyl sulfate in acetone in presence of potassium carbonate. Aceton is distilled off, water added and filtered. The cake is treated with methanol, filtered to give N- Methyl –4-Oxo Carbazole.

63.0 Isochroman

Phenyl ethyl alcohol, formaldehyde and sulfuric acid are reacted to give Isochroman. At the end of the reaction, the layers are separated and organic layer is washed with water to give Isochroman.

64.0 Isochromanone

Isochromanone is oxidized with nitric acid (30 %). The aq layer is separated and the crude Isochromoane is washed with soda ash solution and distilled to give Isochromanone.

65.0 Dibenzo Suberone

Isochromanone is reacted with benzene in presence of aluminium chloride at elevated temp. At the end of reaction, the mass is cooled and quenched in water. Aq layer is separated; the organic layer is washed with caustic and distilled. The residue is high vacuum distilled to give Dibenzo suberone.

66.0 Otrichloride

5-t-butyl –1,3-xylene is Chloromethylated by reaction with paraformaldehyde and hydrogen chloride gas is presence of zinc chloride. The organic layer is separated and taken in toluene, washed with water and distilled. The reaction is high vacuum distilled to give Otrichloride.

67.0 Otrinitrile

Otrichloride is reacted with sodium cyanide in water. The product is filtered and crystallized form water.

68.0 5- Chloro Methyl –6-T- Butyl –2,4-Xylenol

6- t- Butyl –2,4-Xylenol is chloromethylated by reaction with paraformaldehyde and hydrogen chloride gas in presence of zinc chloride. The organic layer is separated, taken in toluene, washed with water and distilled. The residue is high vacuum distilled to give the 5-Chloromethyl –6- t- Butyl –2,4- Xylenol.

69.0 (6-t- Butyl –5-hydroxy –2,4 –Dimethyl) phenyl acetonitrile

5- Chloromethyl –6-t-Butyl –2,4 Xylenol is reacted with sodium cyanide in water. The product is filtered and recrystalised from water.

70.0 2-(3,5-Dimethyl phenoxy methyl) Oxirane

3,5- Dimethyl phenol is reacted with epichlorohydrin in presence of Potassium Hydroxide. The product is extracted with hexane. Hexane is distilled off to give the Epoxide (Oxirane).

71.0 3-(3,5-Dimethoxyphenoxy)-2-hydroxypropylamine HCl

The Epoxide(Oxirane) is reacted with ammonia in methanol. Methanol is distilled off and the product extracted with methylene chloride. The product is isolated as hydrochloride by the addition of hydrochloride acid and filtration.

72.0 4- Methyl – Cyclohexanone Oxime

4- Methyl cyclohexanone is reacted with hydro xylamine hydrochloride in methanol in presence of sodium acetate. Methanol is distilled of and the mass is treated with methylene dichloride and water. The organic layer is distilled to give 4- Methyl Cyclohexanone–Oxime.

73.0 4 - Methyl Cyclohexylamine Hydrochloride

4-Methyl Cyclohexanone –Oxime is reduced with sodium in absolute ethanol. The product is co distilled with anisol. 4- methyl cyclohexyl amine hydrochloride is isolated by ethanolic hydrochloric acid and filtration.

74.0 Isoveratro Nitril

Homoveratronitrile is reacted with isopropyl bromide in presence of potassium Hydroxide. DMSO is used as a solvent. The reaction is quenched in water and product extracted with to-

luene. Toluene in distilled off and the crude product is high vacuum distilled to give Isoveratronitrile.

75.0 N –Methyl Homoveratryl Amine

Benzaldehyde and homoveratryl amine is reacted to form the schiff base which is further treated with dimethyl sulfate in toluene. The product is isolated by high vacuum Distillation.

76.0 Chloro Base

N –Methyl homoveratryl amine is reacted with bromo chloropropane in presence of sodium hydroxide. The reaction is quenched in water layer separated, solvent is recovered to give the Chloro base.

77.0 Cyanothiophene

Propionaldehyde is reacted with sulfur and malononitrile in DMF in presence of triethylamine. The reaction mix is quenched in ice-water and filtered to get Cyanothiophene.

78.0 Olanz-nitro

O- Fluronitrobenzene is reacted with cyanothiophene in presence of sodium hydride at 25-30^{0}c. At the end of reaction, the mass is quenched in ice–water, and extracted with Methylene dichloride. MDC is distilled off to give Olanz-nitro.

79.0 Olanz –amine hydrochloride

Oianz-nitro is dissolved in acetone and reduced with stannous chloride and hydrochloric acid. The mixture is refluxed till reaction is complete. The mass is concentrated and cooled to effect crystallization of Olanz-amine hydrochloride which is isolated by filtration and washing with water.

80.0 3,4- Dichlorobenzophenone

O- Dichlorobenzene is reacted with benzoyl chloride in presence of aluminium chloride. The reaction mass is quenched in water and excess o- Dichlorobenzene is distilled off. The mass is cooled and filter to give 3,4 – Dichlorobenzophenone.

81.0 Stobbel product (3- Ethoxy Carbonyl)-4- (3,4- dichloro phenyl)-4- phenyl –3- butenoic acid

3,4 –Dichlorobenzophenone is reacted with dimethyl succinate in presence of sodium methoxide in t- Butanol. The product is extracted in water and acidified, re extracted in methylene chloride. Methylene chloride is distilled off to give stobbe product, as an oily mass.

82.0 4-(3,4- Dichlorophenyl)-4- phenyl –3- butenoic acid

The stobb product, which is an ester is hydrolyzed with hydrobromic acid and acetic acid. Water is added and the mass is extracted in Methylene Dichloride. Methylene Dichloride is distilled off and the product is taken up in ethyl acetate. The ethyl acetate containing the acid is taken up for the next step.

83.0 4-(3,4- Dichlorophenyl) –4- phenyl butanoic acid

The above product in ethyl acetate is hydrogenated using Pd/c as catalyst. At the end of hydrogenation the mass is filtered to remove the catalyst. The filtrate is distilled to recover ethyl acetate. The residue to treated with hexane to isolate 4-(3,4-Dichlorophenyl) –4-phenyl butanoic acid.

84.0 4-(3,4-Dichlorophenyl)-4-Dihydro –1- Napthalenone

4-(3,4-Dichlorophenyl)-4- phenyl butanoic acid is cyclised by reaction with chloro sulfonic acid in Methylene Dichloride. The reaction mass is quenched in water. The organic layer is distilled off to recover Methylene Dichloride. The residue is treated with hexane and filter to give the title compound.

85.0 2-[(Aminocarbonyl) Amino]-4,5 Dimethoxy Benzoic Acid

2- Amino –4,5- Dimethoxy benzoic acid is reacted with sodium cyanate in presence of acetic acid using toluene as solvent. The reaction mass is diluted with water. The layers are separated. The organic layer is concentrated, crystallized and filtered to give the title compound.

86.0 6,7- Dimethoxy –2,4-Dihydroxy Quinazoline

2-[(Aminocarbonyl) amino]-4,5- Dimethoxy benzoic acid is treated with caustic flakes in water at elevated temp. The reaction mass is cooled and acidified with acetic acid to precipitate the quinazoline which is isolated by filtration.

87.0 2,4- Dichloro –6,7- Dimethoxy quinazoline

6,7- Dimethoxy –2,4- Dihydroxy quinazoline is reacted with phosphorous oxychloride at elevated temp. At the end of reaction excess phosphorous oxy chloride is recovered by distillation. The residue is cooled quenched in water, neutralized with caustic and filtered to give 2,4- Dichloro –6,7- Dimethoxy quinazoline.

88.0 2- Chloro –4- Amino –6,7- Dimethoxy Quinazoline

2,4- Dichloro –6,7- Dimethoxy quinazoline is reacted with ammonia in THF. Water is added and the product is isolated by filtration.

89.0 Aminobromo Methyl Uracil

Aminomethyl uracil is brominated with liquid bromine in water and acetic acid. The reaction mass is filtered, washed with water to give Aminobromo Methyl Uracil.

90.0 N –Methyl Uracil

Amino bromo methyl uracil is reacted with methyl amine in water at elevated temp. At the end of reaction excess methylamine is scrubbed in water. The mass filtered and washed with water to Give N- Methyl Uracil.

91.0 Carboxy Octahydro Indole

(5)-2-Carboxy indoline is hydrogenated in methanol and sodium catalyst. The catalyst is filtered off, methanol is distilled off and the residue is treated with dioxane, filtered to give Carboxy Octahydro Indole.

92.0 Benzyl ester PTS Salt

Carboxy Octahydro indole is reacted with benzyl alcohol in toluene to give the benzyl ester, which is further treated with p- toluene sulfonic acid to form the salt, which is isolated by filtration.

93.0 Ethyl Norvalinate Hydrochloride

L – norvalinate is esterified with denatured spirit in presence of Thionyl Chloride. Excess DNS is distilled off and the product is isolated by the addition of cyclohexane & filtration.

94.0 Carbethoxybutyl Alanine

Ethyl norvalinate hydrochloride is treated with pyruvic acid and the solution is hydrogenated using Pd/c as catalyst. At the end of reaction the mass is filtered to remove the catalyst. The filtrate evaporated under reduced pressure. The residue treated with alcohol, filtered and concentrated. The residue is crystallized from acetonitrile to give the little compound.

95.0 Octa Hydroindole Carboxy Acid

Benzyle ester – PTS salt is treated with triethyl amine in ethyl acetate and followed by reaction with carbethoxy butyl alanine. The mass is filtered and distilled to give Octahydro indole carboxy acid.

96.0 4 – Hydroxybenzaldehyde oxime

4- Hydroxybenzaldehyde is reacted with hydroxylamine sulfat in methanol at reflux. Methanol is distilled off, The residue is taken up in water, stirred and filtered to get 4-Hydroxybenzaldehyde oxime.

97.0 4-Hydroxy benzonitrile

4-Hydroxybenzaldehyde –oxime is dehydrated by heating with formic acid. The reaction mass is quenched in water and neutralized with sodium hydroxide and filtered to give 4-hydroxibenzonitric.

98.0 3-Nitro – 4-hydroxybenzonitril

4-Hydroxybenzonitril is nitrated with ammonia nitrate in formic acid. The mass is quenched in water, filtered and the cake washed with water to get 3-nitro –4- hydroxybenzonitrile.

99.0 Mannich Base Hydrochloride

Cyclohexanone, paraformaldehyde and dimethylamine hydrochloride are reacted in Isopropyl alcohol at elevated temp. Isopropyl alcohol is distilled off and the residue taken up in acetone and filtered, washed with acetone to get Mannich Base Hydrochloride.

100.0 2-Bromo Hexanoic Acid

Hexanoic acide is brominated with liquid bromine at elevated temp. The reaction is continued till all hydrogen bromide is driven out and then the mass is vacuum distilled to get 2-Bromo hexanoic acid.

101.0 2-(2-Formyl Phenoxy) Hexanoic Acid

2-Bromo Hexanoic Acid is reacted with salicylaldehyde in presence sodium hydroxide in water. At end of reaction, the solution is steam distilled to recover unreacted salicyladehyde. The solution is then acidified and layers are separated. The organic layer is vacuum distilled to give 2-(2-Formylphenoxy) Hexanoic Acid.

102.0 2-Butyl Benzofuran

2-(2-formylphenoxy)hexanoic acid is reacted with sodium acetate in acetic anhydride and acetic acid to effect cyclisation and decarboxylation. The reaction mass is quenched in water and extracted with toluene. The toluene is distilled to recover toluene. The residue is further distilled under high vacuum to get 2-Butyl benzofuran.

103.0 4-Chloro butyryl chloride

Gamma butyrolacton is chlorinated with thionyl chloride in presence of zinc chloride. Excess of thionyl chloride is distilled off and the residue distilled under high vacuum to get 4-Chlorobutyryl chloride.

104.0 4 –Chlo-1-(4-isobutyl phenyl)-1-butanone

Isobutyl benzene is reacted with 4-chloro –butyryl chloride in presence of aluminium chloride in methylene dichloride as solvent. The reaction mass is quenched in water the layers are separated. The layers are distilled to recover, methylene chloride. The residue is crystallized from methanal to get 4-chloro –1—(4-iso butylphenyl)-1-butanone.

105.0 α,α– Diphenyl –4-piperidine methanol

Isonepicotic acid is reacted with chloro benzene under grignard conditions using magnesium turning. At the completion of reaction, the mass is cooled and quenched in water and acidified with hydrochloric acid. The mass is filtered and cake is washed with water. The cake is taken in methanol and basified with sodium hydroxide. Methanol is distilled off and the residue stirred with water and filtered, washed with water to get α,α -Diphenyl –4-piperidine methanol.

106.0 Ter fenadone

α,α- Dimethyl –4-piperidine methanol and 4-chloro –1-(4-isobutyl phenyl)-1-butanone are condensed in presence of potassium bicarbonate in MIBK. The aq. layer is separated and organic layer is distilled to recover MIBK. The residue is ory stallised from IPA to get Terfenadone.

107.0 Thiadibenzo Cycloheptenone

Thiophenol and phthalide are reacted in presence of sodium methoxide in toluene. Methanol and toluene are distilled of. The mass treated with water and hydrochloride acid. Aq layer is separated and organic layer distilled to recover toluene. The residue is reacted with polyphosphoric acid. The reaction mass is diluted with toluene and water, basified and layers separated. Organic layer is distilled to recover toluene and the residue is crystallized from IPA to get Thiadibenzo cycloheptenone.

108.0 Thioether

4-Methoxyphenacyl bromide is condensed with 3-methoxy thiophenol in presence of potassium hydroxide. The reaction mass is filtered to get Thioether.

109.0 Benzothiophene

Thioether is reacted with polyphosphoric acid at elevated temp. The reaction mass is cooled and quenched with water, and filtered to get crude benzothiophene, which is crystallized from acetone.

110.0 Methyl paraben ester

Methyl paraben is reacted with 2-chloro ethyl piperine hydrochloride in toluene and sodium carbonate. The reaction mass is filtered. The filtrate is distilled to recover toluene. The residue is isolated as liquid, which is Methyl paraben ester.

111.0 Acid Hydrochloride

Methyl paraben ester is hydrolysed with sodium hydroxide solution in methanol. The reaction is acidified with hydrochloric acid and filtered to get the acid chloride hydrochloride, which is further purified by treatment in hexane.

112.0 Acid chloride Hydrochloride

The acid hydrochloride is reacted with thionyl chloride in chloro benzene. The excess thionyl chloride and chloro benzene are distilled to get Acid chloride hydrochloride.

113.0 Bromomethoxybytane

Dibromo butane is reacted with sodium methoxide in methanol. Methanol is distilled off and residue is treated with water. The layer are separated and the organic layer is subjected to fractional distillation to get bromomethoxy butane.

114.0 Oxime

Bromomethoxy butane is reacted with magnesium in THF to form the grignard reagent, which is treated with p- trifluoromethyl benzonitrile to form the oxime. The reaction mass os decomosed by quenching in water. Organic layer is concentrated and filtered to give the Oxime.

115.0 2 – (2 – Chlorobenzoyl) – 4 – Chloroaniline (Methanone)

4– Chloroaniline is reacted with 2 – Chlorobenzoyl chloride in presence of aluminium chloride in ehtylene dichloride at elevated temp. the mass is quenched in ice–water, aq. Layer separated, Organic layer in distilled off to recovered ethylene dichloride. The residue is treated with methanol and filtered to give the methanone.

116.0 Methanone – Oxime

The methanone is reacted woth hydroxylamine hydrochloride in presence of sodium carbonate and methanol. Mathanol is distilled off and residue treated with water and filtered to give methanone – oxime.

117.0 Quinazoline – N – Oxide

Methanone – Oxime is reacted with chloro acetyl chloride in toluene at elevated temp. water is added to the mass and filtered to give the quinazoline – N – Oxime.

118.0 Glutarimide

Cyclopentanone and ethylcyano acetate is reacted in methanol at low temp. Ammonia is added and filtered to give the ammonium salt which is treated with hydrochloride acid to give glutarimide, which is isolated by filtration.

119.0 Tetramethylene Glutaric acid

Glutarimide is hydrolysed with sulfuric acid at 95-100 ^{o}C to give tetramethylene glutaric acid which is crystalled form hot water.

120.0 2 – (2- Fluorobenzoyl) – 4 – Chloro aniline

4– Chloro aniline is treated with 2 – fluorobenzoyl chloride in presence of aluminium chloride23 in ethylene dichloride as solvent. The reaction mass is quenched in water and the layer are separated. The organic layer is distilled off to recover ethylene dichloride. The residue is treated with isopropyl alcoholand filtered to give –2 – (2 – fluorobenzoyl) – 4 – chloro aniline.

121.0 Benzodiazepinone

2 – (2- Fluorobenzoyl) – 4 – Chloro aniline is reacted with glycine ethyl ester is Toluene at reflex temp. to form benzodiazepinone. Toluene is distilled from the reaction mass and the residue is reacted with acetone and filtered to give benzodiazepinone.

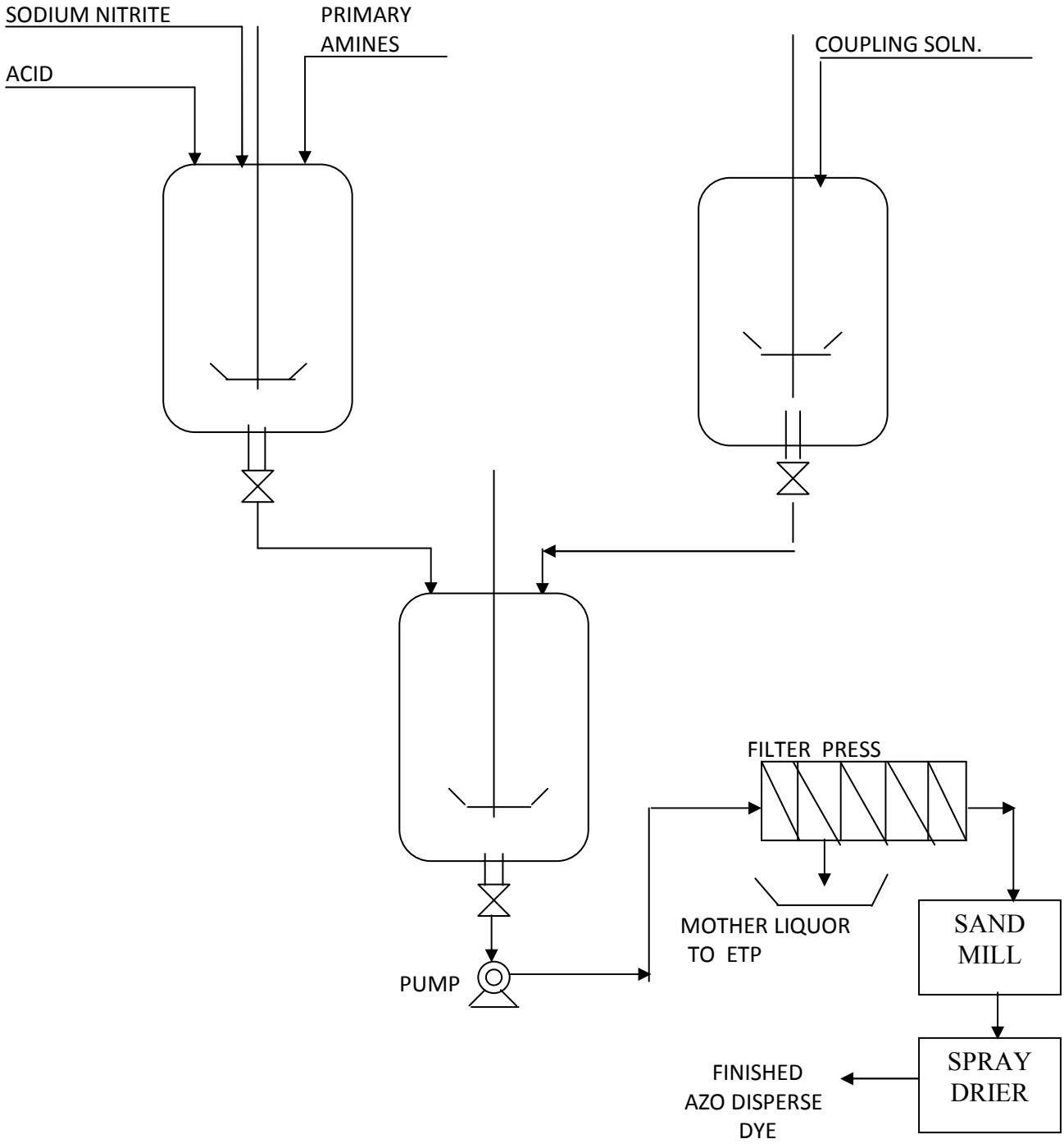
122.0 N- (3 – Chlorophenyl) piperazine Hydrochloride

3 –Chloro aniline is reacted with Bis- (2 – Chloro ethyl) amine hydrochloride in toluene in presence of caustic lye to give N – (3-Chlorophenyl) piperazine. The reaction mass is treated with water and the organic layer is acedified and filtered to give N- (3 – Chloro phenyl) piperazine hydrochloride.

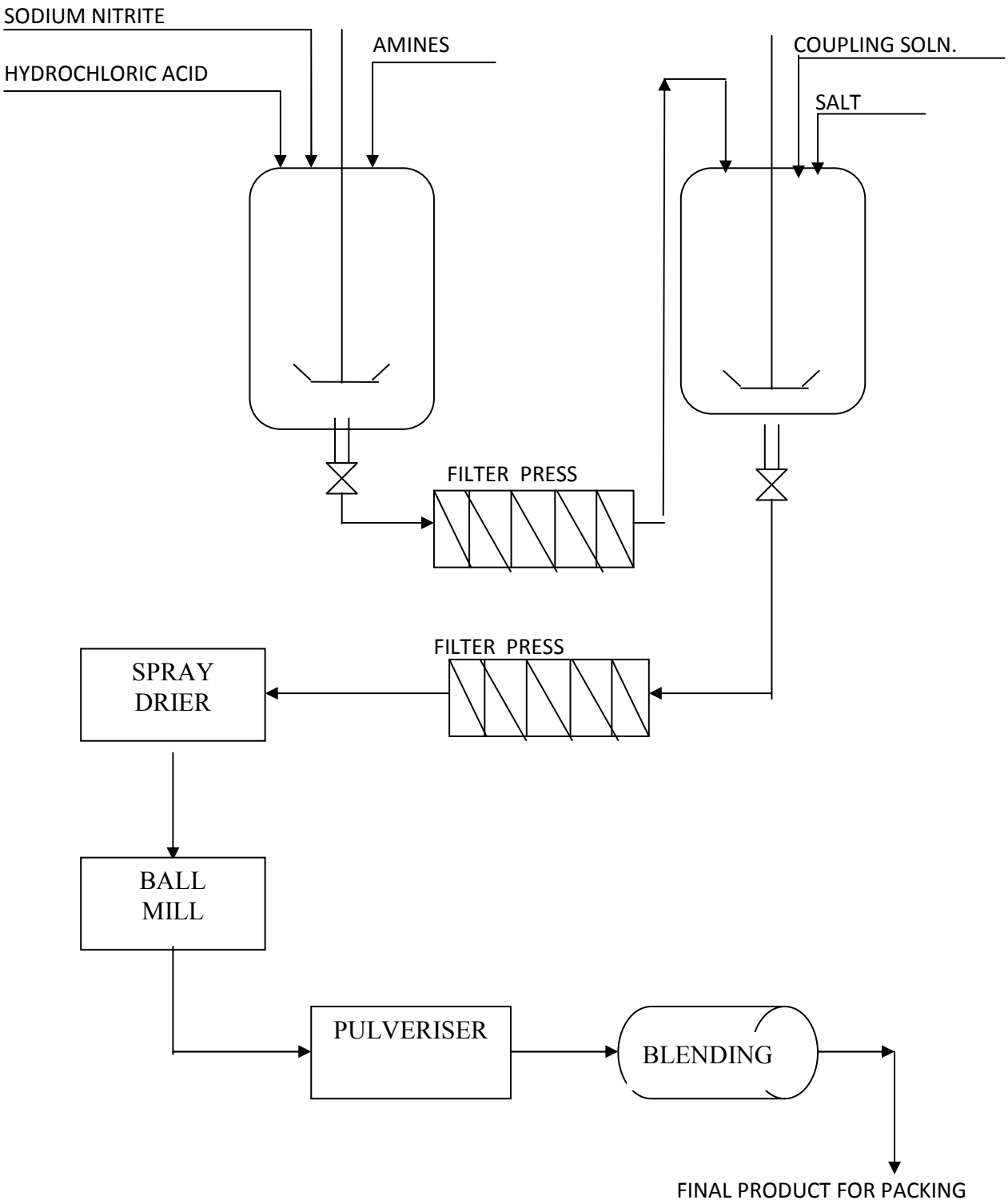
123.0 1 – (3 – Chloropropyl) – 4 – (3- Chlorophenyl) piperazine

1 – (3 – Chloropropyl) piperazide hydrochloride is reacted with 1 – bromo – 3 – chloropropane in presence of pattasium carbonate. Methanol is distilled off and the residue is treated with water and extracted in toluene. Toluene is distilled off to give 1 – (3 – Chloropropyl) – 4 – (3- Chlorophenyl) piperazine.

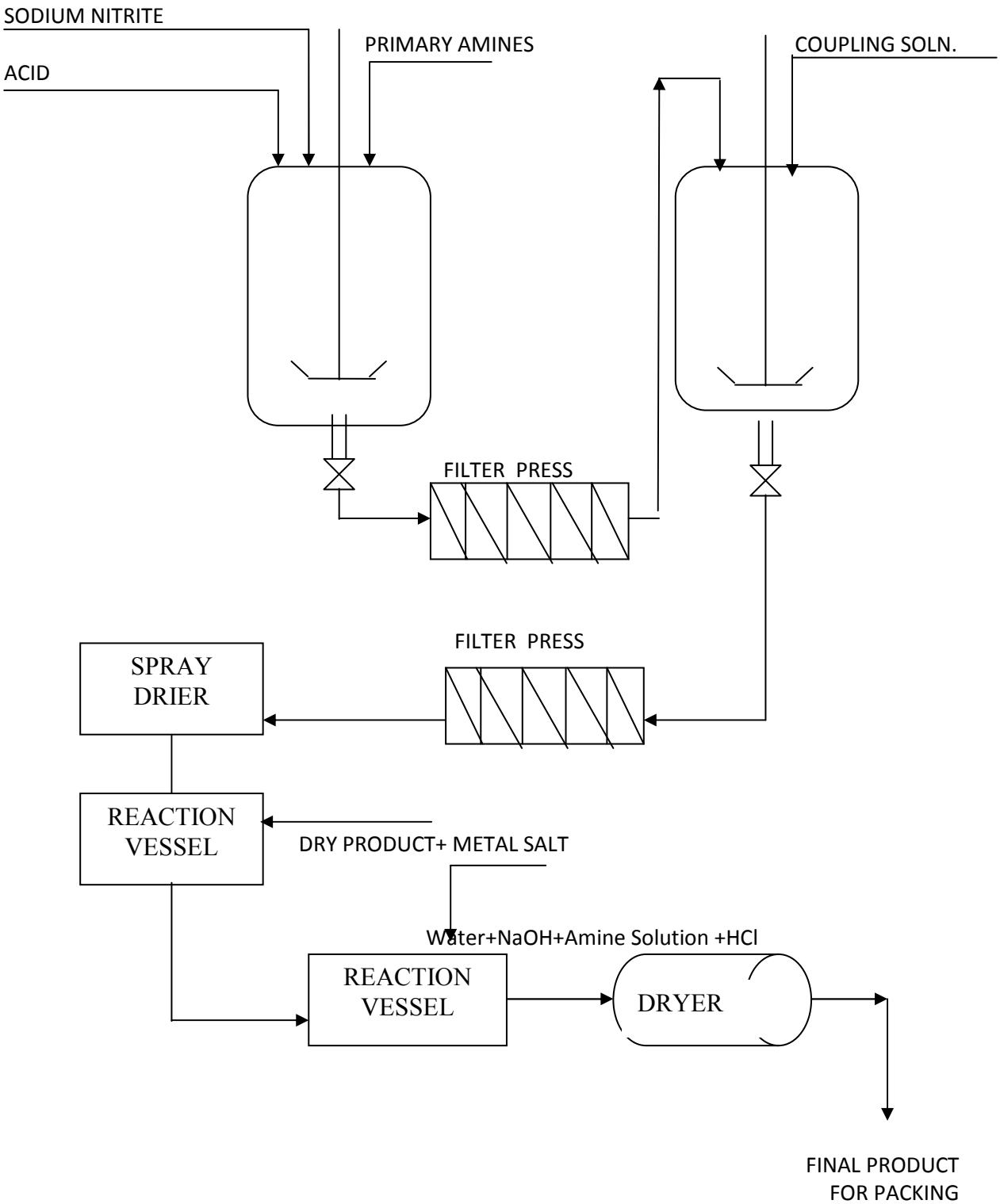
PROCESS FLOW SHEET OF AZO DISPERSE DYES



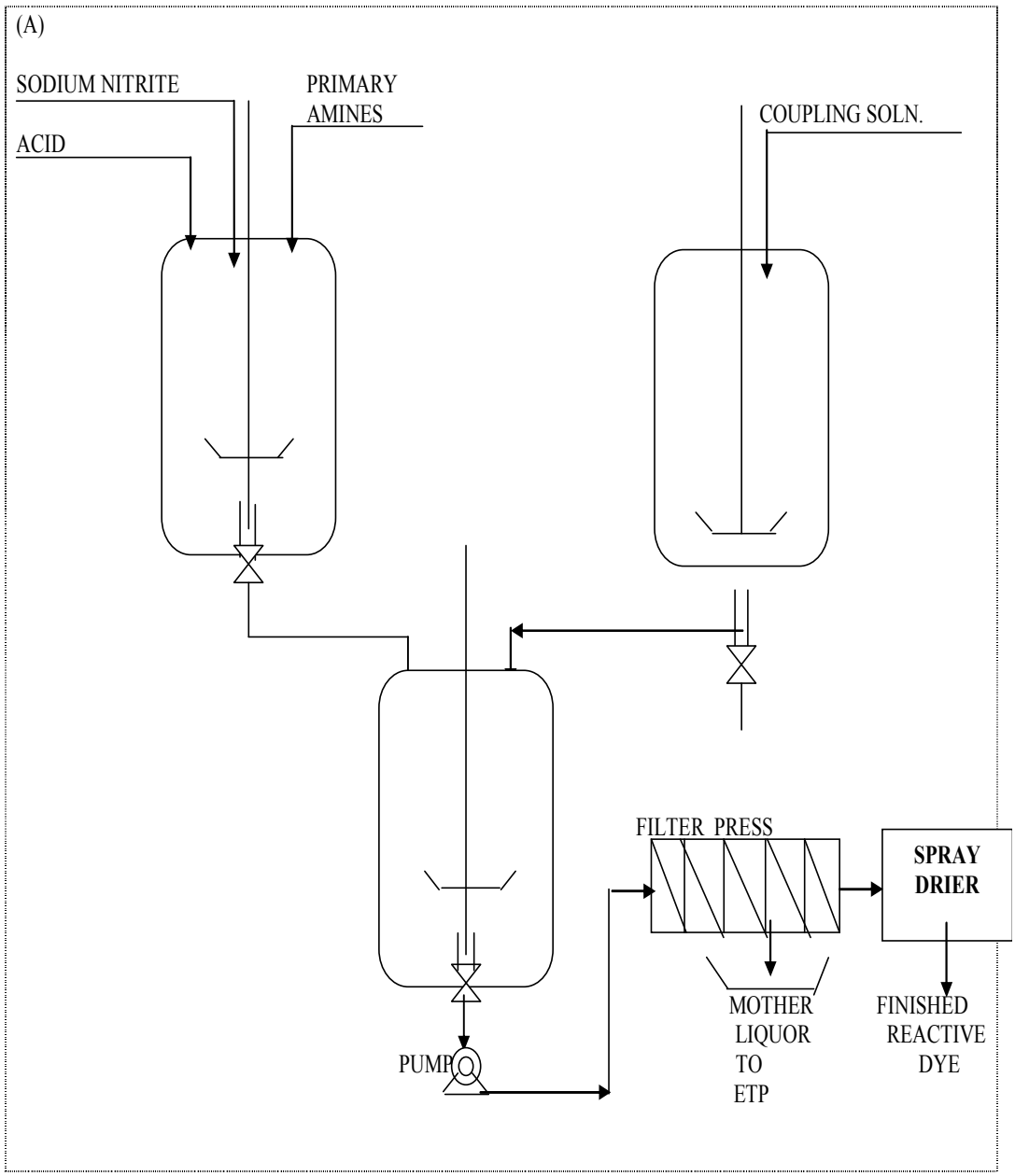
PROCESS FLOW SHEET OF AZO ACID DYES



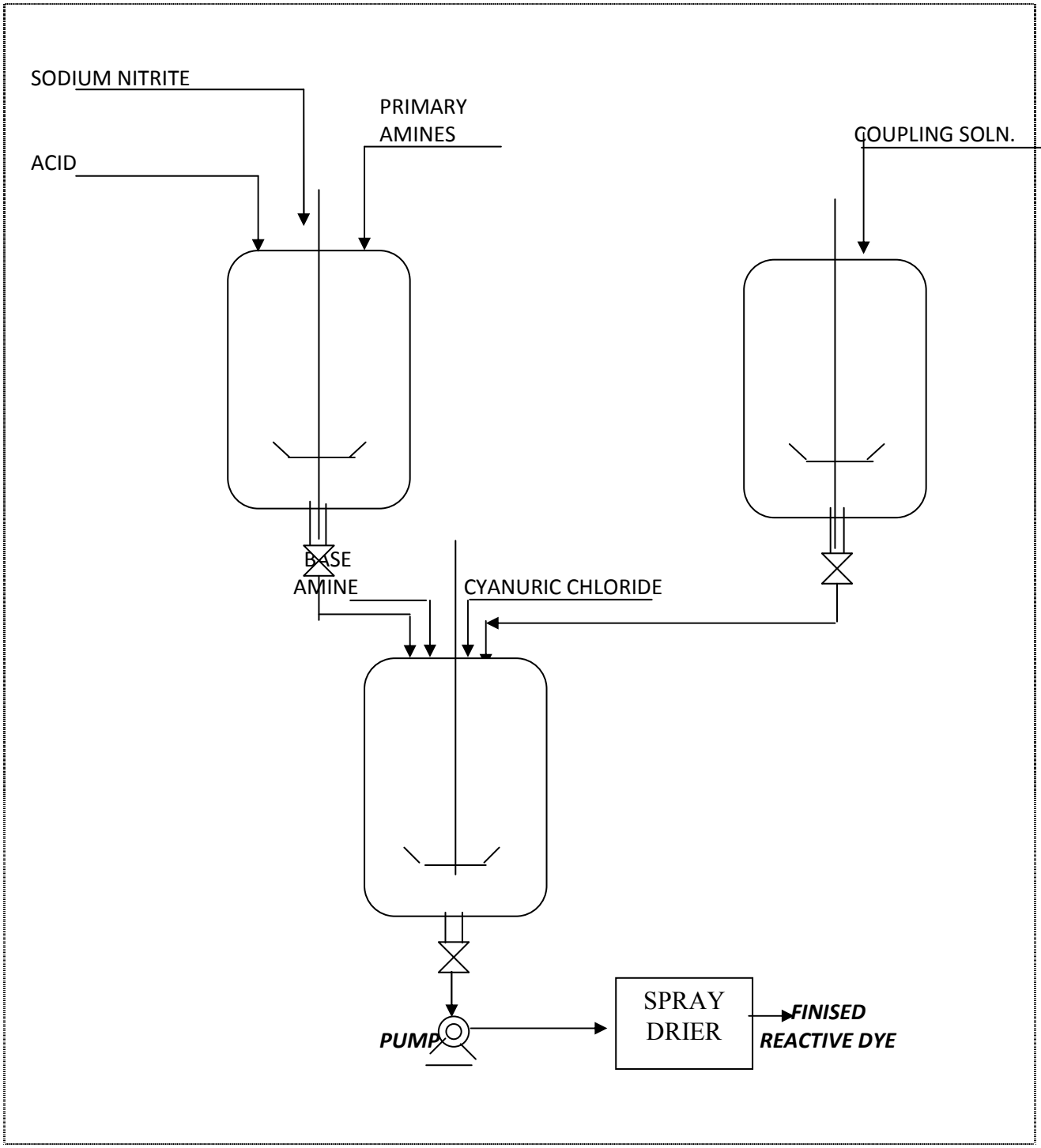
PROCESS FLOW SHEET OF AZO SOLVENT DYES



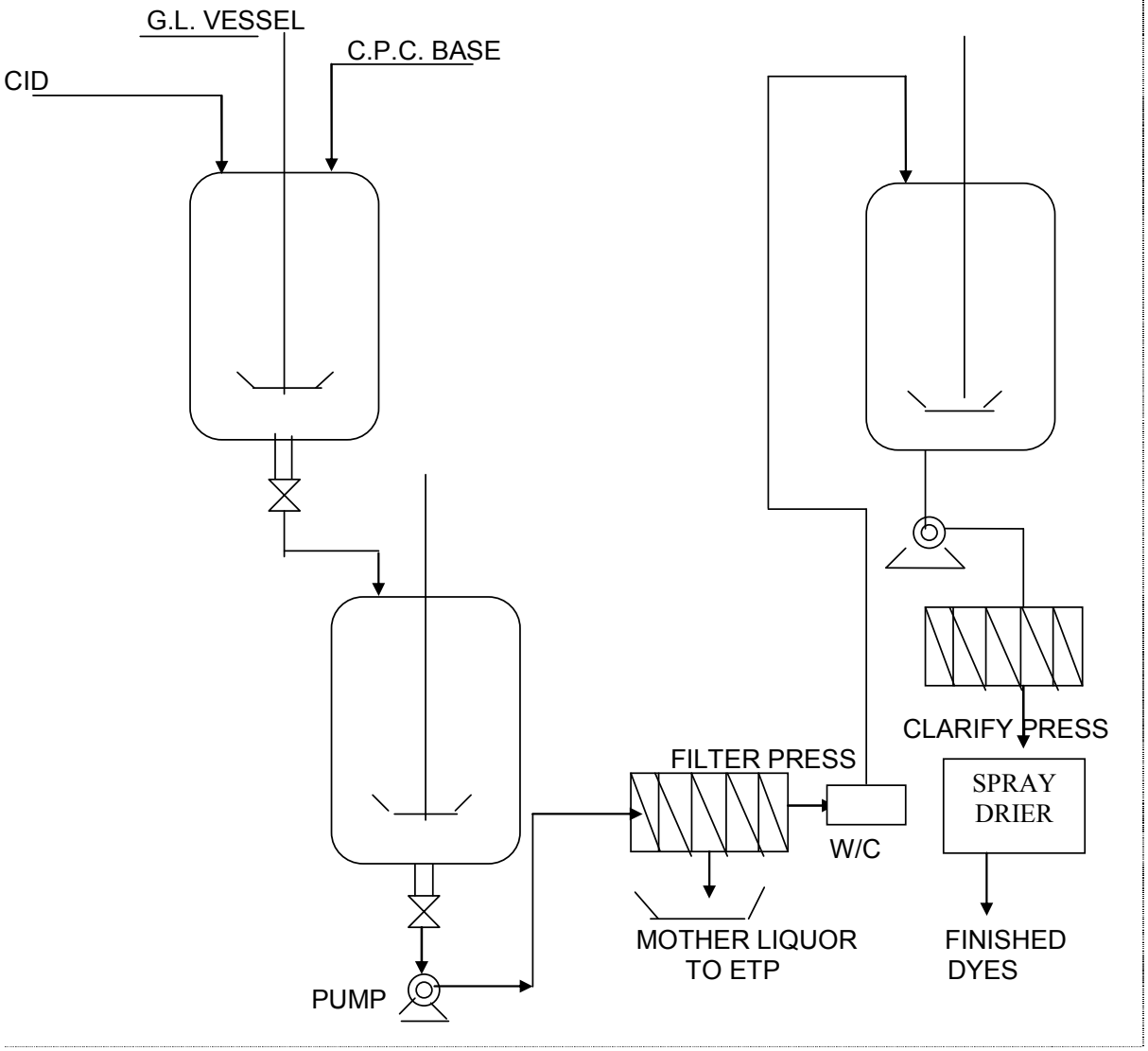
PROCESS FLOW SHEET FOR REACTIVE DYES-1



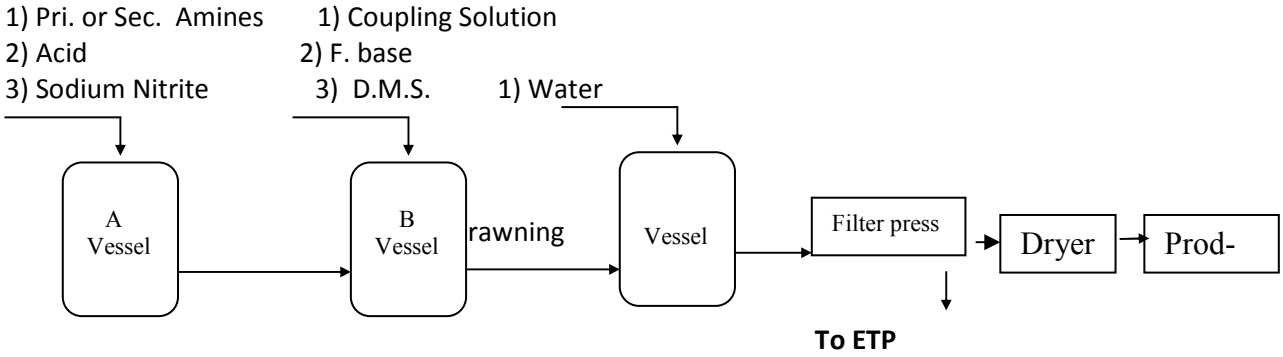
PROCESS DESCRIPTION FOR REACTIVE DYES-2



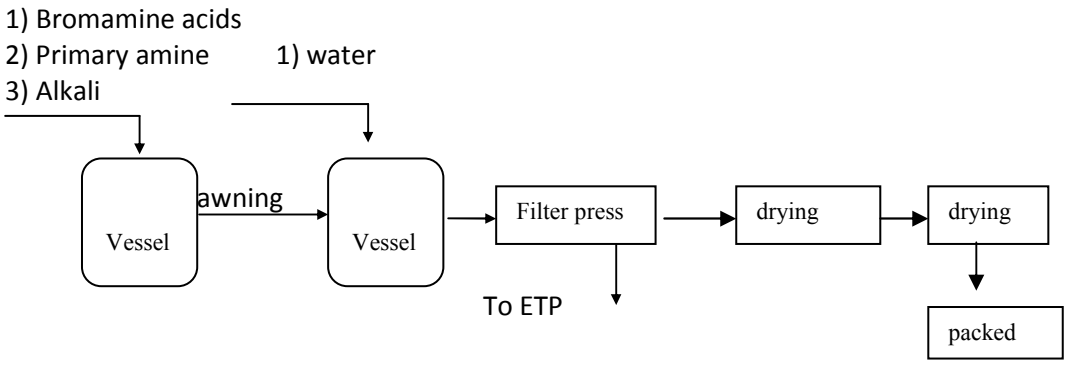
PROCESS DESCRIPTION FOR REACTIVE DYES-3

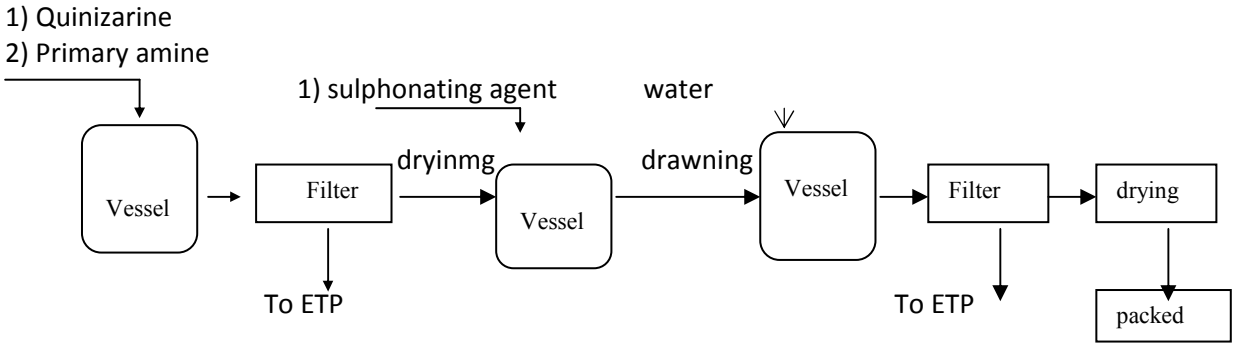


PROCESS FLOW SHEET OF ANTHRAQUINONE DISPERSE DYES



PROCESS FLOW SHEET OF ANTHRAQUINONE ACID





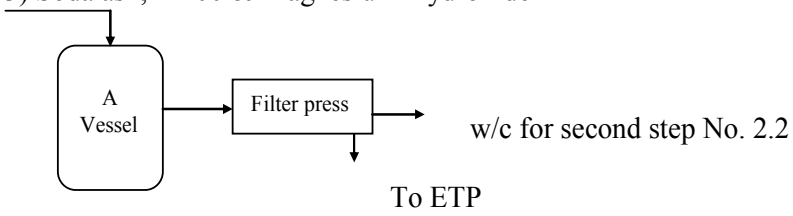
PROCESS FLOW SHEET OF ACID TPM DYES

2. Acid TPM Dyes

2.1 Condensation

2.1.1

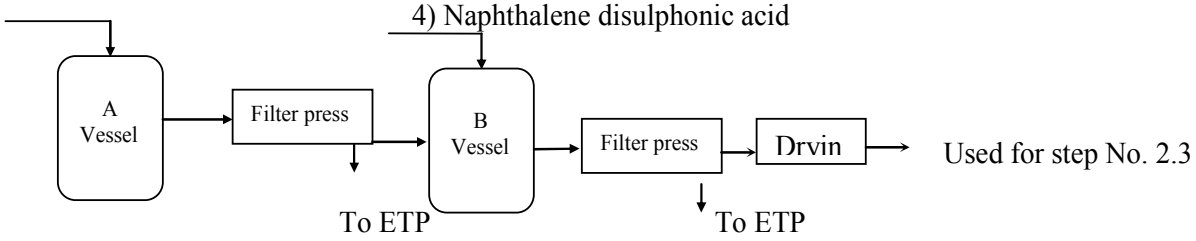
1) B.D.S.A.
2) Primary or Secondary amine
3) Soda ash, P-400 & Magnesium Hydroxide



2.1.2

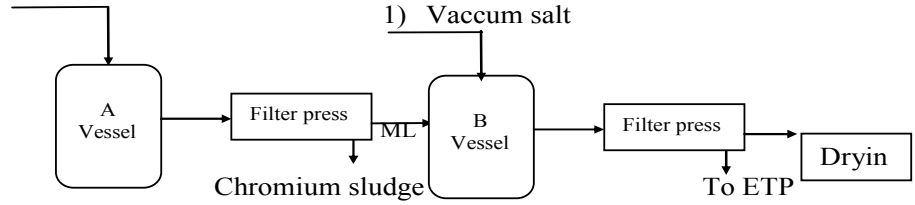
1) Manganese Sulphate
2) Caustic soda
3) $KMnO_4$

1) Water
2) G-base
3) H_2SO_4
4) Naphthalene disulphonic acid



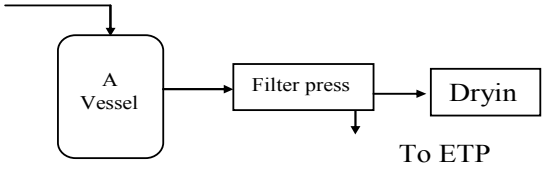
2.1.3

1) Formaldehyde
2) E-acid, DEA, DEMT & BOSA
3) Oxidized with Sodium bichromate, Chromic acid and Oxalic acid
4) P-400, Soda ash, Sulphuric acid & NaOH.



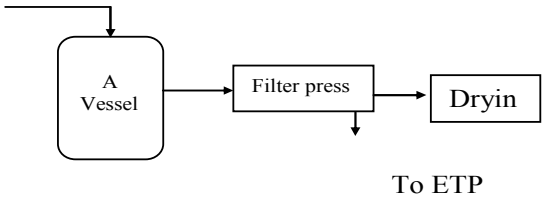
2.2 Purification

1) Wet cake from 2.1.1
2) NaOH, H2SO4 and Soda Ash
3) Vacuum salt



2.3 Sulphonation

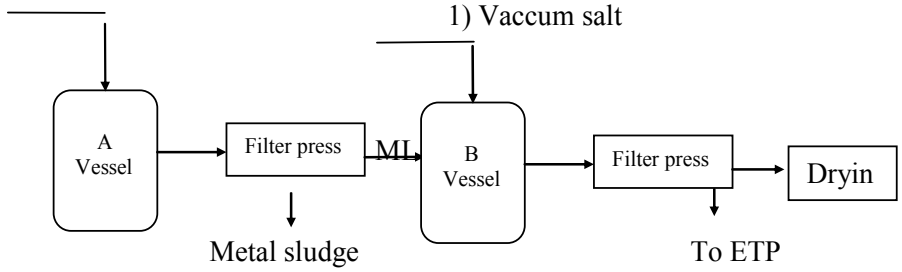
1) Dry cake from step No. 2.1.3
2) Sulphuric acid and oleum



2.4 Oxidation

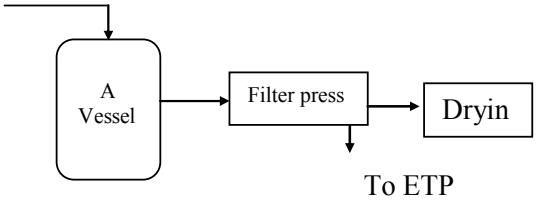
2.4.1

1) Wet cake from step No. 2.2
2) Lead peroxide, Sodium bichromate and Chromic acid
3) Oxalic acid, Acetic acid, HCl, Liquor Ammonia and sulphuric acid



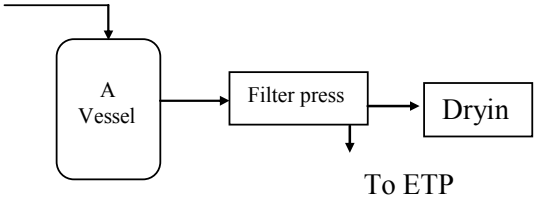
2.4.2

1) Wet cake from step 2.3
2) Oxalic acid, Sodium bichromate, Sulphuric acid and liquor Ammonia
3) Vacuum salt



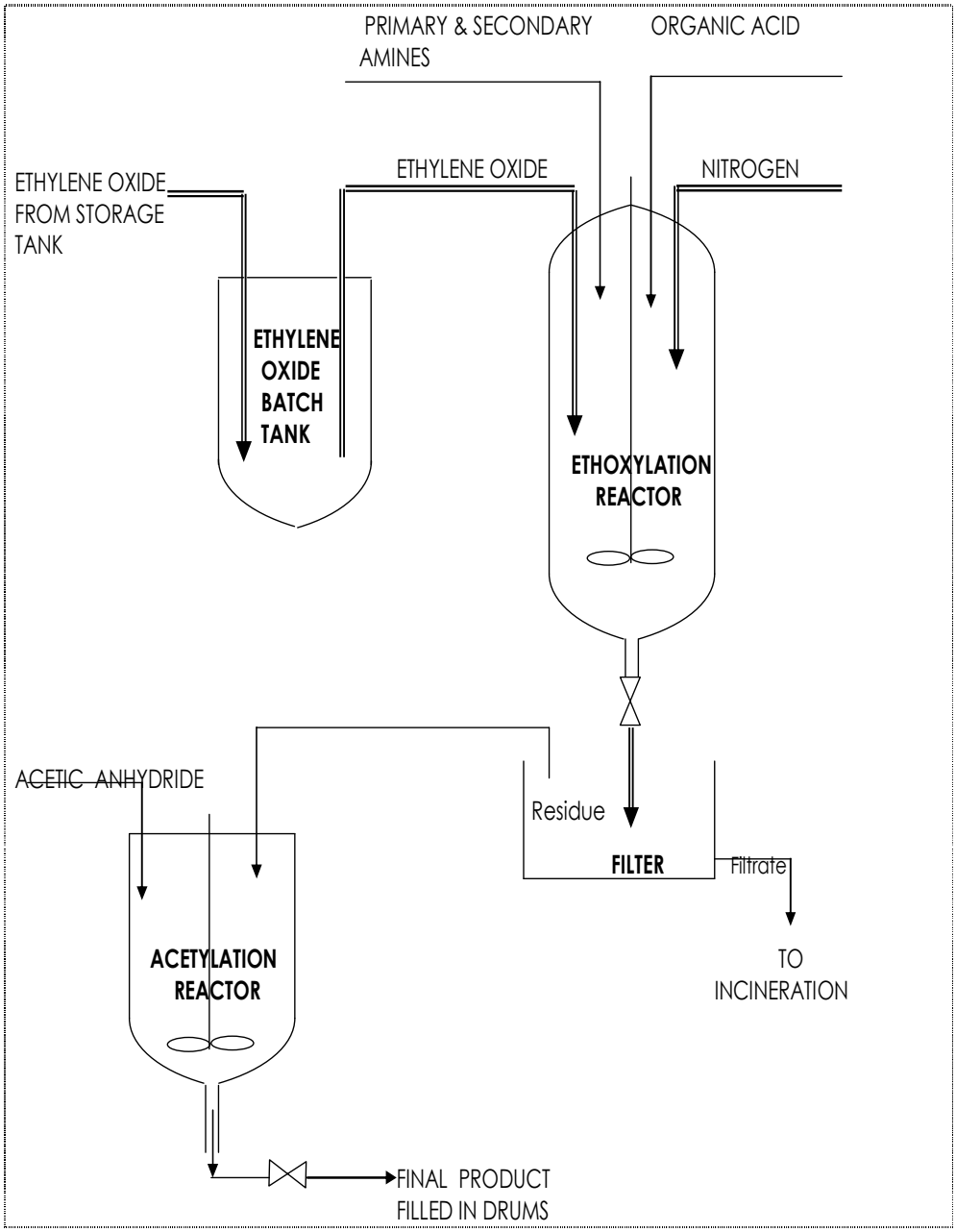
2.4.3

1) Acetic acid
2) Liquid glucose
3) Metal bichromate



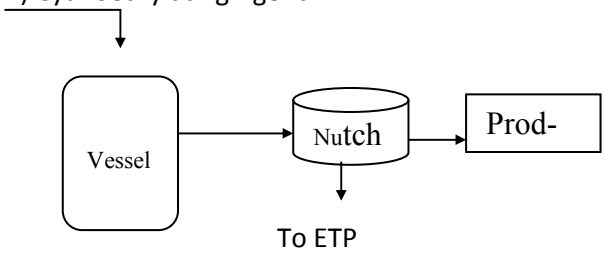
PROCESS FLOW SHEET OF DYES INTERMEDIATES

- **ETHOXYLATED AND ACYTELATED TERTIARY AMINES**



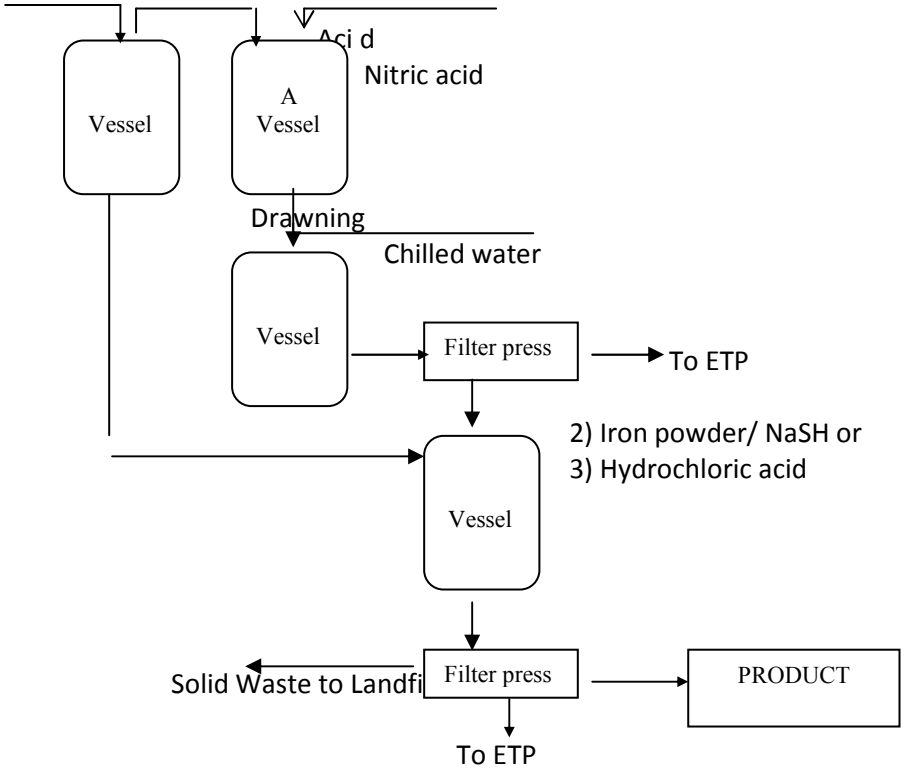
- **Cyanoethylated Amines**

1) Primary or secondary amines
2) Anti polymerising agent
3) Acid
4) Cyanoethylating Agent

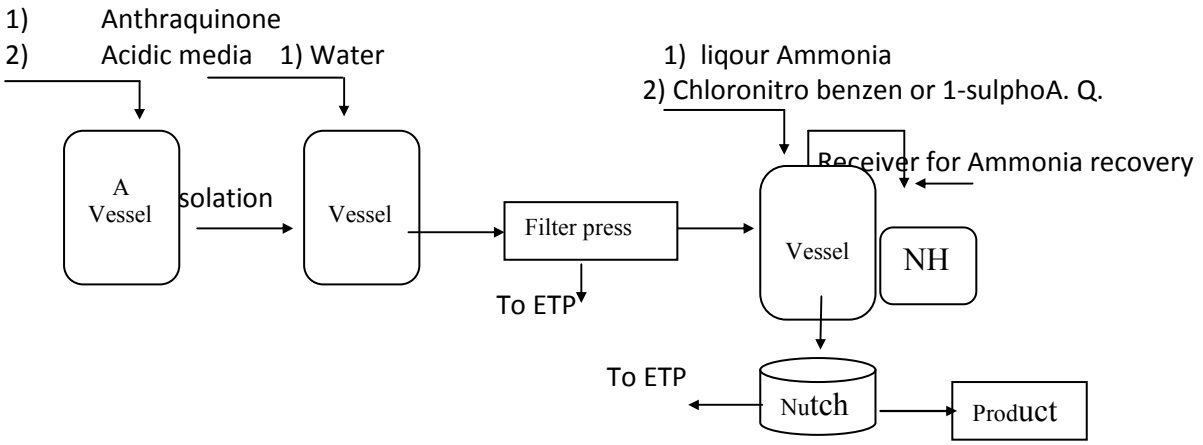


- **Primary Amines**

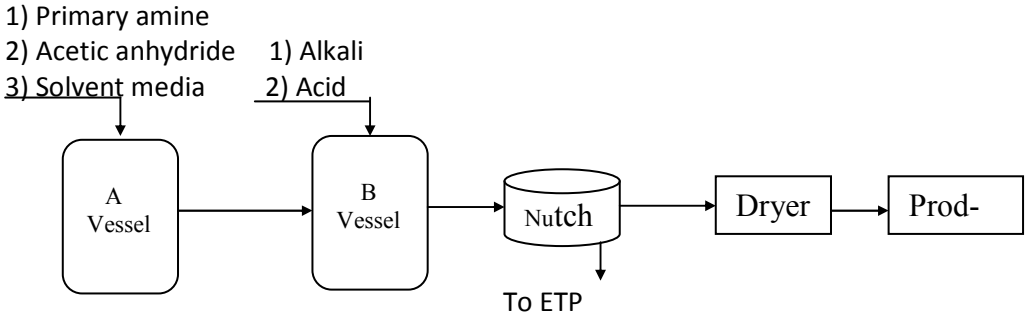
1) Primary or secondary nitro/ methoxy amines
2) Acetic acid &/or Acetic anhydrided



- **Anthraquinone Intermediates**

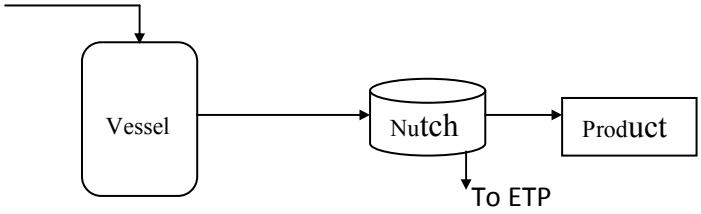


- **Quinoline**



- **Pyridone**

1) Alkayl Amine
2) Ester
3) Acid

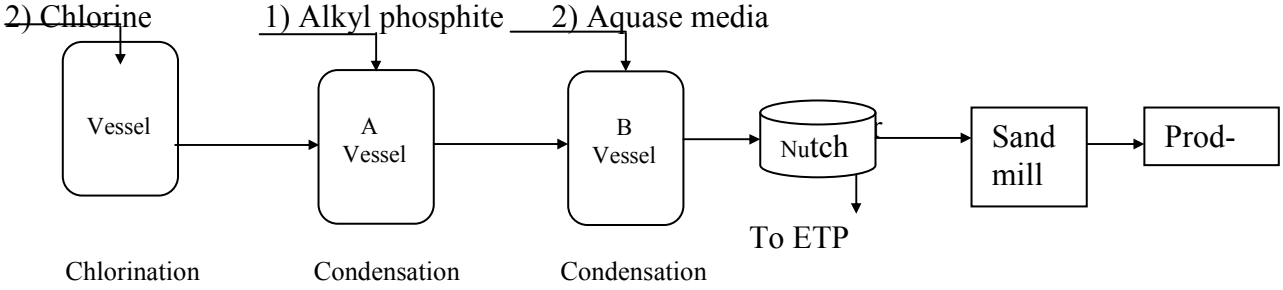


- **Optical Whitening Agent**

1) Aryl nitrile
2) Chlorine

1) Alkyl phosphite

1) Aryl aldehyde
2) Aquase media

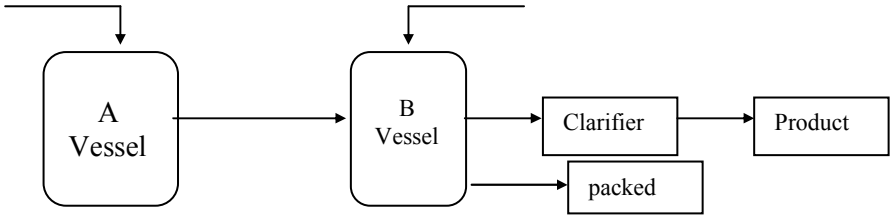


- **Dispersing Agent**

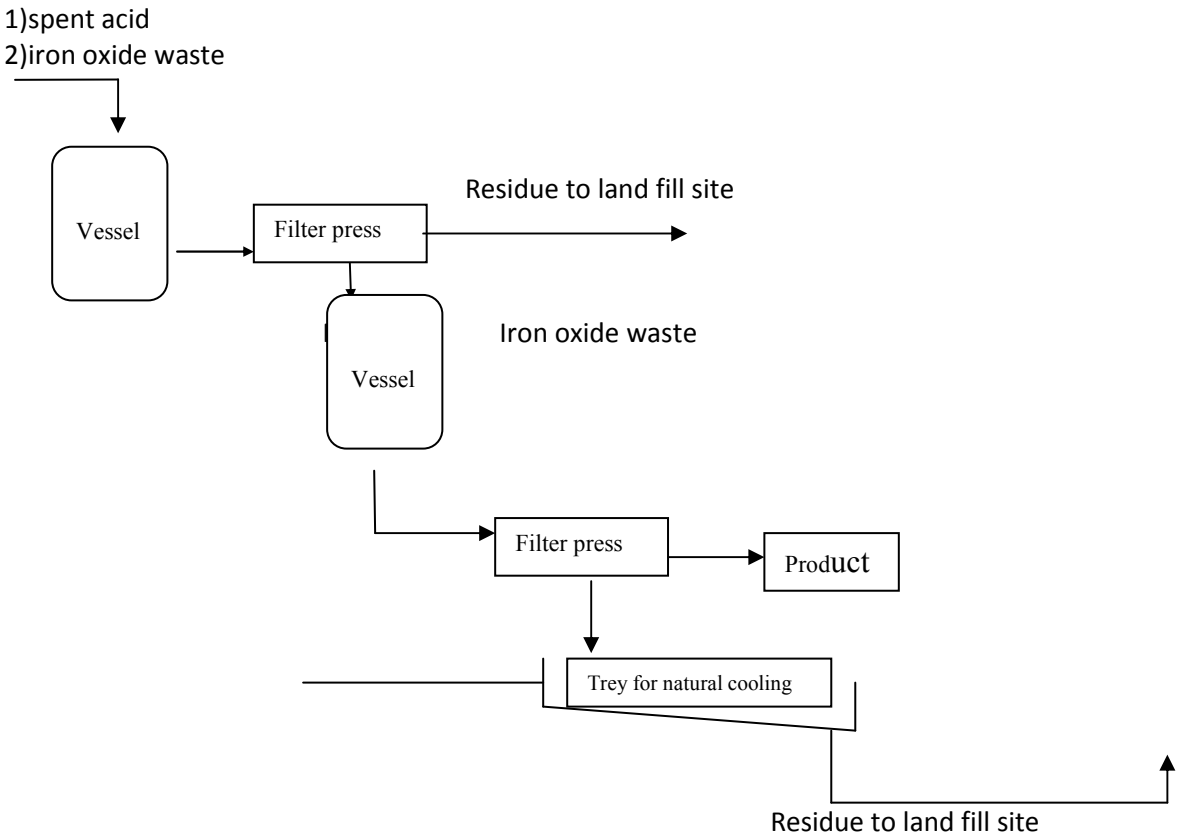
1) Naphthalene / Lignin/Phenol/ 2-Methyl Naphthalene/ CI-Oil/ Creoseto oil
2) Sulphuric acid/Oleum/ Sodium Sulfite

1) Formaldehyde

2) pH adjusting material



FERROUS SULPHATE INCLUDING METAL/MINERAL SULPHATE

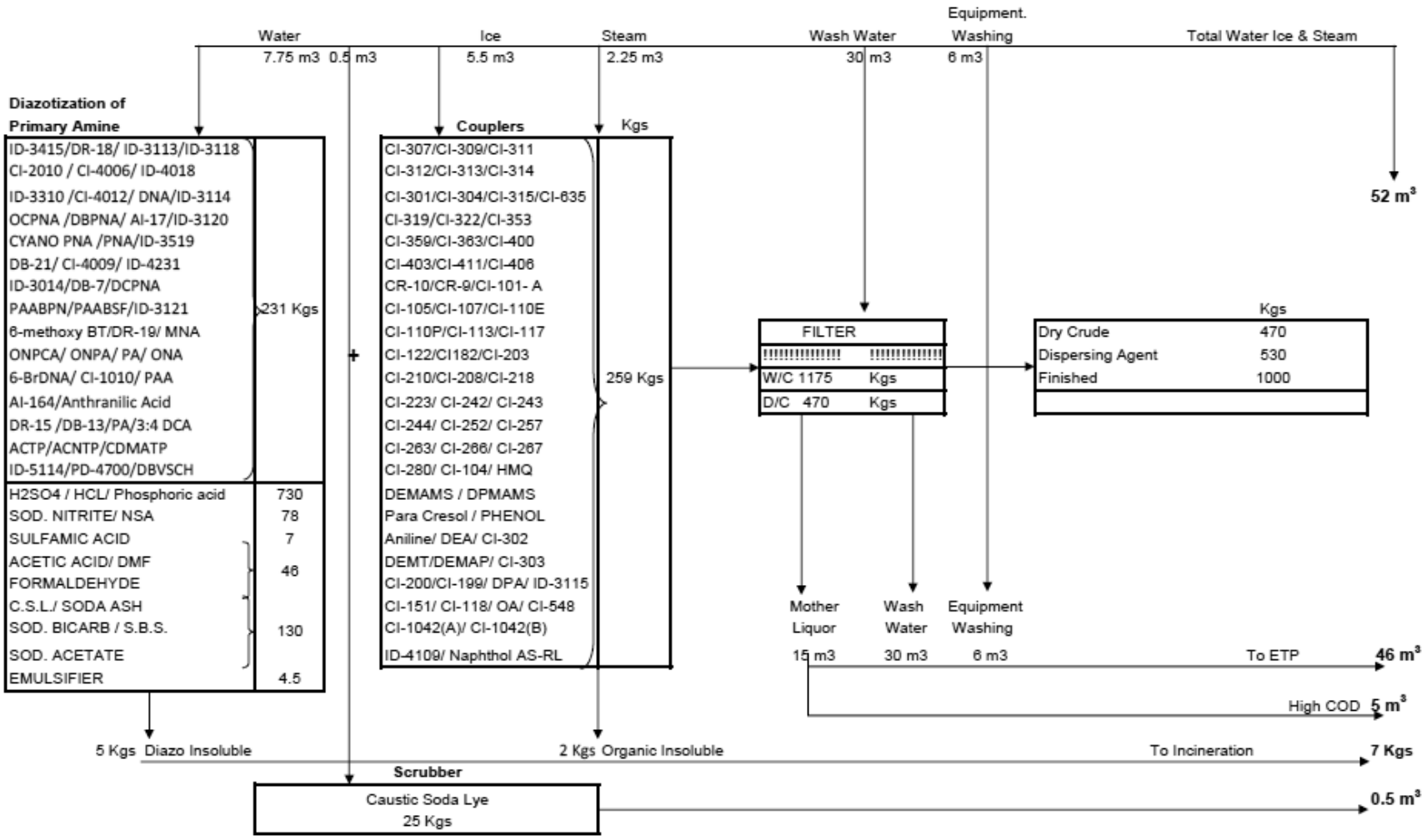


MASS BALANCE :

COLOURTEX INDUSTRIES PRIVATE LIMITED, UNIT-1

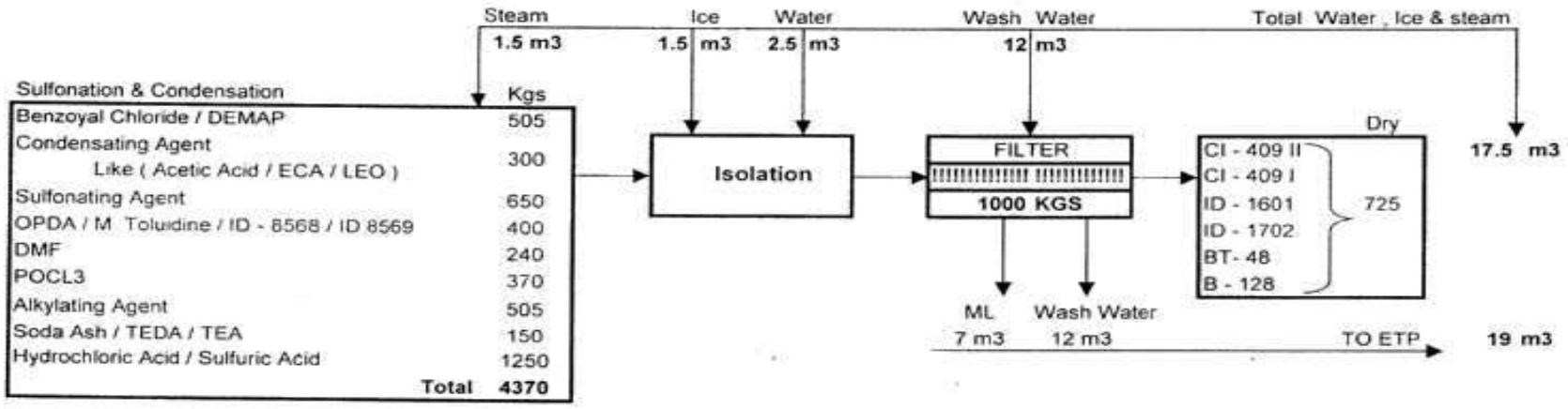
Mass Balance

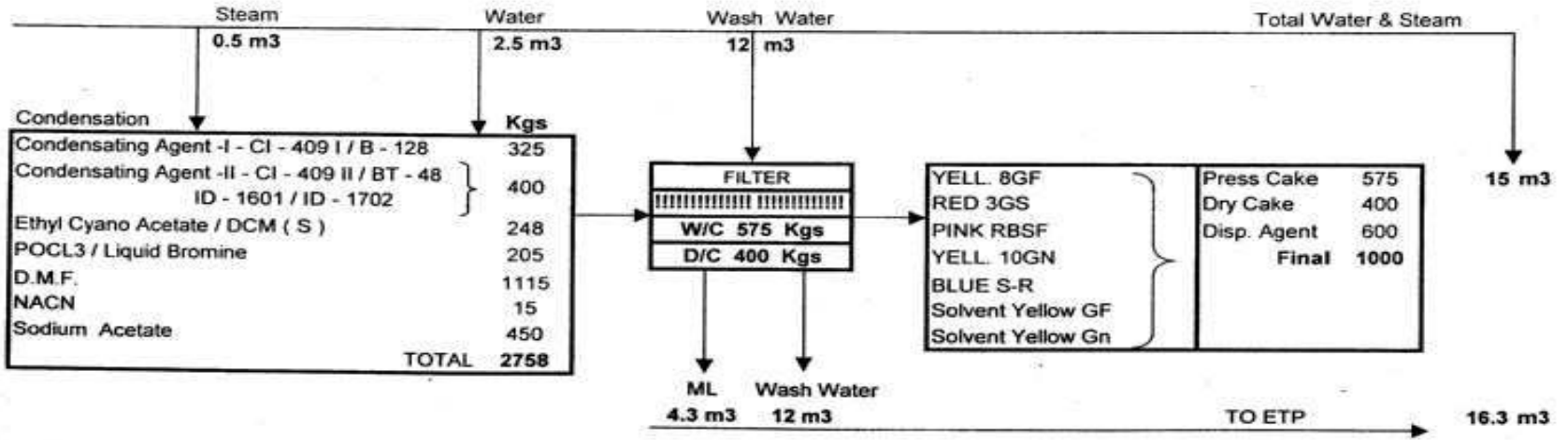
(S.O. Dyes) Azo Disperse A $_1$



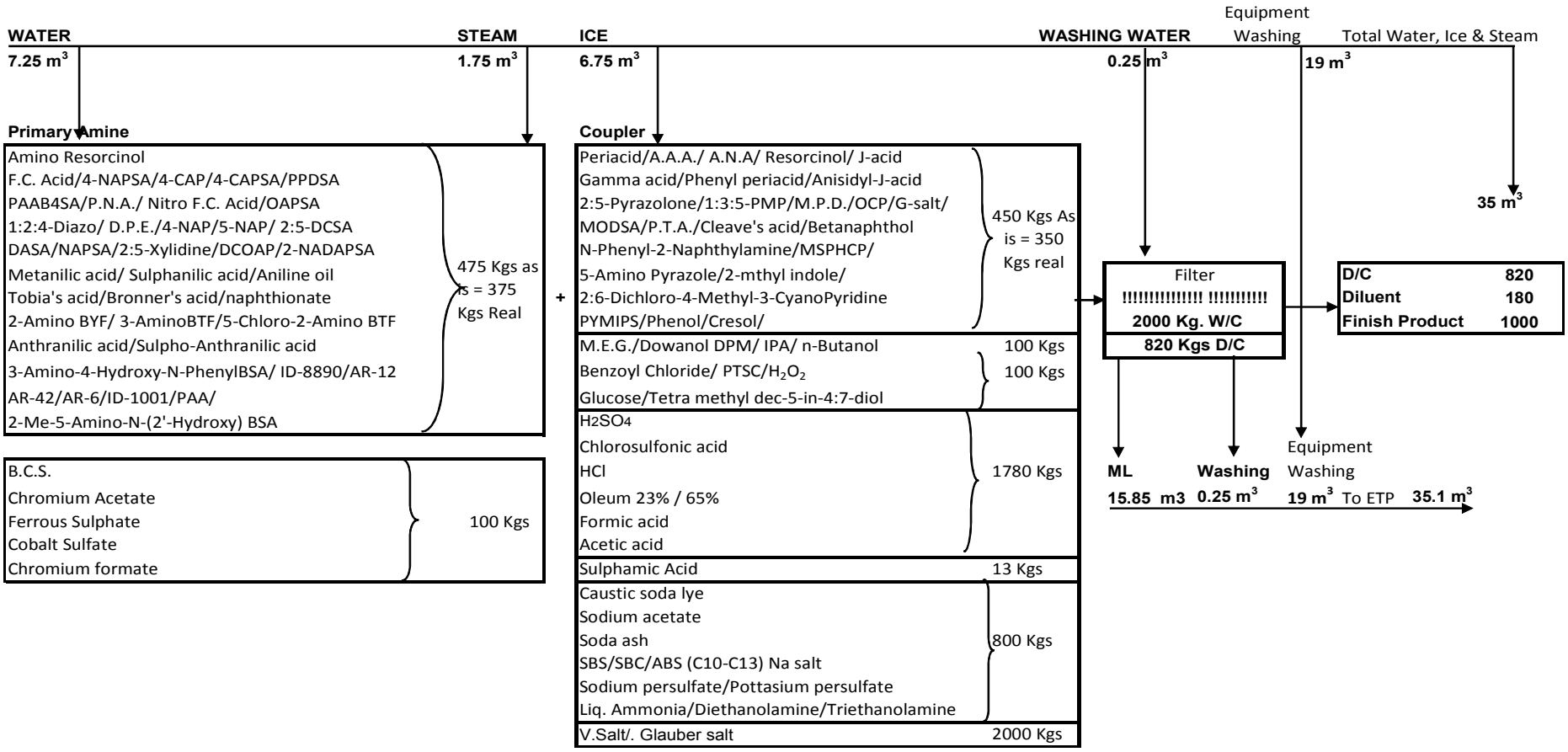
Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

(S O. Dyes) A_2



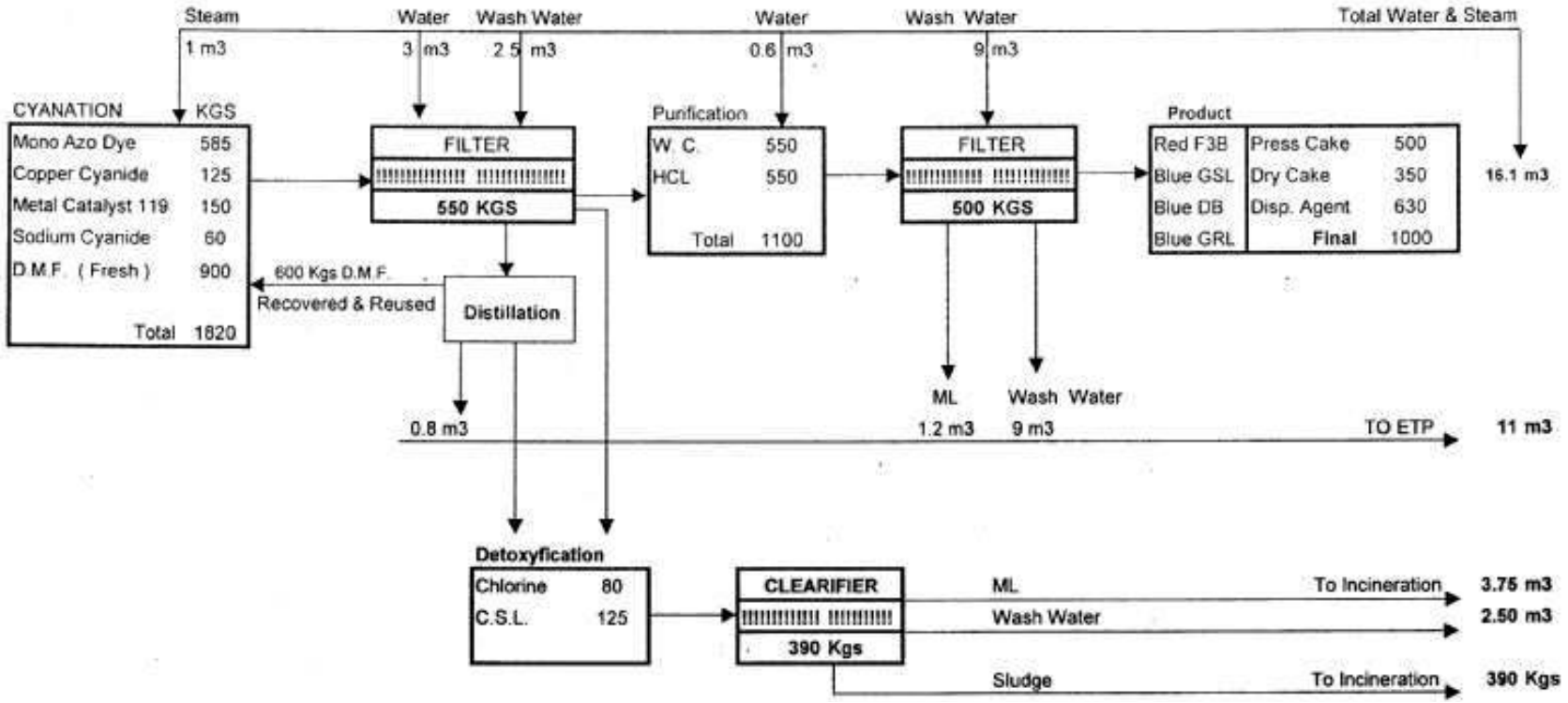


(S. O. Dyes) Azo Acid & Solvent:



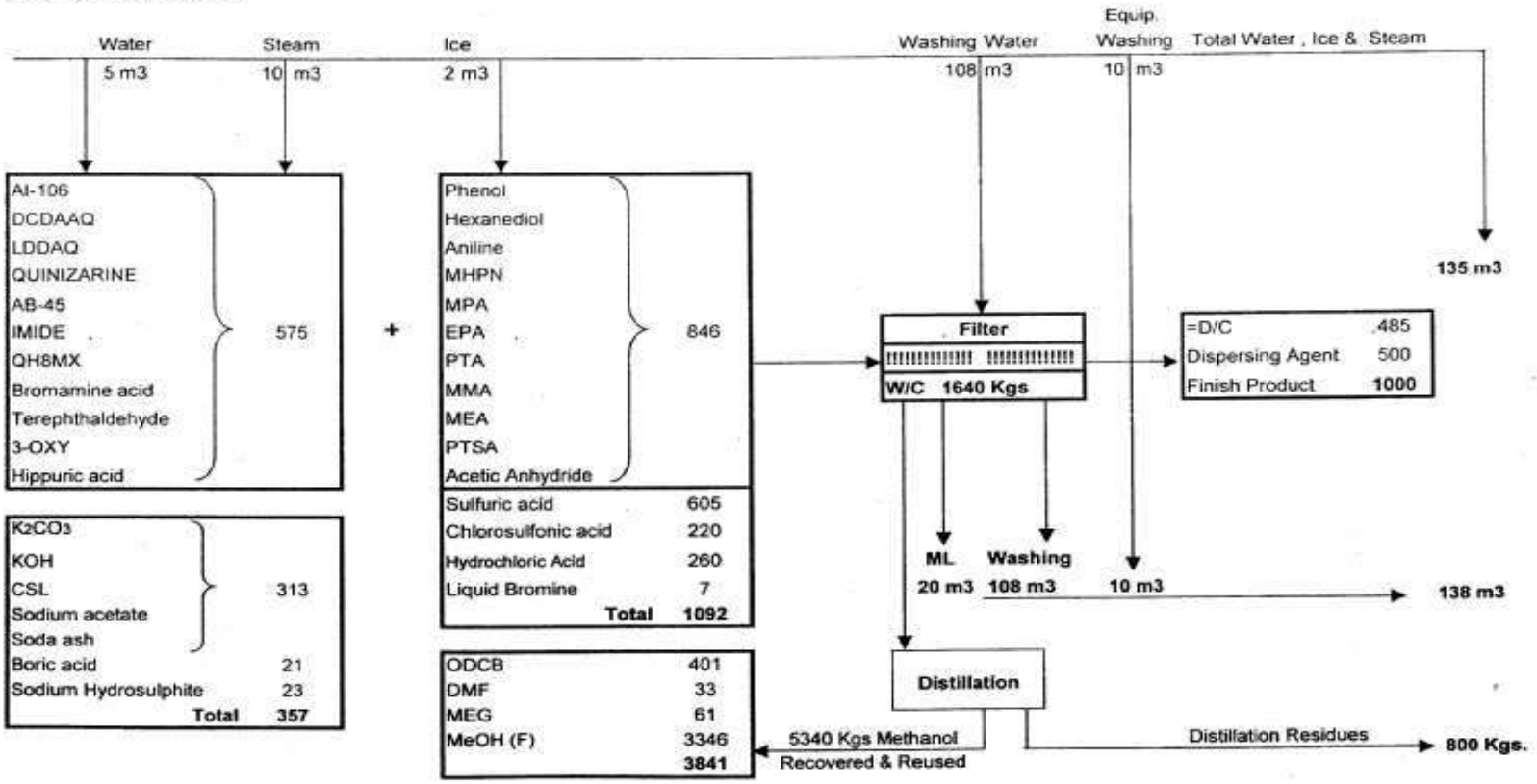
Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

(S.O. Dyes) Azo Disperse A_3



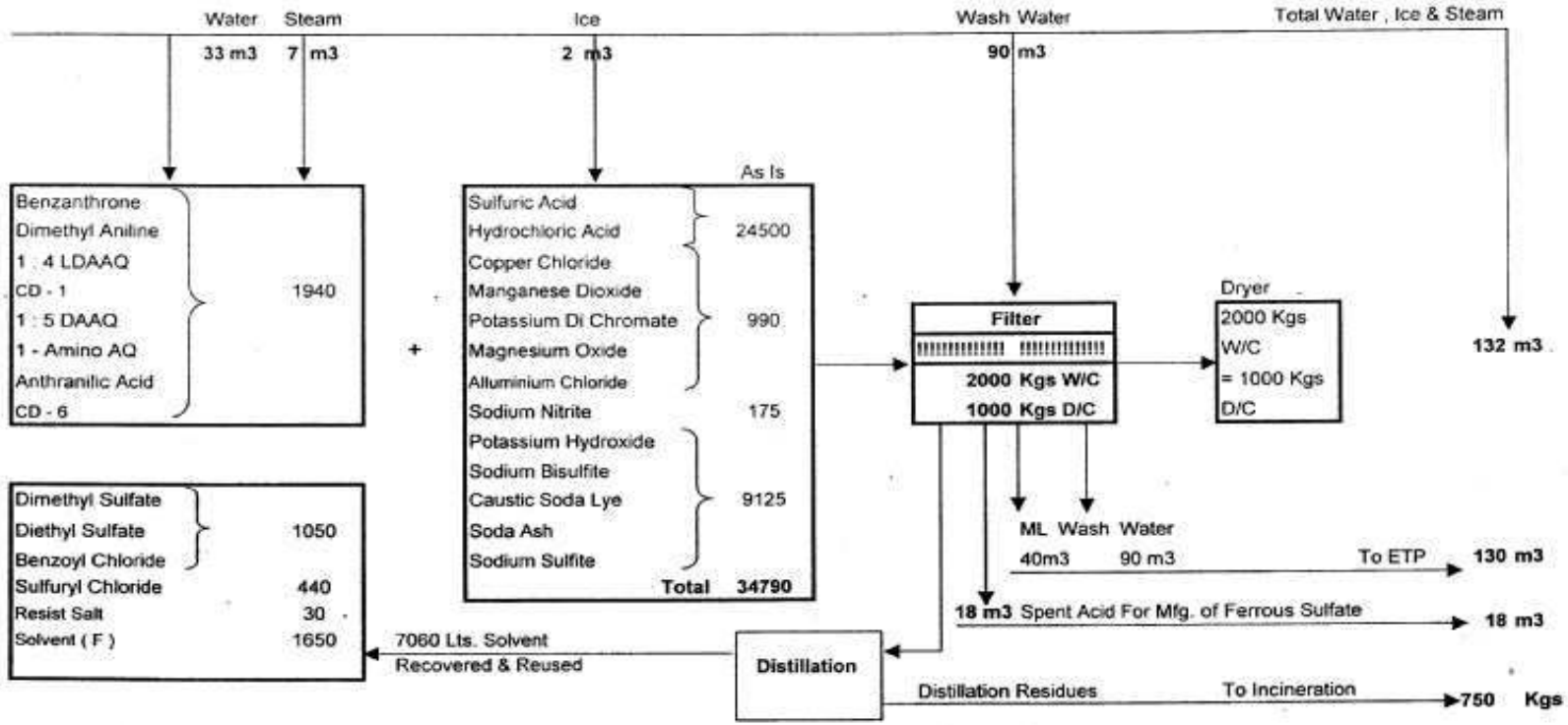
Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

S. O. Dyes (AQ Disperse)

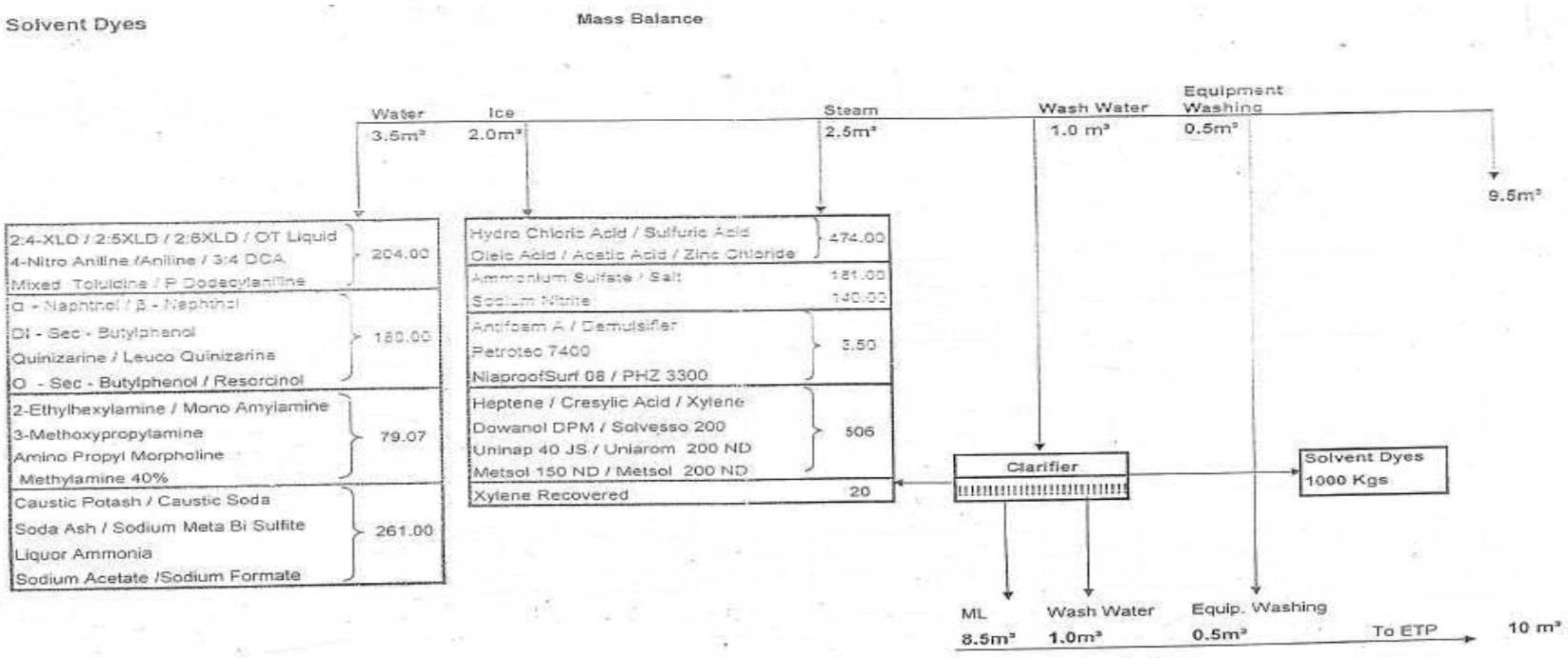


Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

S. O. Dye (Vat Dyes)



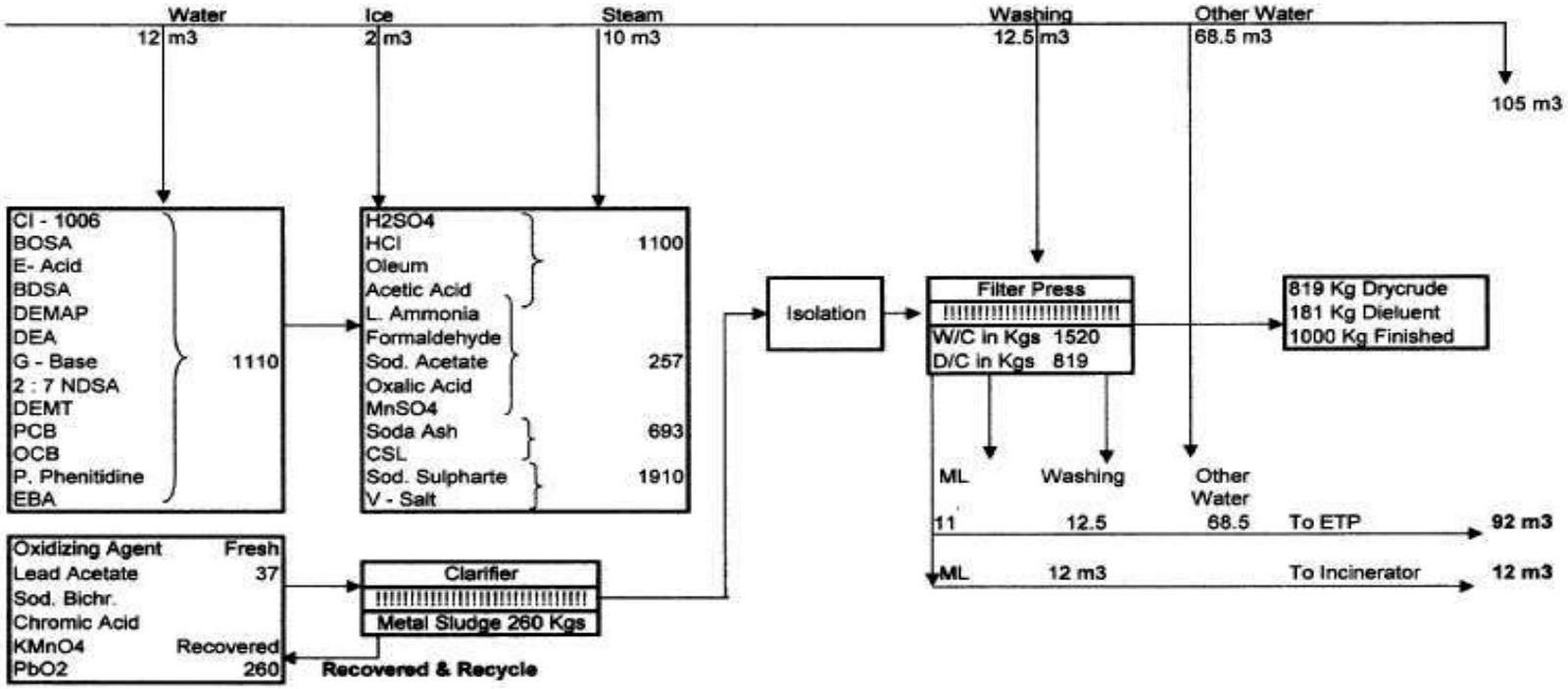
Solvent Dyes For Automotive

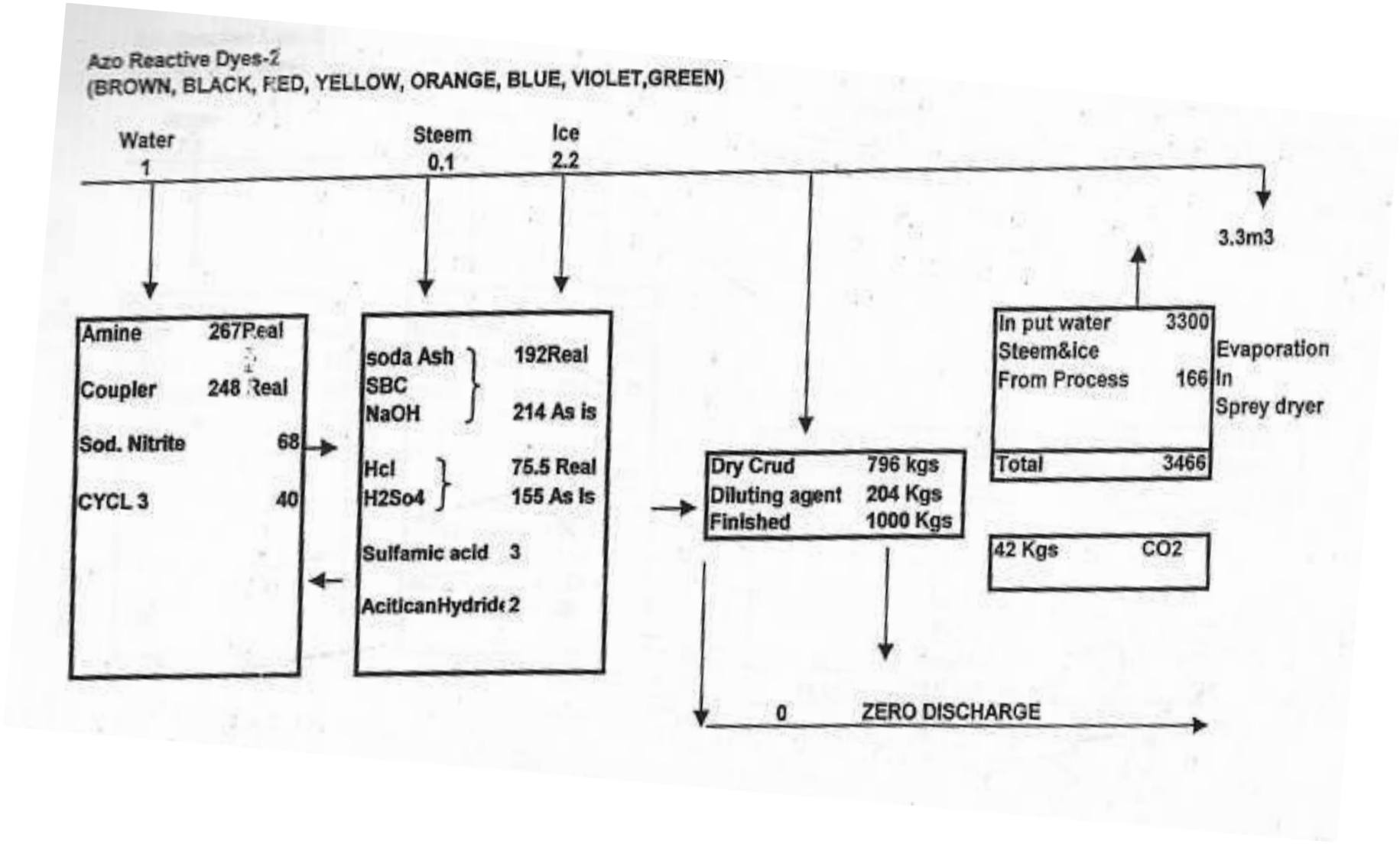


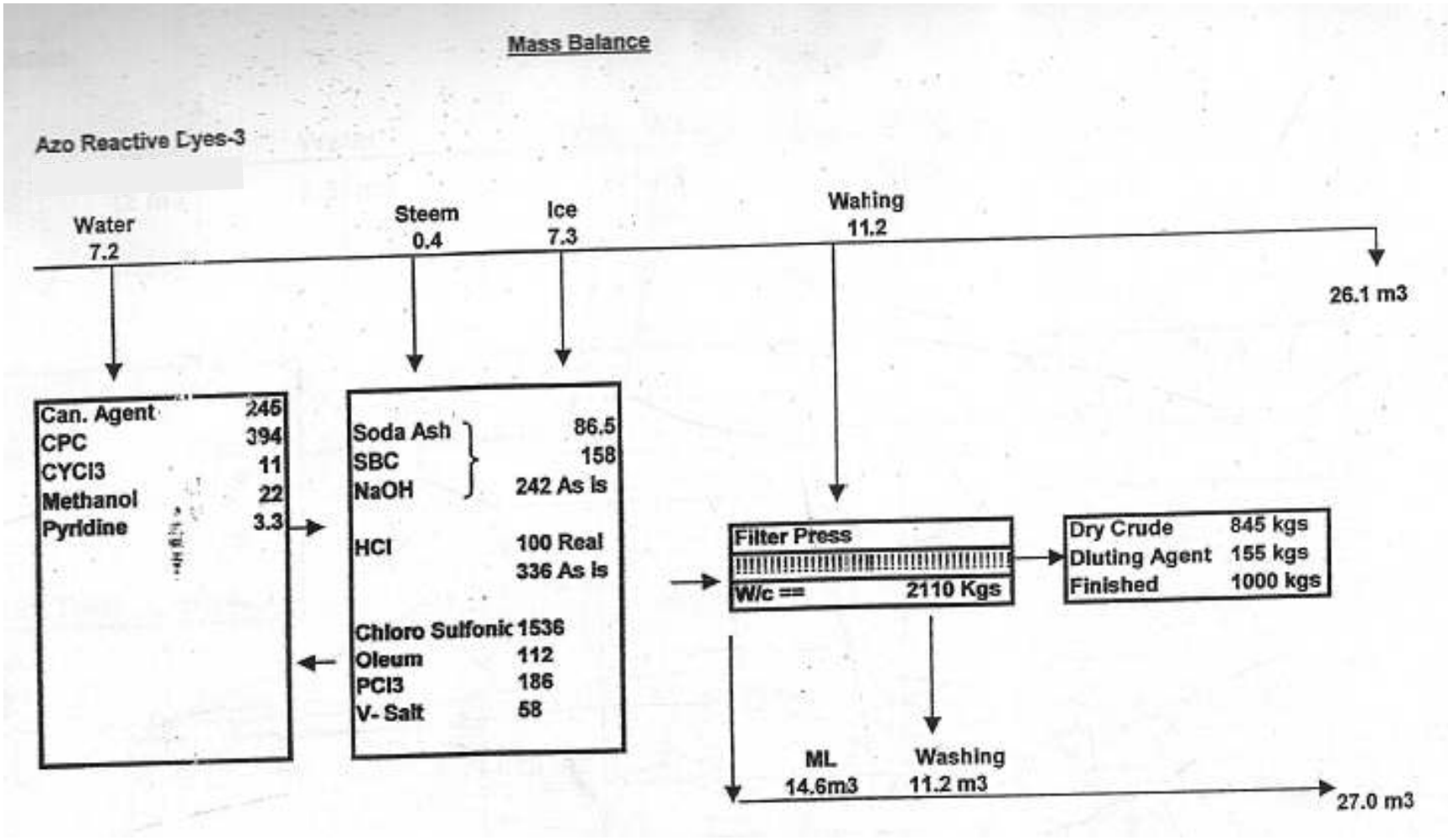
Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

Acid TPM Dyes

(Blue, Violet, Red, Green)

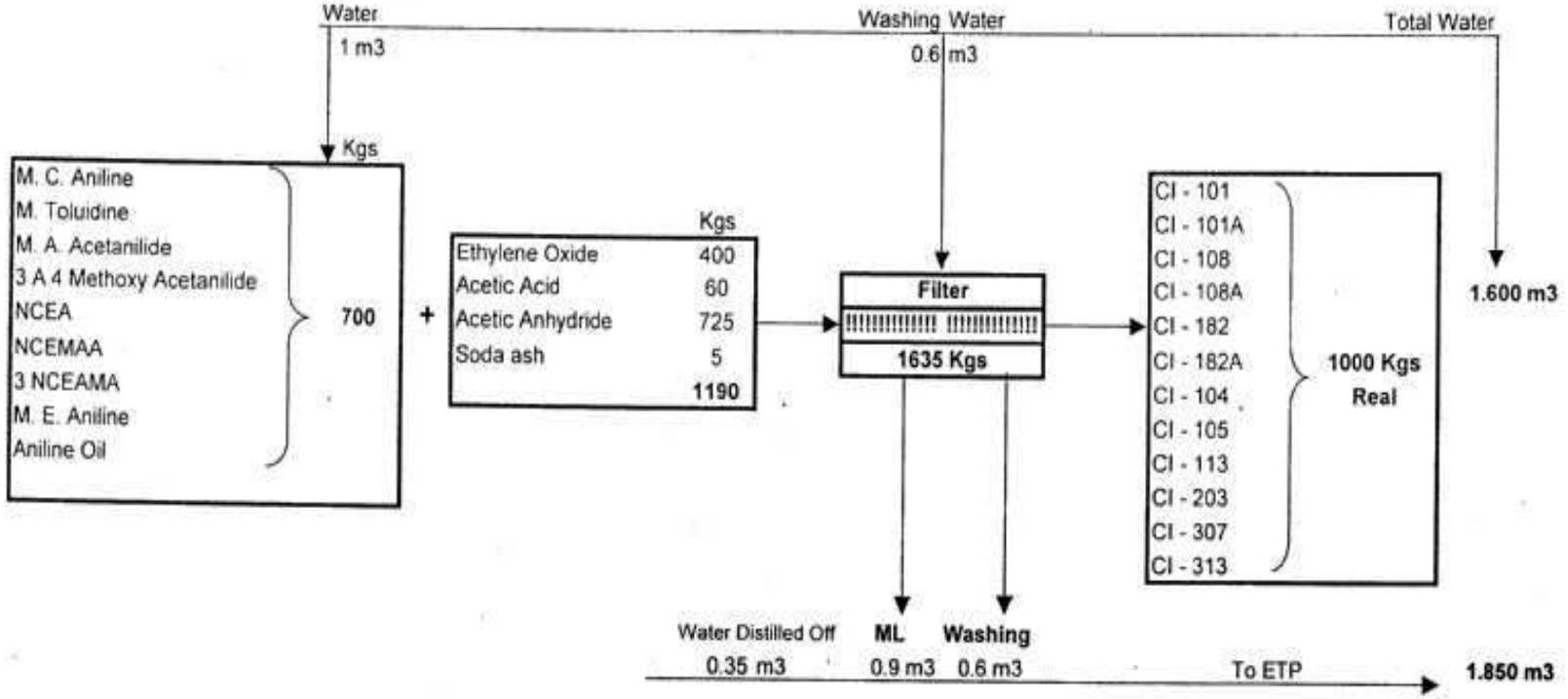



Azo Reactive Dyes-2
(BROWN, BLACK, RED, YELLOW, ORANGE, BLUE, VIOLET,GREEN)
Water
1
Steem
0.1
Ice
2.2
3.3m3
Amine 267Real
Coupler 248 Real
Sod. Nitrite 68
CYCL 3 40
soda Ash 192Real
SBC
NaOH 214 As is
Hcl 75.5 Real
H2So4 155 As Is
Sulfamic acid 3
AciticanHydrid 2
Dry Crud 796 kgs
Diluting agent 204 Kgs
Finished 1000 Kgs
In put water 3300
Steem&ice
From Process 166
Evaporation In Sprey dryer
Total 3466
42 Kgs CO2
0 ZERO DISCHARGE


Mass Balance
Azo Reactive Dyes-3
Water
7.2
Steem
0.4
Ice
7.3
Wahing
11.2
26.1 m3
Can. Agent 245
CPC 394
CYCl3 11
Methanol 22
Pyridine 3.3
Soda Ash 86.5
SBC 158
NaOH 242 As Is
HCl 100 Real
336 As Is
Chloro Sulfonic 1536
Oleum 112
PCl3 186
V- Salt 58
Filter Press
W/c == 2110 Kgs
Dry Crude 845 kgs
Diluting Agent 155 kgs
Finished 1000 kgs
ML
14.6m3
Washing
11.2 m3
27.0 m3

Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

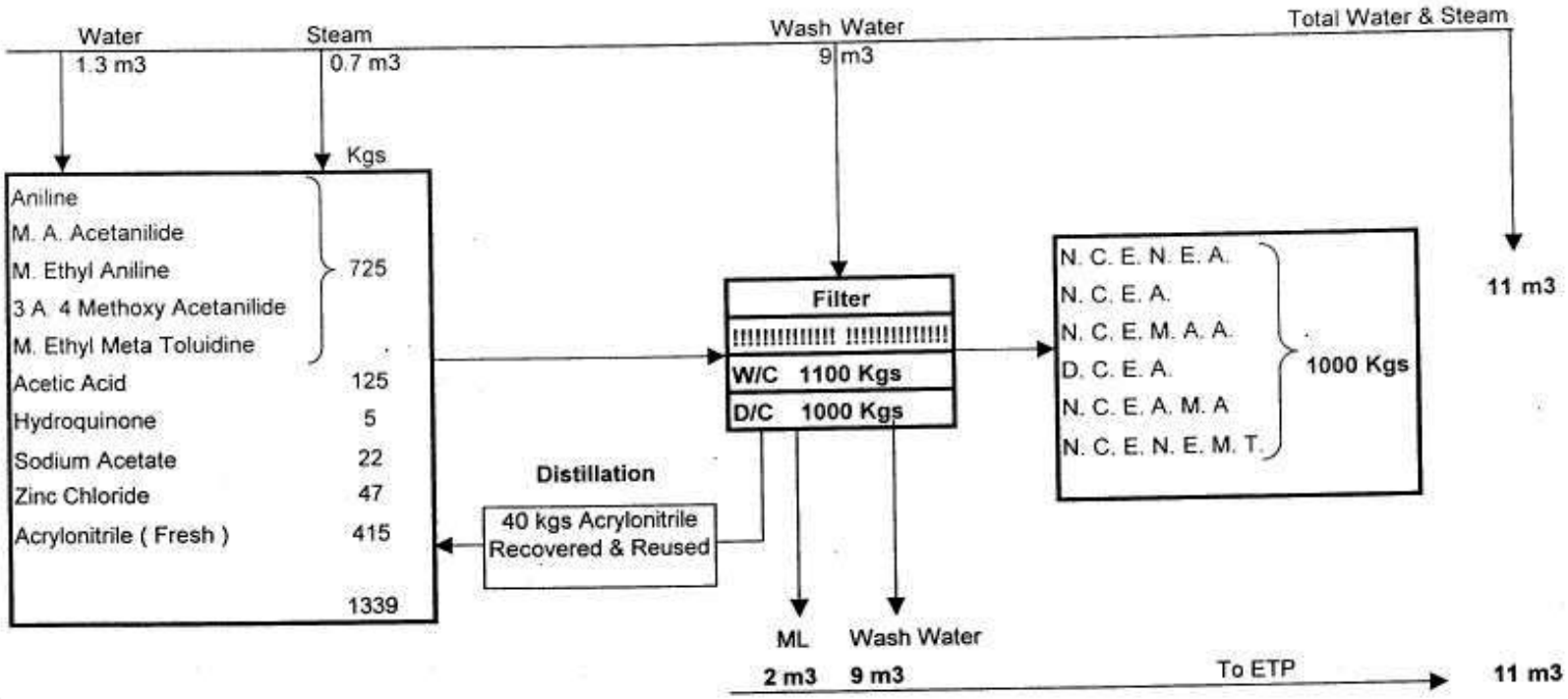
Ethoxylated & Acetylated Tertiary Amines



Pandesara Industries Pvt. Ltd. **Sachin**

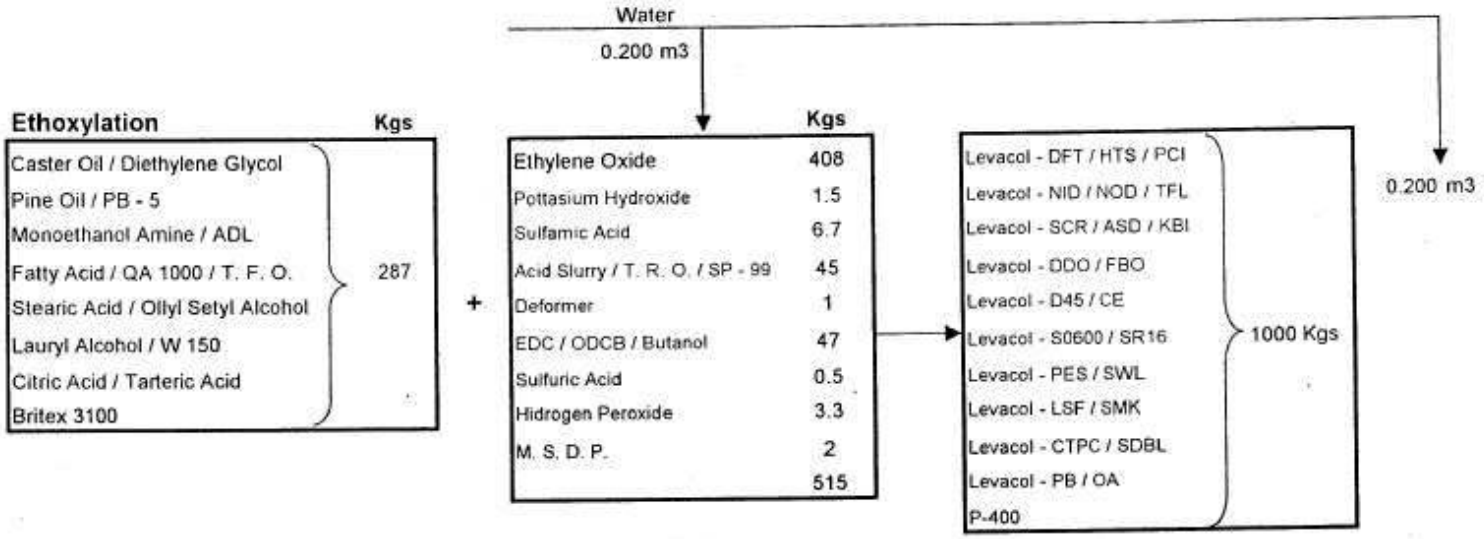
Cyanoethylated Amines

Mass Balance



Pandesara Industries Pvt. Ltd
Sachin

Raw Material Consumption for 1000 Kgs

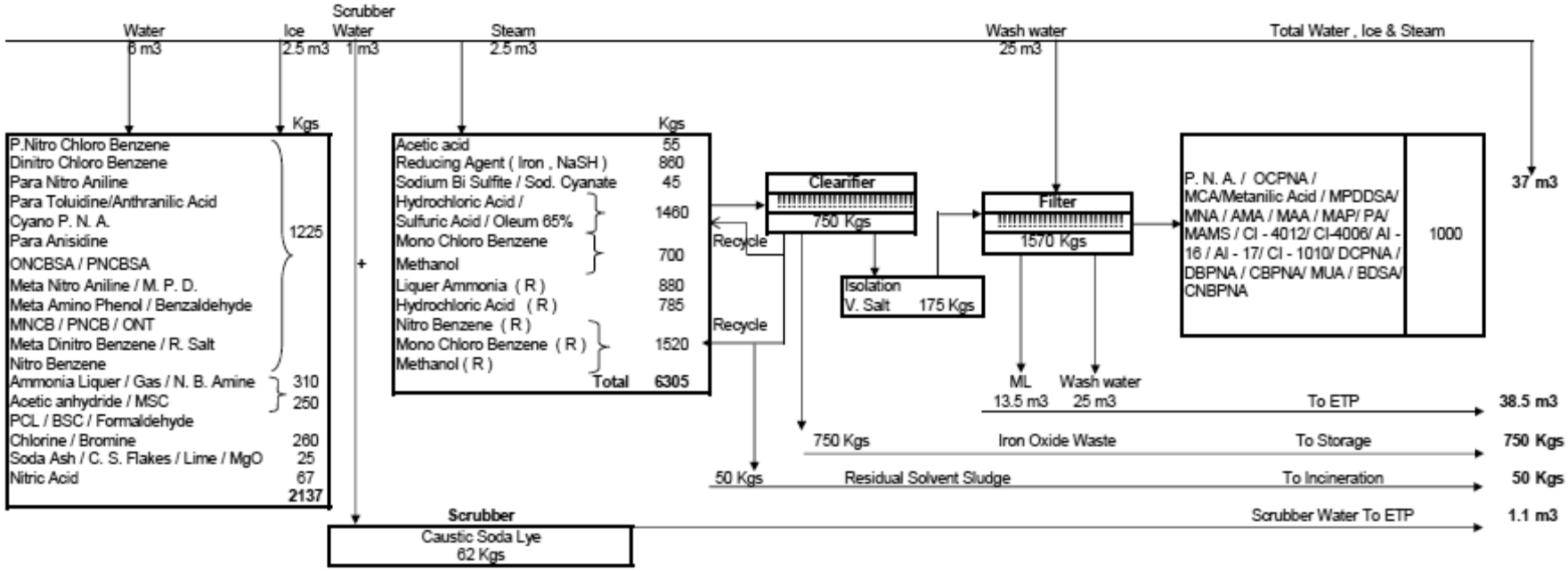


Zero Discharge

Colourtex Industries Pvt. Ltd

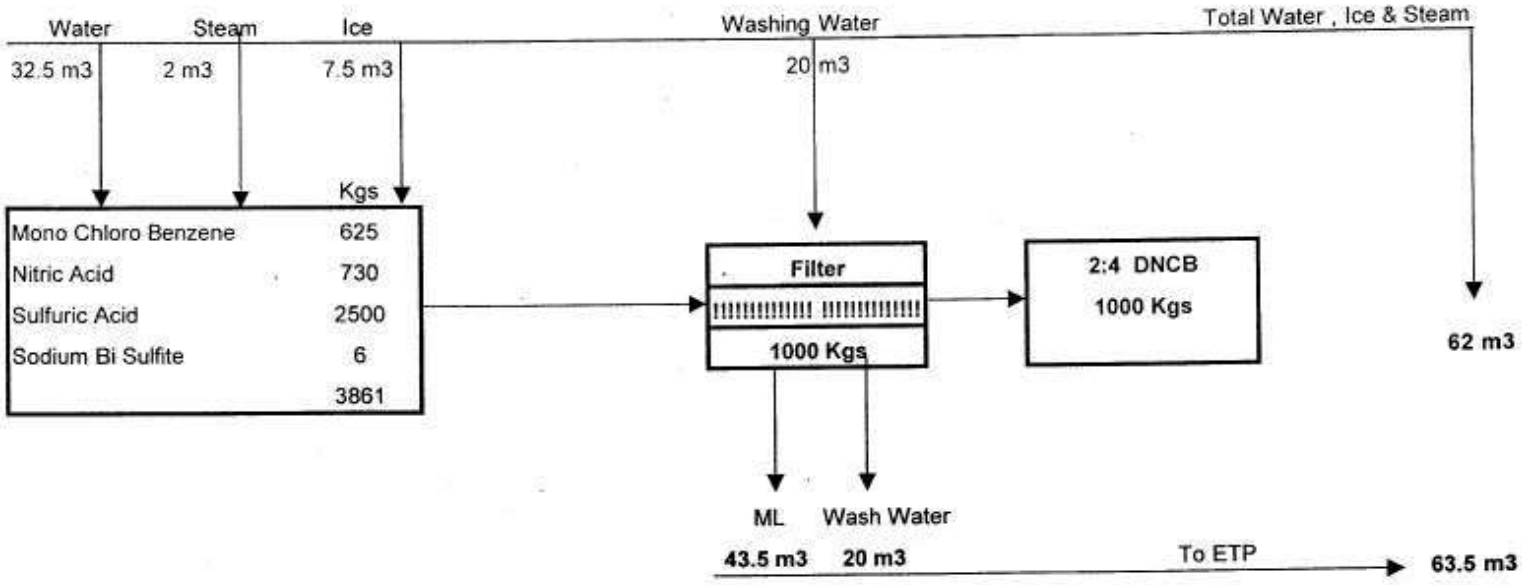
Unit - 1

Raw Material Consumption for 1000 Kgs of Primary Amine



Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

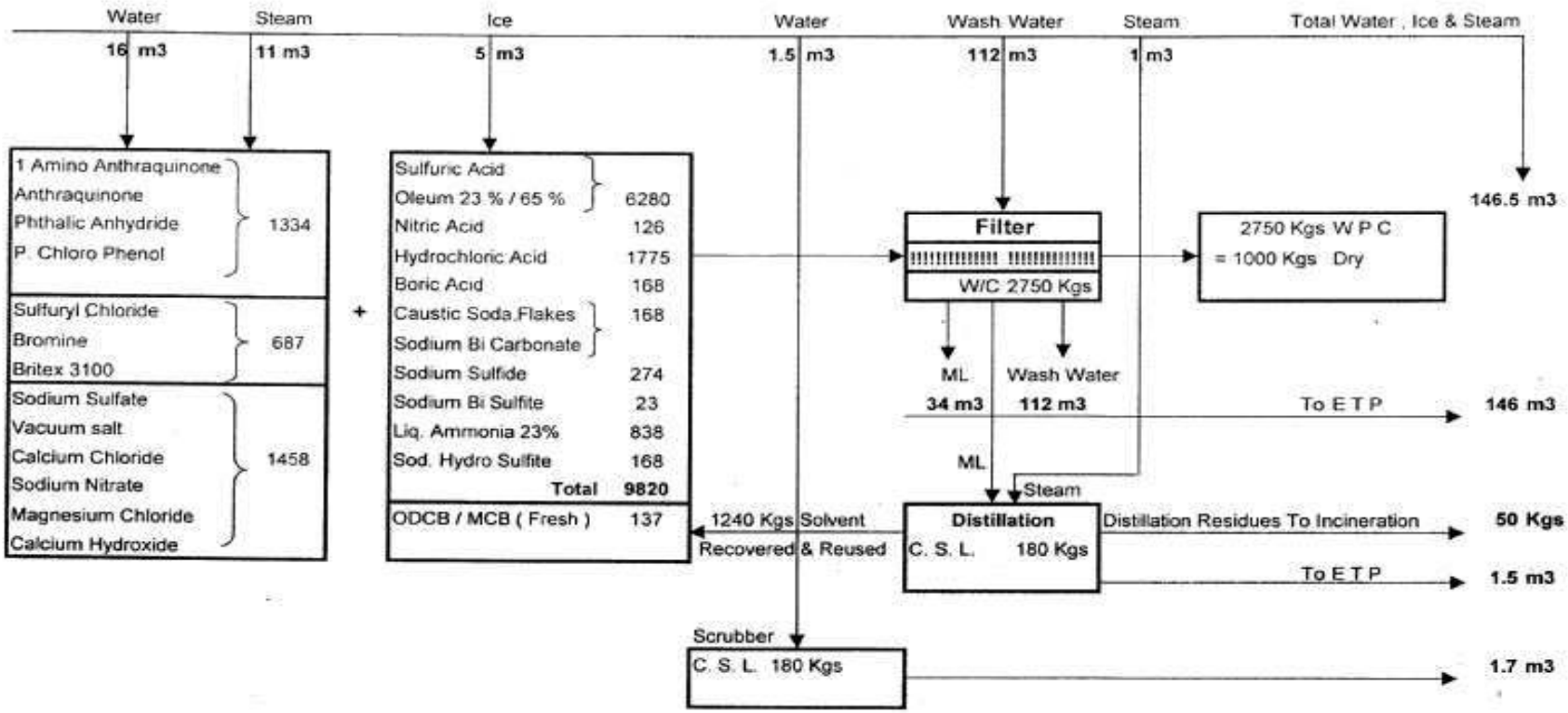
2 : 4 Dinitro Chloro Benzene



Pandesara Industries Pvt. Ltd. **Sachin**

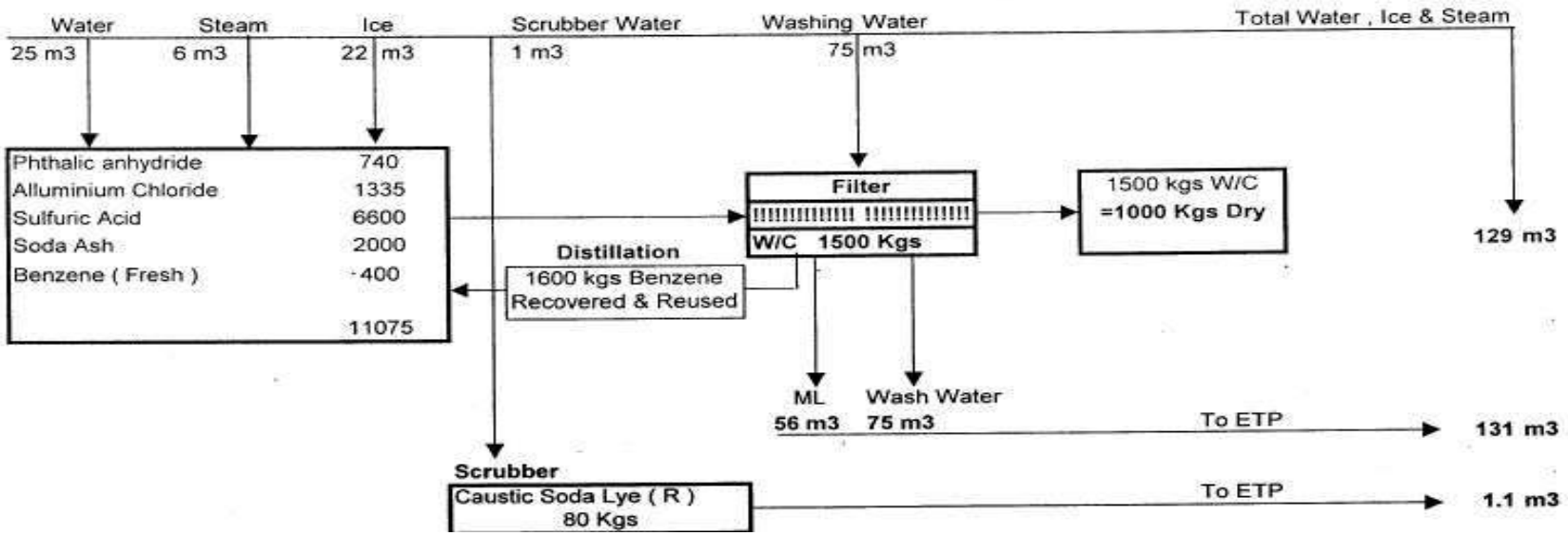
AQ Intermediates

Mass Balance



Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

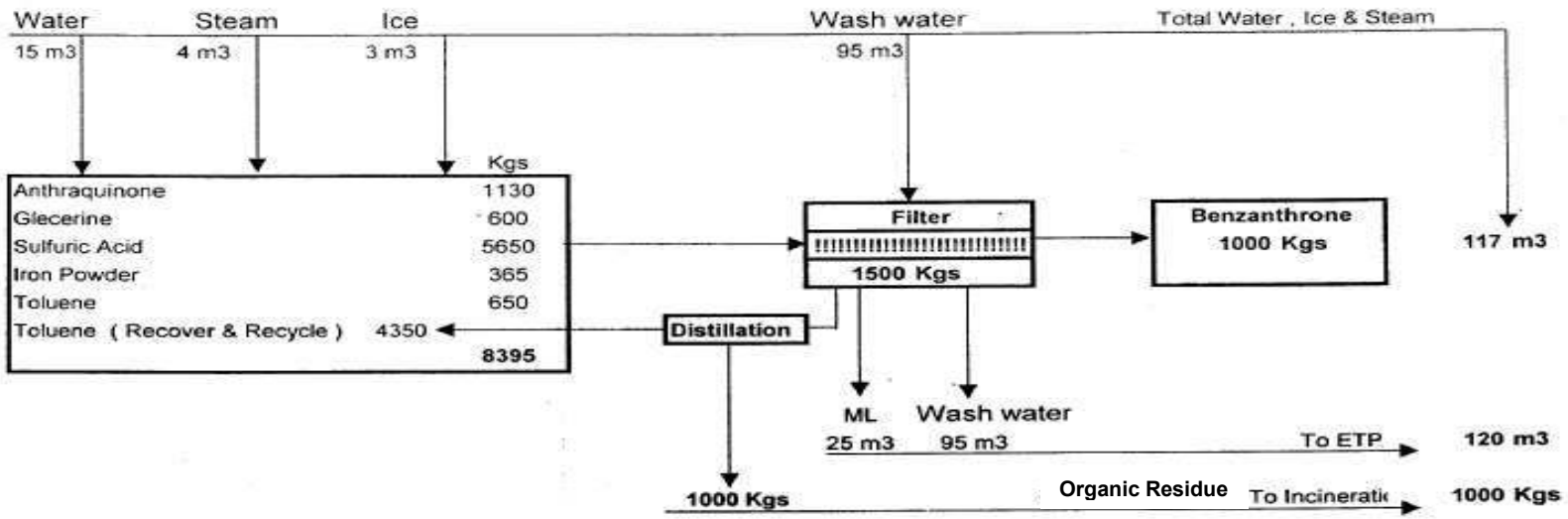
Anthraquinone



Pandesara Industries Pvt. Ltd
Sachin

Raw Material Consumption for 1000 Kgs

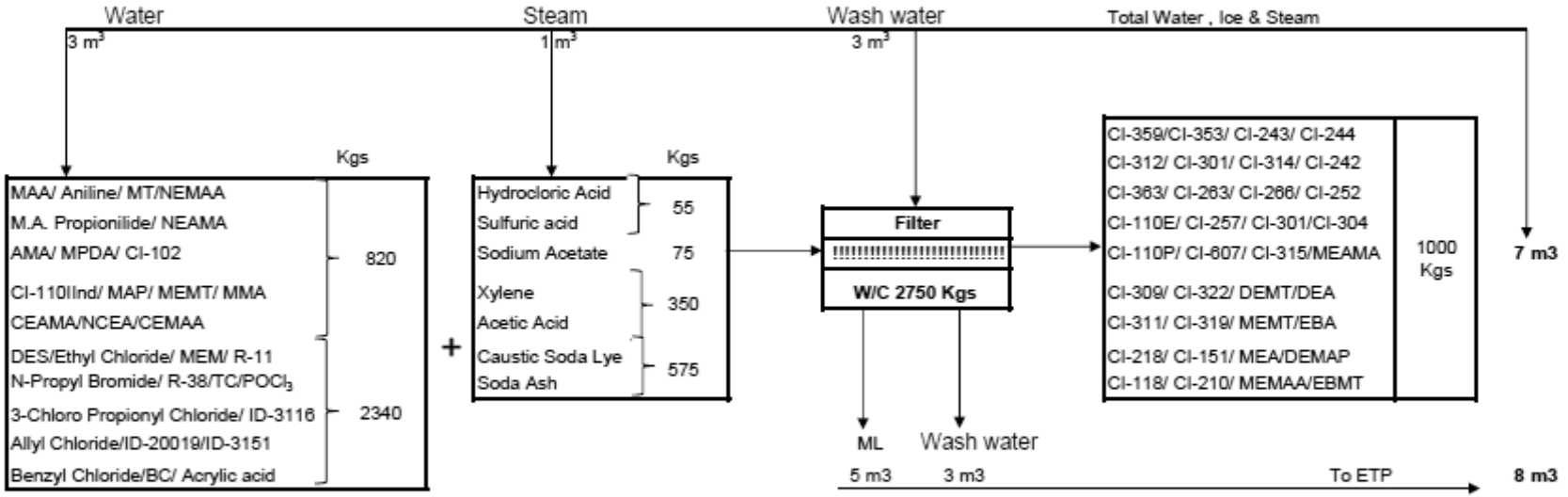
Benzanthrone



COLOURTEX INDUSTRIES PRIVATE LIMITED, UNIT-1

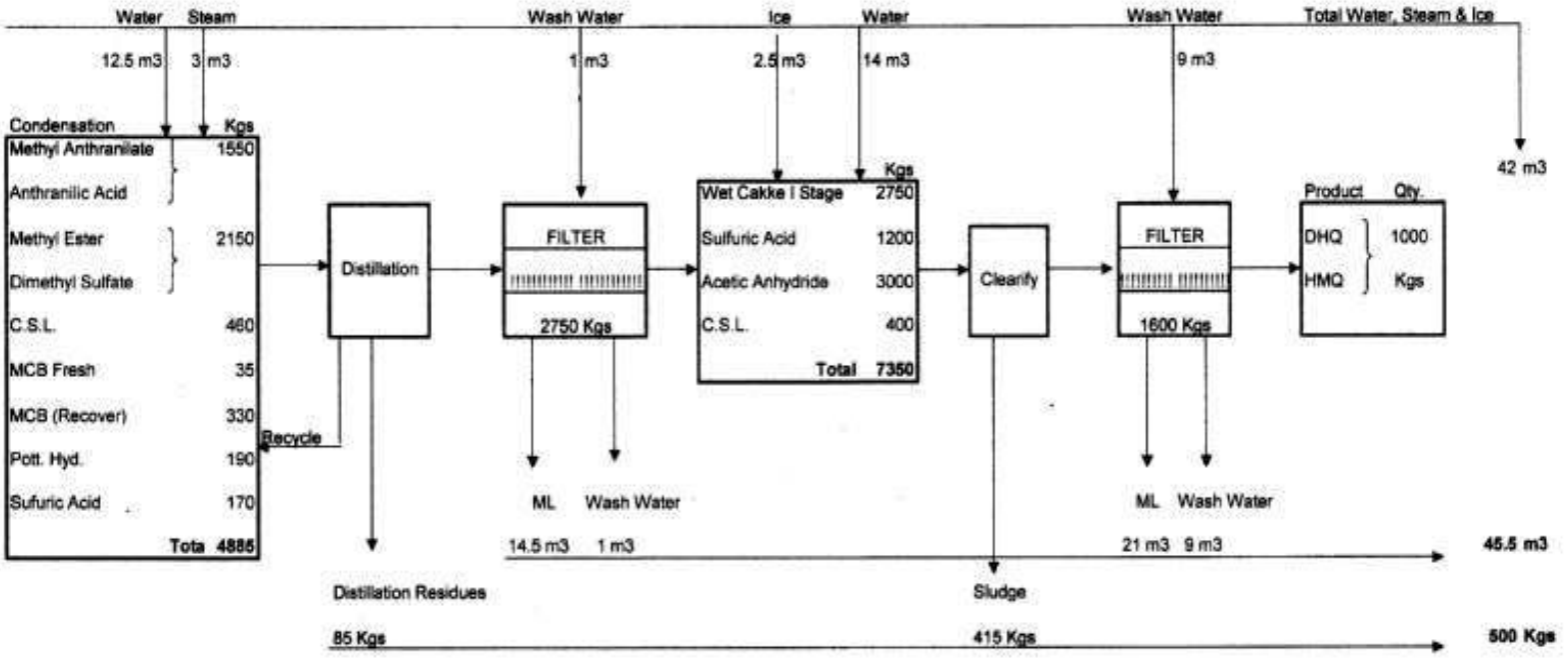
Ethylated Tertiary Amines

Raw Material Consumption for 1000 Kgs



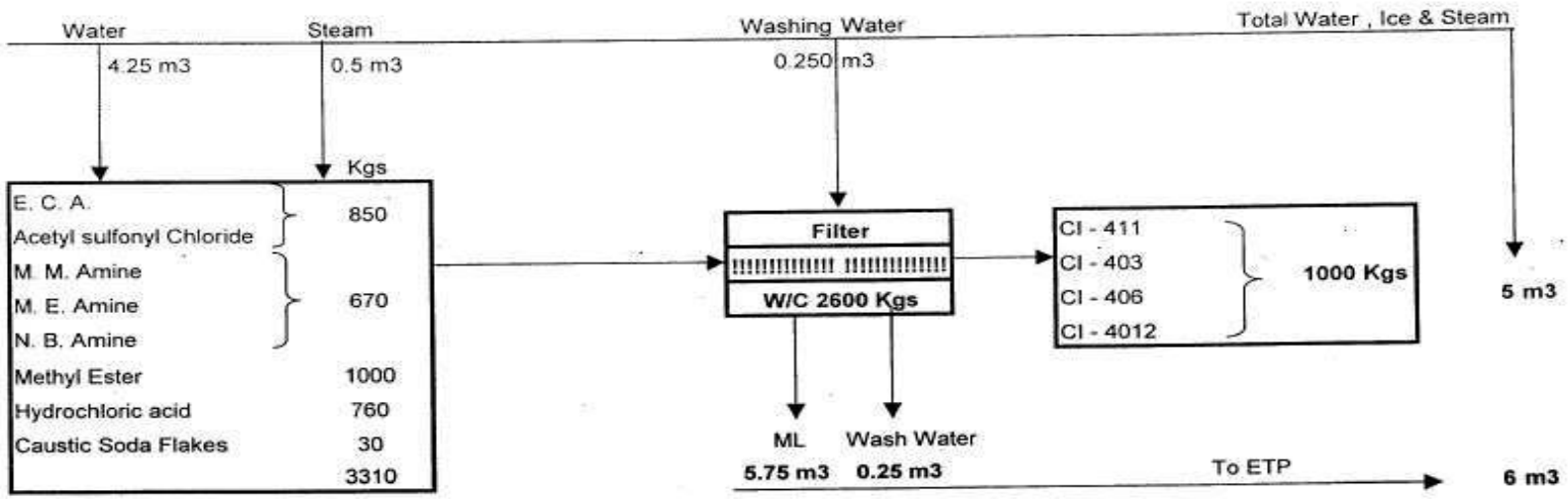
Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

Quinolene

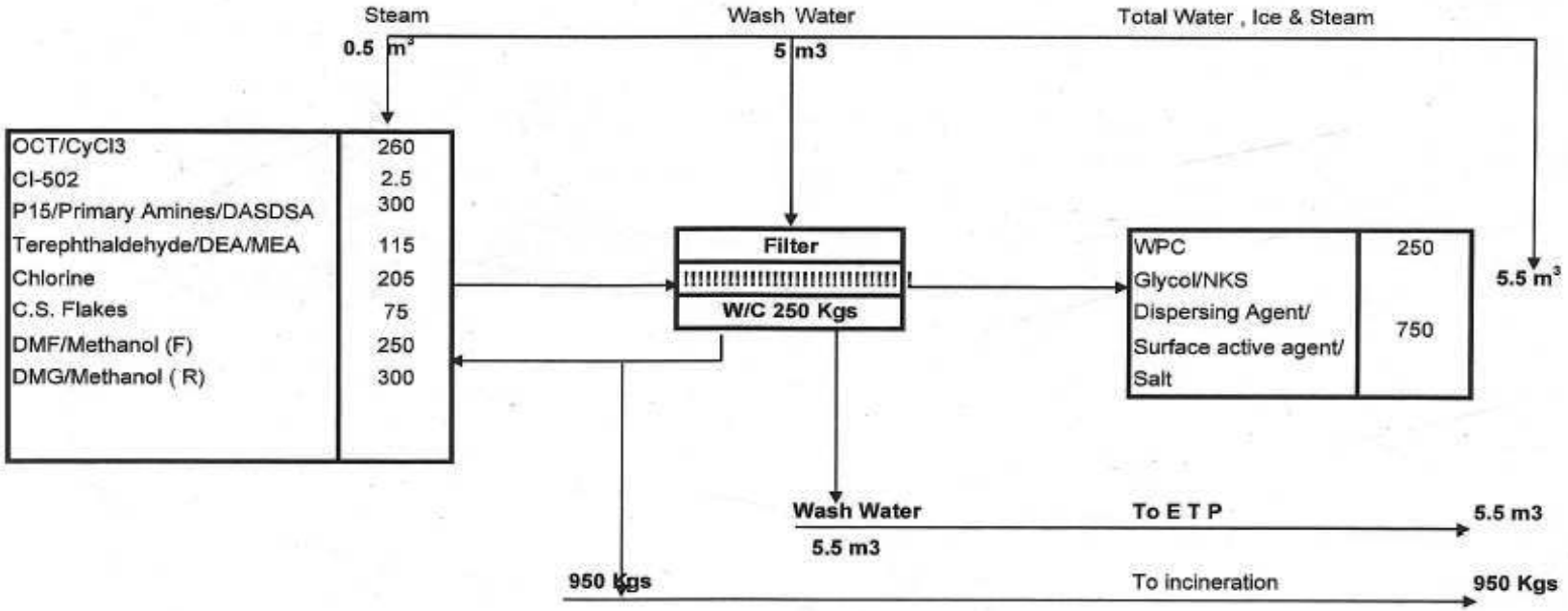


Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

Pyridone



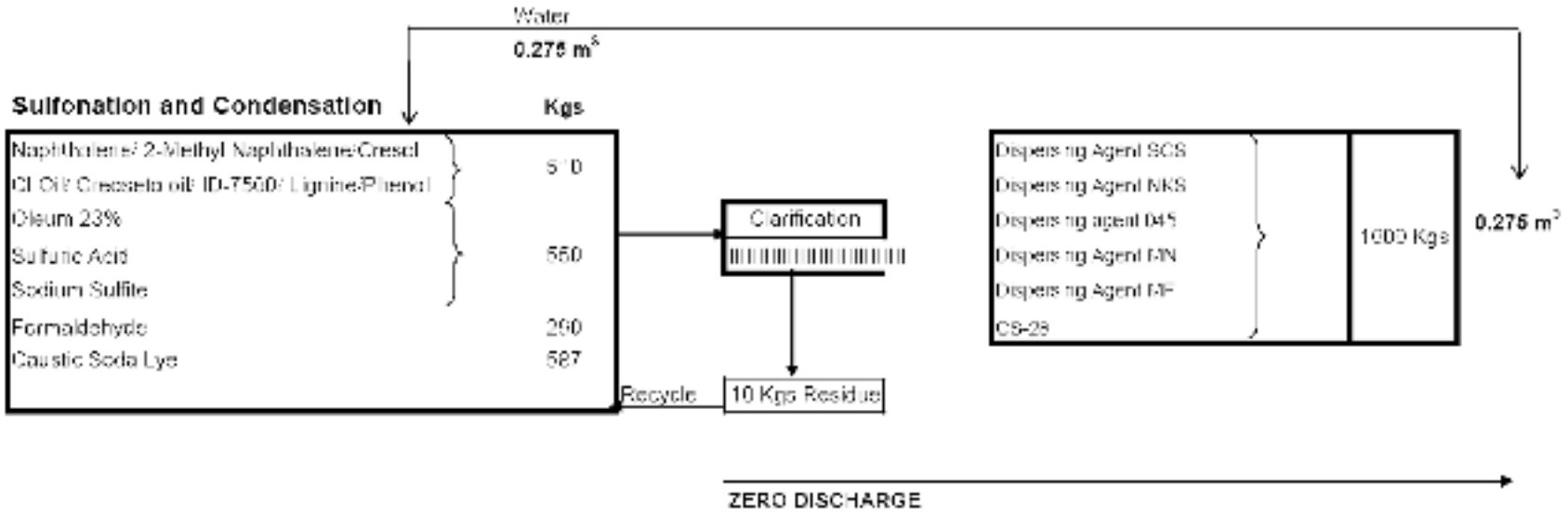
OPTICAL BRIGHTENING AGENT



COLOURTEX INDUSTRIES PRIVATE LIMITED,

Dispersing Agent SCS/DDP/CS-28/MN/MF/045

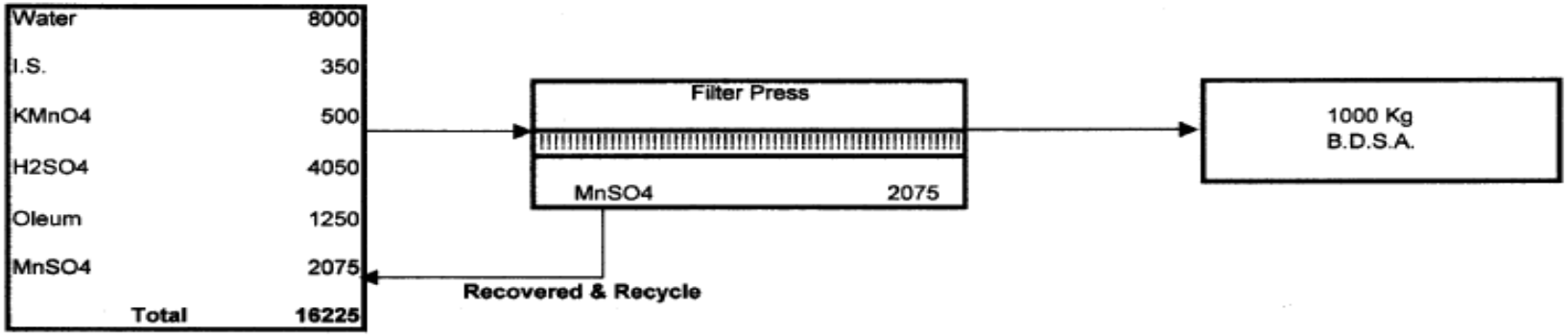
Mass Balance



Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

B.D.S.A.

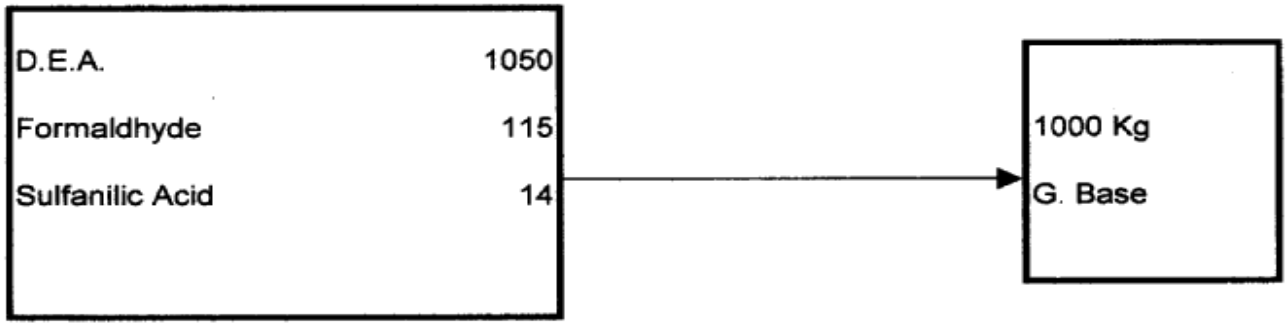
(Dyes Intermediate)



Zero Discharge

Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

G. Base
(Dyes Intermediate)



Zero Discharge direct use as is in Batch

Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

(E. Acid, BOSA, EBMTSA & Naphthalene 2:7 DSA)

(Dyes Intermediate)

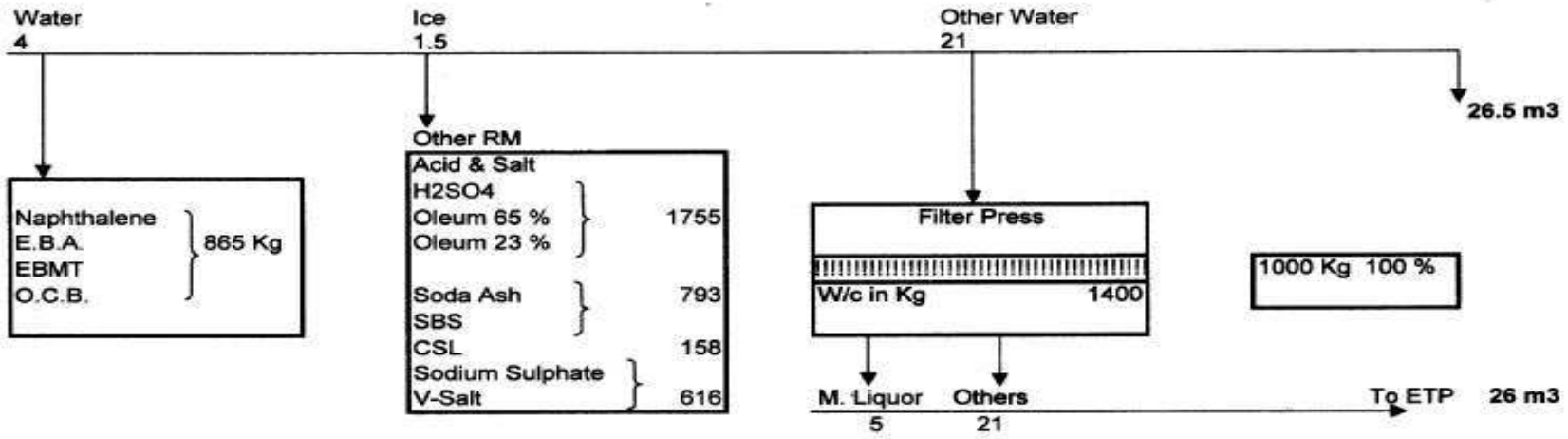
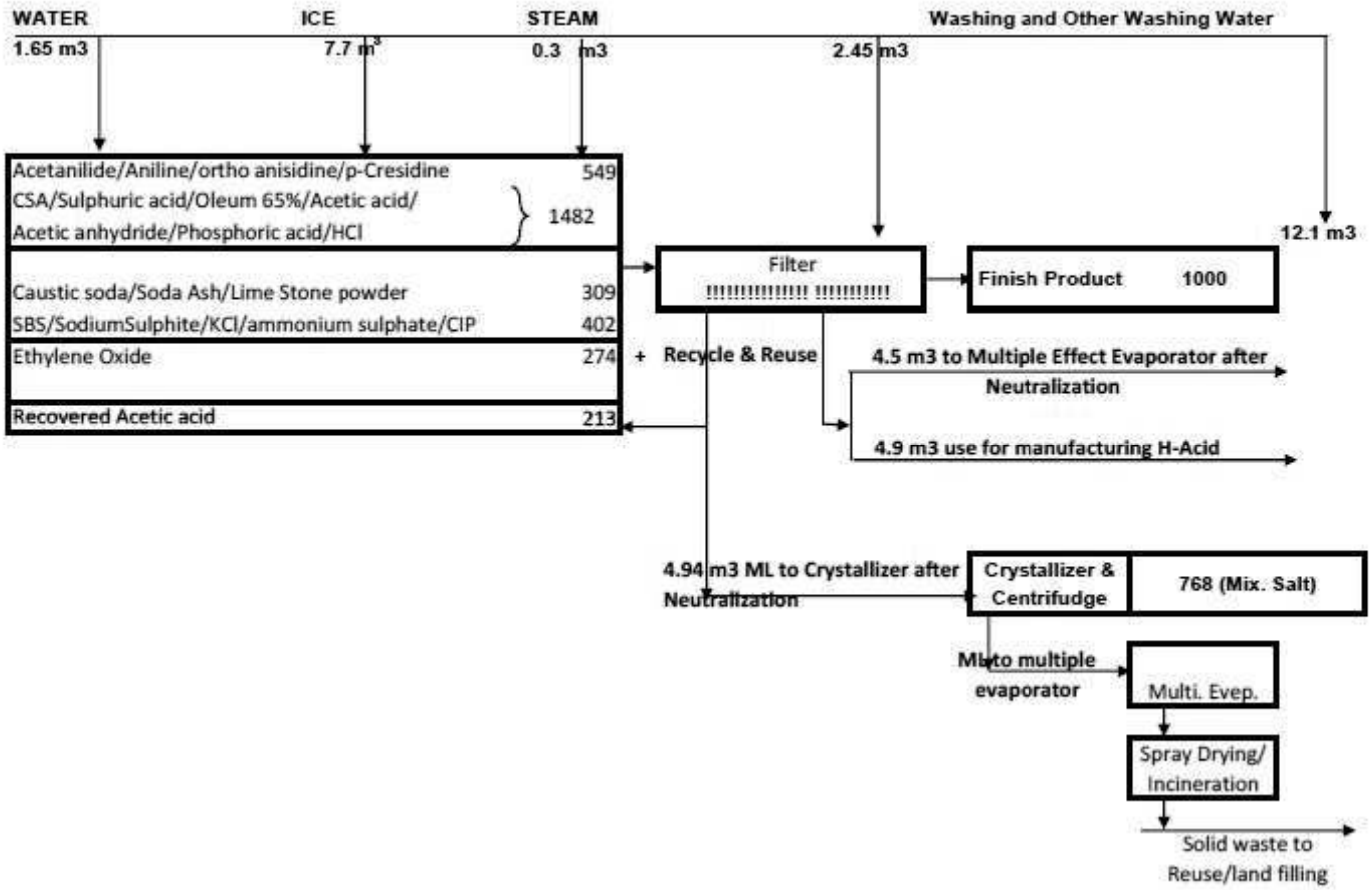
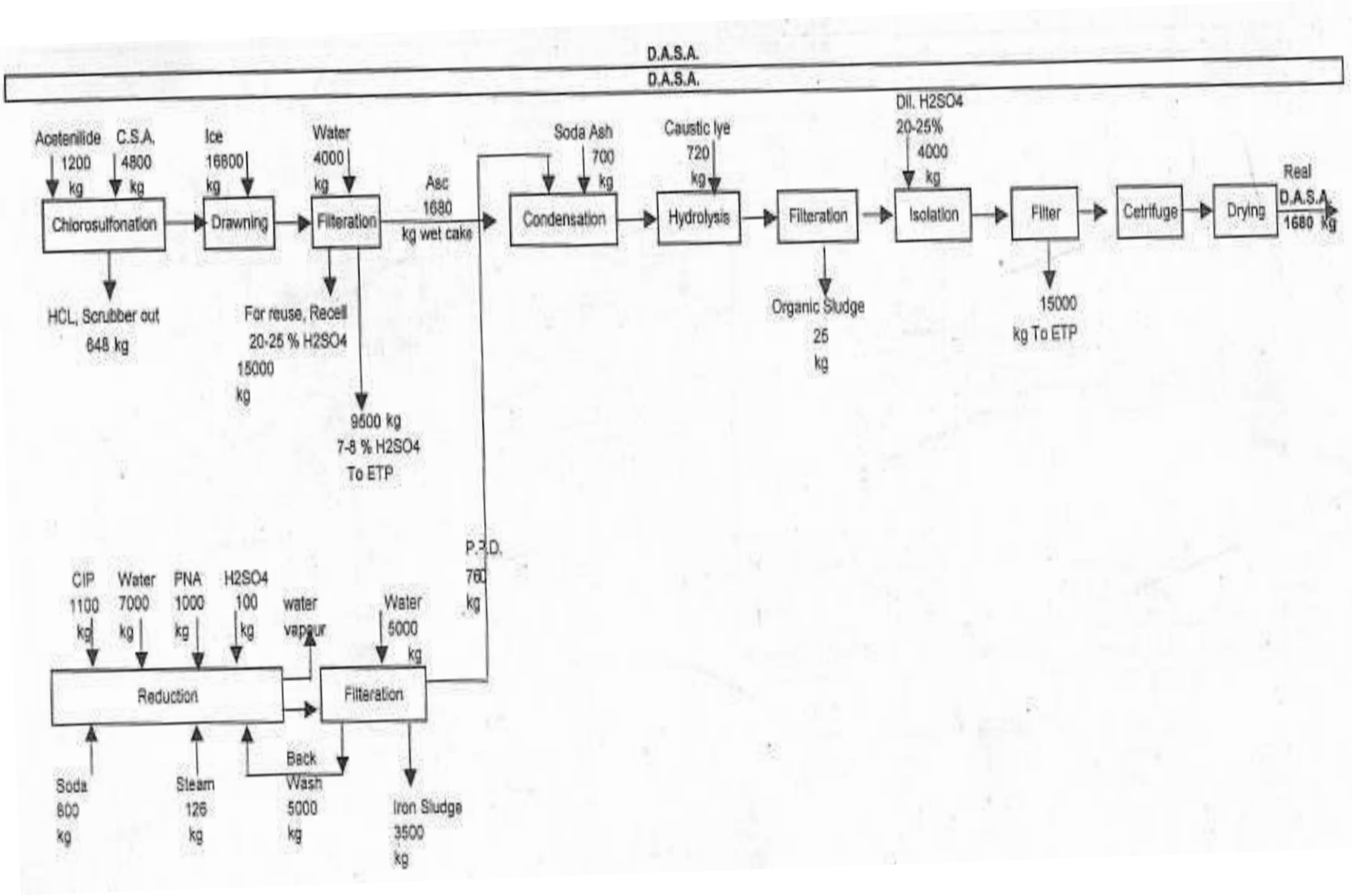


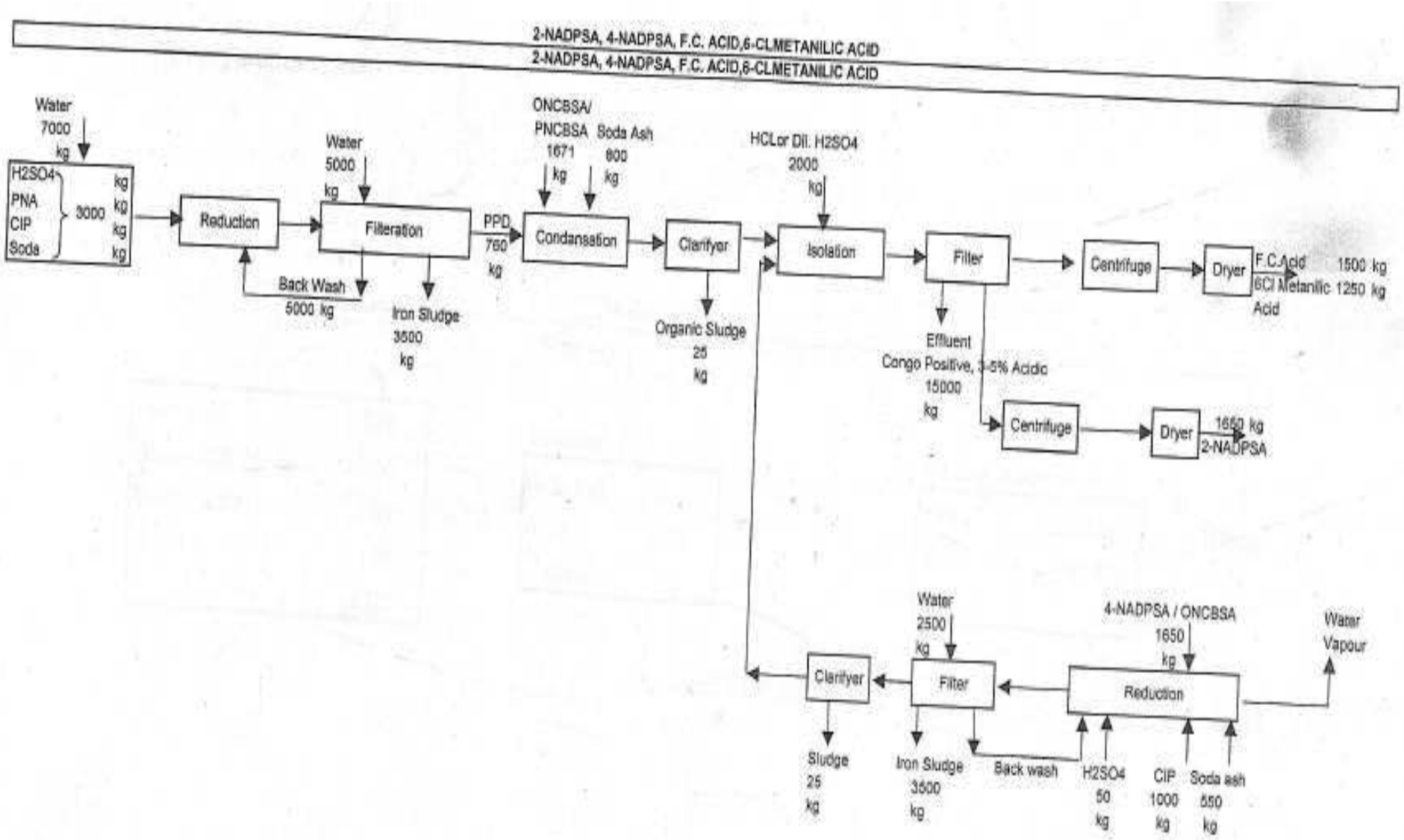
Figure 2.26

DYE INTERMEDIATES
Vinyl Sulphone Derivaties

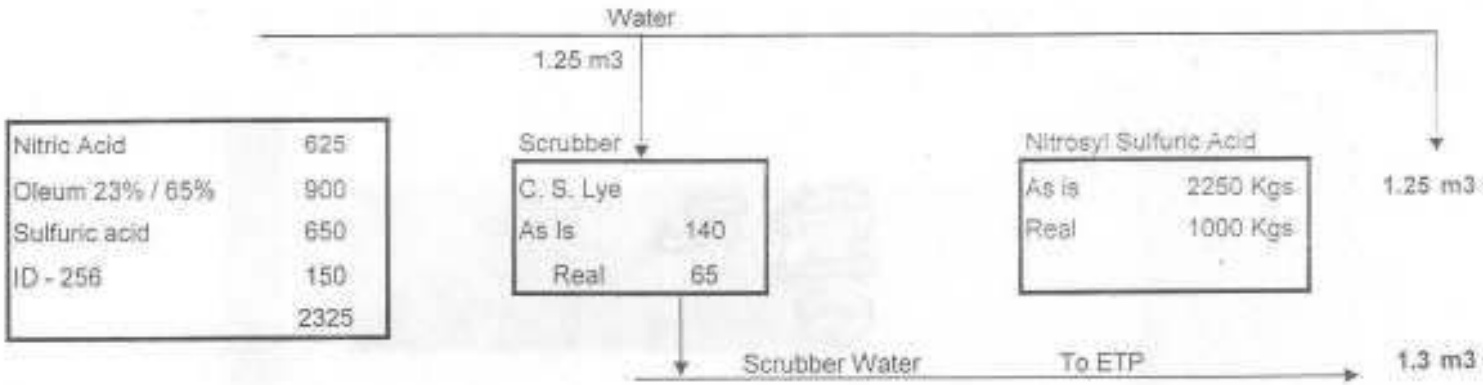



D.A.S.A.
D.A.S.A.
Acetenilide
1200
kg
C.S.A.
4800
kg
Chlorosulfonation
HCL, Scrubber out
648 kg
Ice
16800
kg
Drawning
Water
4000
kg
Filteration
For reuse, Recell
20-25 % H2SO4
15000
kg
9500 kg
7-8 % H2SO4
To ETP
Asc
1680
kg wet cake
Soda Ash
700
kg
Condensation
Caustic lye
720
kg
Hydrolysis
Filteration
Organic Sludge
25
kg
Dil. H2SO4
20-25%
4000
kg
Isolation
Filter
15000
kg To ETP
Cetrifuge
Drying
Real
D.A.S.A.
1680 kg
P.A.D.
760
kg
CIP
1100
kg
Water
7000
kg
PNA
1000
kg
H2SO4
100
kg
Reduction
water
vapour
Water
5000
kg
Filteration
Soda
800
kg
Steam
126
kg
Back
Wash
5000
kg
Iron Sludge
3500
kg

2-NADPSA, 4-NADPSA, F.C. ACID,6-CLMETANILIC ACID



Nitrosylsulfuric Acid



Pandesara Industries Pvt. Ltd. **Sachin** **Mass Balance**

Ferrous sulfate

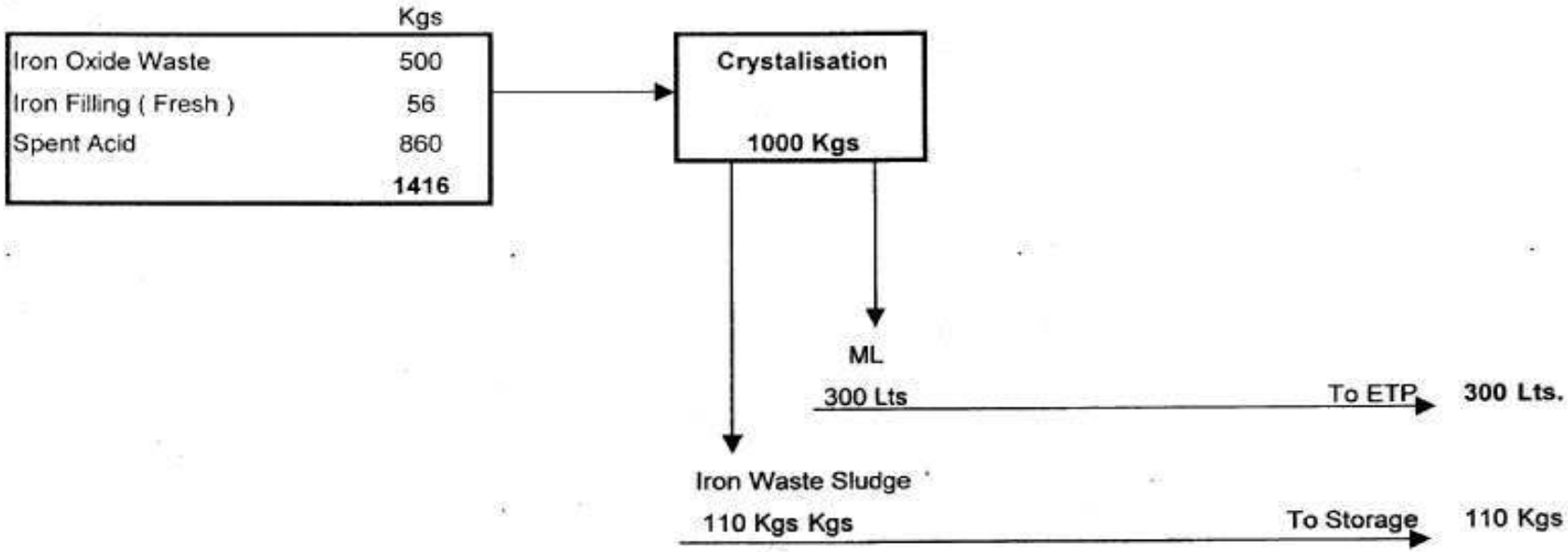
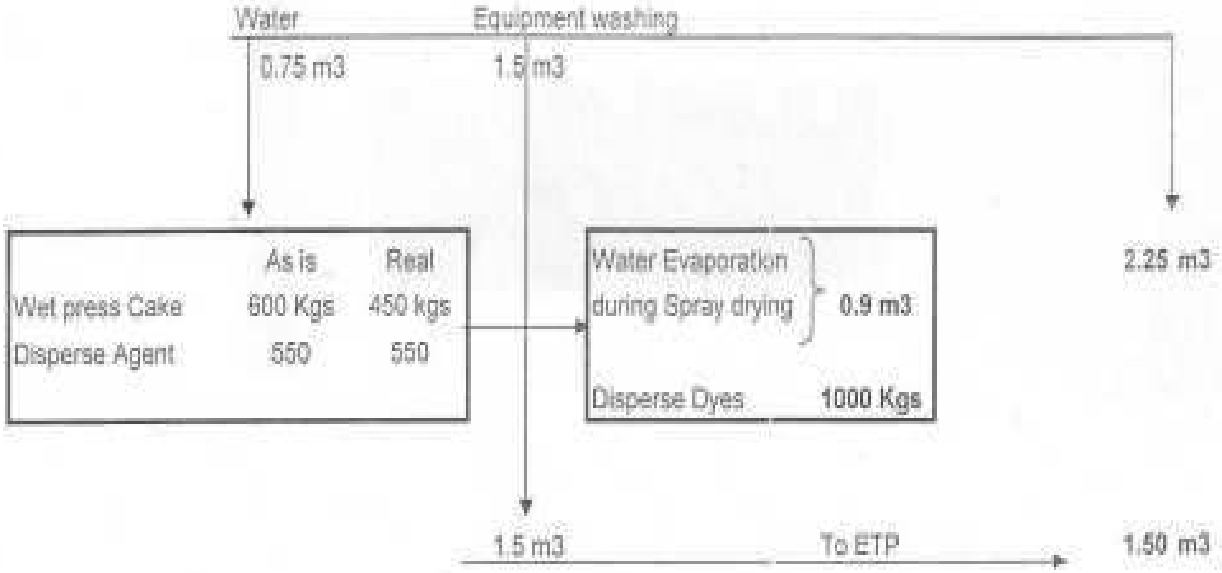
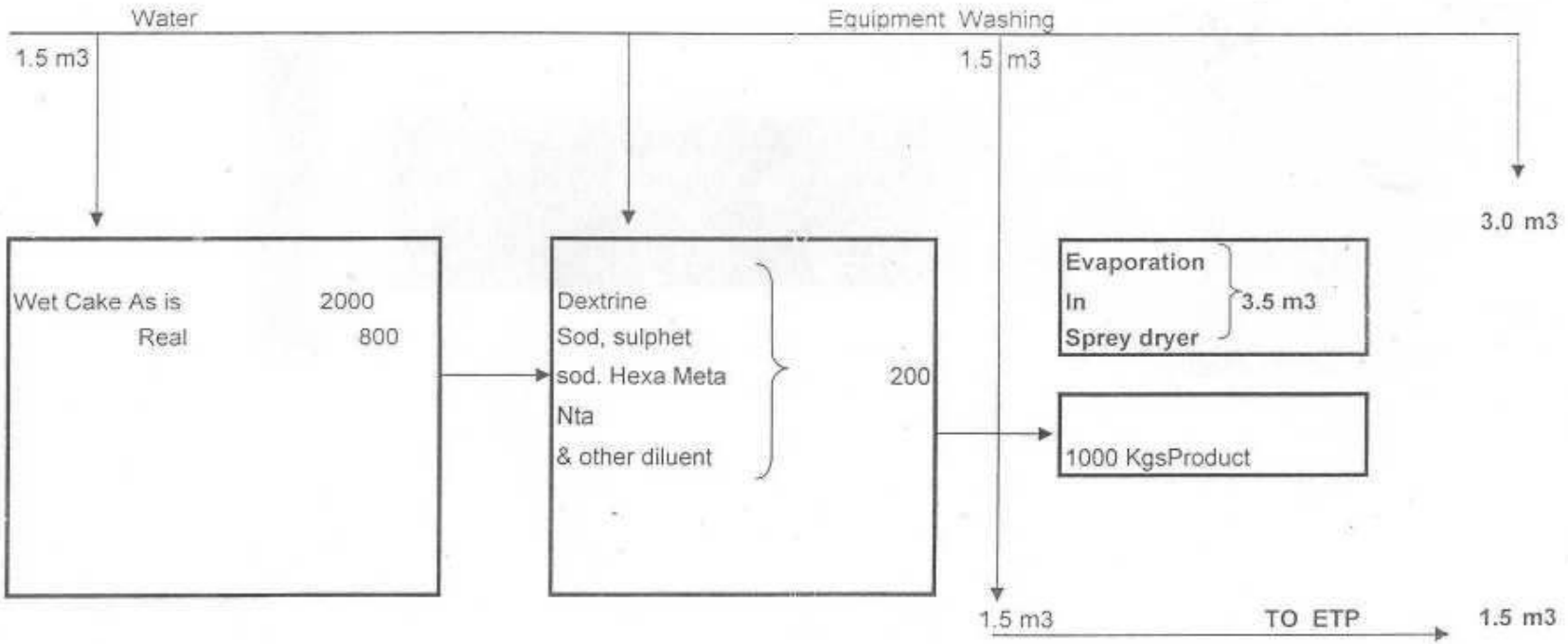


Figure 2.27

Formulation & Spray Drying
of Disperse Wet Press Cake



Formulation & Spray Drying
of Acid & Reactive Dyes wpc



COLOURTEX INDUSTRIES PRIVATE LIMITED,

Disperse /Vat Dyes/ Pigments Ink Formulation:

Mass Balance

	In Kgs
Disperse Dyes / Vat Dyes/ Pigments WPC	75
Dispersing agent/Wetting Agent/Surfactant	100
Solvent/DEG/MEG/PEG/Propylene Glycol/ Cellosolve/Carbitol/Pyrrolidones/Glycerine/ Dowanol /ethers/	200
Defoamer	10
Biocides/preservatives	3
Water	620

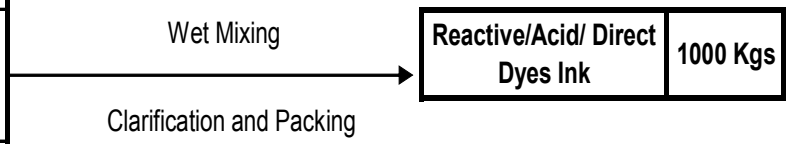
Wet Milling

Clarification and Packing

Disperse/ Vat Dyes/ Pigment Ink	**1000 Kgs**

Reactive/Acid /Direct Dyes Ink Formulation:

	In Kgs
Reactive/Acid Dyes R/O powder	140
Binder/ID-3152/Caprolactum/Dispersing Agent	80
Solvent/DEG/MEG/PEG/Propylene Glycol/ Cellosolve/Carbitol/Pyrrolidones/Glycerine/ Dowanol /ethers/Sulfolan/SLN	150
Defoamer	10
Biocides/preservatives	3
Water	620



Reactive/Acid/ Direct Dyes Ink	**1000 Kgs**

ANNEXURE-III

WATER CONSUMPTION AND WASTEWATER GENERATION

Sr. No.	Description	Water Consumption			
		Existing	As per TOR Amendment Granted on 17/5/2018	Change in Quantity	Total quantity
		KL/Day	KL/Day	KL/Day	KL/Day
1.	Process	7922	7670	70	7740
2.	Boiler	1063*	1440	-95	1345*
3.	Cooling	375	960	0	960
4.	Washing	450	565	0	565
	Total Industrial	**9810**	**10635**	**-25**	**10610**
	Domestic	125	150	0	150
	Grand Total	**9935**	**10785**	**-25**	**10760**

*** 200 KL/day Steam is also supplied to CTX Lifesciences Pvt. Ltd., Sister concern.**

WASTEWATER GENERATION

Sr. No.	Description	WASTEWATER GENERATION			
		Existing	As per TOR Amendment Granted on 17/5/2018	Change in Quantity	Total quantity
		KL/Day	KL/Day	KL/Day	KL/Day
1.	Process	7379 + 436**	6770 + 495**	-280 + 402**	6490 + 897**
2.	Boiler	805	1162	-452	710
3.	Cooling	42	100	0	100
4.	Washing	440	550	0	550
	Total Industrial	**8666 + 436****	**8582+ 495****	**-732 + 402****	**7850 + 897****
	Domestic	119	143	0	143
	Grand Total	**8785+ 436****	**8725+495****	**-732 + 402****	**7993 + 897****

7993 KL/day Low COD wastewater of Colourtex Industries Pvt. Ltd. (Unit-1) and 818 KL/day low COD wastewater of CTX Lifesciences Pvt. Ltd. will be treated in the Effluent Treatment Plant located at Colourtex Industries Pvt. Ltd. (Unit-1).

** 897 KL/day high COD wastewater of Colourtex Industries Pvt. Ltd. (Unit-1) and 34.5 KL/day high COD wastewater of CTX Lifesciences Pvt. Ltd. will be treated in the Multiple Effects Evaporator & Spray Dryer / Liquid Waste Incinerator at Colourtex Industries Pvt. Ltd. (Unit-1).

A Copy of Permission letter for Drawing Water from Canal

પાંડેસરા ડાઈંગ એન્ડ ઈન્ટરમીડીએટ પ્રા. લી. ને
બદલે કલર ટેક ઈન્ડસ્ટ્રીઝ પ્રા. લી. ને [illegible]
પાણી ઉપાડવાની પરવાનગી આપવા બાબત.

ગુજરાત સરકાર,
નર્મદા જળસંપત્તિ પાણી પુરવઠા અને કલ્પસર વિભાગ,
ઠરાવ ક્રમાંક:ડબલ્યુટીઆર–૧૦૯૭–૧૦૮૩–૨૨–પી,
સચિવાલય, ગાંધીનગર.
તારીખ: –૫–૨૦૦૬.
[illegible]

વંચાણે લીધા:

(૧)આ વિભાગનો ઠરાવ ક્રમાંક: ડબલ્યુટીઆર–૧૦૯૭–૧૦૮૩–૨૨–પી, તારીખ:–૨૮–૩–૨૦૦૨.
(૨)આ વિભાગનો પત્રાંક: ડબલ્યુટીઆર ૧૦૯૭–૧૦૮૩–૨૨–પી, તારીખ:–૨૬–૪–૨૦૦૨.
(૩)અધિક્ષક ઈજનેરશ્રી, સુરત સિંચાઈ વર્તુળ, સુરતનો પત્રાંક:સુસિંવ– પીબી–૨ – ડબલ્યુટીઆર– [illegible] ક્ર.૨૨૬–૧૧૮૪–૬૩, તા.૫–૧–૨૦૦૬.
(૪)અધિક્ષક ઈજનેરશ્રી, સુરત સિંચાઈ વર્તુળ, સુરતનો પત્રાંક:સુસિંવ– પીબી–૨– ડબલ્યુટીઆર– કલરટેક– ક્ર.૨૨૬ ૧૦૪–૯૫૮, તારીખ:–૬–૩–૨૦૦૬.
(૫)અધિક્ષક ઈજનેરશ્રી, સુરત સિંચાઈ વર્તુળ, સુરતનો પત્રાંક:સુસિંવ– પીબી–૨– ડબલ્યુટીઆર–કલર ટેક– ક્ર.૨૨૬–૧૭૪(૧), તારીખ:–૧૬–૩–૨૦૦૬.
(૬)કલર ટેક ઈન્ડસ્ટ્રીઝ પ્રા. લી. નો પત્ર, તારીખ:–૧૫–૧૧–૨૦૦૫.

ઠરાવ :–

પાંડેસરા ડાઈંગ એન્ડ ઈન્ટરમીડીએટ પ્રા. લી. ને [illegible] કેનાલની [illegible] ૮૨.૧૩૬ આગળથી ઔદ્યોગિક વપરાશ માટે ૧.૦૦ મી. ગ. [illegible] પાણી લેવાની પરવાનગી સંદર્ભ (૧) હેઠળના તારીખ:–૨૮–૩–૨૦૦૨ ના ઠરાવથી તેમાં દર્શાવેલ શરતોને આધીન આપવામાં આવેલ છે. આ પરવાનગી સબબ કંપનીએ [illegible] કરારનામાનો મંજૂર [illegible] સંદર્ભ (૨) હેઠળના પત્રથી [illegible] આ [illegible] કંપનીએ તારીખ: [illegible] ના રોજ કરારનામું [illegible] મુદત તારીખ:–૨૨–[illegible] પૂર્ણ થનાર છે. [illegible] હેઠળના તારીખ:–[illegible] ના પત્રથી રજૂઆત કરવા જણાવેલ છે કે [illegible] કંપનીનું નામ "કલર ટેક ઈન્ડસ્ટ્રીઝ પ્રા. લી." રાખેલ છે તેથી [illegible] "પાંડેસરા ડાઈંગ એન્ડ ઈન્ટરમીડીએટ પ્રા. લી." ના નામે જે પરવાનગી આપેલ છે તેને બદલે કલર ટેક ઈન્ડસ્ટ્રીઝ પ્રા. લી. ના નામે તબદીલ કરવી. કંપનીને [illegible] પાણી

લેવાની પરવાનગી આપેલ છે તેમાં વધારો કરી ૩.૦૦ મી. ગે. ડે. પાણીની પરવાનગી આપવી. કંપનીની રજૂઆત અંગે અધિક્ષક ઈજનેરશ્રી, સુરત સિંચાઈ વર્તુળ, સુરત તેમના સંદર્ભ (૩) (૪) અને (૫) હેઠળના પત્રોથી ભલામણ સહિતની દરખાસ્ત મોકલતાં જણાવ્યું છે કે કંપનીના નામ ફેરની મંજૂરી રજીસ્ટ્રાર ઓફ કંપનીઝ તરફથી મળેલ છે કંપનીએ માંગણી કર્યા મુજબ ૩.૦૦ મી. ગે. ડે. પાણી વાપરવાની પરવાનગી આપી શકાય તેમ છે. તેમજ કંપનીના હાલ કોઈ બાકી લેણાં નથી, તેથી કંપનીને નવા નામે પરવાનગી આપી નવું કરારનામું કરવું.

ઉક્ત બાબતે સરકાર પાસેની કાળજીપૂર્વકની વિચારણાને અંતે નીચે મુજબની પરવાનગી આપવાનું ઠરાવવામાં આવે છે.

(૧) પાંડેસરા ડાઈંગ એન્ડ ઈન્ટરમીડીયેટ પ્રા. લી. ની નામફેરની માંગણી માન્ય રાખી કલર ટેક્ષ ઈન્ડસ્ટ્રીઝ પ્રા. લિ. ના નામે ૧.૦૦ (એક) મી. ગે. ડે. ના બદલે હવે ૩.૦૦ (ત્રણ) મી. ગે. ડે. પાણી વલથાણ ગામની કેનાલ ચેઈનેજ કે. આર. ડી. ૮૨.૧૩૬ આગળથી તેમના ખર્ચે પાઈપ લાઈન મારફત ઔદ્યોગિક વપરાશ માટે લેવાની પરવાનગી આ સાથે સામેલ શરતોને આધીન આપવામાં આવે છે.

(૨) અગાઉ આ વિભાગના તારીખ: ૨૮-૭-૨૦૦૨ ના ઠરાવથી પાંડેસરા ડાઈંગ એન્ડ ઈન્ટરમીડીયેટના નામે ૧.૦૦ (એક) મી. ગે. ડે. પાણી લેવા અપાયેલ પરવાનગી તથા તે અન્વયે કરાયેલ કરારનામું રદ કરવામાં આવે છે.

આ હુકમો આ વિભાગની સરખા ક્રમાંકની ફાઈલ પર નાણાં સલાહકારશ્રીની તારીખ: ૧૦-૫-૨૦૦૬ ના રોજ મળેલ સંમતિને આધારે કરવામાં આવે છે.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

(આર. જી. આચાર્ય)
ઉપ સચિવ (જ.સં.)
નર્મદા, જળસંપત્તિ, પાણી પુરવઠા અને કલ્પસર વિભાગ.

બિડાણ: ઉપર મુજબ.
પ્રતિ
- અધિક્ષક ઈજનેરશ્રી, સુરત સિંચાઈ વર્તુળ, સુરત.
- કાર્યપાલક ઈજનેરશ્રી, કાકરાપાર જમણાકાંઠા નહેર વિભાગ, સુરત.
- ડાયરેક્ટરશ્રી, કલર ટેક્ષ ઈન્ડસ્ટ્રીઝ પ્રા. લી. સર્વે નં. ૮૦, [illegible], જી. આઈ. ડી. સી. પાંડેસરા, સુરત-૩૯૪૨૨૧.
- સિલેક્ટ ફાઈલ.

CHAMPA 3806

ANNEXURE-IV

EXISTING ETP DETAILS & FLOW DIAGRAM

Brief Description of Effluent Treatment

The effluent generating from the various process streams will be sent to the Oil & Grease Trap of common effluent treatment plant from where the effluent flows into the Collection cum equalization tank where in air is blown through blowers. From the Collection Tank the effluent is pumped into the Neutralization Tank. Lime solution is prepared in the Lime Preparation Tank and the slurry is fed from the Lime Feed Tank into the Neutralization Tank. In order to mix the effluent and Lime solution homogeneously, agitators are provided in the Neutralization Tank. Ferrous Sulfate (which acts as a Flocculent) and Polyelectrolyte (Coagulant Aid) are then added to the neutralized effluent.

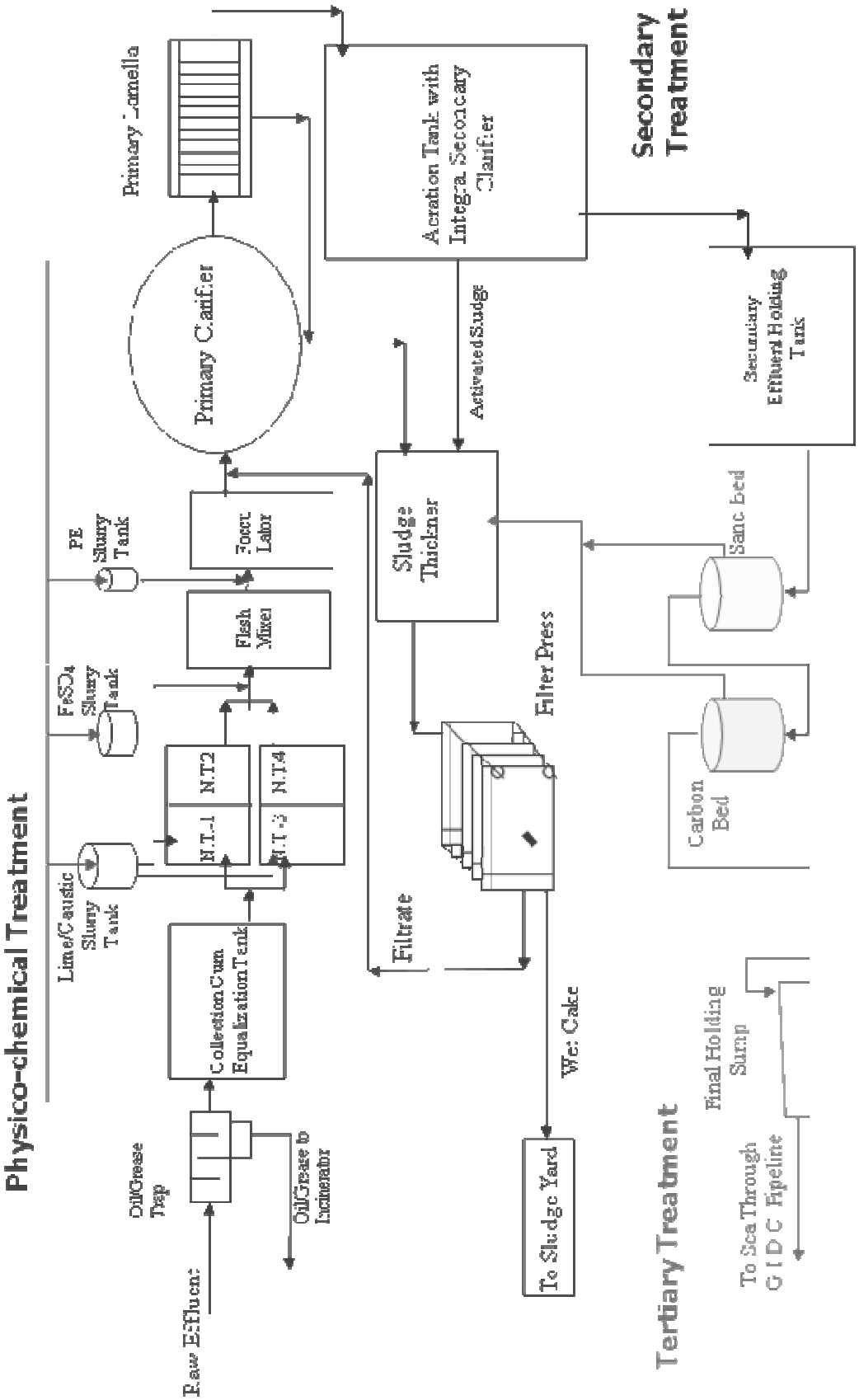
The effluent is thereafter passed into the Primary Clarifier. The effluent is further passed through a Parallel plate separator for giving polishing treatment to the effluent. Quiescent condition is provided for the solids to settle down at the bottom of the Primary Clarifier & Parallel plate separator. The sludge collected from the bottom of the primary clarifier and Parallel plate separator is dewatered through filter press. The sludge will be disposed of into the Group's own Secured Landfill Site or will be sold to the cement plants.

The clarified overflow is taken into the Advent Integral system (Aeration Tank with Inbuilt Secondary Clarifier). This technology is designed & supplied by The Advent Inc.,USA. The domestic effluent is also taken into the Advent Integral system. DAP and Urea is added to provide the necessary nutrient for the micro – organisms. The excess secondary sludge collected from the bottom of the inbuilt clarifier of AIS and 100% recirculated to maintain concentration of active biomass in the AIS and the excess is collected into under ground sludge sump. Then it is dewatered through filter press. The overflow of the clarified effluent is taken in to the underground Secondary Holding Tank. Then secondary effluent is pumped through Sand Filter and Activated Carbon Filter. The treated effluent is then discharged in to the GIDC underground drainage system.

DETAILS OF COMMON EFFLUENT TREATMENT PLANT OF
M/s. COLOURTEX INDUSTRIES PVT. LTD. (UNIT-1) &
M/s. CTX LIFESCIENCES PVT. LTD.
LOCATED AT M/s. COLOURTEX INDUSTRIES PVT. LTD. (UNIT-1)

Sr. No.	Treatment Unit	Dimension of Existing ETP in meter	MOC
1	Oil and Grease Trap	9.77 M X 3.0 M X 3.5 M	RCC/TL
2	Equalization Tank	27 M X 27 M X 6 M	RCC/TL
3	Neutralization Tank-1	7.0 M DIA. X 4.6 M	RCC/TL
4	Neutralization Tank-2	7.0 M DIA. X 4.6 M	RCC/TL
5	Neutralization Tank-3	6.0 M DIA. X 4.6 M	RCC/TL
6	Neutralization Tank-4	6.0 M DIA. X 4.6 M	RCC/TL
7	Neutralization Tank-5	5.4 M DIA. X 5.4 M X 4.9 M	RCC/TL
8	Neutralization Tank-6	5.4 M DIA. X 5.4 M X 4.9 M	RCC/TL
9	Flash Mixer –1	4.8 M DIA. X 3.6 M	RCC/TL
10	Flocculation Tank –1	5.3 M DIA. X 4.1 M	RCC/TL
11	Flash Mixer –2	5.4 M X 1.4 M X 4.0 M	RCC/TL
12	Flocculation Tank –2	5.4 M X 4.4 M X 4.0 M	RCC/TL
13	Lime Preparation Tank- 1 & 2	3.6 M X 3.2 M X 3.0 M	RCC
14	$Feso_4$ Prep. Tank	3.0 M DIA. X 3.0 M	RCC/TL
15	Lime Dosing Tank-1& 2	5.7M X 3.5 M X 2.0 M	RCC
16	Primary Clarifier – 1,2 &3	9.5 M DIA. X 3.6 M SD	RCC
17	Parallel Plate Separator 1 & 2	6.6 M X 5.4 M X 5.4 M	RCC
18	Aeration Tank	17.225 M X 7.25 M X 6.0 M	RCC
19	Aeration Tank With Integral Clarifier 1 & 2	27.5 M DIA.X 9.6 M	RCC
20	Primary Sludge Holding Tank-1 & 2	5.0 M X 15.1 M X 2 M	RCC
21	Sludge Thickner	12 M DIA. X 3 M	339.12
22	Secondary Sludge Holding Tank	5.0 M X 15.1 M X 2 M	RCC
23	Filter Press	1.5 M X1.5 M X 60 PLATES	PP
24	Secondary Holding Sump	21.0 M X 4.5 M X 3 M	RCC
25	Pressure Sand Bed	3.0 M DIA X 4.0 M X 3 NOS.	MS
26	Pressure Carbon Bed	3.0 M DIA X 4.0 M X 6 NOS.	MS
27	Final Holding Sump	10.8 M X 4.5 M X 3 M	RCC

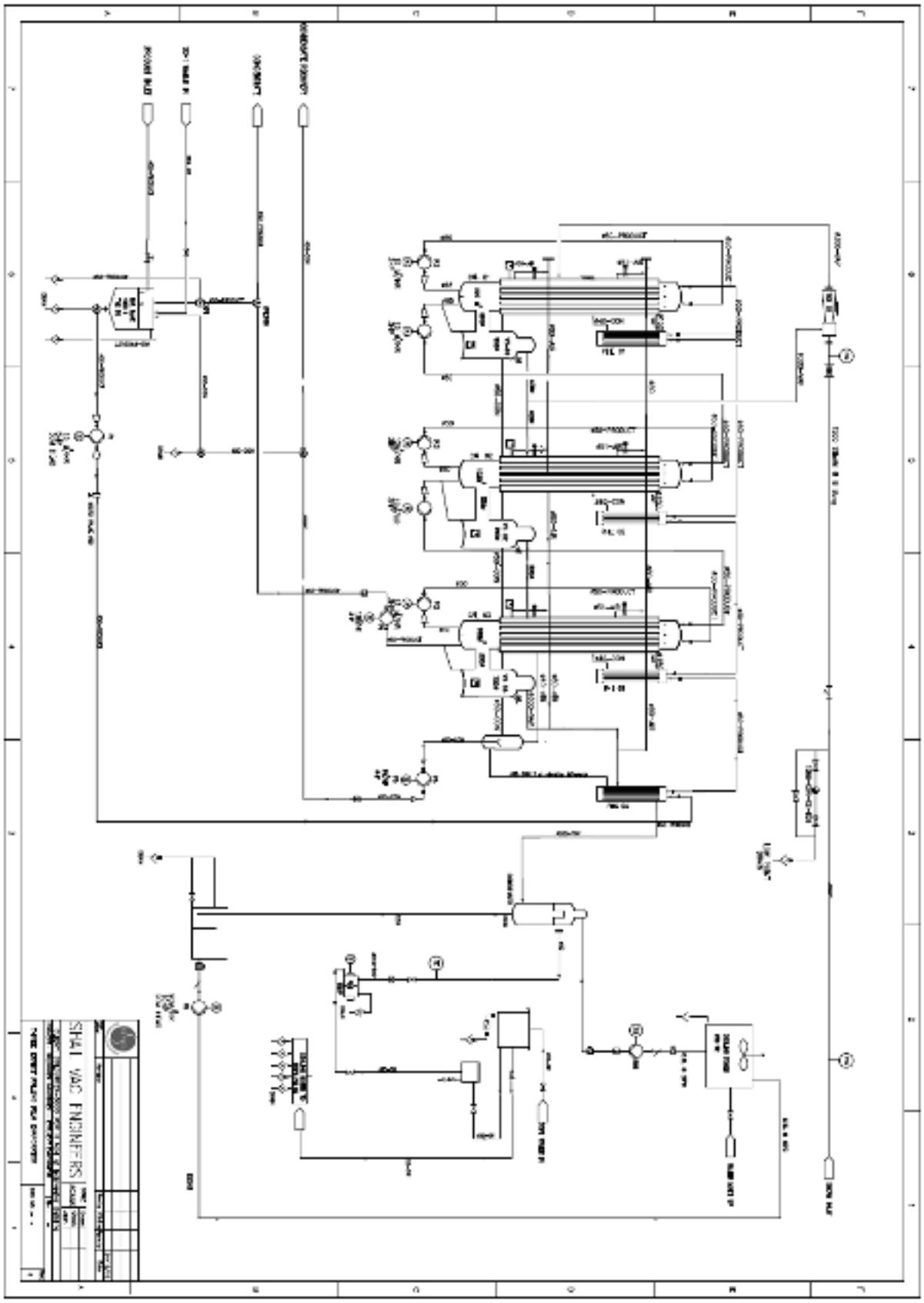
FLOW DIAGRAM OF EFFLUEMENT TREATMENT PLANT

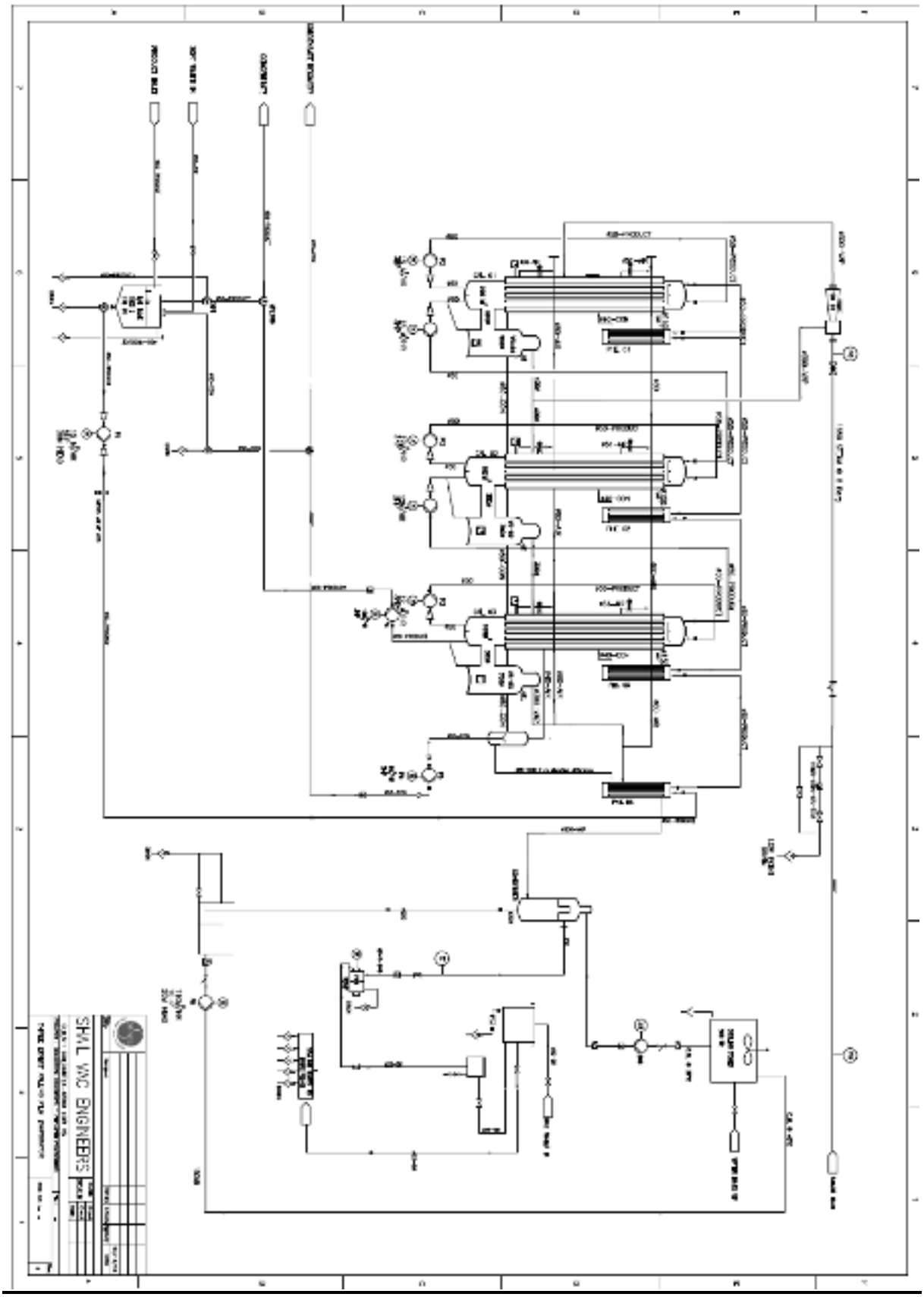


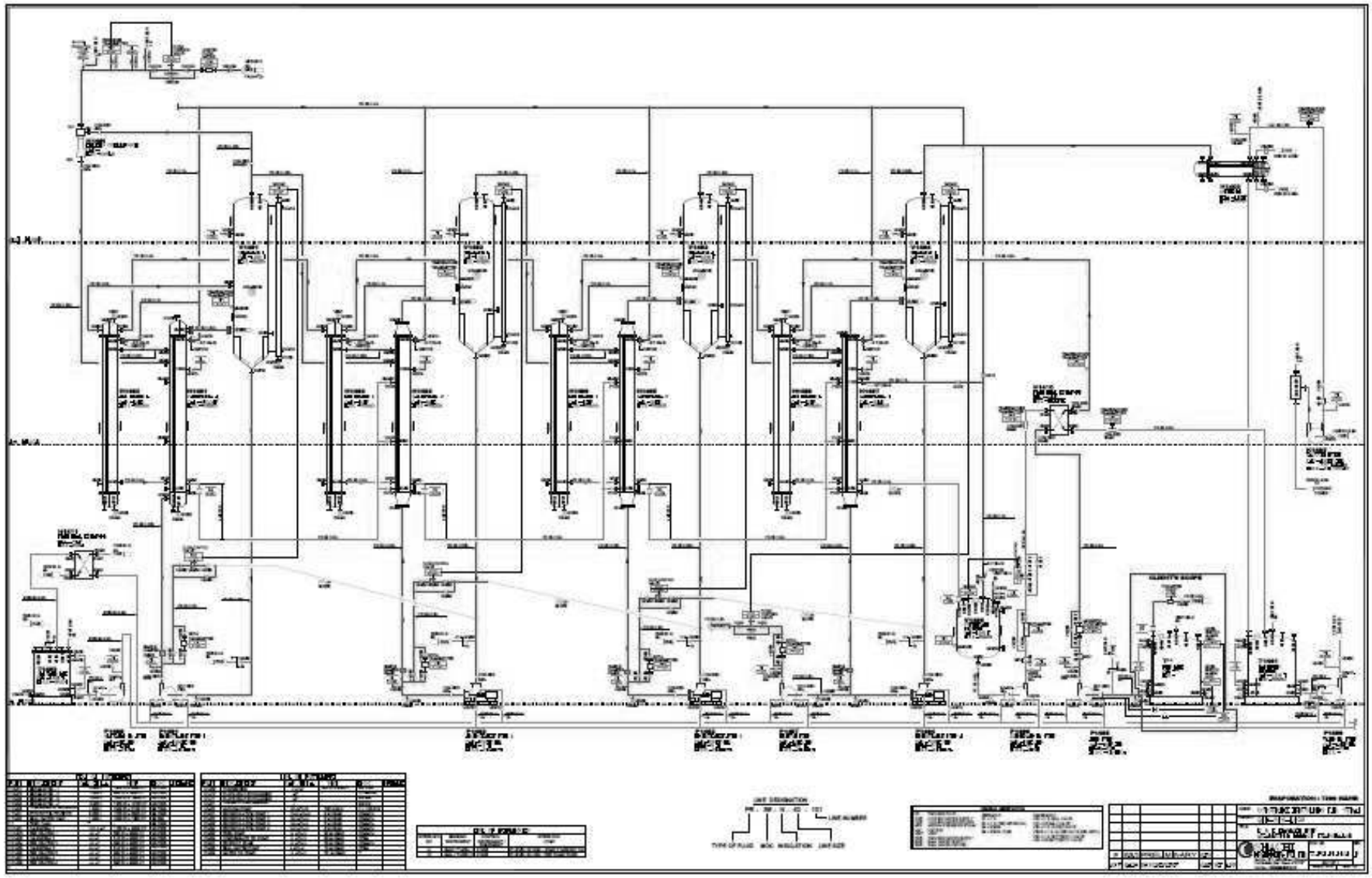
ANNEXURE-V

DETAILS OF MULTIPLE EFFECT EVAPORATORS

Sr. No.	Description	Feed Rate in Liter/hr	Evaporation rate in Liter/hr	Concentrate Rate in Liter/hr
1	Multiple Effect Evaporator-1	10,000	5,000	5,000
2	Multiple Effect Evaporator-2	13,000	6,500	6,500
3	Multiple Effect Evaporator-3	7000 (with circulation 10,000)	5,250	4,750
4	Multiple Effect Evaporator-4	9500 (with circulation 13,600)	7,200	6,400

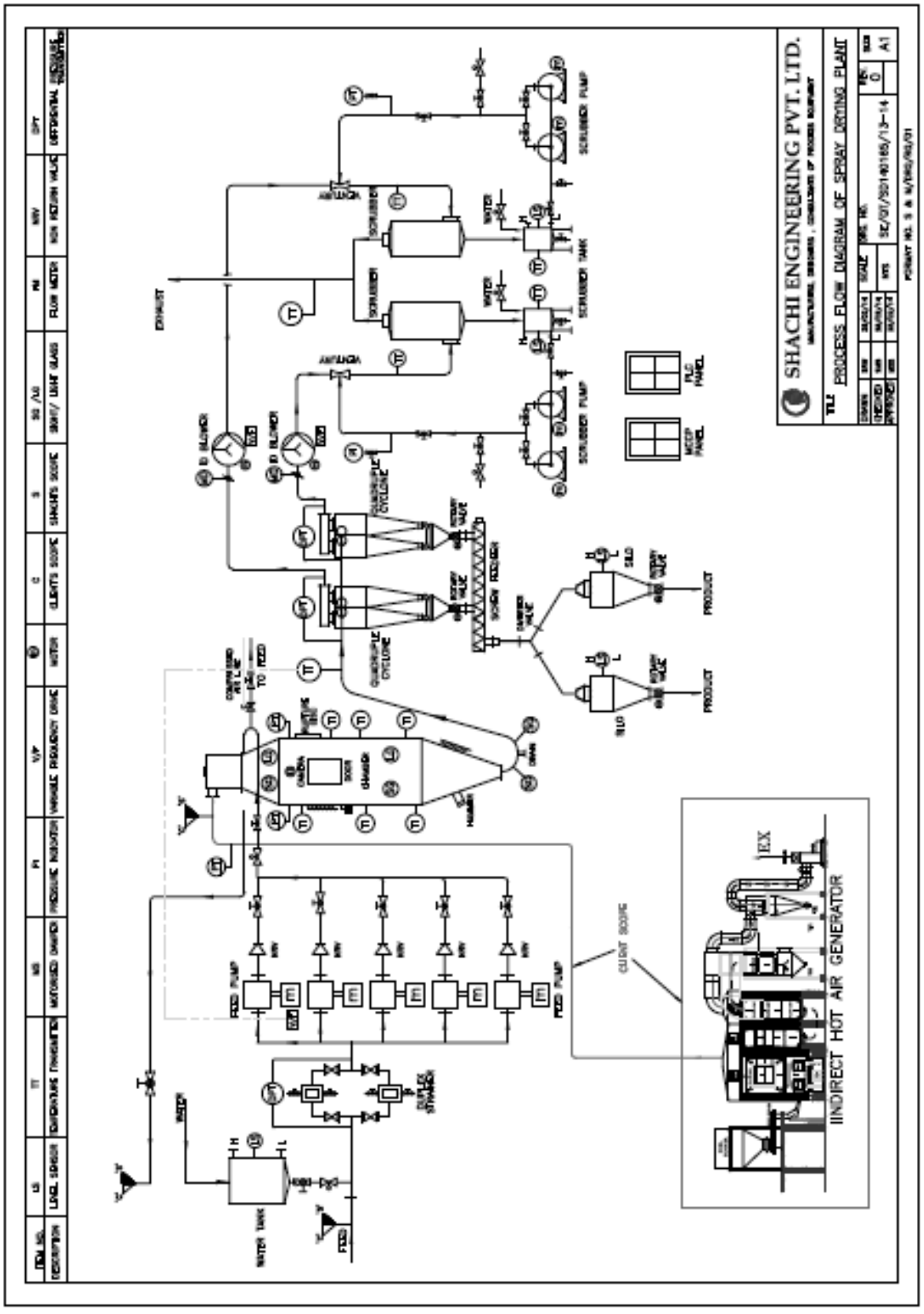



SHAL VAC ENGINEERS



DETAILS OF SPRAYDRYER

Evaporation Rate		**8000 kg/hr**
Product Rate		3610 kg/hr
Feed Rate		11610 kg/hr.
Product Moisture		<10%.
OPERATING CONDITIONS		
Mode of Heating		Hot Air
Heating of Air By		Coal Fire Hot Air Generator (In-Direct Type)
Inlet Air Temperature		580°C
Outlet Air Temperature		175˚C
MATERIAL OF CONSTRUCTION		**For Contact Parts**
Feed		Stainless Steel 316
Product		Stainless Steel 316
Hot Air		SS321
CYCLONE SEPERATOR		
Type		High Efficiency, Tangential Entry
No. of Units		Two sets of Quadruple cyclone
Dimensions		Dia. 1400 mm each.
Material of Construction		SS304, 2 mm thk.
VENTURY SCRUBBER		
Type		Static Ventury
Material of Construction		Carbon Steel 5 mm thk, FRP lining 3 mm
Quantity		2 sets each
WET SCRUBBER		
Type		Direct contact with water spray
Material of Construction		Carbon Steel 5 mm thk, FRP lining 3 mm thk
Quantity		2 sets


SHACHI ENGINEERING PVT. LTD.
PROCESS FLOW DIAGRAM OF SPRAY DRYING PLANT
INDIRECT HOT AIR GENERATOR
EXHAUST
SCRUBBER PUMP
SCRUBBER TANK
FEED PUMP
PRODUCT
FLO PANEL
MCC PANEL

ANNEXURE-VI

DETAILS OF LIQUID WASTE INCINERATOR

STACK DIAMETER.	1500 MM
STACK HEIGHT	40000 MM
TYPE	**LIQUID WASTE INCINERATOR**
DUCT DIA	900 MM
COMBUSTION ZONE	
BURNER	3 Nos.
HEAT GENRATION (Kcal/Hr.)	51,00,000
LDO/ HSD/BIO DIESEL (Lit./Hr.)	600/ 545/545
LIQUID WASTE (LT/HR) (DE-SIGNED CAPACITY)	8000
MATERIAL	M.S. F.B.L.
LINING	FIRE BRICKS
DIAMETER	3355 MM
HEIGHT	7320 MM
POST COMBUSTION ZONE	
BURNER	2 No.
HEAT GENERATION (Kcal/Hr.)	8,16,000
LDO/ HSD/BIO DIESEL (Lit./Hr.)	100/85/85
MATERIAL	M.S. F.B.L.
LINING	FIRE BRICKS
DIAMETER	3355 MM
HEIGHT	8235 MM
SCRUBBER	VENTURIMETER
MATERIAL	M.S. R.L.
LINING	REFACTORY
MEDIA	ALKALINE
CIRCULATION PUMP (M3/HR.)	150-200
I.D.FAN CAPACITY (M3/HR.)	55000
F.D. FAN CAPACITY (M3/HR.)	4000 x 3
RATE OF EMISSION (NM3/HR)	52,000

ANNEXURE-VII

DETAILS OF SOILD WASTE INCINERATORS

DETAILS OF SOLID WASTE INCINERATOR INSTALLED AT COLOURTEX INDUSTRIES PVT. LTD. (UNIT-2)

	Incinerator - 1	**Incinerator - 2**
Stack Diameter	1500 mm	1500 mm
Stack Height	40000 mm	40000 mm
Type	**Stationary Grate**	**Rotary**
Duct Dia	610 mm	900 mm
Combustion Zone		
Burner	1 No.	1 No.
Heat Generation (Kcal/Hr.)	5,10,000	10,20,000
HSD	50 Lit./Hr	150 Lit./Hr
Solid Waste (Tons/Day) Designed capacity	5	20
Material	M.S.F.L.	M.S.F.L
Lining	Fire Bricks	Fire Bricks
Diameter	2440 mm	1525 mm
Height / Length	6135 mm	13420 mm
Post Combustion Zone		
Burner	1 No.	1 No.
Heat Generation (Kcal/Hr.)	3,06,000	3,35,000
HSD	30 Lit./Hr	32 Lit./Hr
Material	M.S.F.L.	M.S.F.L
Lining	Fire Bricks	Fire Bricks
Diameter	2440 mm	3270 mm
Height	4135 mm	8575 mm
Scrubber	Quenching Tower	Venturimeter
Material	M.S.R.L.B.L.	M.S.R.F.L
Lining	Acid Bricks	Refractory
Media	Alkaline	Alkaline
Circulation Pump (M^3/Hr.)	50	150
I.D.Fan Capacity (M^3/Hr.)	12000	55000
F.D. Fan Capacity (M^3/Hr.)	8000	4500
Rate Of Emission (Nm^3/Hr)	5000	15000

ANNEXURE-VIII

DETAILS OF HAZARDOUS WASTE STORAGE, TREATMENT AND DISPOSAL

Sr. No.	Name of Waste	Category No.	Total Quantity As per Existing CCA in MT/Month	As per TOR Amendment granted on 17/5/2018 in MT/Month	Change in Quantity in MT/Month	Total Quantity in MT/Month	Method of Disposal
1	ETP Sludge	35.3	2400	4500	-	4500	Sale to Cement Manufacturing Industries in Gujarat & Other States of India (Like Orient Cement, Maharastra & Andrapradesh, Vikram Cement, Madhyapradesh, Ultratech Cement Ltd., Rajashthan Reliance Cement Co. Pvt. Ltd., Butibori etc.) and used for manufacturing of bricks & left over disposed off at Group companies own TSDF site / TSDF site of Saurashtra Enviro Project Pvt. Ltd., Bhachau
2	Process Gypsum	26.1	4140	4140	-	4140	
3	Iron Oxide Waste		1446	1221	225	1446	Sale to Cement Manufacturing Industries in Gujarat & Other States of India (Like Orient Cement, Maharastra & Andrapradesh, Vikram Cement, Madhyapradesh, Ultratech Cement Ltd., Rajashthan Reliance Cement Co. Pvt. Ltd., Butibori etc.) & left over will be disposed off at Group companies own TSDF site / TSDF site of Saurashtra Enviro Project Pvt. Ltd., Bhachau.

Sr. No.	Name of Waste	Category No.	Total Quantity As per Existing CCA in MT/Month	As per TOR Amendment granted on 17/5/2018 in MT/Month	Change in Quantity in MT/Month	Total Quantity in MT/Month	Method of Disposal
4	Organic Sludge	26.1	70	60.5	25.5	86	Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara Incineration in the Solid Waste / Blending & transfer for Co-processing in the cement kiln of Cement Industries
5	Inorganic Salt		619.3	615	-	615	Sale/Use as a Raw material in Reactive Dyes/ disposed off at Group companies own TSDF site / TSDF site of Saurashtra Enviro Project Pvt. Ltd., Bhachau..
6	Inorganic Sludge		18.9	0	-	0	Disposed off at Group companies own TSDF site / TSDF site of Saurashtra Enviro Project Pvt. Ltd., Bhachau.
7	Incineration Ash	37.2	600	600	-	600	
8	MEE Salt (Inorganic Salt)	35.3	1300	1500	2150	3650	
9	Distillation Residue	20.3	313 + 223.8 (CTX Lifesciences Pvt. Ltd.) = 536.8	403 + 223.8 (CTX Lifesciences Pvt. Ltd.) = 626.8	-76	327 + 223.8 (CTX Lifesciences Pvt. Ltd.) = 550.8	Receive, Collection, Storage, Transportation, Disposal by incineration in the common liquid waste incinerator at M/s. Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel/Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2) for incineration/Blending & transfer for Co-processing in the cement kiln of Cement Industries.

Sr. No.	Name of Waste	Category No.	Total Quantity As per Existing CCA in MT/Month	As per TOR Amendment granted on 17/5/2018 in MT/Month	Change in Quantity in MT/Month	Total Quantity in MT/Month	Method of Disposal
10	Oily Sludge	35.4	3.8	4	-0.2	3.8	Incineration in the own liquid waste incinerator/ transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for incineration in Solid Waste Incinerators
11	Spent Catalyst	35.2	10.093	4	-	4	Send for regeneration
12	Spent Solvent	20.2	20.85	0	-	0	Receive, Collection, Storage, Transportation, Disposal by incineration in the own Liquid waste incinerator/ Sale to Authorized Recycler/ Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2) for incineration/Blending & transfer for Co-processing in the cement kiln of Cement Industries.
	Spent Solvent	28.6	141.6 (CTX Lifesciences Pvt. Ltd.)	141.6 (CTX Lifesciences Pvt. Ltd.)	-	141.6 (CTX Lifesciences Pvt. Ltd.)	
13	Spent Carbon	36.2	8.58	0	-	0	Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration in the Solid Waste Incinerators / Blending & transfer for Co-processing in the cement kiln of Cement Industries.

Sr. No.	Name of Waste	Category No.	Total Quantity As per Existing CCA in MT/Month	As per TOR Amendment granted on 17/5/2018 in MT/Month	Change in Quantity in MT/Month	Total Quantity in MT/Month	Method of Disposal
14	Used Oil	5.1	4 + 2.1 (CTX Lifesciences Pvt. Ltd.) = 6.1	4.5 + 2.1 (CTX Lifesciences Pvt. Ltd.) = 6.6	-	4.5 + 2.1 (CTX Lifesciences Pvt. Ltd.) = 6.6	Sale to registered Re-processor / Use for Lubrication within the Industry/ Burnt in the Incinerators at M/s Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel
15	Waste/Residues Containing Oil	5.2	0.5	0.5	-	0.5	Incineration in the Incinerator
16	Discarded Containers & Barrels	33.1	7500 Nos. (105 MT)	7500 Nos. (105 MT)	-	7500 Nos. (105 MT)	Sale to authorized dealer after decontamination / Reuse after decontamination
	Liners	33.1	25	25	-	25	Sale to authorized dealer after decontamination / Reuse after decontamination/ transfer for Co-processing in the cement kiln of any Cement Industries.
17	Spent Acid (Inorganic Acid)	26.3	1200 MT/Month	1200 MT/Month	-	1200 MT/Month	Receive from Colourtex Industries Pvt. Ltd. (Unit-2), Sister Concern and reuse in the process.

ANNEXURE –IX

DETAILS OF FUEL CONSUMPTION

Sr No	Description	Fuel	Existing Quantity (As per Existing CCA)	As per TOR Amendment granted on 17/5/2018	Additional Quantity	Total Quantity
1	For Thermopack (1500 U)	Natural Gas/ Coal	195 NM^3/ hr/ 270 kg/hr	195 NM^3/ hr/ 270 kg/hr	-	195 NM^3/ hr/ 270 kg/hr
2	For Steam Boiler-1 (35 TPH)	Coal	6000 Kg/hr	6000 Kg/hr	-	6000 Kg/hr
3	For Steam Boiler-2 (30 TPH)	Coal	5200 Kg/hr	5200 Kg/hr	-	5200 Kg/hr
4	For Hot Air Generator-1 (45 Lac Kcal/hr)	Coal/Lignite	1020 Kg/hr/ 1505 Kg/hr	1020 Kg/hr/ 1505 Kg/hr	-	1020 Kg/hr/ 1505 Kg/hr
5	For Hot Air Generator-2 (75 Lac Kcal/hr)	Coal/Lignite	1640 Kg/hr/ 2445 Kg/hr	1640 Kg/hr/ 2445 Kg/hr	-	1640 Kg/hr/ 2445 Kg/hr
6	For Hot Air Generator-3 (45 Lac Kcal/hr)	Coal/Lignite	1020 Kg/hr/ 1505 Kg/hr	1020 Kg/hr/ 1505 Kg/hr	-	1020 Kg/hr/ 1505 Kg/hr
7	For Incinerator	LDO/ HSD/ Bio Diesel	700 lit/hr/ 630 lit/hr/ 630 lit/hr	700 lit/hr/ 630 lit/hr/ 630 lit/hr	-	700 lit/hr/ 630 lit/hr/ 630 lit/hr
8	For Hot Air Generator-4 (45 Lac Kcal/hr)	Coal	1020 Kg/hr	1020 Kg/hr	-	1020 Kg/hr
9	For Hot Air Generator-5 (75 Lac Kcal/hr)	Coal	1640 Kg/hr	1640 Kg/hr	-	1640 Kg/hr
10	For Hot Air Generator-6 (80 Lac Kcal/hr)	Coal	1750 Kg/hr	1750 Kg/hr	-	1750 Kg/hr
11	For Steam Boiler-3 (70 TPH)	Coal	-	14 MT/hr	-	14 MT/hr
12	For Hot Air Generator-7 (45 Lac Kcal/hr)	Coal	-	1020 Kg/hr	-	1020 Kg/hr
13	For Hot Air Generator-8 (75 Lac Kcal/hr)	Coal	-	1640 Kg/hr	-	1640 Kg/hr
14	For Hot Air Generator-9 (80 Lac Kcal/hr)	Coal		1750 Kg/hr	-	1750 Kg/hr
15	For Thermopack-2 (3000 U)	Natural Gas/ Coal	-	360 NM^3/ hr/ 720 kg/hr	-	360 NM^3/ hr/ 720 kg/hr
16	For Thermopack-3 (3000 U)	Natural Gas/ Coal	-	360 NM^3/ hr/ 720 kg/hr	-	360 NM^3/ hr/ 720 kg/hr
17	For Hot Air Generator-9 (45 Lac Kcal/hr)	Coal	-	-	1020 Kg/hr	1020 Kg/hr
18	For Hot Air Generator-10 (75 Lac Kcal/hr)	Coal	-	-	1640 Kg/hr	1640 Kg/hr
19	For D.G. Sets	HSD	816 Lit./hr	840 Lit./hr	-	1656 Lit./hr

ANNEXURE – X

DETAILS OF HAZARDOUS CHEMICALS

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
1	Acrylonitrile	20. 00	T: 20 x 1	15. 00	Nr. EO plant	Liquid at NTP	Fire, if spill from tank & comes in contact with spark.	Dyke wall, Vent line, level indicator & PPE are provided
2	Acetic Acid	45.00	T: 20 x 1 T: 25 x 1	35.00	At EO & S7 Plant	Liquid at NTP	Combustible if spill from tank & comes in contact with heat & spark	-Do-
3	Acetic Anhydride	40. 0	T: 20x2	30. 00	At EO plant	-Do-	Fire	-Do-
4	Aniline	70. 0	T: 20x1 T: 25x2	60. 00	Nr EO plant	-Do-	Toxic	-Do-
5	Mono ethyl Aniline	20.0	T: 20x1	15.00	At EO plant	Liquid at NTP	Toxic	-Do-
6	ODCB	6.0	D:0.250 X24	6.00	S-2	Liquid at NTP	Fire	-Do-
7	Ethylene Oxide	21:0	T: 7 x 3	14. 00	Nr. EO plant	Liquid at – 5 to 0oC under 3.5 to 4 Kg. Pressure of Nitrogen	Fire & Explosion, if spill from tank & comes in contact with spark.	CCE approved separate storage area, Dyke wall, Water curtain Auto & manual sprinkler. All tanks are separate earthing & Bonding. Magnetic level indicator. Safety valve & flame arrester, Excess flow valve, NRV on tanks. N2 Blanketing. Brine water cooling. temp & Pressure Indicator.
8	Petroleum class “A” storage (Methanol Toluene)	240.0	T:20X06	120.00	Near S-4 Plant	Liquid at NTP	Fire, if spill from tank & comes in contact with spark.	CCE approved separate storage area, Flame arrestor provided, FFE & sand bucket. Dyke wall
9	HSD	25.0	T 25X1	22.00	Near DG Area	-Do-	-Do-	-Do-
10	Sulphuric Acid	200.0	T 50×2, T 40×1, T 25×1, T 20×1, T 15×1,	150.00	Near S-4,S-3,S-7 S-9 & S-10 plant	Liquid at NTP	Corrosive & Spill, if leak from tank	Dyke wall, Sufficient amount of sand/soil are kept., Sand bucket and PPE provided, safety shower

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
11	Oleum 65%	125.0	T 50×2, T 25×1,	100.00	Near S-4 & S-10 plant	Liquid at NTP	Corrosive, Spill & Toxic gas release, if leak from tank	Dyke wall, level indicator, Sand bucket & PPE provided. Vent line deep in Sulphuric Acid tank.
12	Oleum 23%	25.00	T 25×1 = 25	22.00	Near S-1 plant	Liquid at NTP	Corrosive, Spill & Toxic gas release, if leak from tank	Dyke wall, level indicator, Sand bucket & PPE provided. Vent line deep in Sulphuric Acid tank.
13	Nitric Acid 61.5%	50.00	T:40x1	40:00	-Do-	-Do-	-Do-	-Do-
14	Chlorosulphonic Acid	140.0	T:50X2 T:15X1 T:25X1	110.00	Near S-1,S-2P & S-10 plant	-Do-	-Do-	-Do-
15	Thionyl Chloride	25.00	T:25x1	20.00	Near S-1plant	-Do-	-Do-	-Do-
16	PCL_3	20.00	T:10x2	13.00	Near S10 plant	-Do-	-Do-	-Do-
17	Caustic Soda lye	200.00	T:50X1 T:20x1 T:40×2 T:25×2 T:12 x1	170.00	Near S-1,S-4,S-7 & S-9 Plant	-Do-	-Do-	-Do-
18	Nitrocyile	25.00	T:25×1	12.00	-Do-	-Do-	-Do-	-Do-
19	Liquor Ammonia (24%)	12.00	T:12x1	09.00	-Do-	-Do-	Fire	-Do- (Sr. No. 2) & Manual water sprinkler provided.
20	Liquid Ammonia	3.90	Cy:0.05x10 CR.:0.150x8 CR.:0.450x15	0.500	In S4,S7,S9 &S10	-Do-	Toxic gas release, if Leak from Cylinder or NH3 chilling system	Fire hydrant line, FFE & PPE provided. Manually sprinkler system provided on receiver.
21	Petroleum class "A & B" Drum storage (Toluene,Methanol,Xylene, Xylidine)	76.00	D:0.02 X 380	50.00	Near S-4 Plant	Liquid at NTP	Fire, if spill from drum & comes in contact with spark.	CCE approved separate storage room with locking arrangement, No Smocking zone declared, FFE & sand bucket provided.
22	Isopropyl Alcohol	6.00	D:0.02 X 30	5.60	S-2 Plant	-Do-	-Do-	Separate storage room, ventilation provided, Flameproof fitting provided, Portable Fire extinguisher & Fire hydrant line are provided.

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
23	Methyl Isobutyl Ketone	6.0	D: 0.165X36	5.40	Godown	-Do-	-Do-	-Do-
24	Butanol	1.00	D:0.165 X 5	0.75	Godown	-Do-	-Do-	-Do-
25	Formaldehyde	6.00	IBC T: 1000 x 6	5.00	Godown	-Do-	Corrosive & Spill, Toxic if leak from IBCT	Separate storage room, ventilation provided, Flameproof fitting provided, Portable Fire extinguisher & Fire hydrant line are provided.
26	Formic Acid	3.5	C: 0.035X100	3.00	Godown	-Do-	Corrosive & Spill, if leak from Carboys	-Do-
27	Iso amyl Alcohol	5.0	D:0.170X29	4.00	Godown	-Do-	Corrosive & Spill, Toxic if leak from drum	-Do-
28	Benzyl chloride	4.0	D:0.240X16	3.00	Godown	-Do-	Corrosive & Spill, Toxic if leak from drum	-Do-
29	Maleic Anhydride	2.0	B:0.025X80	1.50	Godown	-Do-	Corrosive & Spill, Toxic if leak from drum	-Do-
30	N-Butyl Alcohol	2.0	D:0.165X12	1.5	Godown	-Do-	Fire, if spill from drum & comes in contact with spark.	-Do-
31	Ortho Nitro Toluene	10.0	D:0.125X80	9.0	Godown	-Do-	Fire, if spill from drum & comes in contact with spark.	-Do-
32	P Nitroaniline	10	B:0.050X200	8.5	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from drum	-Do-
33	Phenol	1.5	D:0.200X7	1.0	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from drum	-Do-
34	Phosphoric acid	5	C:0.035X143	4	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from drum	-Do-
35	POCL3	5	C:0.050X100	4.5	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from car-boys	-Do-

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
36	Phenylene P - Diamine	5	B:0.025X143	4	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from car-boys	-Do-
37	Paraffin	1	B:0.050X20	700Kgs	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from car-boys	-Do-
38	Pyridine	1.5	D:0.200X7.5	1	-Do-	-Do-	Combustible if Splatter from bags & comes in contact with heat & spark.	Separate storage Godown, Flame proof fitting pro-vided, Portable Fire extinguisher & Fire hydrant line are provided, Sufficient amount of sand/soil are kept.
39	Sodium Picramate	1.5	C:0.050X30	1	-Do-	-Do-	Combustible if Splatter from bags & comes in contact with heat & spark.	Separate storage Godown, Flame proof fitting pro-vided, Portable Fire extinguisher & Fire hydrant line are provided, Sufficient amount of sand/soil are kept.
40	Triethylamine	1.5	D:0.150X10	1	-Do-	-Do-	Combustible if Splatter from bags & comes in contact with heat & spark.	Separate storage Godown, Flame proof fitting pro-vided, Portable Fire extinguisher & Fire hydrant line are provided, Sufficient amount of sand/soil are kept.
41	Diethylene glycol	6.00	D:0.23x27	5.00	-Do-	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from carboys
42	Naphthalene	400.00	B:0.020x20,000	360.00	-Do-	-Do-	Combustible if Splatter from bags & comes in contact with heat & spark.	Separate storage Godown, Flame proof fitting pro-vided, Portable Fire extinguisher & Fire hydrant line are provided, Sufficient amount of sand/soil are kept.
43	Hydroquinon	0.50	B:0.025x20	0.40	-Do-	-Do-	-Do-	-Do-

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
44	Anthraquinon	50.00	J:400x125 = 50	20.00	-Do-	-Do-	-Do-	-Do-
45	Caustic soda Flakes	100.00	B:0.05x2000	85.00	-Do-	-Do-	Corrosive & Spill, if splatter from bags	-Do-
46	Sodium Nitrite	40.00	B:0.05x800	30.00	-Do-	-Do-	-Do-	-Do-
47	Potasium hydroxide	1.50	B:0.05x30	1.00	-Do-	-Do-	-Do-	-Do-
48	Hyrdogen peroxide	0.05	C:0.05x1	0.04	-Do-	-Do-	Corrosive & Spill, if leak from Carboy	-Do-
49	Cyanuric Chloride	50.00	J:500 x100	30.00	-Do-	-Do-	Corrosive & Spill, if splatter from Jambo	-Do-
50	Sodium Fluoride	2.50	J:500 x10=5	02.50	-Do-	-Do-	-Do-	-Do-
51	Vinyl sulphone	100	B:0.050X200	180	-Do-	-Do-	Corrosive & Spill, if splatter from bags	-Do-
52	Alluminium Chloride	2	B:0.050X40	1.5	-Do-	-Do-	Corrosive & Spill, if splatter from bags	-Do-
53	Ferrous sulphate	15	B:0.050X50	13.5	-Do-	-Do-	Corrosive & Spill, if splatter from bags	-Do-
54	Hydrogen Gas	1250Kg/cm2	Cy:0.028X44	1000 Kg/cm2	-Do-	-Do-	Fire, if spill from drum & comes in contact with spark.	CCE approved separate storage room with locking arrangement, No Smocking zone declared, FFE & sand bucket provided.
55	HCL (GAS)	150kg/cm2	Cy:0.030X5	130kg/cm2	-Do-	-Do-	Corrosive & Spill, if splatter from cylinders	Separate storage Godown, provided,
56	2:4-Xylidine	20.00	D: 0.2 x 20	4.00	Godown	Liquid at NTP	Fire, if spill from drum & comes in contact with spark & Toxic gas release, if leak from drum	Separate storage room, ventilation provided, Flameproof fitting provided, Portable Fire extinguisher & Fire hydrant line are provided.
57	25 XLD	20.00	D: 0.2 x 20	4.00	-Do-	- Do -	- Do -	- Do -
58	26 XLD	20.00	D: 0.2 x 20	4.00	-Do-	- Do -	- Do -	- Do -
59	2-Ethyl hexyl amine	15.00	D: 0.2 x 75	15.00	-Do-	- Do -	-Do-	-Do-
60	BSC	20.00	D: 0.200 x 100	20.00	-Do-	- Do -	-Do-	-Do-

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
61	Di Methyl Sulfate	25.00	D: 0.2 x 125	25.00	-Do-	- Do -	-Do-	-Do-
62	Mix XLD	10.00	D: 0.2 x 50	10.00	-Do-	- Do -	-Do-	-Do-
63	Mixed Toluidine	1.00	D: 0.2 x 5	1.00	-Do-	- Do -	-Do-	-Do-
64	Diethyl Sufate	25.00	D: 0.2 x 125	25.00	-Do-	- Do -	-Do-	-Do-
65	Mono Chloro Benzene	12.00	D: 0.200 x 60	12.00	-Do-	- Do -	-Do-	-Do-
66	N.B. Amine	15.00	D: 0.200 x 75	15.00	-Do-	- Do -	-Do-	-Do-
67	n-Butanol	3.00	D: 0.2 x 15	3.00	-Do-	- Do -	-Do-	-Do-
68	OT Liquid	3.00	D: 0.2 x 15	3.00	-Do-	- Do -	-Do-	-Do-
69	M. Toluidine	1.00	D: 0.2 x 5	1.00	-Do-	- Do -	-Do-	-Do-
70	Britex 3100	1.00	D: 0.2 x 5	1.00	-Do-	- Do -	-Do-	-Do-
71	EDC	2.00	D: 0.2 x 10	2.00	-Do-	- Do -	-Do-	-Do-
72	Allyl Chloride	50.00	D: 0.2 x 250	50.00	Drum storage area	Liquid at NTP	-Do-	Separate storage room, ventilation provided, Flame-proof fitting provided, Portable Fire extinguisher & Fire hydrant line are provided.
73	Ammonia	0.05	Cy: 0.050 x 72	16.93	Separate storage room	Gas Under Pressure	Toxic gas release, if leak from Cylinder	Separate storage room, No smoking zone declared, FFE & sand bucket provided.
74	Bromine	19.635	(3.5 kg x 6 bottle= 21kg in 1 box) 0.021 x 935 boxes	19.635	Godown	Liquid in bottles	Corrosive, Spill & Toxic gas release, if leak from bottle	Separate ventilated storage room Bottles kept in wooden boxes.
75	Caustic Potash	20.00	B: 0.050 x 400	20.00	-Do-	Corrosive & Spill, if splatter from bags	-Do-	- Transfer in other bags.
76	Chromic Acid	20.00	B: 0.050 x 400	20.00	-Do-	Corrosive & Spill, if splatter from bags	-Do-	- Transfer in other bags.
77	Copper chloride	20.00	B: 0.050 x 400	20.00	-Do-	- Do -	-Do-	-Do-
78	Copper Sulfate	20.00	B: 0.050 x 400	20.00	-Do-	- Do -	-Do-	-Do-
79	Chlorine	0.900	Cy: 0.900 x 27	24.30	CL_2 storage	Gas under pressure	Toxic gas release if Leak from Cylinder or CL2 handling system	CCE approved separate storage area, Emergency kit & Ammonia Torch available, FRP Hood

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
								with blower with pack tower with dil. NaOH circulation tank available for emergency scrub-bing, 2 Nos. of SBA sets & 3 No. of Air line mask available, Continues monitoring system installed.
80	Copper Cya-nide	6.00	D: 0.050 x 120	6.00	Separate room in Chemical Store	Solid at NTP	Poison, if splatter from drums & comes in contact skin or inhalation of dust	Approved by district authority, Separate room with lock & key arrangement, han-dling with closed system.
81	Diethyl Amine	2.00	D: 0.2 x 10	2.00	-Do-	- Do -	-Do-	-Do-
82	DMF	15.00	T: 15 x 2	30.00		-Do-	Combustible if spill from tank & comes in contact with heat & spark	Dyke wall, Vent line, level indicator & PPE are provided
83	Nitro Ben-zene	12.50	T:12.5X2	20.00		-Do-	-Do-	-Do-
84	Metasol 150 ND	12.50	T:12.5X2	20.00		-Do-	-Do-	-Do-
85	MEG	12.50	T:12.5X2	20.00		-Do-	-Do-	-Do-
86	Pine oil	10.00	D: 0.2 x 50	10.00	-Do-	- Do -	-Do-	-Do-
87	Ethyl Chlo-ride	0.6	Cy: 0.6 x 24	14.4	ECL sto-rage	Gas under pressure	Fire, if Leak from Cylinder & come in contact with spark & Toxic gas release during ECL combustion	Toners kept under CCE approved shed, No smoking zone declared. Water pit provided. FFE & sand bucket provided.
88	Heptene	25.00	T: 25 x 2	50.00		-Do-	-Do-	CCE approved underground separate storage area, Flame arrestor provided, No Smocking zone declared, FFE & sand bucket provided, Auto sprinkle provided.
89	M.M. Amine	10.00	T: 10 x 1	10.00	P4	Liquid at NTP	-Do-	-Do- & Flame arrestor provided

Sr. No.	Name of the Hazardous Substance (Mention Concentration if any)	Quantity Max. that can be stored M.T.	Type & No. of Contai-ners (M.T.) **	Quantity Actually Stored (Including in process & Handling M.T	Place of its Storage (Plant No.)	State of Operating Pressure & Temp.	Type of Hazards Possible (Fire, Explosion Toxic Release, Spill etc.	Control Measures Provided
90	NaCN	6.00	D: 0.050 x 120	6.00	Separate room in Chemical Store	Solid at NTP	Poison, if splatter from drums & comes in contact skin or inhalation of dust	Approved by district authority, Separate room with lock & key arrangement, han-dling with closed system.
91	P.T.A.	15.00	B: 0.050 x 300	15.00	-Do-	- Do -	Corrosive & Spill, if splatter from bags	-Do-
92	Para Anisi-dine	150.0	B: 0.050 x 3000	150.00	-Do-	- Do -	-Do-	-Do-
93	Zinc Chloride	15.0	B: 0.025 x 300	15.00	-Do-	- Do -	-Do-	-Do-
94	Para Cresol	3.00	D: 0.2 x 15	3.00	-Do-	- Do -	Toxic gas re-lease, if leak from drum	-Do-
95	P. Chloro Phenol	3.00	D: 0.2 x 15	3.00	-Do-	- Do -	Toxic gas re-lease, if leak from drum	-Do-
96	Para Tolui-dine	20.00	D: 0.2 x 100	20.00	-Do-	- Do -	-Do-	-Do-
97	P-chloro aniline	5.00	D: 0.2 x 25	5.00	-Do-	- Do -	-Do-	-Do-
98	M.E. Amine	10.00	D: 0.2 x 50	10.00	-Do-	- Do -	-Do-	-Do-
99	Sod. Hydro Sulfite	00.50	D:0.100x5	0.400	-Do-	Solid at NTP	Corrosive & Spill, if splatter from drum	Separate ventilated storage room Bags stacked on Pallet
100	Sulfuryl Chloride	03.00	C : 0.050 x 60	02.00	-Do-	-Do-	Corrosive, Spill & Toxic gas release, if leak from Carboys	Separate ventilated shed. Carboys Stacked on pallet
**B: Bag, C: Carboy, D: Drum, T: Tank, Cy: Cylinder, CR: Chilling plant receiver.								

ANNEXURE – XI

DETAILS OF STACK AND VENT

EXISTING					
A	**FLUE GAS EMISISON (AS PER EXISTING CCA & AS PER TOR AMENDMNET GRANTED ON 17/5/2018)**				
Sr No	**Stack attached to**	**Stack Height in Meter**	**Parameters**	**Fuel Consump-tion**	**Air Pollution Control System**
1	Thermopack-1 (1500 U)	38.125	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Natural Gas	Multi Dust Collector & Teema Cyclone
2	Steam Boiler-1 (35 TPH)	42	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
3	Steam Boiler-2 (30 TPH)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
4	Hot Air Generator-1 (45 Lac Kcal/hr)	45	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal/Lignite	Multi Dust Collector & Trema Cyclone & ESP
5	Hot Air Generator-2 (75 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal/Lignite	Multi Dust Collector & Trema Cyclone & ESP
6	Hot Air Generator-3 (45 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal/Lignite	Multi Dust Collector & Trema Cyclone & ESP
7	Liquid Waste Incinera-tor	40	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	LDO/HSD/ Bio Diesel	Mist Eliminator & Ven-tury Scrubber
8	Hot Air Generator-4 (45 Lac Kcal/hr)	45	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
9	Hot Air Generator-5 (75 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
10	Hot Air Generator-6# (80 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	Trema Cyclone
11	D.G. Set (380 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-
12	D.G. Set (1250 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-
13	D.G. Set (1000 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-

14	D.G. Set (1250 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-
B	**FLUE GAS EMISISON (PROPOSED & AS PER TOR AMENDMNET GRANTED ON 17/5/2018)**				
1	Hot Air Generator-7 (45 Lac Kcal/hr)	45	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
2	Hot Air Generator-8 (75 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
3	Hot Air Generator-9# (80 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	Trema Cyclone
4	Thermopack-2 (3000 U)	38	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	Multicyclone Separa-tor/ Teema Cyclone
5	Thermopack-3 (3000 U)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	Multicyclone Separa-tor/ Teema Cyclone
6	Steam Boiler-3 (70 TPH)	40	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
7	D.G. Set (2000 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-
8	D.G. Set (2000 KVA)	11	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	HSD	-
	(PROPOSED ADDITIONAL)				
9	Hot Air Generator-9 (45 Lac Kcal/hr)	45	SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP
10	Hot Air Generator-10 (75 Lac Kcal/hr)		SPM: 150 mg/Nm^3 SO2: 100 ppm Nox: 50 ppm	Coal	ESP

 # Hot Air Generator- 6 & 9 is direct fired & attached to Spray Dryer, which has further Quadruple Cyclone & Ventury Scrubber as Air Pollution Control Measures.

C	PROCESS EMISSION (EXISTING) (AS PER EXISTING CCA & AS PER TOR AMENDMNET GRANTED ON 17/5/2018)				
Sr No	**Vent attached to**	**Stack Height (m)**	**Pollutants**	**Fuel**	**Air Pollution Control System**
1.	EO storage area	11	EO	--	Packed Tower
2.	EO storage area	11	EO	--	Packed Tower
3.	Reaction Vessel	11	EO	--	Packed Tower
4.	Reaction Vessel (S3) (Sulfonation & Drowning)	20	SO_2 HCl	--	Two Stage Alkali Scrubbing System
5.	Reaction Vessel (S3)	20	SO_2 HCl	--	Two Stage Alkali Scrubbing System
6.	Reaction Vessel (S4)	11	SO_2	--	Two Stage Alkali Scrubbing System
7.	Reaction Vessel (S4)	11	SO_2	--	Two Stage Alkali Scrubbing System
8.	Reaction Vessel (S4)	11	NOX	--	Two Stage Alkali Scrubbing System
9.	Reaction Vessel (S4)	11	SO_2	--	Two Stage Alkali Scrubbing System
10.	Reaction Vessel (S4)	11	NOX	--	Two Stage Alkali Scrubbing System
11.	SFD (S4)	19.5	SPM	--	Bag Filter
12.	Reaction Vessel (S6)	20	SO2 HBr Br2	--	Two Stage Alkali Scrubbing System
13.	Reaction Vessel (S6)	20	SO2 HBr Br2	--	Two Stage Alkali Scrubbing System
14.	Reaction Vessel (S6)	11	NH3	--	Water Scrubbing System
15.	SFD-1 (S6)	25	SPM	--	Water Scrubber
16.	SFD-2 (S6)	25	SPM	--	Water Scrubber
17.	Reaction Vessel (S7) (Sulfonation)	19.8	SO_2 HCl	--	Two Stage Alkali Scrubbing System
18.	Reaction Vessel (S7) (Sulfonation)	19.8	SO_2 HCl	--	Two Stage Alkali Scrubbing System
19.	Chlorosulfonation (S2/p)	11	HCL	--	Two Stage Alkali Scrubbing System
20.	Aminolysis (S2/p)	25	NH3	--	Water Scrubbing System

21.	Fluid bed dryer (S8)	11	SPM	--	Bag filter
22	Reaction Vessel (S9)	11	NOX, NH3, HCl	--	Alkali Scrubbing System
23.	Condensator & Chlorinator (S9)	11	SO2, HCl	--	Alkali Scrubbing System
24.	Spray Dryer-1 (S9)	38.058	SPM	--	Cyclone & Water Scrubber
25.	Spray Dryer-2 (S9)	38.058	SPM	--	Cyclone & Water Scrubber
26.	Spray Dryer-3 (S9)	38.058	SPM	--	Cyclone & Water Scrubber
27.	Reaction Vessel (S10)	11	SO2, HCl NOx, Cl2	--	Two Stage Alkali Scrubbing System
28.	Reaction Vessel (S10)	11	SO2, HCl NOx, Cl2	--	Two Stage Alkali Scrubbing System
29.	Reaction Vessel (S10)	11	HCl Cl2	--	Two Stage Alkali Scrubbing System
30.	Reaction Vessel (S10)	11	HCl Cl2	--	Two Stage Alkali Scrubbing System
31.	Spray Dryer-1 (S10)	25	SPM	--	Bag Filter
32.	Neutralizing tank at ETP	11	SO2, HCl	--	Single Stage Alkali Scrub-bing System
33.	Spray Dryer	35	SPM	--	Quadruple Cyclone & Ventury Scrubber
34.	Spray Dryer-4 (S 9)	40	SPM	--	Cyclone & Water Scrubber
35.	Spray Dryer-2 (S10)	33	SPM	--	Cyclone & Water Scrubber
36.	Spray Dryer-1 (S13)	41	SPM	--	Cyclone & Water Scrubber
37.	Spray Dryer-2 (S13)	41	SPM	--	Cyclone & Water Scrubber
38.	Spray Dryer-3 (S13)	41	SPM	--	Cyclone & Water Scrubber
39.	Spin Flash Dryer *	19	SPM	--	Bag Filter
40.	Reaction Vessel* (Diazotization)	11	SO_2	--	Alkali Scrubbing System
41.	Reaction Vessel* (Diazotization)	11	NOx	--	Alkali Scrubbing System
42.	Reaction Vessel* (Diazotization)	11	SO_2	--	Alkali Scrubbing System
43.	Reaction Vessel* (Diazotization)	11	NOx	--	Alkali Scrubbing System

*** As per CTE issued vide the letter no. GPCB/CCA-SRT-311(15)/ID_20632/418510 dated 25/07/2017.**

D	PROCESS EMISSION (PROPOSED & AS PER TOR AMENDMNET GRANTED ON 17/5/2018)				
1.	Spray Drier-1	20.00	SPM	--	Water scrubber & cyc-lone.
2.	Spray Drier-2	20.00	SPM	--	Water scrubber & cyc-lone.
3.	Spray Drier-3	20.00	SPM	--	Water scrubber & cyc-lone.
4.	Spray Drier-4	20.00	SPM	--	Water scrubber & cyc-lone.
5.	Spray Drier-5	20.00	SPM	--	Water scrubber & cyc-lone.
6.	Spray Drier-6	35	SPM	--	Quadruple Cyclone & Ventury Scrubber
7.	Spin Flash Dryer	20.00	SPM	--	Bag Filter
8.	Spin Flash Dryer	20.00	SPM	--	Bag Filter
9.	Reaction Vessel	11	SO2, NOx HCl Cl2	--	Alkali Scrubbing System
10.	Reaction Vessel	11	SO2, NOx HCl Cl2	--	Alkali Scrubbing System
11.	Reaction Vessel	11	SO2, NOx HCl Cl2	--	Alkali Scrubbing System
12.	Reaction Vessel	11	SO2, NOx HCl Cl2	--	Alkali Scrubbing System
13.	Reaction Vessel	11	EO	--	Packed Tower
14.	Reaction Vessel	11	HCl Cl2	--	Alkali Scrubbing System
15.	Reaction Vessel	11	HCl Cl2	--	Alkali Scrubbing System
16.	Reaction Vessel	11	NOX, NH3, HCl	--	Alkali Scrubbing System
17.	Condensator & Chlorinator	11	SO2, HCl	--	Alkali Scrubbing System
18.	Reaction Vessel	11	SO2, HCl	--	Alkali Scrubbing System
19.	Reaction Vessel	11	SO2, HCl	--	Alkali Scrubbing System
	(PROPOSED ADDITIONAL)				
20.	Spray Drier-7	20.00	SPM	--	Water scrubber & cyc-lone.
21.	Spray Drier-8	20.00	SPM	--	Water scrubber & cyc-lone.

22.	Spray Drier-9	20.00	SPM	--	Water scrubber & cyc-lone.
23.	Reaction Vessel	11	EO	--	Packed Tower
24.	Reaction Vessel	11	EO	--	Packed Tower
25.	Reaction Vessel	11	SO2, HCl	--	Alkali Scrubbing System
26.	Reaction Vessel	11	SO2, HCl	--	Alkali Scrubbing System
27.	Reaction Vessel	11	HBr Br2	--	Two Stage Alkali Scrubbing System
28.	Reaction Vessel	11	HBr Br2	--	Two Stage Alkali Scrubbing System

ANNEXURE-XII

SOCIO-ECONOMIC IMPACTS

1) EMPLOYMENT OPPORTUNITIES

The manpower requirement for the proposed 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 project 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 project is not expected to make any significant change in the existing status of the socio - economic environment of this region.

ANNEXURE-XIII

PROPOSED TORs

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 and their capacity
- List of hazardous chemicals with their toxicity levels.
- Mass balance of each product along with the batch size
- 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 5 km area.
- Study of Data from secondary sources.
- Existing environmental status Vis a Vis air, water, noise, soil in 5 km area from the project site. For SPM, RSPM, SO_2, NOx.
- Ground water quality at 5 locations within 5 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.**

- 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**

- Details on storage facilities
- Identification of hazards
- Consequence analysis

- Recommendations on the basis of risk assessment done
- Disaster Management Plan.

7. **Information for Control of Fugitive Emissions**
8. **Post Project Monitoring Plan for Air, Water, Soil and Noise.**
9. **Occupational Health and Safety Program for the Project.**

ANNEXURE-IXV

LAYOUT OF THE PLANT

ANNEXURE-XV

CSR ACTIVITIES

CONTRIBUTION FOR ECO DEVELOPMENT & SOCIAL WELFARE
BY COLOURTEX GROUP OF COMPANIES

Year	Education	Social Welfare	Health & Environment
1990-1995	Rs. 10,05,001	Rs. 4,71,688.54	-
1996-2000	Rs. 63,31,294.50	Rs. 30,68,332	Rs. 29,49,605
2001-2005	Rs. 51,86,484	Rs. 99,44,083	Rs. 39,04,781
2006-2010	Rs. 47,03,111	Rs. 47,93,711	Rs. 13,45,599
2011-2015	Rs. 2,25,71,498	Rs. 1,19,34,196	Rs. 81,30,001
2016-2018	Rs. 1,83,79,600	Rs. 41565223	Rs. 1,07,75,000
Total	**Rs. 5,81,76,988.50**	**Rs. 7,17,77,233.54**	**Rs. 2,71,04,986**
Grand Total	**Rs. 15,70,59,208.04**		

ANNEXURE-XVI

NOISE LEVEL AT DIFFERENT PLACES WITHIN THE PREMISES

Sr. No.	Station	Noise Results are in dBA			
		10/07/2017		10/10/2017	
		(Day)	(Night)	(Day)	(Night)
1	GATE No.6 Area	72.4	50.3	72.8	55.2
2	Employee Amenity block Area	78.4	57.1	75.6	56.3
3	Near Adm. Office	69.2	58.1	68.2	54.6
4	Near New RM Godown	70.4	59.1	71.2	60.2
5	Near S3 plant area	72.4	61.8	62.5	61.1
6	Near Packing Godown Area	75.8	45.4	73.2	52.4
7	Near HAG plant Area	63.2	53.5	74.3	53.9
8	Near S10 Plant Main Road Area	65.4	65.1	62.3	61.7
9	Near S4 Assembly point no.1	63.7	62.4	64.2	64.8
10	Behind Wiremen room	69.5	60.1	67.7	49.2
11	Near GATE NO. 4 & S.D. Plant	70.4	60.8	70.5	40.2
12	Near EME Store	64.4	63.7	64.3	61.3
13	Behind Generator House	80.2	58.5	74.6	42.9
14	Near Diesel Storage	63.4	42.7	72.2	51.9
15	Near Overhead Water Tank	74.5	43.1	71.5	72.2
16	Near Oil & Grease Trap	76.8	46.1	74.2	73.2
17	Behind Boiler House	77.5	46.2	75.2	44.4
18	Near ETP Aeration Area	62.4	42.8	64.5	45.2

ANNEXURE-XVII

THE COPIES OF ALLOTMENT LETTERS FOR LAND FROM G.I.D.C.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2ND Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668948 Fax: 0261-2667257

NO. GIDC/RM/SRT/ 1231 Date : 16.07.2015

Sub: **Change in Constitution of Plot No. 288/1 at GIDC. Sachin Indl. Estate.**

OFFICE ORDER

A Plot of Land **No. 288/1** admeasuring about **14059.28Sq. Mtr.** was allotted to **M/s. Colourtex Ind. Ltd.** The License Agreement~~/Hire Purchase Agreement~~/-Lease Deed was executed on **05.03.91, S.A. on Dec.96 & 03.11.07.** The License/Lessee had applied to the Corporation **for Change in Constitution** of the said Plot in favour of **M/s. Colourtex Industries Pvt Ltd. having (5) Five Directors listed below for Existing Ind.** Permission for this **Change in Constitution** on certain terms and conditions have been issued by the Regional Manager, GIDC, Surat vide letter No. **GIDC/RM/SRT/469 dtd. 22.05.2015.**

Directors : 1) Shri Jayantilal T. Jariwala .. 26.84%
2) Shri Kanaikumar J. Jariwala .. 12.33%
3) Shri Vishadkumar J. Jariwala .. 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Hirer/Lessee has paid all the dues of the Corporation **upto 2015-16.** He has also paid the Corporation's share in "Transfer Fee" in the value of the land at --% amounting to **Rs.N.A. @ Rs.--- per Sq. Mtr. The Supplementary Agreement has therefore, been executed on 16.07.2015** between the Corporation/Licensee/ Transferor and Transferee.

The **said Plot** now, therefor, stands transferred in the name of **M/s. Colourtex Industries Pvt Ltd.** with effect from **16.07.2015.**

This **Change in Constitution** permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered as regularized. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Competent Authority. The water requirement as per transfer application for process : **Normal use.**

REGIONAL MANAGER
GIDC SURAT

Regd. A.D. to:

1. **M/s. Colourtex Industries Pvt. Ltd.**
   Plot No.288/1, GIDC,
   Sachin, Dist. SURAT.

2. **M/s. Colourtex Ind. Ltd.**
   Plot No.288/1, GIDC,
   Sachin, Dist. SURAT.

Copy to:

1. The Exe. Engineer GIDC Surat
2. The A.O. GIDC Surat
3. The DEE GIDC Surat
4. CO, NA, Sachin
5. DE(O&M), DGVCL, Sachin Sub-Dn., Sachin, Surat
6. EDP for entry in computer.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2nd Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668048 Fax: 0261-2667957

NO. GIDC/RM/SRT/ 1 L G L 4 Date : 29.07.2015

Sub: **Change in Constitution** of **Plot No. 288/2** at GIDC, **Sachin** Indl. Estate.

OFFICE ORDER

A Plot of Land **No. 288/2** admeasuring about **10719Sq. Mtr.** was allotted to **M/s. Colourtex Ind. Ltd**. The License Agreement/~~Hire-Purchase-Agreement~~/-Lease Deed was executed on **26.12.90, S.A. on 09.01.98 & 07.01.12.** The License/Lessee had applied to the Corporation **for Change in Constitution** of the said Plot in favour of **M/s. Colourtex Industries Pvt Ltd. having (5) Five Directors listed below for Existing Ind.** Permission for this **Change in Constitution** on certain terms and conditions have been issued by the Regional Manager, GIDC, Surat vide letter No. GIDC/RM/SRT/**476 dtd. 22.05.2015.**

Directors : 1) Shri Jayantilal T. Jariwala - 26.84%
2) Shri Kamaldumar J. Jariwala - 12.33%
3) Shri Vishadkumar J. Jariwala - 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Hirer/Lessee has paid all the dues of the Corporation **upto 2015-16.** He has also paid the Corporation's share in "Transfer Fee" in the value of the land at --% amounting to **Rs.N.A. @ Rs.--- per Sq. Mtr. The Supplementary Agreement has therefore, been executed on 16.07.2015** between the Corporation/Licensee/ Transferor and Transferee.

The **said Plot** now, therefor, stands transferred in the name of **M/s. Colourtex Industries Pvt Ltd.** with effect from **16.07.2015.**

This Change in Constitution permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered as regularized. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Competent Authority. The water requirement as per transfer application for process : **Normal use.**

REGIONAL MANAGER
GIDC SURAT

Regd. A.D. to:
1. M/s. Colourtex Industries Pvt. Ltd.
Plot No.288/2, GIDC,
Sachin, Dist. SURAT.

2. M/s. Colourtex Ind. Ltd.
Plot No.288/2, GIDC,
Sachin, Dist. SURAT.

Copy to:
1. The Exe. Engineer GIDC Surat
2. The A.O. GIDC Surat
3. The DEE GIDC Surat
4. CO, NA, Sachin
5. DE(O&M), DGVCL, Sachin Sub-Dn., Sachin, Surat
6. EDP for entry in computer.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2ND Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668948 Fax: 0261-2667257

NO. GIDC/RM/SRT/ 1226 Date : 16.07.2015

Sub: **Change in Constitution** of **Plot No. 289/1** at GIDC. **Sachin** Indl. Estate.

OFFICE ORDER

A Plot of Land **No. 289/1** admeasuring about **10771.81Sq. Mtr.** was allotted to **M/s. Colourtex Ind. Ltd.** The License Agreement/~~Hire Purchase Agreement~~/Lease Deed was executed on **05.02.91, S.A. on 09.01.98 & 07.01.12.** The License/Lessee had applied to the Corporation **for Change in Constitution** of the said Plot in favour of **M/s. Colourtex Industries Pvt Ltd. having (5) Five Directors listed below for Existing Ind.** Permission for this **Change in Constitution** on certain terms and conditions have been issued by the Regional Manager, GIDC, Surat vide letter No. GIDC/RM/SRT/**477 dtd. 22.05.2015.**

Directors : 1) Shri Jayantilal T. Jariwala .. 26.84%
2) Shri Kanakkumar J. Jariwala .. 12.33%
3) Shri Vishadkumar J. Jariwala .. 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Hirer/Lessee has paid all the dues of the Corporation **upto 2015-16.** He has also paid the Corporation's share in "Transfer Fee" in the value of the land at --% amounting to **Rs.N.A. @ Rs.--- per Sq. Mtr. The Supplementary Agreement has therefore, been executed on 16.07.2015** between the Corporation/Licensee/ Transferor and Transferee.

The **said Plot** now, therefor, stands transferred in the name of **M/s. Colourtex Industries Pvt Ltd.** with effect from **16.07.2015.**

This **Change in Constitution** permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered as regularized. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Competent Authority. The water requirement as per transfer application for process : **Normal use.**

REGIONAL MANAGER
GIDC SURAT

Regd. A.D. to:

1. **M/s. Colourtex Industries Pvt. Ltd.**
   Plot No.289/1, GIDC,
   Sachin, Dist. SURAT.

2. **M/s. Colourtex Ind. Ltd.**
   Plot No.289/1, GIDC,
   Sachin, Dist. SURAT.

Copy to:

1. The Exe. Engineer GIDC Surat
2. The A.O. GIDC Surat
3. The DEE GIDC Surat
4. CO, NA, Sachin
5. DE(O&M), DGVCL, Sachin Sub-Dn., Sachin, Surat
6. EDP for entry in computer.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2ND Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668948 Fax: 0261-2667257

NO. GIDC/RM/SRT/ 1666 2882 Date : 29.07.2015

Sub: **Change in Constitution** of **Plot No. 288/2** at GIDC. **Sachin** Indl. Estate.

OFFICE ORDER

A Plot of Land **No. 288/2** admeasuring about **10719Sq. Mtr.** was allotted to **M/s. Colourtex Ind. Ltd.** The License Agreement/~~Hire-Purchase Agreement/~~ Lease Deed was executed on **26.12.90, S.A. on 09.01.98 & 07.01.12.** The License/Lessee had applied to the Corporation **for Change in Constitution** of the said Plot in favour of **M/s. Colourtex Industries Pvt Ltd. having (5) Five Directors listed below for Existing Ind.** Permission for this **Change in Constitution** on certain terms and conditions have been issued by the Regional Manager, GIDC, Surat vide letter No. GIDC/RM/SRT/**476 dtd. 22.05.2015.**

Directors : 1) Shri Jayantilal T. Jariwala .. 26.84%
2) Shri Kanakkumar J. Jariwala .. 12.33%
3) Shri Vishadkumar J. Jariwala .. 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Hirer/Lessee has paid all the dues of the Corporation **upto 2015-16.** He has also paid the Corporation's share in "Transfer Fee" in the value of the land at --% amounting to **Rs.N.A. @ Rs.--- per Sq. Mtr. The Supplementary Agreement has therefore, been executed on 16.07.2015** between the Corporation/Licensee/ Transferor and Transferee.

The **said Plot** now, therefor, stands transferred in the name of **M/s. Colourtex Industries Pvt Ltd.** with effect from **16.07.2015.**

This **Change in Constitution** permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered as regularized. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Competent Authority. The water requirement as per transfer application for process : **Normal use.**

REGIONAL MANAGER
GIDC SURAT

Regd. A.D. to:

1. **M/s. Colourtex Industries Pvt. Ltd.**
   Plot No.288/2, GIDC,
   Sachin, Dist. SURAT.

2. **M/s. Colourtex Ind. Ltd.**
   Plot No.288/2, GIDC,
   Sachin, Dist. SURAT.

Copy to:

1. The Exe. Engineer GIDC Surat
2. The A.O. GIDC Surat
3. The DEE GIDC Surat
4. CO, NA, Sachin
5. DE(O&M), DGVCL, Sachin Sub-Dn., Sachin, Surat
6. EDP for entry in computer.

GUJARAT INDUSTRIAL
DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2ND Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668948 Fax: 0261-2667257

NO.GIDC/RM/SRT/ 304 Date: 17.05.2017

Sub: **Change in Constitution** of Plot No.8108/2 GIDC, **Sachin** Indl. Estate.

OFFICE ORDER

A Plot on (Land **No. 8108/2** admeasuring about **9300Sq.Mtr)** was allotted to **M/s.Colourtex Industries Ltd.. The License Agreement/Lease Deed** was executed **on 25.06.96, S.A. on 02.01.2008.** The Licensee/Lessee had applied to the Corporation for **Change in Constitution** of the said Plot in favour of **M/s.Colourtex Industries Pvt. Ltd. having (05) Five Directors listed below for Mfg. of Dyes & Intermediates Industry.** Certain terms and conditions have been stipulated by the Regional Manager, GIDC, Surat as per letter No.GIDC/ RM/SRT/104 **dated 19.04.2017.**

Directors:- 1) Shri Jayantilal T. Jariwala ... 26.84%
2) Shri Kanakkumar J. Jariwala` ... 12.33%
3) Shri Vishadkumar J. Jariwala ... 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Lessee has paid all the dues of the Corporation **upto 2017-18.** He has also paid the Corporation's share in **"Transfer Fee"@** —% in the value of the land amounting to **Rs. Nil @ Rs.3820/- per Sq.Mt. The License Agreement has therefore been executed on 15.05.2017** between the Licensee/Corporation/ Transferor & Transferee.

The **Plot** now, therefore, stands transferred in the name of **M/s.Colourtex Industries Pvt. Ltd.** with effect from **15.05.2017.**

This **Change in Constitution** permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered that Corporation has regularized the same. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Corporation. The water requirement as per transfer application for process: **Existing.**

Regional Manager
G.I.D.C.. Surat.

Regd.A.D.To:
M/s.Colourtex Industries Pvt. Ltd.,
Survey No.80, Bhestan,
Nr. Fire Station, GIDC,
Pandesara, Surat.

M/s.Colourtex Industries Ltd.,
Survey No.80, Bhestan,
Nr. Fire Station, GIDC,
Pandesara, Surat.

Copy to:
1. XEN GIDC Surat
2. A.O. GIDC Surat
3. DEE GIDC Surat
4. D.E.(O & M), DGVCL, Sachin Sub-Divn., Sachin, Dist. Surat.
5. CO, NA, Sachin.
6. EDP for entry in computer.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

[A Govt. of Gujarat Undertaking]

Udyog Bhavan, Block No.3, 4 & 5, Sector-11, Gandhinagar 382017

Tele: (079)3225811-14

No. GIDC/ALT/SCN/1357 DATE :- 30/12/2002

To
M/s, Pandesara Industries Limited,
Sister Concern, Survey No. 80 of Bestan,
GIDC, Pandesara,
Dist ., Surat.

Sub :- Allotment of Block No.272/B,282,295,297,and 310 adm. About 45,353 Sq. Mtrs (Tentative) on as is were is basis, Village Gabheni, SR No.48, Ta. Choryasi Dist. Surat.

Ref :- 1. Our Allotment letter No. GIDC/GM/ALT/175 Dated 13/02/2001.
2. Our Allotment letter No. GIDC/ALT/SCN/HO/705/Dtd.14.06.2001.
3. Our Offer letter No.GIDC/ALT/SCN/1352/Dtd.24.12.2002.

Sir,

We are Please to inform you that the Corporation decided to allot the land of Sachin industiral estate beaing Block No. 272/B, 282, 295, 297, 310 adm. about 45,353 Sq.Mtrs. tentatively of village Ghabheni Tal. Choryasi, Dist. Surat L.A case No. . SR. 48 on as is where is basis of .We are enclose here with the form of agreement in triplicate which may kindly be executed on Rs.60/- Stamp paper and return to us .

The Agreement forms are required to be signed by all the partners of 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.

It may be noted that if you fail to execute the agreement within a period of 30 days from the date of allotment letter you will liable to pay the interest on outstanding capital from the date of allotment till you get the allotment letter rescinded at your request.

3 The following block Nos.are as under and possession with the Corporation and the area as under ;

	Block No.	Area.
1.	272/B	7,062
2.	282	9,513
3.	295	9,989
4.	297	10,346
5.	310	8,443
	Total Land	45,353 sq.mtrs(Tentative)

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 Assistant Enginner/Addl. Assistant Engineer.

5. **Terms of payment**: The corporation has decided Rs.75/- Per sq.mtr. of the above referred land and you shall required to pay in full amount of Rs.34,01,475/- (Rupess Thirty four lacs one thousand four hundred sevanty five only). The corporation has already received the amount of Rs.34,01,475/- (Rupess Thirty four lacs one thousand four hundred sevanty five only).being the offer amount which you have paid on 30.12.2002 T.R. No.116695.

You shall have to comply with the provisions of prevention and control of pollution Act,1974 and accordingly to obtain consent from the state water, Preventions and control Board, Gujarat State before discharging Sewage or treated if effluents from your plant and you shall not discharge sewage or treated effluent without getting such consent and trailor to observe this condition would entitle the corporation to disconnect your water supply and resume possession of land.

7. Still the possession of the some Block Nos. 257/B, 271, and 275/B, area not in the possession of the corporation, as soon as the same will comr in possession, the corporation will allot you and hand over the possession immediately after executing the separate further rectification/agreement.

According to the policy of the corporation you shall put the land to industrial use manufacturing the products mentionedin your application within a period of 6 months from the date of allotment failing which corporation is entitled to obtain the possessin back. In casa of plots, you are required to get the building plans approved within a 3 months and you shall start the production at the end of 2 years from the date of allotment of the plot failing which the corporatin is entitled to back the possession of the unless exetation is given by corporation.

9. You shall have to give an undertaking on stamp paper of Rs.60/- that any court reference or LRC may arise in future by the land owners. The cost of the same you shall have to bear and corporation is entitled to recover the same amount from you.

10 You shall have to pay government rate and tax as may be applicable from time to time.

11. Any financial liabilities arising out of the court reference in case of this land will be borne by you.

12. You will finalise the plots plan and the use of the plot will be subject to the approval of SUDA you will develop the land allotted to you by the GIDC in such a way that it will not affect adversely the infrastructure created by GIDC and / or the State Government.

13. You shall have to got plans approved from the SUDA as per the building bye-laws.

14 You shall have to pay the necessary fees and charges directly to the said authorities.

15. The allotment will be subject to the terms and conditions of allotment letter and the agreement. This allotment of land will be on as it is where it is basis and the Corporation will not be responsible for providing any infrastructure facilities like road, water supply and power. You will have to make your own arrangement for the same or you should how to apply seperately to the Corporation.

Offer made to your main Company and subsequently after subdivide the plot as soon as the total lands come in possessions of the Corporation. Corporation will accordingly allot the plot and issue allotment in the individual name of the Company.

17. The final area of the plot are subject to joint measurement of lands by DILR and GIDC surveyors. After the land measurement the cost of land will be finalised as per final area.

18. Internally you shall have to bear the cost of the roads, water supply and power, However, if you require this facility from the corporation you shall have to bear the charges of the cost being considered as outside adjoining allottee.

19. The land has been allotted to you in one name, if you want transfer the land or sister concern only and sub-divide the plot,corporation give you the permission.

20. The corporation has allotted 2,18,039 sq.mtrs. of land of block No.251/B, 252, 253, 254, 277, 278, 283, 285, 286, 287, 294, 273, 296,255, 256, 258, & 288 vide latter dtd.13.02.2001 and 74,289 sq.mtrs of land of Block No.276, 279, 280, 281, 284 vide latter dtd.14.06.2001 at village Gabheni, Taluka Choryashi,Dist.Surat .In the said latter,it was stated that possession of certain block numbers are not with the corporation and now when we have received the possession of 5 block numbers,i.e.272/B, 282, 295, 297, & 310 adm.45,353 sq.mtrs as per condition No.3 above we are allotting the said possession of land in addition to the earlier allotment of 2,.92,328 sq.mtrs Thus the corporation allotted in all 3,37,661 sq.mtrs of land at village Gabheni Taluka Choryashi Dist.Surat.as detailed above.

Thanking you,

Yours faithfully,

GENERAL MANAGER (ALT)

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

(A. GOVT. OF GUJARAT UNDERTAKING)
Udyog Bhavan, Block No. 4, 2nd Floor, Sector No. - 11,
Gandhinagar - 382 017

Phone : 25811 to 25814
Gram : GIDC Fax : 02712 - 25815
Your Ref. :
Our Ref. : GM:ALT: 175.
Date : 13.2.2001

M/s. Pandesara Industries Ltd.,
& Sister concern, Survey No.80 of Bhestan,
GIDC,Pandesara,
Dist. Surat.

Sub: Allotment of block No.251/2, 252 paiki, 253,254,277,278,283,285,286,287,294,273,274, 296,255,256,258,288 on as is where is basis, Village Gabheni, Taluka Choryashi, District Surat.

.....

Sir,
We are pleased to inform you that the Corporation decided to allot the land of block No.251/2, 252 paiki, 253, 254,277, 278, 283,285,286,287,294,273,274,296,255,256,258,288, Village Ghabheni, Taluka Choryashi, District Surat of Sachin Indl. Estate. We are enclosing herewith the form of agreement in triplicate which may kindly executed on Rs.60/- stamp paper 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 firms 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 liable to pay the interest on outstanding capital from the date of allotment till you get the allotment letter rescinded at your request.

3. The following block Nos. are as under and possession with the corporation and the area as under:

...2

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION
(A. GOVT. OF GUJARAT UNDERTAKING)
Udyog Bhavan, Block No. 4, 2nd Floor, Sector No. - 11,
Gandhinagar - 382 017

Phone : 25811 to 25814
Gram : GIDC Fax : 02712 - 25815
Your Ref. :
Our Ref. :
Date :

Block No.	Area
251/B	1249 sq.mtr.
252 paiki	6516
253	4994
254	4994
277	7730
278	6659
283	13538
285	8324
286	15340
287	49825
294	13200
273	7225
294	1902
296	19859
255	4879
256	17825
258	3341
288	30561

Total land:2,18,039 sq.mtrs.

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/Add.Asstt. Engineer.

5. Terms of payment: The Corporation has decided Rs.75/- per sq.mtr. of the above referred land and you shall required to pay in full. The Corporation has already received the amount of Rs. 22,29,000/- being the ~~application~~ fee and you were required to pay Rs.1,41,23,925/- being the balance amount which you have paid on 6.2.22001 and on 12.2.2000. On receipt of the payment of 6.2.2001 was already given and the receipt of the remaining amount is enclosed herewith.

...3

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION
(A. GOVT. OF GUJARAT UNDERTAKING)
Udyog Bhavan, Block No. 4, 2nd Floor, Sector No. - 11,
Gandhinagar - 382 017

Phone : 25811 to 25814
Gram : GIDC Fax : 02712 - 25815
Your Ref. :
Our Ref. :
Date :

6. You shall have to comply with the provisions of prevention and Control of Pollution Act, 1974 and accordingly to obtain consent from the State Water, Preventions and Control Board, Gujarat State before discharging sewage or treated effluents from your 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 resume possession of land/shed.

7. Still the possession of some block No.257/B,271,272, 275/B, 276, 279, 280, 281, 282, 284, 295, 297, and 310 blocks and area are not in a possession of the Corporation, as soon as the same will come in possession, the Corpn. will allot you and hand over the possession immediately after executing the separate further rectification/agreement.

8. According to the policy of the Corporation you shall put the land 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 entitle to obtain the possession back. In case of plots, you are required to get the building plans approved within a period of 3 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 extension is given by the corporation.

9. You shall have to give an undertaking on stamp paper of Rs.60/- that any court reference or LRC may arrise in future by the land owners. The cost of the same you shall have to bear and Corporation is entitled to recover the same amount from you.

10. You shall have to pay government rate and taxes as may be applicable from time to time.

...4

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION
(A. GOVT. OF GUJARAT UNDERTAKING)
Udyog Bhavan, Block No. 4, 2nd Floor, Sector No. - 11,
Gandhinagar - 382 017

Phone : 25811 to 25814
Gram : GIDC Fax : 02712 - 25815
Your Ref. :
Our Ref. :
Date :

11. Any financial liabilities arising out of the court reference in case of this land will be borne by you.

12. You will finalise the plots plan and the use of the plot will be subject to the approval of SUDA you will develop the land allotted to you by the in such a way that it will not affect adversely the infrastructure created by GIDC and/or the State Governemnt.

13. You shall have to got plans approved from the SUDA as per the building byelaws.

14. You shall have to pay the necessary fees and charges directly to the said authority.

15. The allotment will be subject to the terms and conditions of allotment letter and the agreement. This allotment of land will be on as it is where it is basis and the corporation will not be responsible for providing any infrastrucuture facilities like road, water and power youwill have to make your own arrangements for the same or you should ask to apply seperately to the corporation.

16. Offer made to your main company and subsequently after sub-divide the plot as soon as the total land come in possession of the corporation. Corporation will accordingly allot the plots and issue allotment in the individual name of the company.

17. The final area of the plot are subject to joint measurement of lands byDILR and GIDC surveyors. After the land measurement the cost of land will be finalised as per final area.

..5

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION
(A. GOVT. OF GUJARAT UNDERTAKING)
Udyog Bhavan, Block No. 4, 2nd Floor, Sector No. - 11,
Gandhinagar - 382 017

Phone : 25811 to 25814
Gram : GIDC Fax : 02712 - 25815
Your Ref. :
Our Ref. :
Date :

18. Internally you shall have to bear the cost of the roads, water supply and power. However, if you require this facility from the corporation you shall have to bear the charges of the cost being considered as outside adjoining allottee.

19. The land has been allotted to you in one name, if you want transfer the land or sister concerned only and sub-divide the plot, Corporation give you the permission

Thanking you,

Yours faithfully,

GEN.MANAGER(ALT)

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

(A Govt. of Gujarat Undertaking)

Udyog Bhavan, Block No. 4, 2nd Floor, GH Road, Sector-11,
GANDHINAGAR-382 017.

Phone : 25811 To 25814
Fax : 02712-25814

No. :GIDC:ALT:SCN:NO:705

Date :14.6.2001

To

M/s. Pandesara Industries Ltd., &
Sister Concern,
Survey No.80 of Bhestan,
GIDC, Pandesara,
Dist. Surat.

Sub:- Allotment of block No.276, 279, 280, 281, 284 admeasuring about 74,289 sq.mtrs. (tentative) on as is where is basis, village Gabheni, SR No.48, Taluka Choryashi, District Surat.

Ref:- 1) Our allotment letter No.GIDC/ALT/175 dated 13.2.2001.
2) Our offer letter No.GIDC/ALT/SCN/695 dated 6.6.2001.

Sir,

We are pleased to inform you that the Corporation decided to allot the land of block No.276, 279, 280, 281, 284 admeasuring about 74,289 sq.mtrs. (tentative) Village Gabheni, SR No.48, Taluka Choryashi, District Surat of Sachin Industrial Estate. We are enclosing herewith the form of agreement in triplicate which may kindly be executed on Rs.60/- stamp paper and return to us.

1. The Agreement forms are required to be signed by all the partners of 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 liable to pay the interest on outstanding capital from the date of allotment till you get the allotment letter rescinded at your request.

3. The following block Nos. are as under and possession with the Corporation and the area as under:

Block No.	Area
1. 276	9,479 sq.mtrs.
2. 279	9,157 sq.mtrs.
	238 (Kh) sq.mtrs.
3. 280	11,178 sq.mtrs.
	238 (Kh) sq.mtrs.
4. 281	11,178 sq.mtrs.
	238 (Kh) sq.mtrs.
5. 284	32,583 sq.mtrs.
Total land	74,289 sq.mtrs. (Tentative)

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

(A Govt. of Gujarat Undertaking)

Udyog Bhavan, Block No. 4, 2nd Floor, GH Road, Sector-11,
GANDHINAGAR-382017.

Phone : 25811 To 25814

Fax : 02712-25814

No. :

Date :

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 Assistant Engineer/Addl. Assistant Engineer.

5. Terms of payment: The Corporation has decided Rs.75/- per sq.mtr. of the above referred land and you shall required to pay in full amount of Rs.55,71,675/- (Rupees Fifty five lacs seventy one thousand six hundred seventy five only). The Corporation has already received the amount of Rs.55,71,675/- (Rupees Fifty five lacs seventy one thousand six hundred seventy five only) being the offer amount which you have paid on 13.6.2001 vide T.R. No.116631.

6. You shall have to comply with the provisions of prevention and control of Pollution Act, 1974 and accordingly to obtain consent from the State Water, Preventions and Control Board, Gujarat State before discharging sewage or treated effluents from your 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 resume possession of land/shed.

7. Still the possession of the same block No.257/B, 271, 272, 275/B, 282, 295, 297/1,2 and 310 area are not in the possession of the Corporation, as soon as the same will come in possession, the Corporation will allot you and hand over the possession immediately after executing the separate further rectification/agreement.

8. According to the policy of the Corporation you shall put the land 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 3 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 extension is given by the Corporation.

9. You shall have to give an undertaking on stamp paper of Rs.60/- that any court reference or LRC may arise in future by the land owners. The cost of the same you shall have to bear and Corporation is entitled to recover the same amount from you.

10. You shall have to pay government rate and taxes as may be applicable from time to time.

Contd...3...

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION
(A Govt. of Gujarat Undertaking)
Udyog Bhavan, Block No. 4, 2nd Floor, GH Road, Sector-11,
GANDHINAGAR-382017.

Phone : 25811 To 25814
Fax : 02712-25814
No. :
Date :

14. Any financial liabilities arising out of the court reference in case of this land will be borne by you.

12. You will finalise the plots plan and the use of the plot will be subject to the approval of GUDA you will develop the land allotted to you by the in such a way that it will not affect adversely the infrastructure created by GIDC and/or the State Government.

13. You shall have to get plans approved from the SUDA as per the building bye laws.

14. You shall have to pay the necessary fees and charges directly to the said authority.

15. The allotment will be subject to the terms and conditions of allotment letter and the agreement. This allotment of land will be on as it is where it is basis and the Corporation will not be responsible for providing any infrastructure facilities like road, water and power. You will have to make your own arrangements for the same or you should ask to apply separately to the Corporation.

16. Offer madeto your main company and subsequently after sub-divide the plot as soon as the total land come in possession of the Corporation. Corporation will accordingly allot the plots and issue allotment in the individual name of the Company.

17. The final area of the plot are subject to joint measurement of lands by DILR and GIDC surveyors. After the land measurement the cost of land will be finalised as per final area.

18. Internally you shall have to bear the cost of the roads, water supply and power. However, if you require this facility from the Corporation you shall have to bear the charges of the cost being considered as outside adjoining allottee.

19. The land has been allotted to you in one name, if you want transfer the land or sister concern only and sub-divide the plot, Corporation give you the permission.

Contd....4...

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

(A Govt. of Gujarat Undertaking)

Udyog Bhavan, Block No. 4, 2nd Floor, GH Road, Sector-11,
GANDHINAGAR-382017.

Phone : 25811 To 25814
Fax : 02712-25814
No. :
Date :

20. The Corporation has allotted 2,18,039 sq.mtrs.of land of Block No.251/B, 252, 253, 254, 277, 278, 283, 285, 286, 267, 254, 271, 294, 296, 255, 256, 258 & 288 at village Gabheni, Taluka Chorvashi, Dist. Surat vide letter dated 13.7.2001. In the said letter, it was stated that the possession of certain block numbers has not been with the Corporation and now we have received the possession of 5 block numbers, as per condition No.3 we are giving possession of 74,209 sq.mtrs. of land in addition to the earlier allotment of 2,18,039 sq.mtr. Thus the Corporation has allotted in all 2,92,328 sq.mtrs. of land at village Gabheni, Taluka Chorvashi, Dist. Surat.

Thanking you,

Yours faithfully,

GENERAL MANAGER (ALT.)

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2nd Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668948 Fax: 0261-2667257

NO.GIDC/RM/SRT/2355

Date: 26.10.2016

Sub: **Transfer** of Plot No.**364** GIDC, **Sachin** Indl. Estate.

OFFICE ORDER

A Plot on (Land No.**364** admeasuring about **15,677.17Sq.Mtr)** was allotted to **M/s. Ashmi Dyeing & Printing Works, Partnership Firm.** The **License Agreement/Lease Deed**-was executed **on 13.05.1991.** The Licensee/~~Lessee~~ had applied to the Corporation for **Transfer** of the said **Plot** in favour of **M/s. Colourtex Ind.Pvt. Ltd., having (05) Five Directors listed below for Mfg. of Dyes & Dyes Intermediates (Chemical) Industry.** Certain terms and conditions have been stipulated by the Regional Manager, GIDC, Surat as per letter No.GIDC/ RM/SRT/**2659 dated 19.10.2016.**

Directors: 1) Shri Jayantilal T. Jariwala ... 26.84%
2) Shri Kanakkumar J. Jariwala ... 12.33%
3) Shri Vishadkumar J. Jariwala ... 12.18%
4) Shri Pravinchandra D. Kabutarwala 12.45%
5) Shri Maheshchandra D. Kabutarwala 12.31%

The Licensee/Lessee has paid all the dues of the Corporation **upto 2016-17.** He has also paid the Corporation's share in **"Transfer Fee"@ 05%** in the value of the land amounting to **Rs.29,94,339/- @ Rs.3820/- per Sq.Mt. The Supplementary Agreement has been executed on 26.10.2016** between the Licensee/ Corporation/ Transferor & Transferee.

The **Plot** now, therefore, stands transferred in the name of **M/s. Colourtex Ind. Pvt. Ltd.,** with effect from **26.10.16.**

This **Transfer** permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered that Corporation has regularized the same. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Corporation. The water requirement as per transfer application for process: 1000Lit./day

Regional Manager
G.I.D.C., Surat.

Regd.A.D.To:
M/s.Ashmi Dyeing & Printing Works,
Partnership Firm,
Plot No.364, GIDC,
Sachin, Dist. Surat.

M/s.Colourtex Industries Pvt. Ltd.,
Survey No.80, Bhestan,
Nr. Fire Station, GIDC,
Pandesara, SURAT.

Copy to:
1. XEN GIDC Surat
2. A.O. GIDC Surat
3. DEE GIDC Surat
4. D.E.(O & M), DGVCL, Sachin Sub-Divn., Sachin, Dist. Surat.
5. CO, NA, Sachin.

GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

OFFICE OF THE REGIONAL MANAGER
2ND Floor, Vanita Vishram Bldg.,
Athwagate, SURAT- 395 001.
Tel: 0261-2668648 Fax: 0261-2667257

No.GIDC/RM/SRT/ 5836 DATE: .02.16.
01/03/16

Sub : Transfer of Plot No.801 at GIDC Sachin Industrial Estate.

OFFICE ORDER:

A Plot of land **No.801** admeasuring about **5292** (alongwith the plot thereunder) was allotted to **Asian Dyeing & Printing Mills** The License Agreement/Hire Purchase Agreement/Suppl. Agreement was executed **on dt.06.04.1991 & S.A. on dt.11.03.1998** The Licensee/Hirer/ Lessee had applied to the Corporation for Transfer/CIC of the said Plot/Shed in favour **of M/s. Colourtex Industries Pvt.Ltd. having five (5) Directors listed below for Mfg. of Dyes & Intermediates Industries. Certain terms and conditiond have** been stipulated by the Regional Manager GIDC Surat as letter No. GIDC/RM/SRT/**2829** dtd.**09.11.2015.**

1. **Shri Jayantilal T Jariwala**
2. **Shri Kanakkumar J. Jariwala**
3. **Shri Vishadkumar J. Jariwala**
4. **Shri Pravinchandra D. Kabutarwala**
5. **Shri Maheshchandra D. Kabutarwala**

The Licensee/Hirer/Lessee has paid all the dues of the Corporation upto **2015-2016.** He has also paid the Corporation's share in "Transfer Fee "@ 20% in value of the land amounting to **at Rs. 9,18,162/- @ Rs. 3470/- per Sq.Mtr. The Supplementary Agreement has therefore been excuted on dtd.18.02.2016** between the Licensee/Corporation/Transferor and Transferee.

The Plot now, therefore stands transferred in the name of **M/s. Colourtex Industries Pvt. Ltd. with effect from 18/02/2016.**

This transfer/CIC permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any un-authorized construction is carried out, the same shall not be considered that Corporation has regularized, the same. Transferee shall have to remove/demolish, non-violative construction or shall have to be got approved from the Corporation. The water requirement as per transfer application for process Normal Ltrs/day.

Regional Manager
GIDC, Surat

Regd.A.D.To:

(1) **M/s. Colourtex Industries Pvt.Ltd.,**
Plot No-801, GIDC, Sachin
Dyes & Intermediates Industries
GIDC,Sachin.

(2) **Asian Dyeing & Printing Mills,**
Plot No.801, GIDC, Sachin

Copy f.w.cs to :
1. Executive Engineer, GIDC, Surat.
2. The A.O., GIDC, Surat.
3. The DEE., GIDC, Surat.
4. D.E.(O&M)DGVCL Sachin sub-Dn Sachin Dist. Surat.
5. CO,NA, Sachin
6. EDP for entry in computer

Gujarat Industrial Development Corporation
(A Govt. of Gujarat Undertaking)
Office of the Regional Manager
VanitaVishram Building Athwalines, Surat 395001 , Phone - (0261) 2668948 , Mail Id - rmsrt@gidcgujarat.org , website: www.gidc.gujarat.gov.in

No. GIDC/RM/SUR/TRF/FTO/SAC1/121 **Date : 25/04/2018**

Office Order

Sub: Transfer of Industrial Plot No. **268/3** at **Sachin** Industrial Estate

A Industrial Plot No. **268/3** admeasuring about **9750.00** Sq.mt. in **Sachin** estate. was allotted to **SWETA GUPTA (1)Shweta Amit Gupta :100.00 %.** The Lease Deed / Conveyance Deed / Licence Agreement was executed on **13/05/2004**. The Lessee had applied to the Corporation for transfer of the said Industrial Plot in favour of **COLOURTEX INDUSTRIES PVT. LTD Private Limited Company** directors / shareholders **(1)Maheshchandra Dhansukhlal Kabutarwala and Others :100.00 %.** Certain terms and conditions have been stipulated by the Regional Manager, Surat as per Provisional Transfer Order no. **GIDC/RM/SUR/TRF/PTO/SAC1/156** dtd. **29/03/2018**

Lessee has paid all dues of the Corporation up to Date. Lesse has also paid the Corporation's share in Transfer fee amounting to Rs.**2312506.00**, NU Penalty amounting to Rs.**(Nil)** and additional transfer fees amounting to Rs.**(Nil)** @ Rs.**4020.00** per Sq.mt. The **Deed of Supplementary Agreement** has therefore been executed on **25/04/2018** between the Corporations, transferor & transferee. The plot now therefore stands transferred in the name of **COLOURTEX INDUSTRIES PVT. LTD Private Limited Company Maheshchandra Dhansukhlal Kabutarwala and Others** with effect from **25/04/2018** for establishment of **Chemical Ind** industry. This transfer permission shall not be considered as valid under the building bye-laws of the Corporation, if any unauthorized construction is carried out by Transferee. If any unauthorized construction is carried out, the same shall not be considered that Corporation has regularized the same. Transferee shall have to remove/demolish non violative construction or shall have to get approved from the Competent Authority. The water requirement as per transfer application is **1000** KLD per year only.

Thanking you,

Yours faithfully,
Regional Manager,
G.I.D.C., Surat.

To,

1. **COLOURTEX INDUSTRIES PVT. LTD**
   Plot No. 268/3, GIDC, Sachin, Dist. Surat
   Along with a copy of Deed of Supplementary Agreement

ANNEXURE-XVIII

A COPY OF CONSOLIDATED CONSENT & AUTHORIZATION

GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

By R.P.A.D

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 3(e) & 5(5) of the Hazardous Waste (Management and Handling & Trans boundary Movement) Rules'2008 framed under the Environmental (Protection) Act-1986, This Board is empowered to Grant CC&A

And whereas Board has received consolidated consent application letter no. **126102 dated 06/09/2017** for the **Consolidated Consent and Authorization** (CC & A) of this Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)

To,
M/s. Colourtex Industries Pvt Ltd- (Unit-1)
Block Nos-272/P, 273/P, 274, 278/P,
283/P, 284/P, 285 to 288, 294 to 297, 310 &
Plot Nos. 288/1, 288/2, 289/1, 289/2, 8108/2, 801,
GIDC, SACHIN,
DIST. SURAT-394 230.

1. **Consent Order No. AWH-91735 Date of issue: 12/03/2018.**

2. The consents shall be **valid upto 08/10/2022** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant for manufacturing of the following items/ products:

Sr. No.	Product	Total Quantity in MT/Month
1.0	**Dyes**	
1.1	**Synthetic Organic Dyes-1** ▪ Azo Disperse Dyes- 1(A1+A2) ▪ Azo Acid & Solvent Dyes	2250
1.2	**Synthetic Organic Dyes-2** Azo Disperse Dyes –2(A3)	100
1.3	**Synthetic Organic Dyes-3** Anthraquinone Disperse Dyes & Vat Dyes	100
1.4	**Synthetic Organic Dyes-4** ▪ Anthraquinone Acid & Solvent Dyes	25
1.5	**Synthetic Organic Dyes-5** • Azo Reactive Dyes-1 • Solvent Dyes for Automotive	500
1.6	**Synthetic Organic Dyes-6** TPM Dyes	75
1.7	**Synthetic Organic Dyes-7** Azo Reactive Dyes-2**	1500
	Total	4550
2.0	**Intermediates**	

2.1	Ethoxylated and Acetylated Tertiary Amines (CI-101, CI-108, CI-182, CI-101A, CI-108A, CI-105, CI-104, CI-113, CI-182A, CI-307, CI-313, CI-203, CI-102)	600
2.2	Cyanoethylated Amines (NCEA, CEMAA, CAMA, NCENEA, CI-107, CI-208)	150
2.3	Textile Auxiliaries, Binders. Fixtures** (Non Ionic/Anionic/ Cationic/ & their Blends) (e.g. P-400, L.C. DFT, L.C. PC, L.C. HTS, L.C. NID, L.C. NOD, L.C. TFL, L.C. SCR, L.C. ASD, L.C. PES, L.C. KBI, L.C. DDO, L.C. D 45, L.C. CE, L.C. SO 600, L.C. SR 16, L.C. FBOL, L.C. LSF, L.C. CTPC, L.C. SMK LC SWL, L.C. SDBL, L.C. PB, L.C. OA, FX, WET, NZ, LCS, Adr, CRL, VI, TEA, T-96, SQ, Levofin IS, Levofin BS, LFD, FBSE, ELA, 4398, BDLS, Esr, I.V, L.C.DSS, L.C.LA, L.C.MDF, L.C.CAN, L.C.C-DFX, L.C.ECA, L.C.DFL, L.C.SAR, MB070, MB030).	1500
2.4	Textile Finishing Chemical**	150
2.5	Primary Amine (Para Nitro Aniline, Meta Nitro Aniline, 2 Chloro 4 Nitro Aniline, Meta chloro Aniline, Para Anisidine, 3 Amino 4 Methoxy Acetanilide, Meta Aminio Acetanilide, DCPNA, 6 Br DNA, 6CL DNA, DB PNA, 2:6 DBPT)	600
2.6	2 :4 Dinitro Chloro Benzene	100
2.7	Anthraquinone Intermediates	75
2.8	Anthraquinone	160
2.9	Benzanthrone	50
2.10	Ethylated Tertiary Amines	200
2.11	Quinoline (Dioxy Quinoline, Hydroxy Methyl Quinoline)	30
2.12	Pyridone derivatives (Butyl Pyridone, Methyl Pyridone, Ethyl Pyridone, Dichloro Pyridines, ECA, MDN)/ Alkylated Amino Pyridine	50
2.13	Optical Whitener	100
2.14	Dispersing Agent SCS/045**	350
2.15	Disperse DDP**	1000
2.16	B.D.S.A**	17
2.17	G. Base**	8
2.18	(I) Naphthalene 2:7 D.S.A **(II) E Acid** (III) E.B.M.T.S.A. **(IV) Benzaldehyde Ortho Sulfonic Acid**	66
2.19	PZL- Chloride Hydrochloride	10
	Or	Or
	• 3-(Phenyl Hydrazone) Cyclohexanone	4.5
	• 4-Oxo Carbazole	3.5
	• 4-Hydroxy Carbazole	3
	• 4-Oxyranylmethoxy Carbazole	2
	• 2,6-Dichloro Diphenyl Amine	10.5

	• N-Chloroacetyl-2,6-Dichloro Diphenyl Amine	13.5
	• N-2,6-Dichloro phenyl-2-Indolinone	10.8
	Sub Total of 2.19	47.8
2.20	Phenyl Ethyl Alcohol	44
2.21	Methoxy Ethyl Benzene	36
2.22	Methoxy Ethyl Nitro Benzene	18
2.23	Methoxy Ethyl Aniline	15
2.24	Methoxy Ethyl Phenol	10
2.25	CPL-ME.HCl (Res)	7
2.26	CPL-Tosylate	7
2.27	AD-Enol Ether	1.5
2.28	AD-Oxiran	1.5
	Or	Or
	• 5-Chloro-6-Aminobenzene-1,3-Disulfonamide	1.5
2.28.1	5-Chloro-6-Aminobenzene-1,3-Disulfonamide	18.5
2.29	AD-Lactone	1.5
2.30	Sulfapyridine	6.0
	Or	Or
	• 10-Methoxy iminostilbene	1.7
	• 10,11-Dibromo Iminodibenzyl Carbonyl Chloride	3.5
	• Schiff Base	2.5
	• 7-(4-Bromobutoxy)-3,4-Dihydro Quinolinone	0.5
	Sub Total of 2.30	8.2
2.31	Spirodiene	5
2.32	Epoxide	5
2.33	1- Amino 1-Cyano cyclopentane oxalate	2
2.34	1- Amino Cyclopentane Carboxamide	2
2.35	2- Butyl, 1,3 - Diaza spiro [4,4] non - 1-en- 4 one Hydrochloride	2
2.36	2- [N-(p- Fluorobenzyl) Amino] Ethanol	1.5
2.37	2- Chloromethyl 4 - (4- Fluorobenzyl) Morpholin	1.5
2.38	N- (2 - Morpholino methyl) phthalimide	1.5
2.39	N - (2- Aminomethyl) - 4 (4- fluorobenzyl) morpholine	1.5
2.40	Imidazomethyl Cyanobiphenyl	0.75
2.41	N - Acetyl Iminodibenzyl	3.0
2.42	3- Nitro N- Acetyl Iminodibenzyl	1.5
2.43	2-Chloro-5-Nitrobenzoic Acid	7
2.44	N- Methyl - 4 - Oxo Carbazole	0.5
2.45	Isochroman	3
2.46	Isochromanone	3
2.47	Dibenzo Suberone	4
2.48	Otrichloride	0.75
2.49	Otrinitrile	0.75
2.50	5- Chloromethyl- 6- t- Butyl -2,4- Xylenol	0.75
2.51	(6 - t Butyl -5-Hydroxy- 2, 4- diemethyl) Phenyl Acetonitrile	0.5
2.52	2 - (3, 5 - Dimethyl phenoxy methyl) oxirane	1
2.53	3-(3,5 - Dimethyl phenoxy) - 2 Hydropropyl amine Hydrochloride	1
2.54	4-Methyl Cyclohexanone Oxime	1.5
2.55	4-Methyl Cyclohexyl Amine Hydrochloride	1.5

2.56	Isoveratronitrile	3.0
2.57	N-Methyl Homoveratryl amine	4
2.58	Chloro base	6
2.59	Cyanothiophene	1.5
2.60	Olanzonitro	2.5
2.61	Olanz - amine Hydrochloride	1.5
2.62	3, 4 - Di chlorobenzophene	1.0
2.63	3 - (Ethoxy carbonyl) - 4 (3,4 - dichlorophenyl) -4 Phenyl 3 - Butenoic acid	1.5
2.64	4 -(3,4 - Dichlorophenyl) -4 - Phenyl -3- Butenoic acid	4.5
2.65	4- (3,4-dichlorophenyl) - 4 - Phenyl butanoic acid	1.5
2.66	4 - (3,4 -dichlorophenyl) -4- dihydro -1 - Naphthalenone	1.0
2.67	2-[(amino carbonyl) amino] - 4,5 - Dimethoxy benzoic acid	4.5
2.68	6,7 - dimethoxy - 2, 4 -dihydroxy quinazoline	4.5
2.69	2, 4 - Dichloro - 6,7 Dimethoxy quinazoline	4.5
2.70	2- Chloro- 4 - amino - 6, 7 - dimethoxy quinazoline	4.5
2.71	Amino Bromo Methyl Uracil (ABMU)	10
2.72	N - Methyl Uracil (NMU)	10
2.73	Carboxy Octahydroindole	1
2.74	Benzyl Ester PTS- Salt	1
2.75	Ethyl nor valinate hydrochloride	1
2.76	Carbethoxy butyl alanine	1
2.77	Octahydroindole Carboxy acid	1
2.78	4 - Hydroxybenzaldehyde Oxime	5
2.79	4 -Hydroxy benzonitrile	5
2.80	3- Nitro - 4- Hydroxy Benzonitrile	5
2.81	2- Bromo Hexanoic Acid	3
2.82	2- (2 - Formyl Phenoxy) Hexanoic Acid	3
2.83	2 - Butyl Benzofuran	3
2.84	Mannich Base Hydrochloride	10
2.85	4 - Chloro Butyryl chloride	2.5
2.86	4 -Chloro -1 -(4- Isobutyl phenyl) -1- Butanone	2.5
2.87	2,2 - Di phenyl - 4 - Piperidine Methanol	2.5
2.88	Terfenadone	2.5
2.89	Thia Dibenzo cycloheptenone	5
2.90	Thioehter	3
2.91	Benzothiophene	3
2.92	Methyl Paraben ester	3
2.93	Acid Hydrochloride	3
2.94	Acid Chloride Hydrochloride	3
2.95	Bromo methyl butane	5
2.96	Oxime	5
2.97	2-(2-chloro benzoyl)-4-chloro aniline (Methanone)	5
2.98	Methanone Oxime	5
2.99	Quinazoline-N-Oxide	5
2.100	Glutarimide	4
2.72	N - Methyl Uracil (NMU)	10
2.73	Carboxy Octahydroindole	1

2.74	Benzyl Ester PTS- Salt	1
2.75	Ethyl nor valinate hydrochloride	1
2.76	Carbethoxy butyl alanine	1
2.77	Octahydroindole Carboxy acid	1
2.78	4 - Hydroxybenzaldehyde Oxime	5
2.79	4 -Hydroxy benzonitrile	5
2.80	3- Nitro - 4- Hydroxy Benzonitrile	5
2.81	2- Bromo Hexanoic Acid	3
2.82	2- (2 - Formyl Phenoxy) Hexanoic Acid	3
2.83	2 - Butyl Benzofuran	3
2.84	Mannich Base Hydrochloride	10
2.85	4 - Chloro Butyryl chloride	2.5
2.86	4 -Chloro -1 -(4- Isobutyl phenyl) -1- Butanone	2.5
2.87	2,2 - Di phenyl - 4 - Piperidine Methanol	2.5
2.88	Terfenadone	2.5
2.89	Thia Dibenzo cycloheptenone	5
2.90	Thiochter	3
2.91	Benzothiophene	3
2.92	Methyl Paraben ester	3
2.93	Acid Hydrochloride	3
2.94	Acid Chloride Hydrochloride	3
2.95	Bromo methyl butane	5
2.96	Oxime	5
2.97	2-(2-chloro benzoyl)-4-chloro aniline (Methanone)	5
2.98	Methanone Oxime	5
2.99	Quinazoline-N-Oxide	5
2.100	Glutarimide	4
2.101	Tetra methylene glutaricacid	4
2.102	2-(2-Fluorobenzoyl) -4- chloroaniline	4
2.103	Benzo diazepinone	4
2.104	N-(3-Chlorophenyl) piperazine HCl	7
2.105	1-(3- Chloropropyl)-4-(3-Chlorophenyl) piperazine	7
2.106	Naphthalene Derivatives (H-Acid, J-Acid, G Salt, Amido G Salt, K-Acid, Gamma Acid, NMJ Acid)	400
2.107	Vinyl Sulphone Derivatives (Para Base Vinyl Sulphone Ester, VS, Sulpho OAVS, OAVS, PCVS, Sulpho VS, m-Base VS)	800
2.108	D.A.S.A.	20
2.109	2 NAPDSA	10
2.110	4 NAPDSA	8
2.111	F.C. Acid	5
2.112	6 Chloro Metanilic Acid	10
2.113	Nitrosylsulfuric Acid	250
	Total	7167.5
3.0	Ferrous Sulphate including Metal/ Mineral Sulfate	500
4.0	Speciality Chemicals	
4.1	Antioxidant/Coating chemicals, Polymer emulsion, Adhesive/ Resins	300

5.1	Formulation & Spray Drying of Disperse Wet Press Cake	400
5.2	Formulation & Spray Drying of Acid & Reactive Dyes wpc	
6.0	By Product	
6.1	Al(OH)3	760
6.2	Mix Salt (NaCl + Na2SO4)	615
6.3	Potassium Chloride	3.4
6.4	Potassium Bromide	0.9
	Total	1379.3

Subject to specific condition:

1. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
2. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**

3. CONDITIONS UNDER THE WATER ACT:

3.1. Source of Water:- Group Companies own water supply network

3.2. **The quantity of the fresh water consumption for industrial purpose shall not exceed 9810 KL/Day.**

3.3. **The quantity of the fresh water consumption for domestic purpose shall not exceed 125 KL/Day.**

3.4. **The quantity of the industrial effluent to be generated from the manufacturing process and other ancillary industrial operations shall not exceed 9103 KL/Day.**

3.5. The quantity of wastewater from the factory shall not exceed the quantity as mentioned below.

Sr. No.	Type of Stream	Wastewater Generation in m3/day
1	Low COD Stream (Industrial + Domestic)	8785 (8666 + 119)
2	High COD Stream	436

3.6. The Low COD effluent 8785 m^3/day shall be treated in Effluent Treatment Plant. Further, 818 m^3/day effluent of M/s. CTX Lifesciences Pvt. Ltd., Sister Concern shall also be treated in Effluent Treatment Plant at M/s Colourtex Industries Pvt. Ltd. (Unit-1). So the total discharge shall be 9603 m^3/day.

3.7. 436 m^3/day High-COD effluent and 34.5 m^3/day High COD effluent of M/s. CTX Lifesciences Pvt. Ltd., Sister Concern shall be segregated and treated in Multiple Effective Evaporators & Spray Dryer/Liquid waste incinerator.

3.8. **The quantity of domestic waste water shall not exceed 119 KL/Day.**

3.9. **Domestic effluent shall be disposed off through septic tank/soak pit system.**

3.10. The concentrated & high COD wastewater stream of M/s. Colourtex Industries Pvt. Ltd. (Unit-1) & CTX Lifesciences Pvt. Ltd. shall be segregated and completely treated in Multiple Effect Evaporator & the concentrate will be treated in well designed Spray Dryer/ Liquid Waste **incinerator and there shall be no discharge of any effluent into** an environment.

- The incineration system shall be operated & maintained efficiently so that there shall be no discharge of concentrated & toxic effluent in to an environment including land, river, stream etc.
- **The industry shall operate fully & efficiently incineration system/ air pollution control equipment for incineration of total quantity (i.e. toxic effluent) of effluent & shall close down all the manufacturing processing activities whereas the incineration system/ air pollution control equipments or any there of are fully or partly non operational for any reason what so ever (whether for maintenance/repair/electricity failure or otherwise) They shall not restart such activity unless & until the incineration system is fully in operation.**
- The pipeline connecting various equipments of sump of incineration system should be minimum in number & shall have permanent connection (no loose or flexible connection).

- The incineration system shall be equipped with flow measuring devices for mother liquor, effluent, fuel, air used for combustion & temperature measuring devices within incinerator at different points & scrubber outside the incinerator shall be provided. There all data shall be recovered every day.
- The applicant shall have to register the unit under the provision of factories Act-1948 & shall be obtained the necessary factory license.
- The printed Log Book shall be maintained for:
  a) Energy Consumption
  b) Waste water flow at inlet & outlet of incineration system
  c) Quantity of sludge generated
  d) Laboratory analysis reports for each of the specified parameters of liquid effluent, gaseous discharge & soil sludge samples.
- The unit shall supply to the GPCB the figures of production & consumption of electricity & water for each day during the period of production, through such figures shall be supplied on monthly basis. The unit shall supply separate figures for consumption of electricity for running the incinerator by having separate meter/ sub meters for such incinerator.
- Applicant shall comply the GPCB guideline.

3.11. The low COD effluent of M/s. Colourtex Industries Pvt. Ltd. (Unit-I) & CTX Lifesciences Pvt. Ltd. shall be treated in the existing effluent treatment plant at Colourtex Industries Pvt. Ltd. (Unit-I).

3.12. The applicant shall provide adequate effluent treatment system in order to achieve the quality of treated effluent as per GPCB norms mentioned below.

PARAMETERS	GPCB NORMS
pH	6.5 to 8.5
Temperature	40° C
Colour (pt.co.scale) in units	100 units
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
Phenolic Compounds	2 mg/l
Cyanides	0.2 mg/l
Sulphides	2 mg/l
Ammonical Nitrogen	50 mg/l
Arsenic	2 mg/l
Total Chromium	2.0 mg/l
Hexavelent Chromium	0.1 mg/l
Copper	3 mg/l
Lead	0.1 mg/l
Mercury	0.01 mg/l
Nickel	2 mg/l
Zinc	5 mg/l
Cadmium	0.2 mg/l
Manganese	2 mg/l
BOD (5 days at 20° C)	30 mg/l
COD	250 mg/l

3.13. The final treated effluent conforming to the above standards shall be discharged in to underground drainage system of G.I.D.C. Sachin.

3.14. Domestic effluent shall be disposed off through septic / soak pit system or it shall be treated along with industrial effluent or it shall be treated separately to conform to the following standards and shall discharged into GIDC under ground drainage system.

BOD (5 days at 20°C)	less than 20 mg/l
Suspended Solids	less than 30 mg/l
Residual Chlorine	minimum 0.5 mg/l

4. CONDITIONS UNDER THE AIR ACT:

4.1. The following shall he used as a fuel.

Sr. No.	Utility	Fuel	Quantity
1	For Steam Boiler-1 (35 TPH)	Coal	6000 Kg/hr
2	For Steam Boiler-2 (30 TPH)	Coal	5200 Kg/hr
3	For Thermopack (1500 U)	Natural Gas Or Coal	195 Nm3/hr Or 270 Kg
4	Hot Air Generator-1 (45 Lac Kcal/hr)	Coal Or Lignite	1020 Kg/hr Or 1505 Kg/hr
5	Hot Air Generator-2 (75 Lac Kcal/hr)	Coal or Lignite	1640 Kg/hr Or 2445 Kg/hr
6	Hot Air Generator-3 (45 Lac Kcal/hr)	Coal or Lignite	1020 Kg/hr Or 1505 Kg/hr
7	Hot Air Generator-4 (75 Lac Kcal/hr)	Coal	1640 Kg/hr
8	Hot Air Generator-5 (45 Lac Kcal/hr)	Coal	1020 Kg/hr
9	Hot Air Generator-6 (80 Lac Kcal/hr)	Coal	1750 Kg/hr
10	Liquid Waste Incinerator	HSD or LDO or Bio Diesel	630 Lit/hr Or 700 Lit./hr or 630 Lit/hr
11	For D.G.Sets-	Diesel	816 Lit./hr

4.2. The applicant shall install & operate comprehensive adequate air pollution control system in order to achieve prescribed norms.

4.3. The flue gas emission through stack attached to TFH, Steam Boiler, HAG, Incinerator and D.G.Set shall conform to the following standards:

Stack Nos.	Stack Attached To	Stack Height in Meter	Air Pollution control measures	Probable Pollutants	GPCB limit in mg/Nm³
1.	Thermopack (1500 U) (Natural Gas/ Coal)	38	Multi Dust Collector & Teema Cyclone	Particulate Matter SO2 NOx	150 mg/NM³ 100 ppm 50 ppm
2.	Steam Boiler-1 (35TPH) (Coal)	42	ESP	Particulate Matter SO2 NOx	150 mg/NM³ 100 ppm 50 ppm
3.	Steam Boiler-2 (30 TPH) (Coal)				
4.	Hot Air Generator-1 (45 Lac Kcal/hr) (Coal/ Lignite Fired)	45	MDC, Teema Cyclone, ESP	Particulate Matter SO2 NOx	150 mg/NM³ 100 ppm 50 ppm

5.	Hot Air Generator-2 (75 Lac Kcal/hr) (Coal/ Lignite Fired)		MDC, Teema Cyclone, ESP			
6.	Hot Air Generator-3 (45 Lac Kcal/hr) (Coal/ Lignite Fired)		MDC, Teema Cyclone, ESP			
7.	Hot Air Generator-4 (75 Lac Kcal/hr) (Coal Fired)	45	ESP	Particulate Matter SO2 NOx	150 mg/NM^3 100 ppm 50 ppm	
8.	Hot Air Generator-5 (45 Lac Kcal/hr) (Coal Fired)					
9.	Hot Air Generator-6 (80 Lac Kcal/hr) (Coal Fired)*	35	Teema Cyclone			
10.	Incinerator	40	Mist Eliminato & Venturi Scrubber	Particulate Matter SO2 NOx	150 mg/Nm3 40 mg/Nm3 25 mg/Nm3	
11.	D. G. Set No.-I (180 KVA)	15	--	Particulate Matter SO2 NOx	150 mg/NM^3 100 ppm 50 ppm	
12.	D.G.Set No.-II (1000 KVA)	18	--	Particulate Matter SO2 NOx	150 mg/NM^3 100 ppm 50 ppm	
13.	D. G. Set No.-III (1250 KVA)	18	--	Particulate Matter SO2 NOx	150 mg/NM^3 100 ppm 50 ppm	
14	D. G. Set No.-IV (1250 KVA)	18	--	Particulate Matter SO2 NOx	150 mg/NM^3 100 ppm 50 ppm	

*** Hot Air Generator is direct fired & attached to Spray Dryer and have common stack**

4.4. The process emission through various stacks/vent of reactors, process, vessel shall conform to the following standards:

Stack Nos.	Plant Name	Stack Attached To	Stack Height in Meter	Air Pollution control measures	Probable Pollutants	GPCB limit in mg/Nm^3
1.	Storage Area	EO storage area	11	Packed Tower	EO	Traces
2.		EO storage area	11	Packed Tower	EO	Traces
3.	**S1**	**Reaction Vessel**	11	**Packed Tower**	EO	Traces
4.	S3	Reaction Vessel (Sulfonation & Drowning)	20	Two Stage Alkali Scrubbing System	SO2 HCl	40 mg/NM3 20 mg/NM3
5.	S3	Reaction Vessel (Sulfonation & Drowning)	20	Two Stage Alkali Scrubbing System	SO2 HCl	40 mg/NM3 20 mg/NM3

6.	S4	Reaction Vessel (Sulfonation & Isolation)	11	Two Stage Alkali Scrubbing System	SO_2	40 mg/NM3
7.	S4	Reaction Vessel (Sulfonation & Isolation)	11	Two Stage Alkali Scrubbing System	SO_2	40 mg/NM3
8.	S4	Reaction Vessel (Nitration & Neutralization)	11	Two Stage Alkali Scrubbing System	NOx	25 mg/Nm3
9.	S4	Reaction Vessel (Sulfonation & Isolation)	11	Two Stage Alkali Scrubbing System	SO_2	40 mg/NM3
10.	S4	Reaction Vessel (Nitration & Neutralization)	11	Two Stage Alkali Scrubbing System	NOx	25 mg/Nm3
11.	S4	SFD	19.5	Bag Filter	SPM	150 mg/Nm3
12.	S6	Reaction Vessel (Isolation & Bromination)	20	Two Stage Alkali Scrubbing System	SO_2 HBr Br_2	40 mg/Nm3 30 mg/Nm3 2 mg/Nm3
13.	S6	Reaction Vessel (Isolation & Bromination)	20	Two Stage Alkali Scrubbing System	SO_2 HBr Br_2	40 mg/Nm3 30 mg/Nm3 2 mg/Nm3
14.	S6	Reaction Vessel (Condensation)	20	Water Scrubbing System	NH3	175 mg/Nm3
15	S6	SFD-1	25	Water Scrubber	SPM	150 mg/Nm3
16	S6	SFD-2	25	Water Scrubber	SPM	150 mg/Nm3
17	S7	Reaction Vessel (Sulfonation)	19.8	Two Stage Alkali Scrubbing System	SO2 HCl	40 mg/NM3 20 mg/NM3
18	S7	Reaction Vessel (Sulfonation)	19.8	Two Stage Alkali Scrubbing System	SO2 HCl	40 mg/NM3 20 mg/NM3
19	S2/P	Chlorosulfonation	11	Alkali Scrubbing System	HCl	20 mg/NM3
20	S2/P	Aminolysis	25	Water Scrubbing System	NH3	175 mg/NM3
21	S8	Fluid Bed Dryer	11	Bag Filter	SPM	150 mg/Nm3
22	S9	Reaction Vessel (Condensator & Chlorinator)	11	Alkali Scrubbing System	NOx NH3 HCl	25 mg/NM3 175 mg/NM3 20 mg/NM3
23	S9	Condensator & Chlorinator	11	Alkali Scrubbing System	SO2 HCl	40 mg/NM3 20 mg/NM3
24	S9	Spray Dryer-1	38.058	Cycone & Water scrubber	SPM	150 mg/Nm3
25	S9	Spray Dryer-2	38.058	Cycone & Water scrubber	SPM	150 mg/Nm3

26	S9	Spray Dryer-3	18.058	Cycone & Water scrubber	SPM	150 mg/Nm3
27	S10	Reaction Vessel (Sulphonation & Diazotization)	11	Two Stage Alkali Scrubbing System	SO2 HCl NOx Cl2	40 mg/NM3 20 mg/NM3 25 mg/NM3 9 mg/NM3
28	S10	Reaction Vessel (Sulphonation & Diazotization)	11	Two Stage Alkali Scrubbing System	SO2 HCl NOx Cl2	40 mg/NM3 20 mg/NM3 25 mg/NM3 9 mg/NM3
29	S10	Reaction Vessel (Condensaion)	11	Two Stage Alkali Scrubbing System	HCl Cl2	20 mg/NM3 9 mg/NM3
30	S10	Reaction Vessel (Condensaion)	11	Two Stage Alkali Scrubbing System	HCl Cl2	20 mg/NM3 9 mg/NM3
31	S10	Spray Dryer-1	25	Bag Filter	SPM	150 mg/Nm3
32	ETP	Neutralizing Tank at ETP	11	Single Stage Alkali Scrubbing System	SO_2 HCl	40 mg/NM3 20 mg/NM3
33	-	Spray Dryer*	35	Quadruple Cyclone & Ventury Scrubber	SPM SO2 NOx	150 mg/NM3 100 ppm 50 ppm
34	S9	Spray Dryer-4	40	Water Scrubber & Cyclone	SPM	150 mg/Nm3
35	S10	Spray Dryer-2	33	Water Scrubber & Cyclone	SPM	150 mg/Nm3
36	S13	Spray Dryer-1	41	Water Scrubber & Cyclone	SPM	150 mg/Nm3
37	S13	Spray Dryer-2	41	Water Scrubber & Cyclone	SPM	150 mg/Nm3
38	S13	Spray Dryer-3	41	Water Scrubber & Cyclone	SPM	150 mg/Nm3

*** Spray Dryer & Coal Fired Hot Air Generator (80 Lac Kcal/hr) have a common Stack.**

4.5. Industry shall take adequate measure to control dusting due to storage, transportation & handling of Coal/Lignite & fly ash.

4.6. Industry shall comply with Coal handling guideline of the Board.

4.7. Industry shall comply with fly ash notification 1999 as amended from time to time.

4.8. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10meters from the source) other than the stack/vent) shall not exceed **the following levels.**

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/M3
PM 2.5	60 Microgram/M3
SO_2	80 Microgram/M3
NOx	80 Microgram/M3

4.9. The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

4.10. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

5. **D.G. SETS CONDITIONS**

The D.G. Set shall have acoustic enclosure and shall comply sith the standards specified at Sr. no. 95 of Schedule I of the rule-3 of E.P. Rules 1986 and Noise pollution level as per the Air Act-1981.

D.G. Sets standards:-

The flue gas emission through stack attached to D.G. Sets shall conform to the following standards.

a) The minimum height of stack to be provided with each of the generator set shall be H=h + 0.2 $(KVA)^{-2}$, where H= Total stack height in meter. h height of the building in meters where or by the side of which the generator set is installed.

a) Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.

b) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Under such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.

c) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).

d) All efforts shall be made to bring down the noise level due to the D.G.Set outside the premises, within the ambient noise requirements by proper siting and control measures.

e) Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G.Set manufacturer.

f) A proper routine and preventive maintenance procedure for the D.G.Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use.

6. **AUTHORIZATION as per HAZARDOUS AND OTHER WASTE (MANAGEMENT AND TRANSBOUNDARY) RULES, 2016 Form-2 [See rule 6 (2)]**

Form for grant of authorization for occupier or operator handling Hazardous waste

6.1 Authorization order No:- **AWR-91735** date of Issue: **12/03/2018.**

6.2 **M/s. Colourtex Industries Pvt Ltd- (Unit-1)** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **Block Nos. 272/P, 273/P, 274, 278/P, 283/P, 284/P, 285 to 288, 294 to 297, 310 & Plot Nos. 288/1, 288/2, 289/1, 289/2, 8108/2, 801, GIDC, SACHIN, DIST. SURAT-394 230.**

Sr. No.	Waste	Category	Quantity in MT/month	Facility
1)	ETP Sludge	35.3	2400	Collection, storage, transportation and disposal by selling to Cement Manufacturing Industeries in Gujarat & Other States of India (Like Orient Cement, Maharastra &
2)	Process Gypsum Sludge	26.1	4140	

3)	Iron Oxide Waste		1446	Andrapradesh. Vikram Cement, Mudhyapradesh. Ultratech Cement Ltd., Rajashthan Reliance Cement Co. Pvt. Ltd., Butibori etc.) and/ at TSDF of Colourtex Industries Pvt. Ltd. (TSDF Site) at Vill. Jiav and/ disposed at TSDF facility of Saurshtra Enviro Projects Pvt. Ltd., Kutch/ use for manufacturing of bricks
4)	Organic Sludge		70	Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration in the Solid Waste Incinerators / Blending & transfer for Co processing in the Cement Kiln of Cement Industries
5)	Inorganic Salt		619.3	Sale/Use as a Raw material in Reactive Dyes/ disposed off at Group Companies Own TSDF Site at Village Jiav/ TSDF Site of Saurashtra Enviro Projects Pvt. Ltd., Kutch.
6)	Inorganic Sludge		18.9	Collection, storage, transportation and disposal at TSDF of Colourtex Industries Pvt. Ltd. (TSDF Site) Vill. Jiav and/ TSDF facility of Saurashtra Enviro Projects Pvt. Ltd.,Kutch
7)	MEE Salt (Inorganic Salt)	35.3	1300	
8)	Incineration Ash	37.2	600	
9)	Spent Solvent	20.2	20.85	Receive, Collection, storage, Transportation, disposal by incineration in own liquid waste incineration/ Transfer at Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration/ Blending & transfer for Co-processing in the cement kiln of Cement Industries/ Sale to Authorized Recycler
		28.6	141.6 (CTX Lifesciences Pvt. Ltd.)	
10)	Distillation Residue	20.3	313 + 223.8 (CTX Lifesciences Pvt. Ltd.) = 536.8	Receive, Collection, Storage, Transportation, Disposal by Incineration in the common liquid waste incinerator at M/s. Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel/ Transfer at M/s Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration/ Blending & transfer for Co-processing in the cement kiln of Cement Industries
11)	Used Oil	5.1	412.1 (CTX Lifesciences Pvt. Ltd.) = 6.1	Receive, Collection, storage, transportation, disposal by selling to registered reprocessor and / Use for Lubrication within the Industry/ Burnt in the Incinerators at M/s Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel
12)	Waste/Residues Containing Oil	5.2	0.5	Incineration in the Incinerator
13)	Oily Sludge	35.4	3.8	Collection, storage, Transportation, disposal by incineration in own liquid waste incineration/ Transfer at Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration.
14)	Spent Carbon	35.3	8.58	Transfer at M/s Colourtex Industries Pvt. Ltd (Unit-2), Pandesara for Incineration/ Blending & transfer for Co-processing in the cement kiln of Cement Industries.

15)	Spent Catalyst	35.2	10.093	Send for regeneration
16)	Discarded Container	33.1	7500 Nos. (105 MT)	Sale to authorized dealer after decontamination / Reuse after decontamination.
	Liner	33.1	25	Sale to authorized dealer after decontamination / Reuse after decontamination/ transfer for Co-processing in the cement kiln of any Cement Industries.
17)	Spent Acid (Inorganic Acid)	26.3	1200	Receive from Colourtex Industries Pvt. Ltd. (Unit-2), Sister Concern and reuse in the process.

6.3 The authorization shall be valid up to **08/10/2022**.

6.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.5 The authorization is granted to operate a facility for collection, storage within factory premises transportation and ultimate disposal of Hazardous wastes as per condition no.6.2 to the industry having valid CCA of this Board.

7. TERMS AND CONDITIONS OF AUTHORISATION

1. The applicant shall comply with the provisions of the Environment (Protection) Act-1986 and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
3. The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a beach of this authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Wastes and Penalty"
7. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
8. An application for the renewal of an authorization shall be made as laid down in rules 6(2) under Hazardous Waste and Other Waste Rules, 2016.
9. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
10. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
11. The hazardous and other wastes which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
12. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) the wastes generated.
15. Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form-4 by 30th day of June of every year for the preceding period April to March.

16. In case of any accident, details of the same shall be submitted on Form-11 to Gujarat Pollution Control Board.
17. As per "Public Liability Insurance Act-91" company shall get Insurance Policy, if applicable.
18. Empty drums and containers of toxic and hazard material shall be treated as per guideline published for "Management & Handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
19. In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State of Union Territory Administration where the facility exists.
20. Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Actions taken in this regard shall be submitted within three months and also along with Form-4.
21. Industry shall have to display the relevant information with regards to hazardous waste as indicated in the Hon. Supreme Court's Order in W.P. No.657 of 1995 dated 14th October, 2003.
22. Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including, wastewater and air emissions and solid hazardous wastes generated within the factory premises.

8. GENERAL CONDITIONS: -

8.1. Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
8.2. Applicant shall also comply with the general conditions given in annexure I.
8.3. Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body.
8.4. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
8.5. The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell/Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
8.6. The Environmental audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.
8.7. The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.
8.8. In case of change of ownership/management the name and address of the new owners/ partners/directors/proprietor should immediately be intimated to the Board.
8.9. Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme order in w.p no. 657 of 1995 dated 14th October 2003.

9. SPECIFIC CONDITIONS:-

9.1. The authorized actual user of hazardous and other wastes shall maintain records of hazardous and other wastes purchased in a passbook issued by the State Pollution Control Board along with the authorization.
9.2. Handling over of the hazardous and other wastes to the authorized actual user shall be only after making the entry in the passbook of the actual user.

9.3. In case of renewal of authorization, a self-certified compliance report in respect of effluent, emission standards and the conditions specified in the authorization for hazardous and other wastes shall be submitted to SPCB.

9.4. The occupier of the facility shall comply Standard operating procedure/guidelines published by MOEF&CC or CPCB or GPCB from time to time.

9.5. Unit shall comply provisions of E-Waste Management Rules-2016.

9.6. The disposal of Hazardous Waste shall be carried out as per the waste Management hierarchy.

9.7. The occupiers of facilities shall not store the hazardous and other wastes for a period not exceeding **ninety days**. Prior permission of the Board shall be obtained for extension of the storage period.

9.8. The occupier shall maintain the records of generation, sale, storage, transport, recycling, co processing and disposal of hazardous waste and make available during the inspection.

9.9. The transportation of the hazardous waste shall be carried out in GPS mounted dedicated vehicles.

For and on behalf of
Gujarat Pollution Control Board

(S.M.Tabhani)
Senior Environmental Engineer

NO: GPCB/CCA-SRT-311(16)/ID-20632/ **Date:-**

Issued to:
M/s. Colourtex Industries Pvt Ltd- (Unit-1)
Block Nos. 272/P, 273/P, 274, 278/P,
283/P, 284/P, 285 to 288, 294 to 297, 310 &
Plot Nos. 288/1, 288/2, 289/1, 289/2, 8108/2, 801,
GIDC, SACHIN,
DIST. SURAT-394 230.

ANNEXURE – XIX

A COPY OF CTE NO. GPCB/CCA-SRT-311(15)/ID_20632/418510 DATED 25/07/2017

GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010
Phone : (079) 23222425
(079) 23232152
Fax : (079) 23232156
Website : www.gpcb.gov.in

"Consent to Establish-Amendment"
(CTE-86480)

BY R.P.A.D.
Date:

NO: GPCB/CCA-SRT-311(15)/ID_20632/
To,
M/s. Colourtex Industries Ltd.(Unit-1)
Plot No:- 288/1-2,289/1-2,8108/2,
GIDC, Sachin,
Tal:- Chorasi, Dist:- Surat.

Sub: **Consent to Establish (NOC)-Amendment under Section 25 of Water Act 1974 and Section 21 of Air Act 1981**
Ref: 1) Your application for CTE-Amendment no. 118579 received Dated. 01/04/2017.

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that this Board grants **Consent to Establish-Amendment** for **installation of Six nos. of Spray dryer, One no of Spin flash Dryer, four nos of scrubbers in existing** industrial plant/activities located at Plot No:- 288/1-2,289/1-2,8108/2, GIDC, Sachin, Tal:- Chorasi, Dist:- Surat.

SUBJECT TO THE FOLLOWING CONDITIONS: -

1. **The validity of this order will be up to years i.e. 13/06/2022.**
2. **There shall be no change in existing production capacity, water consumption & effluent generation quantity, fuel consumption etc due to proposed installation.**
3. **Unit shall maintain generation of wastewater as per condition of existing consent.**
4. **Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).**
5. **As per Provisions of Rule 18 of Solid Waste Management Rules-2016 you are directed to make an arrangement in Utilities to replace at least five percent (5%) of your solid fuel requirement by 'refused derived fuel'.**
6. **Industry shall obtain NOC from CGWA as per order of Hon. National Green Tribunal for the withdrawal of ground water.**

CONDITIONS UNDER AIR ACT 1981:

1. There shall be no change in existing quantity of fuel consumption as well as flue gas emission due to proposed CTE-Ammendmnet.
2. The process emission through the stack/vent attached to thefollowing standards:

Sr. No.	Stack attached to	Vent Height in Meter	Air Pollution Control system	Parameter	Permissible Limit
Proposed					
33	Spray Dryer-4i	35	Water Scrubber & Cyclone	SPM	150 mg/NM^3
34	Spray Dryer-4(S9)	40	Water Scrubber & Cyclone	SPM	150 mg/NM^3

35	Spray Dryer-2(S10)	33	Water Scrubber & Cyclone	SPM	150 mg/NM^3
36	Spray Dryer-1	41	Water Scrubber & Cyclone	SPM	150 mg/NM^3
37	Spray Dryer-2	41	Water Scrubber & Cyclone	SPM	150 mg/NM^3
38	Spray Dryer-3	41	Water Scrubber & Cyclone	SPM	150 mg/NM^3
39	SFD (Spin Flash Dryer)	19	Bag Filter	SPM	150 mg/NM^3
40 to 43	Reaction Vessels of diazotization of S11 plant	11	Alkali Scrubbing System-1	SO_2	40 mg/NM^3
		11	Alkali Scrubbing System-2	NO_x	25 mg/NM^3
		11	Alkali Scrubbing System-3	SO_2	40 mg/NM^3
		11	Alkali Scrubbing System-4	NO_x	25 mg/NM^3

3. Industry shall take adequate measure to Control dusting due to storage, transportation & handling of Coal & fly ash.
4. Industry shall comply with Coal handling guideline of the Board.
5. Industry shall comply with fly ash notification.
6. Stack monitoring facilities like port hole, platform/ladder etc., shall be provided with stacks/vents chimney in order to facilitate sampling of gases being emitted into the atmosphere.
7. The concentration of the following parameters in the ambient air within the premises of the industry and a distance of 10 meters from the sources (other than the stack/vent) shall not exceed the following levels.

PARAMETERS	PERMISSIBLE LIMIT
PM 10	100 Microgram/M3
PM 2.5	60 Microgram/M3
SO_2	80 Microgram/M3
NOx	80 Microgram/M3

8. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

CONDITIONS UNDER HAZARDOUS WASTE RULES:

9. Applicant shall have to comply with provisions of Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
10. The applicant shall obtain membership of common TSDF site for disposal of Hazardous waste as categorized in Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
11. The applicant shall obtain membership of common Hazardous Waste incinerator for disposal of incinerable waste.

12. The applicant shall provide temporary storage facilities for each type of Hazardous Waste as per Hazardous and other Waste (Management and Trans Boundary Movement) Rules 2016.
13. The applicant shall obtain registration/authorization for recycling/reprocessing any hazardous waste before procuring material/starting production as per HW Rules 2016.
14. The applicant shall obtain authorization for recovery/reuses of any hazardous waste material as per HW Rules 2016.

GENERAL CONDITION :

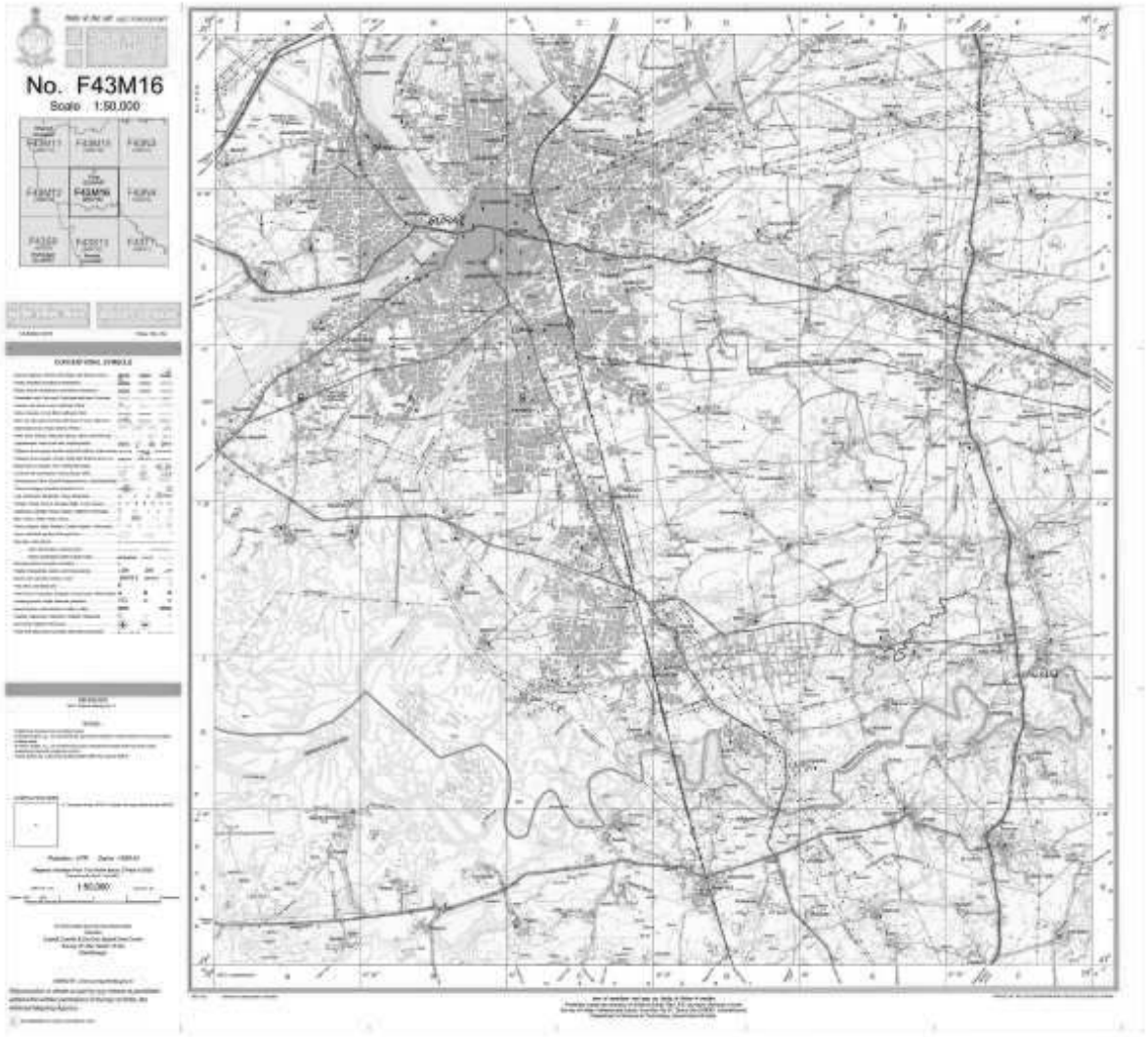
15. Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is atleast 1000 trees per acre of land and a green belt of 3 meters width is developed.
16. The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act- 1977.
17. In case of change of ownership/management the name and address of the new owners /partners/ directors/ proprietor should immediately be intimated to the Board.
18. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.
19. The applicant also comply with the General conditions as per Annexure - I attached herewith (No.1 to 38) (whichever applicable).
20. The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:
    Between 6 A.M. and 10 P.M. : 75 dB(A)
    Between 10 P.M. and 6 A.M. : 70 dB(A)
21. Applicant is required to comply with the manufacturing, Storage and Import of Hazardous Chemicals Rules-1989 framed under the Environment (Protection) Act-1986.
22. If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property .in that case they are obliged to pay the compensation as determined by the competent authority.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(Smt U.K. Upadhyay)
ENVIRONMENTAL ENGINEER

ANNEXURE – XX

TOPOSHEET



ANNEXURE – XXI

MAP OF 10 KM RADIAL DISTANCE FROM PROJECT SITE