

**Status of Implementation of
Comprehensive Environmental Pollution
Abatement Action Plan
for
Vapi Industrial Cluster**

Updated CEPI Action PLAN OF VAPI CLUSTER DIST-VALSAD (GUJARAT)

Sr No	Activity	Issue	Action	Implementing Agency	Time limit	Status as on 31/12/2014.
WATER						
1	Standard flow meter at final outlet of ETP	To control overflow of drainage pipeline, it is necessary to control the discharge of excessive quantity of w/w from the industrial units (i.e. the w/w discharge should be as per CCA condition). To check the quantity of w/w being discharged it is proposed that in the 1 st phase the units having effluent quantity > 25 KLD should provide standard flow meter at the final outlet.	Identification of units having effluent quantity > 25 KLD. Industrial Association will issue the circular to their members to provide the standard flow meter. GPCB will also issue notice to such units.	GPCB, Concerned industries, VIA, VWEMCL	Already identified & verification by 15.07.2010	Flow meter has been already installed by all industries having > 25 KI/day effluent discharge. Total 176 units has installed Flow meter as per the list ANNEXURE" A"
				Concerned industries, VIA, GPCB	31.7.2010	

Sr No	Activity	Issue	Action	Implementing Agency	Time limit	Status as on 31/12/2014.
			Standard flow meter required to install at final outlet of ETP by large scale units (having effluent quantity ≥ 25 KLD).	Concerned industries.	31.12.2010	
2	Water consumption from non-permitted sources (e.g. borewell, tanker etc) or more than permitted quantity is to be identified	It is observed that many industrial units have no proper control over water consumption which not only increases the overall w/w generation but also tends to w/w disposal mismanagement. Therefore, it is necessary to direct unit to restrict water consumption as	Identification of source of water i.e. tanker, bore well etc. for its authenticity.	Concerned industries, VIA, VWEMCL, GIDC, GPCB	31.8.2010	(i)Majority Water supply is through GIDC pipeline. (ii)Only authorized bore wells permitted by GIDC are in use. If it is required to use tanker water , prior permission from VWEMCL is
			Issue direction to stop the unauthorized use of water by the industries.	Concerned industries, VIA, GIDC, GPCB	31.10.2010	

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		per the quantity mentioned in CCA application and to also direct GIDC to seal the non permitted bore wells.	Direction to seal the non permitted bore well, tankers	GIDC/ Concern agency	31.12.2010	<p>mandatory</p> <p>Consumption more than prescribed limit in Form D is being verified in routine monitoring & reported online thro. Xgn -GPCB website.</p> <p>As per the decision taken during the meeting held in December 2013 "District Task Force" under Vapi Air Action Plan ; Tanker movement is restricted during night hours /Odd hours. A circular in this regard had been issued to M/s. VWEMCL and VIA</p>

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3	Sealing of unauthorized discharge other than regular discharge of effluent.	All industrial units shall be directed to operate only one outlet through flow meter for effluent disposal so that unauthorized discharge can be checked. The concerned authority shall disconnect / seal such unauthorized discharge.	Concern authority will be asked to identify unauthorized outlet.	Concerned industries, VIA, GIDC, GPCB.	Ongoing process and will be made more vigorous	This is ongoing process.
			All industrial units will be asked to submit notarized undertaking to GPCB with a copy to respective association stating that there is no unauthorized outlet.	Concerned industries, VIA	31.8.2010	Stringent action were already taken against defaulters units. In addition to this , units those who are mfg metallic sulphate for which letter is issued to GIDC for disconnection/sealed of Underground drainage connection considering Zero liquid discharge ANNEXURE " B"
4	GIDC drainage connection required to be	GIDC drainage connection to be disconnected to permanently closed & non operative industrial	Inventorization of the permanently closed & non operative industrial units	VIA, GPCB	31.7.2010	As off now @ 96 units have been identified as permanently closed units

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	discontinued to permanently closed & non operative industrial units	units and certified by GIDC and checked by GPCB. Careful monitoring of such units required to undertake by GPCB as well as Vapi Waste & Effluent Management Company Ltd.	Drainage connection to be disconnected of permanently closed & non operative industrial units and certified by GIDC and checked by GPCB.	Concerned industries, VIA, GIDC, GPCB.	30.9.2010	Their drainage connection have been disconnected by GIDC- List of disconnection /sealed drainage connection 28 industries. List is as per ANNEXURE" C"
			All zero discharge units will be asked to submit notarized undertaking to GPCB with a copy to respective association stating that there is no unauthorized outlet and observing zero discharge.	Concerned industries	30.9.2010	
5	Identification of unauthorized connection to GIDC drainage line	Intensive monitoring shall be carried out of the units, which are located on the bank / adjacent to Bill Khadi.	Unauthorized connection in drainage line to be checked and disconnected by competent authority and verified by GPCB.	GIDC, VIA, GPCB, VWEMCL	Ongoing process	There is no unauthorized discharge into Bilkhadi. Cement concrete Lining work of Bill

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	or Discharge to Bill Khadi.		Third party monitoring is to be carried out	SVNIT	Ongoing process	khadi work has been completed
6	Identification of non-biodegradable effluent	For better treatability at ETP/ CETP ,units having non-biodegradable effluent shall be identified and shall be directed to segregate the said stream ,and to install appropriate and effective treatment units like multiple effect evaporator, RO system, incinerator etc	Identification of the streams having non-biodegradable effluent containing refractory COD, toxicants like ammonical nitrogen where treatability not possible/difficult/techno-economically not viable.	Concerned industries, VIA, VWEMCL CETP, GPCB	31.8.2010	(i) 67 units having high Ammonical nitrogen and / or Non bio - degradable COD were identified. (ii)22 units (LSI/MSI) have installed Multiple Effect Evaporator (3)Installation work for Common Multiple Effect Evaporator at CETP for SSI units is in progress .CMEE will be installed & commissioned by March 15 CMEE(Cap. 200KLPD). CTE granted by GPCB Board.
			The units manufacturing pesticides, dyes intermediates, bulk drugs etc will be required to study their present treatability of effluent and accordingly segregate non-biodegradable streams.	Concerned industries, GPCB, Third Party.	31.12.2010	

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			A time bound action plan required to be submitted to install multiple effect evaporator/RO system/ Incinerator System/ Ammonia stripper/ New technology like FACCO including cleaner production and cleaner technology by concerned industries.	Concerned industries in consultation with GCPC	31/12/2010	
			Implementation/ Commissioning of above proposal	Concerned industries	Long term (6 month to 2 years)	

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7	Reduction of pollution load on CETP, upgradation of CETP and efficient operation of CETP	It is observed that CETP inlet and outlet norms are not meeting with the prescribed norms.	All units have to strengthen individual effluent treatment plant to meet with the CETP inlet norms, so as to reduce inlet pollution load on CETP and thereby improvement in treated effluent quality from CETP.	GPCB, Concerned Industries, VWEMCL.	31.03.2011	<p>(1)VWEMCL has setup technical & Environment cell to evaluate the ETP performance of its member units.</p> <p>(2)A Disciplinary policy is finalized and its implementation has been started.</p> <p>(3) GIZ is engaged for CETP for further up gradation & action plan submitted in a time bound manner</p> <p>(4)Common Multiple Effect Evaporator at CETP at the cost of RS.10 Cores is going on.</p> <p>5) VWEMCL has spent Rs.46.48 Cores for upgradaton of CETP & TSDF. For further upgradaton of CETP total outlay as per ANNEXURE "D" & "E"</p>

Sr No	Activity	Issue	Action	Implementing Agency	Time limit	Status as on 31/12/2014.
			Installation of FACCO at CETP for small scale industrial unit.	VWEMCL	Implemented	FACCO at CETP already installed & operation since long
			Identification of high COD and high Ammonical nitrogen containing effluent and individual installation of FACCO/other technical advanced system for large scale units having specific very high COD effluent.	GPCB, VWEMCL	31.12.2010	Implemented
			An action plan for strengthening of individual ETP to be submitted to VWEMCL, Vapi & GPCB and required to monitor its progress by concerned agencies.	GPCB, VWEMCL		Implemented

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			Performance evaluation of strengthen ETP required to be done by third party agency.	TIFEC		
		The performance evaluation of CETP indicates quality of effluent discharge is not as per the specified norms, which clearly indicates the CETP requires up gradation/modification	CETP authority shall study their treatability of effluent from prominent agency.	VWEMCL	30.9.2010	Work completed ,Study was carried out by NEERI, Nagpur
			Based on the recommendation of agency CETP authority shall upgrade CETP.	VWEMCL	31/12/2010	Implemented
			To change the management of CETP under Government Supervision and Chief Executive Officer have to be appointed.	GIDC, Govt. of Gujarat,	Implemented	Implemented
			Disciplinary action against non-complying units	GPCB, VWEMCL.	Ongoing process	Implemented

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			To divert domestic wastewater of Bill Khadi to CETP for treatment.	VWEMCL.	31.12.2010	Implemented
8	Checking of illegal discharge of acidic/ highly polluted effluent	Units manufacturing dye-intermediates are generating spent acid of low concentration which is required to manage properly. Necessary directions shall be issued to the spent acid generating as well as acid using industrial units for proper management of spent acid.	Movement of spent acid shall be checked vigilantly. Acidic/ highly polluted effluent which is discharged illegally to be checked by GPCB as well as Industrial Association on routine basis	VWEMCL, GPCB	Ongoing process	Strict & vigorous monitoring is being carried out by GPCB and VWEMCL, Vapi. If any unit found doing illegal discharge stringent action is taken by the Board.
			Third party monitoring	Third Party,	Implemented	Implemented
			To set up vigilance cell for vigorous & surprise monitoring under supervision of senior officer.	GPCB	Implemented	Implemented

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9	To stop tray drying and salting process in dyes manufacturing unit.	Generation of high TDS effluent from dyes manufacturing unit is affecting proper functioning of CETP	Identification of the unit having tray drying and salting process	Concerned industries, GPCB.	30.09.2010	Inspections of dyes making units are made for verification of drying process methodology and instructed for adopting alternative drying process from tray driers.
			Setting up of common spray drying facility.	VIA	31.03.2011	
			Complete phase out of tray drying and salting process	Concerned industries, GPCB.	30.06.2011	

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10	Identification & rectification of various leaking manholes, overflowing pumping stations and other bypass system.	Master plan to Identify & rectify Various leaking man holes, overflowing pumping stations and other bypass system in GIDC Vapi to be prepared & implemented.	Fool proof mechanism for regular monitoring, cleaning and maintenance is required by concerned authority.	GIDC	31/12/2010	<p>1)Notified Area Authority has laid HDPE pipeline of enhanced capacity to convey the waste water to pumping station in order to prevent overflow of w/w from manhole.</p> <p>(2)One additional pumping station has been started near Bill khadi</p> <p>(3) Flow meter & pH meter are to be installed at pumping stations of GIDC/ NAO.</p>
11	Safe disposal of treated effluent of GIDC, Vapi	At present treated wastewater is discharged in River Damanganga	To lay down pipe line up to deep sea as per NIO recommendation.	GIDC, VIA, VWEMCL	31.12.2011	CTE has been issued by the Board to lay down pipeline up to deep sea. CRZ clearance is awaited from competent authority.

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12	Cleaning of Bill Khadi and dredging to increase carrying capacity.	Bill Khadi is over flooded during monsoon period causing backflow of runoff in GIDC area	Cleaning of Bill Khadi	VWEMCL	31.12.2010	(i)Concrete lining work of Bilkhadi which is passing through industrial estate has been completed. (iii)On the one side of Bilkhadi motorable road work under progress .
			Dredging of Bill Khadi	Irrigation Department, Dist. Admn		
			Construction of motarable road for Bill Khadi passing through GIDC stretch	GIDC, Notified Area Authority		
			To stop washing activities carried out by scrape dealers in Dungri falia and surrounding area to the cluster	GPCB, DIST. COLLECTOR, D DO		

Sr No	Activity	Issue	Action	Implementing Agency	Time limit	Status as on 31/12/2014.
13	Safe disposal of treated effluent of units located outside GIDC	Pollution in Kolak River	To lay down pipe line up to deep sea as per NIO recommendation.	Pardi /Morai Industries Association	31.12.2010	CTE has been issued to lay down pipe line up to deep sea for safe disposal of treated w/w of seven industries located nearby River Kolak as per NIO recommendation. Work for pipe line for 4 kms is completed. CRZ permission given by GOI .
14	Monitoring of surface and sub surface water quality	Surface and sub surface water quality is required to be checked periodically	To monitor surface and sub surface water quality. To increase monitoring locations.	GPCB, VWEMCL	Ongoing process.	GPCB/ VWEMCL are monitoring surface and sub surface water quality at regular interval.

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AIR						
1	Upgradation of air pollution control measures.	Air action plan for Vapi is under implementation. The industrial units shall be directed to upgrade APCM to meet the amended ambient air quality norms, if required.	Industrial units consuming solid fuel like coal, agro waste, etc. required to upgrade air pollution control system by installing bag filters /multi cyclone separator so that ambient air in the nearby area meet with the revised norms of PM _{2.5} .	Concerned industries, GPCB	31.12.2010	Industries are being monitored and samples of flue gas and process gas emission are being collected. Action are initiated against defaulting units. 98 units have installed bag filters, 20 units have installed ESP, 47 CCTV camera has been mounted on Stacks for

Sr No	Activity	Issue	Action	Implementing Agency	Time limit	Status as on 31/12/2014.
			<p>To check air pollution control system attached to with respect to adequacy and if needed upgrade the same.</p> <p>For controlling of pollutants like VOCs, PAHs, PCBs industries which are engaged in handling of solvents, Solvents shall be recovered & reused. Solvent recovery shall not be less than 95%. Separate godowns for the storage of finish goods, raw materials & separate tank farm for solvents & other chemical storage as per MSIHC Rules 1989 shall be provided.</p> <p>Solvents Management shall be as follows: Reactor shall be connected to chilled brine condenser system. Industries shall provide the chilled brine solution in secondary condenser.</p>	<p>Concerned industries</p> <p>GPCB</p>	<p>31.12.2010.</p>	<p>continuous monitoring</p> <p>At present Ambient air quality monitoring is carried out at 4 NOS. of locations.</p> <p>One new CAAQMS proposed , procurement is in progress</p>

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2	Adoption of cleaner fuel	Gas infrastructure agency has created an infrastructure for industrial gas supply. The industrial units shall be motivated to switch over to clean fuel. Fluctuation in gas prices, assured supply and competition are major issue.	Large industrial units using solid fuel shall be switch over to cleaner fuel wherever it is feasible considering availability of gas and economics.	Concerned industries, GSPC, GPCB	To start from 15/7/2010	299 units are using natural gas as fuel.
3	Plantation in the industrial estate	Concerned authority shall be asked to provide adequate green belt in the periphery as well as wherever possible within the estate.	Considering the present plantation as baseline datum, five years plan for plantation of industrial estate to be submitted by the GIDC/ Association in consultation with Forest department. To allot unused plots, road side areas and other areas reserved for green belt within GIDC and to sign MoU between GIDC and association for plantation	VIA, VWEMCL GIDC, Forest dept.	Implemented and ongoing process	VIA, VWEMCL & Notified Area has mutually formed Green Society for mass tree plantation & beautification of trunk roads & Rs. 2 Crores outlay decided for the same.

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4	Restriction on using unauthorized fuel.	Use of unauthorized fuel like petcock, shall be stopped. The industrial units shall be directed to use the fuel as per the consented condition	Verification drive to be initiated and completed	Concerned industries, GPCB	31.10.2010	Industries are being monitored and verified usage of fuel Action are initiated against defaulting units using unauthorized fuel.
5	Control of fugitive emissions.	Fuel handling, chemical storage and processes including pickling are the major source of fugitive emission. Hence the industrial units should adopt good housekeeping practices.	Good practices like cleaner production and cleaner technology to be adopted in fuel handling, process control in closed system and to have better house keeping	Concerned industries.	30.09.2010 and ongoing process.	(i) Guideline for coal handling is being implemented for control of fugitive emission in GIDC Vapi estate. Sweeping vehicle is utilized by notified area authority

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			To check LDAR for bulk drug industries.			<p>in GIDC road side area to minimize fugitive emission.</p> <p>(ii)SVNIT has conducted the survey for the same & particular suggestions have been made to industries through LDAR report. Majority of them has implemented the suggestions made by SVNIT.</p>
6	Strengthening of ambient Air Quality Monitoring	Concerned agency shall be asked to operate the existing AAQMS regularly and also to increase the no of stations	<p>Existing AAQMS to be strengthened to monitor AAQ as per new notification</p> <p>New AAQMS shall be installed.</p>	GPCB, VIA	31.12.2011	<p>At present Ambient air quality monitoring is carried out at 5 NOS. of locations.</p> <ol style="list-style-type: none"> 1. At GPCB Regional Office 2. Vapi Nagarpalika 3. Lalchand

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			Installation of continuous ambient air monitoring station.			<p>Technology at 100 shed area GIDc vapi.</p> <p>4. Club 3 buidling near Rishita fation , IIIrd Phase GIDC vapi.</p> <p>5. Proposed new additional AQQMS at near S K corporation plot no. 1731,3rd phase Yasho Industries .</p> <p>Continuous Ambient Air Quality Monitoring Station is proposed at the GIDC estate, Vapi identification is already done & tender is floated for its installation.</p>
7	To prepare guidelines for coal handling	Poor ambient air quality due to unloading and loading activity at railway yard.	1. To prepare guideline to control Air pollution due to coal handling.	GPCB	31.08.2010	Coal handling guidelines Is prepared and put displayed on GPCB website..

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			2. To implement guidelines and take measures to control ambient air pollution.	Railway Authority and coal trading agent	31.12.2010	-Sector wise env. Clinics are organized for Coal handling guideline under implementation for solid fuel consumers located in GIDC Vapi.
8	Impact on health of within and surrounding population	Probable health risk within vicinity of 2 km from the cluster.	To carry out survey by reputed agency like NIOH to know the impact	VWEMCL	31.12.2010	Parirakshana has completed 2010 & 2012 health study, report submitted to the concerned authority. Report shows that there is no adverse impact on health & hygiene of the people surrounding the estate.

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9	Monitoring of VOC in cluster	Health risk on population at large due to VOC.	To estimate the VOC concentration in cluster and to take remedial measures	GPCB, Third Party	31.12.2010	SVNIT has carried out inspection of industrial units handling volatile solvents/organic materials and has recommended LDAR programme to reduce/curb release of VOC to industrial units through VIA, Vapi.

HAZARDOUS WASTE

1	Checking of illegal transportation and dumping of Hazardous waste	TSDF operators/Industries Association shall be asked to keep vigil on their member units regarding timely and regular disposal of HAZ wastes	Vigil check required to be kept on illegal transportation and dumping of hazardous waste.	Concerned industries, VIA, VWEMCL, GPCB, RTO, NGO.	Ongoing process	Already Implemented. Transportation of hazardous waste is done through dedicated vehicles of VWEMCL using online XGN manifest system
			Six identified illegal hazardous waste dumping sites are to be cleared by lifting and shifting hazardous waste to TSDF and remedified.			
2	CPCB guidelines for TSDF are to be strictly	TSDF guidelines for waste quantity at site, sheds for different waste, fire fighting facility, working of	TSDF operator will comply with requirement as per CPCB guidelines.	VWEMCL	30.09.2010	Protocol for TSDF site is followed

	followed.	incinerator etc are not properly observed.	Any incinerable waste must not be dumped at secured landfill site.			
3	Adoption of 4-R's (Reduce, Recover, Reuse, Recycle)	It is required to adopt 4-R's for better management of Hazardous waste and co-incineration of incinerable hazardous waste in cement kiln.	Inventorization of the various solid/Hazardous waste generated from the industries	GPCB, Concerned industries, VIA, Gujarat Cleaner Production Centre	31.12.2010	MOU has already been executed by VWEMCL with GCPC for adoption of 4 R's in various industrial sectors viz. Pulp & Paper, Dyes, Textile.
			Creation of waste exchange center	Concern industries, VIA	30.6.2011	Ongoing process.
4	Common facility for collection, storage & transportation of incinerable waste generated from individual industrial units	Common facility for collection, storage & transportation of incinerable waste generated from individual industrial units shall be developed.	Common hazardous waste incinerator is to be installed.	VWEMCL, VIA, Concerned Industries.	31.08.2011	Techno economic Feasibility to be explored by VIA and VWEMCL for setting up common HAZ Waste incinerator.

5	Captive facility for destruction of incinerable waste	Industrial units having own incinerator (liquid and solid) required to upgrade/ install adequate incineration system as per guidelines of CPCB.	Up gradation of captive incineration system.	Concerned industries GPCB	31.12.2010	GIZ is contacted by VWEMCL for the installation of the common incineration system in which incinerable waste, plastic waste and CETP bio mass shall be fed. EC application has been done for new TSDF site with Common Incineration facility.
6	Transportation of Hazardous waste	Hazardous waste shall be transported through only dedicated & well covered vehicles.	Vigil checking on transportation of hazardous waste.	VWEMCL, GPCB	Ongoing Process	Already implemented.
7	Proper disposal of plastic waste	There is no proper management for disposal of plastic waste from paper industries	Development of co-incineration system	VWEMCL in consultation with Paper Mill Association.	31.12.2010	Plastic Waste is being sent to cement industries for co-processing.

8	Centre of Excellence at Vapi & Vapi Cleaner Production centre.	Centre of Excellence at Vapi can be further strengthen to take additional assignment, R&D activities in field of Cleaner Production, Cleaner Technology and Waste Exchange Schemes	To upgrade the Centre for Excellence at Vapi and use its capacity for the purpose of Cleaner Production, Cleaner Technology and Waste Exchange Schemes	VWEMCL, GCPC	31.12.2010 and ongoing process.	Workshop and Training programme for the cleaner production/ cleaner technology is being organized by Center of Excellence, Vapi.
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9	Waste Minimization Measures	To reduce the quantity of waste material.	Industries shall install, <ul style="list-style-type: none"> • Metering and control of quantities of active ingredients to minimize waste. • Reuse of byproducts from the process as raw materials or as raw material substitutes in other processes. • Use of automated filling to minimize spillage. • Use of Close Feed system into batch reactors. • Venting equipment through vapor recovery system and APCM. • Use of high pressure hoses for equipment clearing to reduce waste water generation. 	Concerned Units	31.12.2010	Cleaner production initiatives are being implemented by the units to optimize use of raw materials, reduction of waste generation at source
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**Annexure A -
List of Units installed Flow meter (176 units)**

Aarti Industries Ltd (Amine Div)	R-L	PLOT NO 285,286-PHASE-III,PAR-Vapi
Aarti Industries Ltd (Organic Div)	R-L	--PLOT NO 801, 801/23,,PAR-GIDC. VAPI
Best Paper Mills Pvt.Ltd (Unit-2)	R-L	57, FGH/B2-PHASE : I,PAR--
Best Paper Mills Pvt.Ltd. (Unit-1)	R-L	PLOT NO 57,FGA/A-GIDC ,PAR-VAPI
Bilag Industries Pvt.Ltd	R-L	PLOT NO.306/3,-II PHASE ,PAR-VAPI
C.S.Speciality Chemical Pvt. Ltd. (Old Name-James Robinsons (I) Ltd)	R-L	PLOT NO 6101/11-PHASE-IV,PAR-G.I.D.C.VAPI
Emami Ltd (Old Name-Zandu Pharmaceuticals Works Ltd)	O-L	82, --, PAR-VAPI
Ganesh Polychem Limited	R-L	PLOT NO 408-PLOT NO.408 PAR-GIDC VAPI
Gayatri Shakti Paper & Board Ltd	R-L	--PLOT NO.799/1, GIDC ESTATE,,PAR--
Micas Organics Ltd Old Name:-Dhiraj Intermediates Pvt.Ltd-(Unit-I)	R-L	--PLOT NO 297/5,8,PAR-G.I.D.C.VAPI
Micro Inks Limited	R-L	--PLOT NO 808/E,305/6,7,PAR-GIDC VAPI
N R Agarwal Inds. Ltd (Unit-I)	R-L	--PLOT NO.167,169, PHASE-II,PAR-VAPI
N.R.Agrawal Inds Ltd (Unit- 2)	R-L	-PLOT NO.1,PAR-G.I.D.C.ESTATE,VAPI
Nascent Chemical Industries Ltd	R-L	24-PHASE-I,PAR-GIDC VAPI
Pidilite Industries Ltd.	R-L	74,74-1,77-II,78,79, -74,74-1,77-II,78,79, ,PAR-Vapi
Richter Themis Medicare (I) Pvt. Ltd.	R-L	69/A-2-J TYPE,PAR-GIDC
Shah Paper Mills Ltd (Unit-3)	R-L	792-793, -GIDC ESTATE,PAR--
Super Deluxe Paper Mills Pvt.Ltd	R-L	PLOT NO.322/5,6A & B,-40 SHED AREA,PAR-G.I.D.C.VAPI
Umedica Laboratoeis	O-L	221, -PHASE-II,PAR-G.I.D.C. Vapi
Unimark Remedies Ltd	R-L	40,41,42/B,43,58,59-PHASE-I,PAR-vapi
Vital Health Care Pvt.Ltd	R-L	1416- 21, 1507/1 & 2, 1601/3 & 4,-PHASE-III,PAR--
Yasho Industries Ltd	R-L	PLOT NO. 2514-2515, -PHASE-IV,,PAR-Vapi
Bhageria Dye Chem Ltd	R-M	PLOT NO. 6310-PHASE-IV,PAR-VAPI
Faze Three Limited	R-M	J TYPE ,PHASE I ,P NO 71, --,PAR- -
Galvadeco Parts Pvt Limited(Old Name:Shree Hardik Plating)	R-M	1702/A, -PHASE-III,PAR-vapi
Grauer & Weil (India) Limited	R-M	Plot No. 407, 2nd Phase--G.I.D.C. VAPI 396 195,PAR-VAPI
Hemani Industries Limited (Old Name:Hemani Intermediates Pvt.Ltd)	R-M	--PLOT NO.780/1.2,PAR-GIDC VAPI
Mangalam Drugs & Organics (Unit-1)	R-M	187-Phase No -II,PAR- -
Manglam Drugs & Organics Ltd (Unit-II)	R-M	1203-Phase No :III,PAR-Vapi

MICAS ORGANICS LTD OLD NAME:-Dhiraj Intermediates Pvt.Ltd-Unit-2	R-M	Plot No. 3102/1 & 8, GIDC Vapi- PLOT NO.3102/1& 8,PAR--
Micro Inks Limited (Unit-I)	R-M	2803/2, PHASE-III,G I D C VAPI- 2803/2, PHASE- III,G I D C VAPI,PAR-Vapi
N.R. Agrawal Ind. Ltd. Unit-Iv	R-M	901/P-PHASE-III,PAR- VAPI,GIDC
Netmatrix Limited	R-M	PLOT NO C-177/524, 78/525,C- 1/65/649.-100 SHED AREA,PAR-VAPI
Pharmavet Industries (Unit-Ii)	R-M	A-1/21-379,PAR--
Pidiite Industries Ltd	R-M	PLOT NO. 1806-PLOT NO. 1806, GIDC, PAR-GIDC VAPI
Pil Chemicals Pvt. Ltd.	R-M	1207, -PHASE-III,PAR-VAPI
Pramanik (I) Tex Fab Ltd	R-M	1202, Phase No :III-GIDC,PAR--
Prayag Texprints Pvt Ltd	R-M	120 6/1, Phase No :III-- ,PAR--
Rama Pulp & Paper Ltd.	R-M	PLOT NO.293-294-- G I D C ESTATE, PAR-VAPI
Ramji Board & Paper Mills Pvt.Ltd	R-M	--PLOT NO.6308,,PAR- G I D C VAPI
Remco Paper & Board industries Pvt. Ltd.	R-M	--PLOT NO.205,206,PAR- G I D C VAPI
S. Kant Healthcare Ltd	R-M	1802, 1805, -PHASE-II,PAR- VAPI
Sarna Chemicals Pvt. Ltd. (Unit-2)	R-M	1706, A2/ 1715-PHASE-III,PAR- -
Sheil Industries	R-M	1813-Phase No. III,PAR-Vapi
Vertellus Speciality Materials(India) Pvt. Limited.	R-M	287/1 & 287/2/A,GIDC,Vapi - 287/1 & 287/2/A,GIDC,Vapi ,PAR-Vapi
Vital Laboratories Pvt Ltd	R-M	1710, Phase No :III-GIDC VAPI,PAR- vapi
Advent Dyestuff & Chemicals Pvt.Ltd	R-S	22-A, -Phase No. I,PAR-VAPI
Amrit Dye Chem Industries	R-S	PLOT NO.268,--,PAR- G.I D C VAPI
Anjaria Envirotech Pvt. Ltd.	R-S	2920, -NEW J TYPE AREA,PAR-GIDC
Anupam Colours & Chemicals Industries	R-S	PLOT NO.2324-PHASE 3,GIDC VAPI,PAR-GIDC VAPI
Anupam Colours Private Limited	R-S	2325,PHASE 3,GIDC,VAPI- 2325,PHASE 3,GIDC VAPI,PAR-VAPI
Arsh Fashion Pvt. Ltd.(Old Name:-Pnn International)	R-S	194, C TYPE,SECOND PHASE- GIDC, PAR--
Avik Pharmaceutical Ltd (Unit-I)	R-S	--PLOT NO. A-1/7,,PAR-GIDC VAPI
Bright Engineering Works	R-S	2916, -J TYPE,PAR-Vapi
Chemodist Industries	R-S	PLOT NO.808-B-2,-PHASE- III,PAR-VAPI
Craft Corner Paper Mills Ltd	R-S	-PLOT NO.1703-A,PAR-GIDC VAPI
Damanganga Board Mills Pvt.Ltd	R-S	254,255,256 -SILVASSA ROAD,PAR- -
Dincotex Pvt Ltd	R-S	63, Phase No :I--,PAR-Valsad
Durga Dyechem & Sudarshn Dyechem	R-S	--PLOT NO.637/A, 100 SHED AREA,PAR-Vapi

Harsiddhy Chemicals	R-S	PLOT NO C-1B, 322/18-40 SHED,PAR-VAPI
Hatkesh Chem & Engineering Industries	R-S	C-1/85-100 SHED AREA,PAR-vapi
Hercules Pigments P Ltd	R-S	--316/B, PHASE 2,PAR--
Hercules Pigments Pvt. Ltd.(Unit-2)	R-S	A-1/2106, Phase No :III--,PAR- -
Ideal Dyechem Industries (Unit-ii)	R-S	166-PHASE-III,PAR--
Joy Poly Fab Pvt.Ltd	R-S	SHED NO 1801/2-PHASE-III,PAR-
Jupiter Dyes	R-S	1506/2, -PHASE-III,PAR- -
Kanku Industries	R-S	1206/15, -PHASE-III,PAR- -
Kewal Kiran Clothing Ltd.	R-S	787-1-40 SHED AREA,PAR-VAPI
Kwality Pulp & Paper Mills	R-S	PLOT NO.183 -PHASE-II,PAR--
Meghna Colour Chem(Old:Meenakshi Chemicals)	R-S	SHED NO C-1-B, 6115-SHED NO C-1-B, 6115,PAR-GIDC ESTATE.
Micas Organics Limited (Unit-V) Old Name : Sunbright & Pigments Pvt.Ltd	R-S	287/2B-GIDC ESTATE,PAR--
MICAS ORGANICS LTD OLD NAME:-Dhiraj Intermediates Pvt Ltd,Unit -3	R-S	P NO 193/2, Phase No :II--,PAR-
MICAS ORGANICS LTD OLD NAME:-Dhiraj Intermediates Pvt.Ltd.(Unit - Iv)	R-S	P NO 733, 40 SHED AREA-P NO 733, 40 SHED AREA,PAR-Vapi
Navin Chemicals	R-S	--PLOT NO.317/4 , 5 40 SHED AREA,PAR-VAPI
Nikunj Fabrics Pvt.Ltd	R-S	306/307/3081/1 & 2, --,PAR-Vapi
Omkar Chem	R-S	--PLOT NO C-1/B-773,,PAR-Vapi
Parishram Fab Pvt.Ltd	R-S	--PLOT NO 251-252,,PAR--
Polyols & Polymers	R-S	C-1 / 58 ,59,-100 SHED AREA,PAR-VAPI
Raveshia Pigments Ltd	R-S	45,46, Phase No :I--,PAR--
Rishita Fashion	R-S	1102-PHASE-III,PAR--
Sagar Chemicals	R-S	A-1/1-PHASE-I,PAR-VAPI
Samrat Remedies Ltd. (Unit-2)	R-S	1501-PHASE III,PAR--
Sark Industries Pvt. Ltd	R-S	Plot No- 791/7-40 shed area,PAR-Vapi
Sarla Performance Fibers Ltd	R-S	A-1/48-40 SHED AREA,PAR-Vapi
Spectra Dyes & Chemicals/shree Satya Dye Chem	R-S	C-1B/722 & 721-40 SHED,PAR--
Sterling Pigment & Chemicals	R-S	--791/3A/B,40 SHED AREA,PAR--
Sunrise Colour Ltd	R-S	1201/2, -Phase No :III,PAR-VAPI
Supreme Craft P Ltd	R-S	207, 208, -PHASE-II,PAR-Vapi
Swapnil Organics Pvt.Ltd	R-S	PLOT NO.6306, --,PAR-G I D C VAPI
Toyota Chemical Industries Pvt.Ltd	R-S	PLOT NO.- 100, --,PAR-VAPI
Tridev Resins (I) Pvt. Ltd.	R-S	136/E-1, -PHASE II,PAR-VAPI
Vapi Oxides Colour Pvt. Ltd	R-S	794/1-A & 794/1-B, -GIDC ESTATE,PAR--

Vapi Pigments Private Limited. (Unit No-II)	R-S	795/2, -PHASE-II, PAR--
Vapi Pigments Private Limited. (Unit No-I)	R-S	-- PLOT NO 796/1, PAR--
Venkateshwar Pvt Ltd	R-S	1201/1, -PHASE-III, PAR-VAPI
Vivid Intermediates Pvt Ltd	R-S	--PLOT NO 143, PAR-G I.D.C ESTATE
Wellwisher Trexim Pvt. Ltd (Old Name- J.K.T.Fabrics Pvt.Ltd.)	R-S	PLOT NO.1108 -PHASE-III, PAR-G I.D.C VAPI
Aarti Industries Ltd (Alchemie Org.Div)	R-L	PLOT NO. 902-PHASE-III, GIDC, VAPI, PAR--
Aarti Fertilizers (A Division Of Aarti industries)	R-L	PLOT NO.801/15 TO 19,21 & 22, -PHASE-III, PAR-Vapi
Amoli Organics P Ltd	R-L	PLOT NO. 322/4-40 SHED AREA, PAR-VAPI
Aryan Paper Mills Pvt Ltd	R-L	PLOT NO.177 & 178-PHASE-II, PAR--
Chemie Synth (Vapi) Ltd	R-L	27-PHASE-I, PAR-Vapi
Creative Textile Mills Pvt Ltd	R-L	--PLOT NO.157 & 158, PAR-GIDC VAPI
Exemed Pharmaceuticals(formerly known as UCB india pvt Ltd.)	R-L	133/3, -GIDC ESTATE, PAR-VAPI
GARNET SPECIALITY PAPER LTD (OLD NAME:-Nathani Paper Mills Ltd)	R-L	P NO.329,330, Shed NO.A-2/19,20,22, Phase No .II-GIDC ESTATE, PAR-Vapi
Gujarat Themis Biosyn Ltd	R-L	--PLOT NO.69/C PAR-G I.D.C VAPI
Heranba Industries Ltd (Unit: 2)	R-L	A-2,2214/2215, Phase No .III-A-2,2214/2215, PAR- Vapi
India Gelatine Chemicals Ltd	R-L	PLOT NO. A-1-GIDC ESTATE PAR--
Kasyap Sweetners Ltd	R-L	PLOT NO 20-C, GIDC Vapi.- PLOT NO. 20-C, PHASE-I, GIDC VAPI, PAR-G I.D.C VAPI
Kusumgar Corporates Pvt. Ltd	R-L	1809-PHASE-III, PAR-VAPI
N R Agarwal Inds. Ltd (Unit-II)	R-L	-PLOT NO.901, PAR-GIDC VAPI
Nath Industrial Chemicals Ltd	R-L	-PLOT NO.294-296,, PAR-VAPI
Phthalo Colours & Chemicals (I) Ltd (Unit-I)	R-L	--808/A-1/3, PAR-G I.D.C VAPI
Phthalo Colours & Chemicals India Ltd (Unit 2)	R-L	PLOT NO.2 -PHASE-I PAR-VAPI
Pidilite Industries Limited	R-L	PLOT NO 23-"B" ROAD, NH 08, PAR-PLOT 23 GIDC VAPI
Ruby Macons Ltd	R-L	789/4-PHASE-3, PAR-GIDC VAPI
Shah Paper Mills Ltd (Unit1)	R-L	--5202, PHASE-III, PAR--
Shah Pulp & Paper Mills Ltd	R-L	97 -GIDC ESTATE PAR--
Shree Gajanan Paper & Board	R-L	781/1- 40 SHED AREA, PAR-VAPI
Swati Spentose P. Ltd.	R-L	A-1-2103-PHASE-III, PAR--
Themis Medicare Ltd	R-L	--PLOT NO.69/A,, PAR-G I.D.C VAPI
United Phosphorous Ltd	R-L	3-11 -PHASE-I, PAR-Vapi
Valson Industries Ltd	R-L	1204-PHASE -III, PAR-VAPI
Vapi Waste Effluent Mg Co.Ltd (TsdF)	R-L	4807, 4807 A etc-GIDC SITE, PAR-PHASE-IV

Vapi Waste & Effluent Management Co.Ltd(Cetp Vapi)	R-L	EXT 1/4-EXT-1/4, NEAR DAMANGANGA RIVER, PAR-VAPI-396 195, TA-PARDI
Aarti Industries Ltd (Custom Div)	R-M	22/C-1, -PHASE-I, PAR-VAPI
Hemani Chemi Organic Pvt. Ltd	R-M	155-PHASE-II, PAR-VAPI
K.V.Arochem Pvt.Ltd	R-M	170-175-Phase II, PAR- -
M/s. R3 Crop Care Pvt. Ltd [old name: Rotam India Ltd. (Unit-2)]	R-M	72, -PHASE-1, J TYPE AREA, PAR-VAPI
Mahi Industries	R-M	P NO 1413, PHASE 3, GIDC, VAPI-P NO:1413, PHASE 3, GIDC, VAPI, PAR-VAPI
R.A.Shaikh Paper Mills Pvt.Ltd	R-M	PLOT NO.185 PHASE-I-PLOT NO.185 PHASE-I, PAR-VAPI
Saiyed Paper Mills Ltd	R-M	162, -PHASE-II, PAR--
Sarna Chemicals Pvt.Ltd (Unit: I)	R-M	805/2,3-PHASE-III, PAR--
Shakti Bio Science Ltd.	R-M	411/1, -LIC SECTOR, PAR- Vapi
Supreet Chemicals Pvt.Ltd (Unit: I)	R-M	--PLOT NO A-1/5401&2, PAR-GIDC VAPI
Abn Process	R-S	A-1/38,506-100 SHED AREA, PAR-VAPI
Amarjyot Chemicals Pvt. Ltd.	R-S	286/2-Phase- II, PAR-VAPI
Amrit Chemical Industries	R-S	PLOT NO.151, -II PHASE,, PAR-G.I.D.C.ESTATE,
Anjana Industries	R-S	7,8,9/3-PHASE-I, PAR--
Anupam Colours Pvt Ltd	R-S	--1704/A, Phase No .III, PAR-VAPI
Apana Paper Mills Pvt.Ltd	R-S	PLOT NO.782-PHASE-II, PAR-VAPI
Apex Pharmachem Pvt Limited	R-S	193/1-Phase II, PAR-VAPI
Crimplon Yarn	R-S	--PLOT NO.1205-2, PAR-
Dy-Mach Pharma	R-S	PLOT NO C-1/2344,2343,2345,2346- PHASE-III, PAR-VAPI
Essel Mining Inds.Ltd	R-S	165 & 166-PHASE-II, PAR-G.I.D.C.VAPI
G. & J. Garment Processors Pvt Ltd	R-S	P NO 791/6, 40 SHED AREA, GIDC, Vapi-P NO 791/6, 40 SHED AREA, GIDC, Vapi, PAR-Vapi
Gujarat Polybonds Pvt Ltd	R-S	P NO 6307, Phase No .IV-- , PAR--
Heranba Industries Ltd(Unit I)	R-S	--PLOT NO.1504,1505,1506, PAR-GIDC ESTATE,
Ideal Dye Chem Industries Unit-1	R-S	PLOT NO 119-PHASE-II, PAR-VAPI
Jay Chemicals	R-S	PLOT NO.137-PHASE-II, PAR-G.I.D.C.ESTATE
Kinjal Chemicals Unit:II(Old Name:-Rupani Dyes & Intermediates Pvt Ltd)	R-S	149, -PHASE-II, PAR- Vapi
Makwell Organics Pvt Ltd	R-S	57/D/A-PHASE-I, PAR--
Mazda Colours Ltd	R-S	SHED NOC-1B 61 TO 63 -PLOT NO 615 TO 618, PAR-VAPI

Minesh Prints Ltd	R-S	--PLOT NO.A-1/726/727,746. PAR-GIDC ESTATE
Nandosol Chem Industries Ltd	R-S	PLOT NO.49-Phase-I,PAR--
Paras Intermediates Pv.Ltd	R-S	--PLOT NO.A/2/4&5,PAR-G.I.D.C.VAPI
Parmeshwar Dye & Ptg. Mills	R-S	-PLOT NO.340,PAR-G I.D.C.VAPI
Parmeshwar Industries	R-S	232/233-GIDC VAPI,PAR-VAPI
Raveshia Colours Pvt.Ltd	R-S	PLOT NO.123, GIDC Vapi, Di: Valsad-Plot No 123, GIDC Vapi, Di: Valsad,PAR--
Resins & Allied Chemical (Bombay) Pvt.Ltd	R-S	C-1/46, -100 SHED AREA, PAR--
Royal Processors	R-S	282/2,phase 2--, PAR- -
Ruby Red (India)	R-S	798/1-GIDC VAPI,PAR-vapi
Rvn Paper And Boards Pvt. Limited	R-S	P NO 57/A,PHASE:1-GIDC,VAPI,PAR-VAPI
Sarvaiya Chemicals Industries Pvt Ltd	R-S	2929/2935, -J-TYPE,PAR-VAPI
Shree Chemicals & Shivam Chemicals	R-S	EXT-1 & EXT-2-PHASE-I,PAR--
Shree Dayal Dyes	R-S	C-1/702/3 & 4-40 SHED AREA,PAR--
Sona Interchem Pvt.Ltd	R-S	1703/B-PHASE-III, PAR--
Sona Synthetics Products	R-S	C-1/9/2704 -PHASE-III,PAR-vapi
Sterling Pigments & Colours	R-S	C-1B-2510-PHASE-IV,PAR-vapi
Sumukh Synthetics P. Ltd.	R-S	A2/722-40 SHED AREA,PAR-GIDC Vapi
Supreet Chemicals Pvt.Ltd (Unit-2)	R-S	EX-3A,OPP CETP-Plot No. Exten : 3 A, GIDC Vapi,PAR--
Sushripada Chemicals (Unit:2)	R-S	PLOT NO.A-2/2225, 2226--PAR-G.I.D.C.VAPI
Sushripada Chemicals Pvt.Ltd	R-S	A1/45 -100 SHED AREA,PAR-GIDC VAPI
Valson Polyester Ltd	R-S	1204/B, -PHASE-III,PAR-Vapi
Vinay Prints	R-S	--PLOT NO.191,PAR-G.I.D.C.VAPI

Annexure B- List For Unit B Zero Liquid discharge -	
Industry Name & Address	Products
a to z chemicals-p no:910,phase 3,gidc,vapi-[R]	ferrous sulphate
.p.s. industries-plot no- 2502/2-[R]	copper/ferrous sulphate
deven chemical industries- --[R]	ferrous sulphate
dharti chemicals-plot no- 2502/2-[R]	copper/ferrous sulphate
harsha chemicals (old name- mitesh barrels)-p no:917,phase:3-[R]	copper/ferrous sulphate
hira chemical industries-a1-5405, phase no :iii-[R]	ferrous sulphate
honest chemical-p no 5106/11, phase no :iii-[R]	ferrous sulphate
mahavir industries-l-5310/2, l-type-[G]	ferrous sulphate
patel industries-plot no- 2502/1/b, shed no-1-[R]	drying & pulverizing of ferrous sulphate crystals
psv polychem-1706/2a 7 1706/2b-[R]	ferrous sulphate
rahul sulphate-313/3-[R]	ferrous sulphate crystals
riddhi industries -plot no- 136/h/2-b-[R]	copper/ ferrous sulphate
sakshi chemicals-plot no- 2502/2-[R]	copper/ferrous sulphate
sheetal industries-plot no- 2502/1/b, shed no- 2-[R]	copper/ferrous sulphate
shree gurudev chemicals-a/1/1101-[R]	ferrous sulphate
shree radhe industries-plot no 136/h/2-a-[R]	copper/ ferrous sulphate
super sulphates-pno :702/9, 40-shed area,gidc,vapi-[R]	ferrous sulphate crystal/solution
talycone industries-plot no. 1601/1, -[R]	ferrous sulphate
tanvi chemical industries-plot no. h-2/136-[R]	ferrous sulphate
tanvi chemicals industries-p no:2504,opp:singh transport,phase 3,gidc,vapi-[R]	copper sulphate/ferrous sulphate

Industry Name & Address	Products -
chemotrix (india) pvt.ltd-plot no. c1b- 2419-[R]	copper sulphate
chirag industries-6139/3-[R]	copper sulphate
clothing culture ltd (old name- gujsynth)-plot no-2919, 2919a-[R]	copper sulphate
crognosys india pvt. ltd.(old name-c. h. international)-5303, -[R]	copper sulphate
deven chemical industries- --[R]	copper sulphate
dhyeya industries-2504/b,phase 3-[R]	copper sulphate crystal
divyesh chemicals-plot no : 2910, 2911, phase no :iv-[R]	copper sulphate
dynamic industries-1801-[R]	copper sulphate
gopi engineering works- --[R]	copper sulphate solution
hiren chemicals-805/1, phase no :iii-[R]	copper sulphate
hiten chemicals-p.no. c-1,b-2418,ph-iii-[R]	copper sulphate
j.b.industries-1423-[R]	copper sulphate
jewel metals pvt.ltd-plot no.107, 110-[R]	copper sulphate solution
jyoti som chemicals-c1-2702-[R]	laboratory reagent(copper sulphate pentahydrate, lead nitrate, stannous chloride)
kissan agro fertilizers-a-2/2219, -[R]	copper sulphate
maruti chemicals-j-2318-[R]	copper sulphate
panhas chemicals pvt.ltd- --[R]	copper sulphate
pioneer adhesives -2418, -[O]	copper sulphate
pooja chemicals-p no:1601/2,phase 3,gidc,vapi-[R]	copper sulphate
pratima dyes &chemicals-765, phase no :40 shed area-[R]	copper sulphate
psv polychem-1706/2a 7 1706/2b-[R]	copper sulphate
rahul sulphate-313/3-[R]	copper sulphate crystals
shree mahavir dyes-plot no-1401/5-[R]	copper sulphate
super sulphates- --[R]	copper sulphate
super sulphates-pno :702/9, 40-shed area,gidc,vapi-[R]	copper sulphate
suryakiran chemicals-1503/2,phase no :3-[R]	copper sulphate (l.r.grade)
talycone industries-plot no. 1601/1, -[R]	copper sulphate powder
tanvi chemical industries-plot no. h-2/136-[R]	copper sulphate
tanvi chemicals industries-p no:2504,opp:singh transport,phase 3,gidc,vapi-[R]	copper sulphate/ferrous sulphate
vaibhav chemicals-plot no- 6212-[R]	manufacturing & trading of copper sulphate

Gujarat Industrial Development Corporation

o/o the Dy.Exe.Engineer(Drg)
GIDC ADMINISTRATIVE BUILDING 2ND FLOOR
PLOT NO.C-5/101, CHAR RASTA VAPI
Tel No 0260-2432667 Email.vapiwater@gmail.com

No.NA/VPI/DEE/DRG/

To,
The Regional Officer
G.P.C.B
GIDC-Vapi

Sub: Underground drainage connection at GIDC Vapi

Dear Sir,

With reference to the above, the list of unit whose underground drainage connections are disconnected.

1. Vital Health care Pvt. Ltd	1416-2,1507/1
2. Vital Health care Pvt. Ltd	1710
3. Apurva Chemical	2806
4. J.B. Industries	1423
5. Mahavir Dye chem.	1401/5
6. Jay Engineering	761
7. Consumer Plastic	16 to 19
8. Pragna Organics	2907
9. Rathore Pigments	C1/6020/1
10.Chirag Industries	6139/
11.Klipca Pvt. Ltd	53
12.M/S Godson Engg. Works	L-6200/10 &6212
13.Sudish Chemical	C1/71
14.Mica Industris Ltd	508,509,510
15.Super Industries	778/4/B
16.Deven Chemical	1401/2
17.Shree Gurudev Chemical	1101/1
18.Ideal Packing	B2-2114/1

19.Pooja Chemical	1601/1
20.Pretech Conntrols	136/C
21.Ramji Packaging	6308
22.Hemendra Metal	231/1
23.Allied Engg & Auto	1709
24.Craft Corner Paper Mill	1703
25.M/S Chemson Industries	2902
26.Pratima Dye Chem	765
27.Super Deluxe Paper Mill	322/5
28.Hiren Chemical	805/1

With Regards

Yours Truly

Dy. Exe. Engineer(Drg)
G.I.D.C-Vapi

Encl. As above

Annexure -D

Sr.No.	Equipments covered in subsidy under ASIDE & IC Scheme	Equipments need to be installed as per Revised Master Plan (under technical guidance of GIZ)	Comments	Cost (Rs. in Lacs)	
				Applied in ASIDE	Extra cost as Per GIZ proposed scheme
Preliminary Treatment					
	Oil Skimmer Size: 16.2 m ³	Oil & Grease Removal	Covered in subsidy and also proposed in revised master plan. In the existing treatment scheme, there is no provision of oil skimmer. But looking to the inlet wastewater characteristics, oil skimmer is proposed to remove the oil & grease which otherwise interfere the performance of the biological treatment units.	15.95	
	-----	Grit chamber	Not included in subsidy but proposed in revised master plan		

	<p>Mechanical Mixing cum Aerators in Equalization Tanks</p>	<p>Mixers in equalization tanks</p>	<p>Covered in subsidy</p> <p>At present, coarse bubble diffusers are provided in the equalization tank. Due to the high suspended solid loads received at the inlet, frequent cleaning is to be done because of the choking of diffusers. Due to this, equalization tank is not working efficiently.</p> <p>To avoid choking & improve equalization & keep the particulate matter in suspension, mixers cum aerators are proposed.</p> <p>By providing aerators/mixers, efficiency of downstream units will increase due to the reduced variations & shock loadings.</p>	<p>314</p>	
	<p>Equalization Tank & equalization pump house</p> <p>Tank Size: 9126 m³</p> <p>Pump House: 2500 m³/hr @ 12 m, 150 HP</p>	<p>Equalization tank + Settling</p>	<p>As per revised master plan, it is proposed that separate equalization cum settling tank is to be installed for the UASB stream to cater 15 MLD hydraulic load.</p>	<p>475.45</p>	

Primary Treatment					
	Primary Clarifier	-----	Not proposed in revised master plan.	191.61	
	Size: 37.5 m ϕ x 3 m SWD				
Secondary Treatment					
	Aeration Channels	Aeration channels	Aeration channels are proposed to divert the anaerobically treated effluent for the post aeration. After the anaerobic treatment of wastewater in Up flow Anaerobic sludge Blanket (UASB) reactor, there is no post treatment of the wastewater and hence the outlet quality of effluent after UASB is not satisfactory. Also before the clarification of anaerobically treated effluent, post aeration is required to remove the dissolved gases for effective settlement.	448.46	
	Size: 85 m x 17 m x 3.75 m SWD				
	Qty.2				
	Secondary Clarifier	Secondary Clarifier	Requirement of the additional secondary clarifier is to cater the existing load effectively. Due to the insufficient sizing of the pipe,	262.28	
	Size: 44 m ϕ x 2.5 m SWD				

			the flow is pumped through the jockey pump to secondary clarifier and because of this churning of the flocculated particles occurs which decrease the settling efficiency.		
		Oxygenation + Bioaugmentation Based on tower biology (1 st stage aeration)	GIZ has proposed two stage aeration for the better removal of refractory organics) the first stage aeration should have higher HRT to remove the easily biodegradable organics. Then in the next stage aeration, it is possible to remove the difficult to biodegradable organics		
0.	Upflow Anaerobic Sludge Blanket Reactor (UASB) Size: 7.5 MLD Qty. 4		To provide anaerobic treatment first then post treatment by aeration to reduction the consumption of power.	1564.7	
Sludge Handling System					
1.	Sludge Thickeners	Sludge Thickeners	Additional sludge thickeners are required to improve the sludge handling system at downstream operation.	134.24	

	Size: 11 m Φ x 5 m		At present combined sludge is being handled in the sludge thickener. To improve the thickening of the sludge stream segregation is to be done because settling characteristics of primary sludge & activated sludge is different.	
	Qty.2			
2.	Sludge Digester	Sludge Digester	Sludge digester is proposed for the handling secondary sludge which is not otherwise easily dewatered. Also the gas generated during digestion will be utilized in the combined heat and power plant to produce electricity. Mass & volume reduction in sludge is also achieved.	842
	Size: 15000 m ³ (Two stage)			
3.	Decanter with house	Decaners & Decanter House		165.27
	Capacity : 30m ³ /hr			
	Qty.4			

4.	Sludge drying bed cum Interim storage	Sludge drying bed cum interim storage	After dewatering of the sludge, dewatered sludge is then dumped in the sludge drying bed for further moisture reduction. Sludge drying bed cum interim storage is proposed to store the sludge in the monsoon period when landfill site is not in operation.	267.48	
5.	Sludge conveying system		<p>At present dewatered sludge from the decanter house is transported to SDB & temporary interim storage by dumpers.</p> <p>To reduce the cost of transportation, vehicular pollution in the plant premises & to avoid spillage of sludge during transportation, closed conveyance system with screw pump is proposed.</p>	38.3	
6.	<p>Common Multiple Effect Evaporator</p> <hr/> <p>Capacity : 200KLD</p>		For the treatment of high COD and high TDS wastewater generated from cluster units separately.	350.3	

Tertiary Treatment

7.	Ozonation System	Ozonation System	Advanced treatment for refractory organics removal	1100	
8.		Bio filters (Modification of CAACO Reactors)			
Total				6970.04	

Annexure -E: MODIFICATIONS/EXPANSION OF CETP

As per action plan decided in the meeting held at VIA in presence of representatives of GIZ, VIA, Aquachem, VWEMCL for interim modification and expansion of CETP, revised time schedule is given below;

Sr. No.	Activity	Time Schedule	Status as on date
1	Identification of Industries for Refractory COD TDS, Toxic	1 month	Treatability study started for few industries
2	Treatment / Concept , Solutions & Guide lines to reduce COD;	3 months	pilot trials are under progress.
3	Comply / Implementation of solutions/ guidelines :	6 months	Tender under preparation
4	Adequacy checks	3 months	
5	Finalization of Scheme	2 weeks	Draft DPR prepared
6	Report covering hydraulic expansion for 100 MLD with COD < 350 AND TSS<100	1 month	
7	Preparation & submission of a. DRAFT DPR b. DETAILED DESIGNS c. CIVIL d. PIPING & INSTRUMENTS e. ELECTRICAL f. MECHANICAL	3 months	
8	Discussions & approval of DPR	3 weeks	
9	Final DPR	1 week	
10	Implementation of Project. Supervision	12 months	After EC grant from MoEF New Delhi

COST ESTIMATES FOR MODIFICATIONS /EXPANSION OF CETP FOR 70 MLD CAPACITY AND 100 MLD CAPACITY

Sr. No.	Description	FOR 70 MLD Amount Rs. (In Lacs)	FOR 100 MLD Amount Rs.(In Lacs)
1	Civil Work	2240.75	1404
2	Mechanical Work	2337	3653
3	Electrical & Instrumentation	235	78
4	Piping work	734.5	307.75
5	Misc/ Contingencies	45	50
	TOTAL RS. IN LACS	5592.25	5492.75
TOTAL PROJECT COST RS. 110.85 CR Excluding Taxes/ Duties			