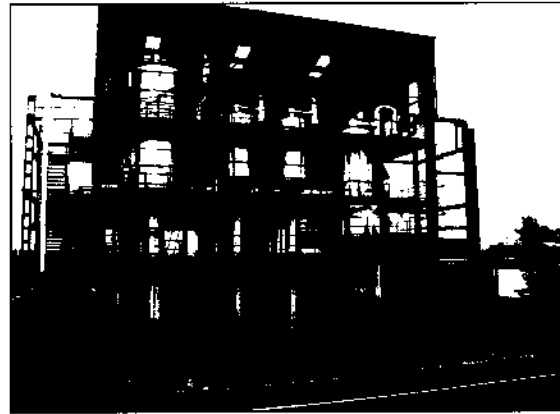
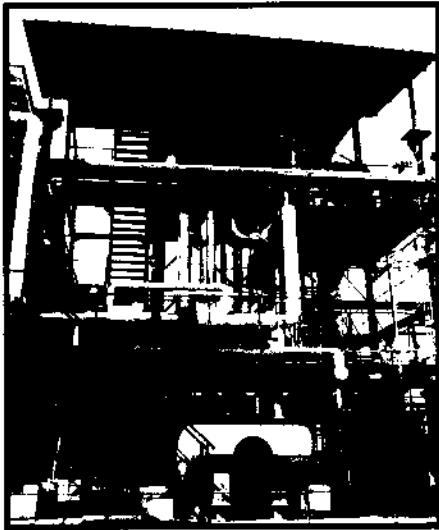


Status of Implementation of
Comprehensive Environmental
Pollution Abatement Action Plan for
Ankleshwar Industrial Cluster as on
31/12/2014



Gujarat Pollution Control Board

12. Summary of proposed action points:

12.1. Short Term Action Points (upto 1 year, including continuous Activities)

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
WATER				
1	Standard flow meter at final outlet of ETP	Identification of units having effluent quantity \geq 25m³/day.	30.11.2010	Completed within time limit.
		Industrial Association will issue the circular to their member to provide the Standard flow meter. GPCB will also issue notice to such units.	30.11.2010	Completed before time limit.
		Standard flow meter required to install at final outlet of ETP by units having effluent discharge quantity \geq 25 m³/day.	31.12.2010	Completed within time limit. List of industries with Magnetic / Standard flow meter at final outlet of ETP is attached herewith. (Annexure - A). List of industries who are directly connected with the underground network is attached herewith. (Annexure - A1).
2	Water consumption from non permitted sources (eg. Borewell, tanker etc.) or more than permitted quantity	Identification of source of water i.e. tanker, bore well etc. for its authenticity. Industry shall have only one source of water.	31.8.2010	Completed within time limit.
		Issue direction to stop the unauthorized use of water by the industries.	31.10.2010	Completed within time limit.
		Direction to seal the non permitted bore well, tankers	31.12.2010	Completed within time limit.
3	Sealing of unauthorized discharge other than regular discharge	Concerned authority will be asked to identify unauthorized outlet.	Ongoing process and will be made more vigorous	Completed within time limit.
		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.	31.8.2010	Completed within time limit. Copy of Notarized under taking is attached as Annexure - C

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
4	zero discharge unit – not to have drainage connection or any outside discharge.	Inventorisation of the units having consent under Water Act for zero discharge.	31.7.2010	Completed within time limit. List attached as Annexure – D.
		Review the condition specifically for zero discharge condition	30.9.2010	Completed.
		Drainage connection to be disconnected of zero discharge units and certified by GIDC/ BEAIL and checked by GPCB.	30.9.2010	Completed.
		All zero discharge industrial 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.	30.9.2010	Completed.
5	Identification of unauthorized connection to BEAIL pipeline	Unauthorized connection in BEAIL pipeline to be checked and disconnected by competent authority and verified by GPCB.	Ongoing process	Complied. (During vigil checking, GPCB had identified 9 ghost connections in GIDC, Ankleshwar underground drainage system).
		Third party monitoring is to be carried out	Ongoing process	Complied. (TIFAC-CORE-SCET, Surat had been awarded a work of monitoring as an independent third party monitoring agency since May 2010 and continued to work till July 2014. Expense incurred on this since May 2010 to July 2014 is Rs. 514.68 Lakhs. NCTL board decided to consider “GEMI”, being autonomous institute of GoG, as third party monitoring agency in place of SCET which is under consideration. Additionally, GEMI has also started functioning 25/09/2012 on behalf of NCTL and expense incurred till Dec 2014 is Rs. 146.96 Lakhs.).
6	Identification of non-biodegradable / high COD and/or high NH3-N containing effluent	Identification of industrial units having high pollution potentiality with regard to COD and/or NH3-N and to ask such industries to submit time bound action plan for its treatment along with financial outlay.	31.8.2010	Identification Completed and work of installation of subsequent New EMS also completed. Note: So far, identified industries have invested about Rs. 335 Crores and work of around Rs. 05 Crores is under progress (Total 340 Crores) for upgradation of their EMS. Collective cost of operation of these new EMS adopted by various industries is around Rs. 15 Crores per month.

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
				(Annexure - E)
		Identification of the streams having Non-biodegradable effluent containing refractory COD, toxicants like Ammonical Nitrogen where treat ability not possible/difficult/techno-economically not viable.	31.8.2010	Identification Completed and work of installation of subsequent New EMS also completed. MEE : 61 industries including non-identified industries have commissioned their total 72 MEEs and 02 industries are under installation / commissioning of their 02 MEEs. One industry has proposed 02 MEE. Thus, total 64 industries have installed / proposed to install 76 numbers of MEEs.
		The units manufacturing Pesticides, Dyes intermediates, Bulk drugs will be asked to study their present treat ability of effluent and accordingly segregate non-biodegradable streams.	31.10.2010	Additionally, 07 industries including non-identified industries have commissioned their total 10 Single Effect Evaporator (SEE) and 02 industries are under installation / commissioning of their 02 SEEs. Thus, total 09 industries have installed / proposed to install 12 numbers of SEEs.
		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.	31.12.2010	(Annexure - F) RO : 38 industries including non-identified industries have commissioned their ROs and 4 proposed / commissioning. Thus, total 42 industries have installed / proposed 48 numbers of ROs. Around 8 to 10 MLD of permeate and condensate from MEE is now being reused. (Annexure - G)
		Implementation/Commissioning of above proposal	30.09.2011	FACCO / Fenton Treatment : 11 industries have adopted. Two CETPs at Ankleshwar and Panoli have also adopted. (Annexure - H)

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
7	Reduction of pollution load on CETP, upgradation of CETP and efficient operation of CETP	<p>The units generating effluent more than 25 KL/day required 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.</p> <p>Installation of FACCO or any other suitable technology at CETP for small scale industrial unit.</p> <p>Identification of high COD and high Ammonical Nitrogen containing effluent and individual installation of FACCO or any other suitable technology for large scale units having high COD effluent and Ammonical Nitrogen removal system.</p> <p>An action plan for strengthening of individual ETP to be submitted to BEAIL, PETL, ETL & to GPCB and required to monitor its progress by concerned agencies.</p> <p>CETP / FETP should optimize operation / performance of their existing units.</p> <p>To strengthen performance evaluation of ETPs , to be done by third party agency.</p>	<p>31.12.2010 for units having discharge > 100 m3/day</p> <p>31.12.2011 for units having discharge > 25 m3/day</p> <p>30.9.2010</p> <p>31.12.2010</p> <p>31.10.2010</p> <p>31.12.2010</p> <p>31.12.2010</p>	<p>Completed (All 06 identified units having discharge more than 100 m3/day have upgraded their ETP.</p> <p>Completed (Total 03 out of 04 identified units having discharge more than 50 KLD and less than 100 KLD have completed the work and remaining unit is not in operation since long).</p> <p>Completed (The industries having discharge more than 25 KLD, the industries associations has made representations that due to lack of space / technological constraints etc. they should be allowed to continue with the CETP membership. CETPs of Ankleshwar and Panoli are having adequate capacity for treatment of effluent of these units).</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed.</p> <p>Completed. (Both the CETPs and FETP are covered under Environment Audit Scheme and their performance evaluation is done by Schedule 1 auditors twice in a year).</p>

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
		CETP authority shall study their treatability of effluent from prominent agency and come out with action plan and up gradation./ modification.	30.9.2010	Completed. (CETPs are taking technical assistance from time-to-time from different prominent institutes like IIT-Mumbai, IIT-Kanpur, CLRI - Chennai, Agharkar Research Institute - Pune and NEERI-Nagpur).
		Based on the recommendation of agency CETP authority shall complete required upgradation / modification of CETP/FETP.	30.06.2011	Completed. (FETP is further being upgraded as per the Action Point mentioned in Long term Action Plan) (Please refer Annexure - I)
		To change the management of BEAIL under Government Supervision and Chief Executive Officer have to be appointed.	Implemented and GIDC is the main stakeholder.	Completed (Already implemented since 01/04/2008.)
		To finalize disciplinary action against non compliant units	Ongoing process	Completed and made ongoing process (GPCB, Ankleshwar office has monitored 12444 units during the period of 7 th June 10 to 31 st December 2014. Total 399 industries had been served with closure notices and 365 industries had been served with notice of direction during this period. Additionally, bank guarantee had been taken from _____ industries).
8	Checking of illegal discharge of Acidic/ highly polluted effluent	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	Ongoing process	Implemented
		Third party monitoring	Implemented	Implemented TIFAC-CORE-SCET : since 1-5-2010 to July 2014. Request to appoint GEMI in place of SCET is put up by NCTL. GEMI on behalf of NCTL : since 25/09/2012 and presently continued.
		To set up vigilance cell for vigorous & surprise monitoring under supervision of senior officer	Immediate	Completed. Vigilance Cell made functional from June, 2010.

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
9	Identification & rectification of various leaking manholes, overflowing pumping stations.	Foolproof mechanism for regular monitoring, cleaning and maintenance is required by concerned authority.	31.12.10	Completed. (The necessary rectification has been done is now also made ongoing process). (Annexure - J)
		Reasons of overflow of man-holes should be identified and adequate measures should be adopted.	31.03.2011	Completed by Notified Area Authority within time limit and made ongoing process.
10	Action till commissioning of separate CETP for Pharma units	High COD streams of existing pharmaceutical industries should be segregated and treated and disposed of by individual units through adequate environmental friendly technologies till commissioning of new CETP.	Immediate	Completed.
11	Monitoring of surface and sub surface water quality.	Surface and sub surface water quality	On going process.	Implemented. (Annexure - K)
12	Impact on Health within and surrounding population.	As per the information available no incidence of death due to pollution or occupational disease or poisoning is recorded.	31-12-2010	Completed. Health survey in and around Ankleshwar Cluster was conducted through Dr. A. V. Ratnam - "Parirakshana" in 2012. Report has been forwarded to GPCB - HO. Again, fresh health survey by the same agency had been got conducted in 2014. Report is under printing. The main conclusion of the study is as under : "The survey findings can be summarized as follows: <ul style="list-style-type: none"> • There is no health impact to the persons residing in and around the Ankleshwar, Panoli, Jhagadia industrial estates. This can be concluded comparing the data of the control group with study group. • Comparing the health survey of 2012 with present survey, it can be concluded that there is no statistically valid variations in various health aspects."
			30.06.11	

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
4	Control of fugitive emission	Good practices like cleaner production and cleaner technology to be adopted in fuel handling and to have better house keeping	30.09.2010 and ongoing process.	Completed (Annexure - L)
5	Ambient Air Quality Monitoring	Existing AAQMS to be strengthen to monitor AAQ as per new notification New AAQMS shall be installed.	31.12.2010	Completed. Further, requirement of Ambient Air Quality Monitoring stations under SAMP / NAMP for GIDC Estate of Panoli had been put up and now one station is approved. Monitoring is started from December 2014. NAMP / SAMP : (Annexure - L) AAQ through Industries Associations : (Annexure - M) VOC monitoring : (Annexure - N)
6	Implementation of the suggestions of the odour Control Expert Committee	Implementation of the suggestions of the odour Control Expert Committee as per following 1. Consider use of non-halogenated and non-aromatic solvents (eg. Ethyl acetate, alcohols and acetone) instead of more toxic solvents (eg. Benzene, chloroform and trichloroethylene) 2. Contain and enclose batch reactors and install close feed system. 3. Reduce operating temperature. 4. Install nitrogen blanketing on pumps, storage tanks and during formulation processes. Install process condensers 5. VOC vapours from solvent handling activities and processes should be connected to air control devices. 6. Activated carbon adsorption may be used to achieve VOC removal efficiency of 95-98%. 7. Thermal oxidation/incineration system can destroy 99.99% VOC.	31.12.2010	Completed
7	Monitoring of AAQM	To check Ambient Air quality	On going process.	Completed

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
		Occupational health centers are provided by MAH units in this cluster to monitor health of the industrial workers. Primary health center are provided in each industrial cluster. PIA will establish occupational health center		Being Implemented. (Construction of building for the purpose along with infrastructure work is completed and inaugurated on 1 st March, 2014. Requisite instruments procured - scheduled to be commenced by March - 15.)
13	To stop tray drying and salting process	Identification of the unit having tray drying and salting process	30.9.2010	Completed
AIR				
1	Strengthening of air pollution control measures	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} .	31.12.2010	Completed before time limit. (Ankleshwar cluster is fortunate with the supply of natural gas since last about 25 years and hence most of the industries are using natural gas as a fuel. The textile and paper mill that use solid fuel like coal, lignite, agro waste have already installed adequate APCM viz. bag filters / multi cyclone separator. (Annexure - L)
		To upgrade the solvent recovery plants to achieve more than 95 % solvent recovery	31.12.2010.	Completed
2	Plantation in the industrial 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	30.09.2010	Completed (Since starting of implementation of the Action plan about 4 lakhs trees have been planted in Ankleshwar, Panoli and Jhagadia industrial estate. Additionally, saplings are also planted along the road side available places and across the industrial estate.)
3	Restriction on using un authorized fuel.	Industrial units shall use authorized fuel as consented and shall not use any unauthorized fuel.	30.09.2010	Completed

Sr No	Activity	Action	Time limit	Sttus of Compliance of Action Points as on dt. 31/12/2014
8	Monitoring of VOC in cluster	To monitor the VOC concentration in cluster and to take remedial measures.	Immediate	Completed
		Final quality report shall be submitted	31.01.2011	Completed
HAZARDOUS WASTE				
1	Checking of illegal transportation and dumping of Hazardous waste	Vigil check required to be kept on illegal transportation and dumping of hazardous waste.	On going process	Completed / Already implemented
2	CPCB guidelines for TSDF are to be strictly followed	TSDF operator will comply with these requirements and GPCB shall verify	31-08-2010	Completed
3	Adoption of 4- R's (Reduce, Recover, Reuse, Recycle)	Inventorization of the various solid/ Hazardous waste generated from the industries	31.12.2010	Completed
4	Common facility for collection, storage & transportation of incinerable waste generated from individual industrial units	Common hazardous waste incinerator capacity to be enhanced.	31.12.2010	Completed
5	Captive facility for destruction of incinerable waste	Up gradation of captive incineration system. Incinerators not as per CPCB guidelines shall be dismantled and the industry shall send waste to common incinerator.	31.12.2010	Completed. It has been ensured that captive incineration systems are as per CPCB guidelines. (Annexure - N1)
6	Transportation of Hazardous waste	Vigil checking on transportation of hazardous waste.	Ongoing Process	Already completed / implemented. Additionally, all the vehicles engaged in transportation of hazardous waste are GPS mounted.

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
7	Waste Minimization Measures	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 vapour recovery system and APCM. • Use of high pressure hoses for equipment clearing to reduce waste water generation. 	31.12.2010	Completed and made ongoing process

12.2. Long Term Action points (more than 1 year)

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
WATER				
1	Identification & rectification of various leaking manholes, overflowing pumping stations.	Lining of creek passing through GIDC along with motor-able road and lighting.	31.12.11	Completed.
2	Separate CETP for Pharma units	To set up a new CETP specific for pharma units only to treat effluent having very high concentration of ammonical nitrogen and COD.	31.07.2012	Since concerned pharmaceutical units are now treating their effluent in MEE / CMEE, the need of CETP is not envisaged and hence dropped by project proponent.
3	To stop tray drying and salting process	Setting up of common spray drying facility or identification of spare capacity with existing spray dryer	31.3.2011	Completed
		Complete phase out of tray drying and salting process	30.6.2011	
4	To Prevent misuse of Under Ground drainage in GIDC, Ankleshwar (New Action Point)	For prevention of misuse of old underground drainage network in GIDC Ankleshwar, separate scheme of discharge by only over ground pressurized pipe line to be provided by GIDC / Notified Area Authority.	31.03.2014	For prevention of misuse of old underground drainage network in GIDC Ankleshwar, separate scheme of discharge by only over ground pressurized pipe line is worked out and is under implementation. (Annexure - B)
5	To further upgrade performance of FETP (New Action Point)	As per the instructions from Honorable High Court, the FETP is to further upgrade its performance.	31.03.2014	Further, to upgrade the performance of FETP NCTL has awarded a work for performance improvement to NEERI. (Annexure - I)

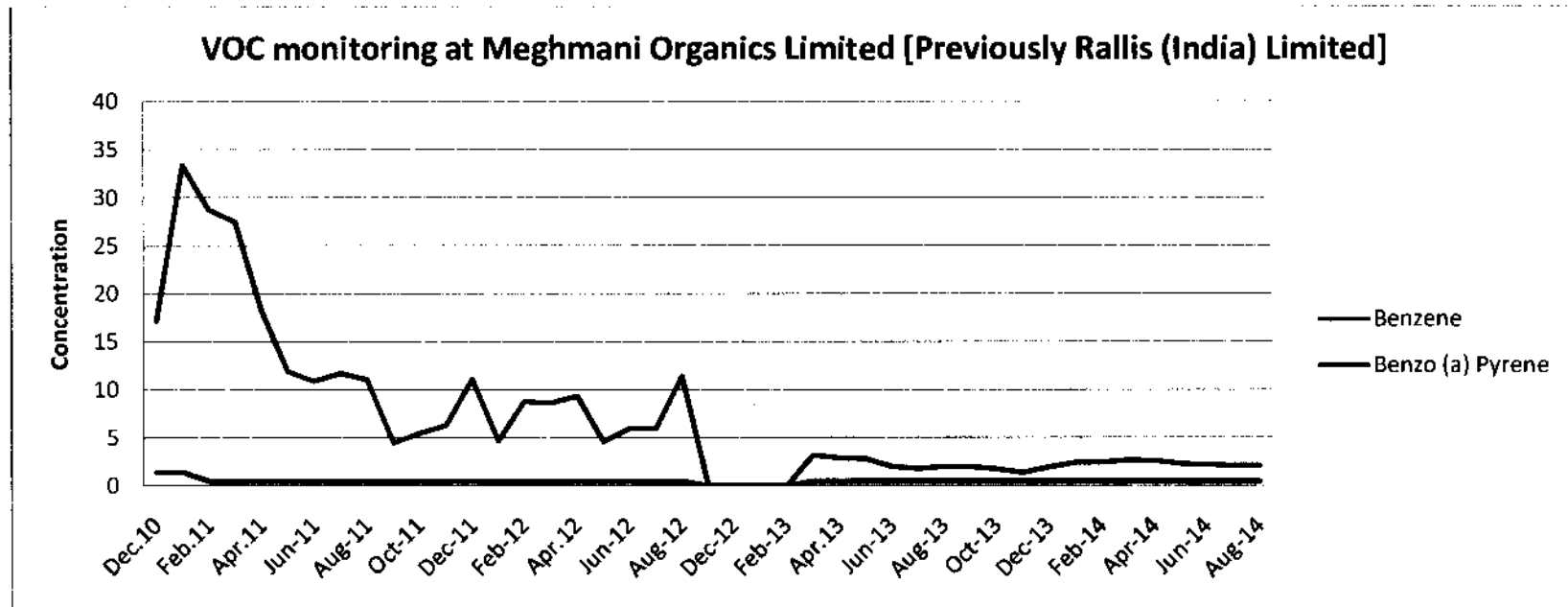
Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
AIR				
1	Adoption of cleaner fuel	Large industrial units using solid fuel shall be switch over to cleaner fuel wherever it is feasible considering availability of gas and economics.	6 months to two years	Already implemented. (More than 90% of the industries are using natural gas).
2	Ambient Air Quality Monitoring	Installation of continuous ambient air monitoring station.	31.12.11	Being Implemented at Ankleshwar. Committee visited and location finalized. Process of procurement by the GPCB is under process and may be completed by March, 2015.
		Online monitoring system linked with Regional Office and Head Office shall be provided at-least at two stations (Ankleshwar and Panoli).	31.12.11	Being Implemented at Ankleshwar. Committee visited and location finalized. Process of procurement by the GPCB is under process and may be completed by March, 2015. Proposal for second station is being put up.
HAZARDOUS WASTE				
1	Adoption of 4- R's (Reduce, Recover, Reuse, Recycle)	Creation of waste exchange center inline with Novel Spent Acid System	30.6.2011	Completed. Usage of high calorific waste in cement industries started. Ammonium carbonate solution is permitted to be used for production of Magnesium Carbonate, ammonium chloride solution is used for production of calcium chloride with ammonia recovery etc. Recently, trials for its usage in Soda Ash industry are also given permission. BEIL (Common facility) has been granted permission for co-processing of 16000 MT/Year of high calorific hazardous waste with cement industries. Individual pharmaceutical, pesticides manufacturing units have also started sending their high calorific waste to cement industries for co-processing in cement kiln. Additionally Recycling Solution Pvt Ltd.(Lessee), CEPIL at GIDC, Panoli is granted permission for waste mixing processing facilities to prepare fuel for co-incineration with capacity of 80 MT/Day.
2	Incinerator based on Plasma Technology	Plasma Technology for hazardous waste destruction:	31.12.11	Being Implemented

Sr No	Activity	Action	Time limit	Status of Compliance of Action Points as on dt. 31/12/2014
3	Transportation of Hazardous waste	GPS based tracking system for transport of hazardous waste should be incorporated.	31.12.2012	Completed

- On Account of vigorous implementation of the Action Plan in the Ankleshwar Cluster, quality of effluent at FETP has shown a drastic continual improvement and results of GPCB, CPCB, NCTL and third party monitoring team TIFAC-CORE-SCET for the same are presented as Annexure O, P, Q and R.
- Results indicating continual improvement in the Amlakhadi are presented as Annexure S and Annexure T.
- Yearly average values for the FETP outlet quality and Amlakhadi are also presented as Annexure U.
- GPCB took an initiative to conduct a study through the same agency (IIT, Delhi) and procedure for the calculation of CEPI as adopted by CPCB. The outcome of the same indicates the CEPI score as 51.56 in the study report of June 2013. The same is presented as Annexure V.

VOC Monitoring by GEMI / Siddhi Consultant / Bhagwati Analab

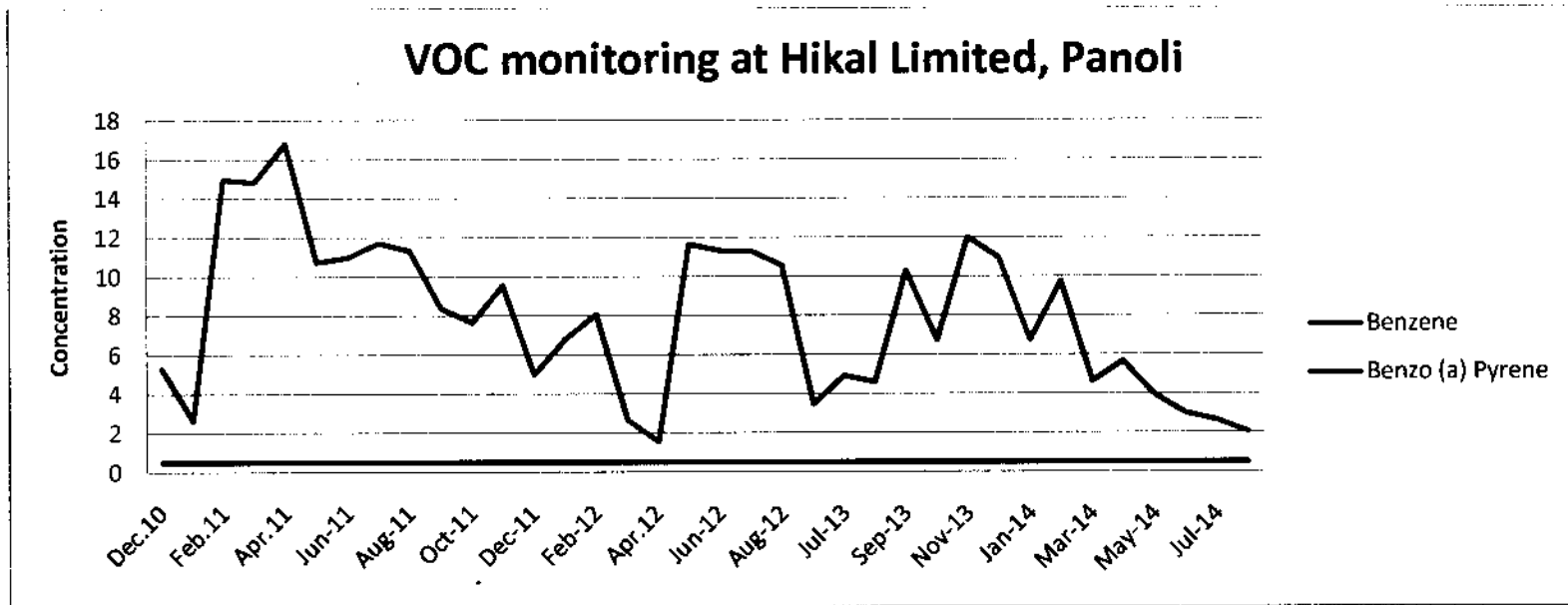
Ankleshwar



Note : Benzene concentration is expressed in $\mu\text{g}/\text{m}^3$
Benzo (a) Pyrene is expressed in ng/m^3

VOC Monitoring by GEMI

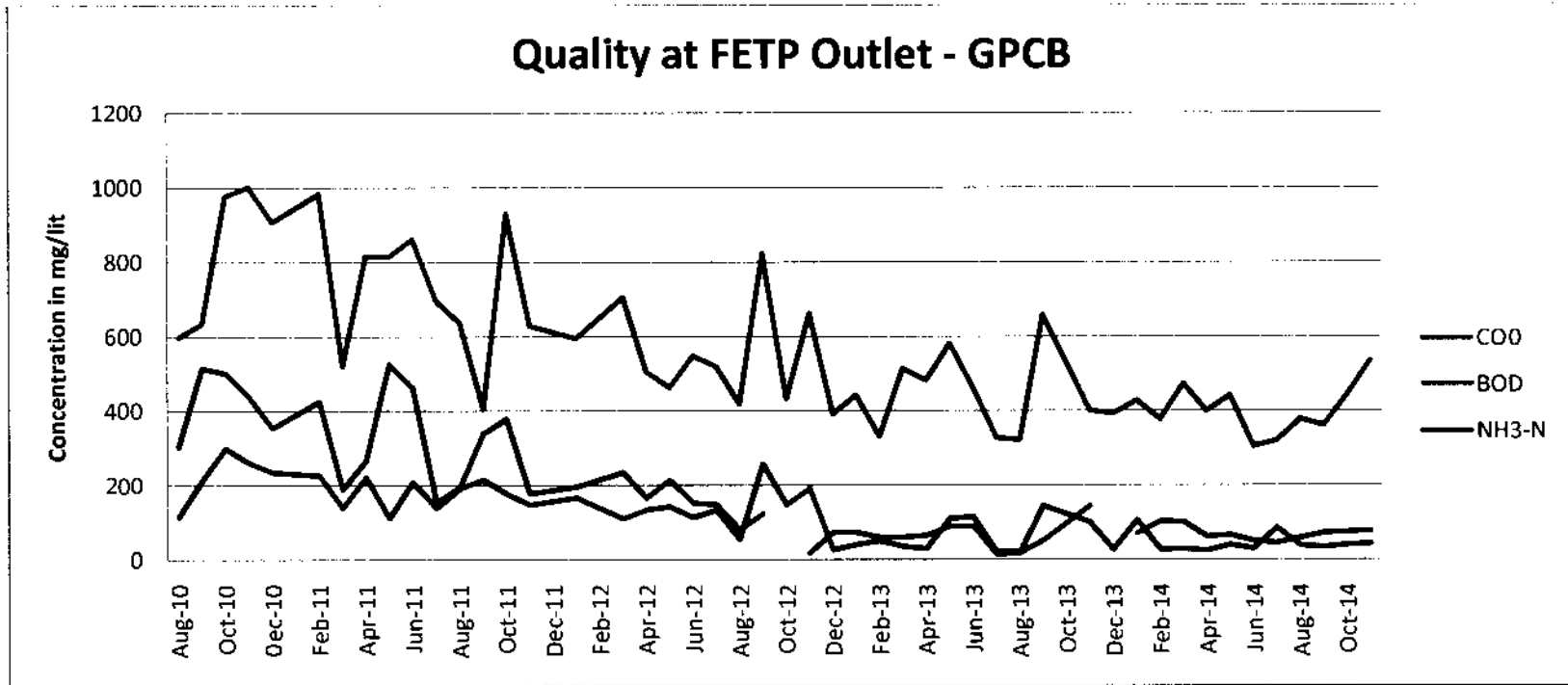
Panoli



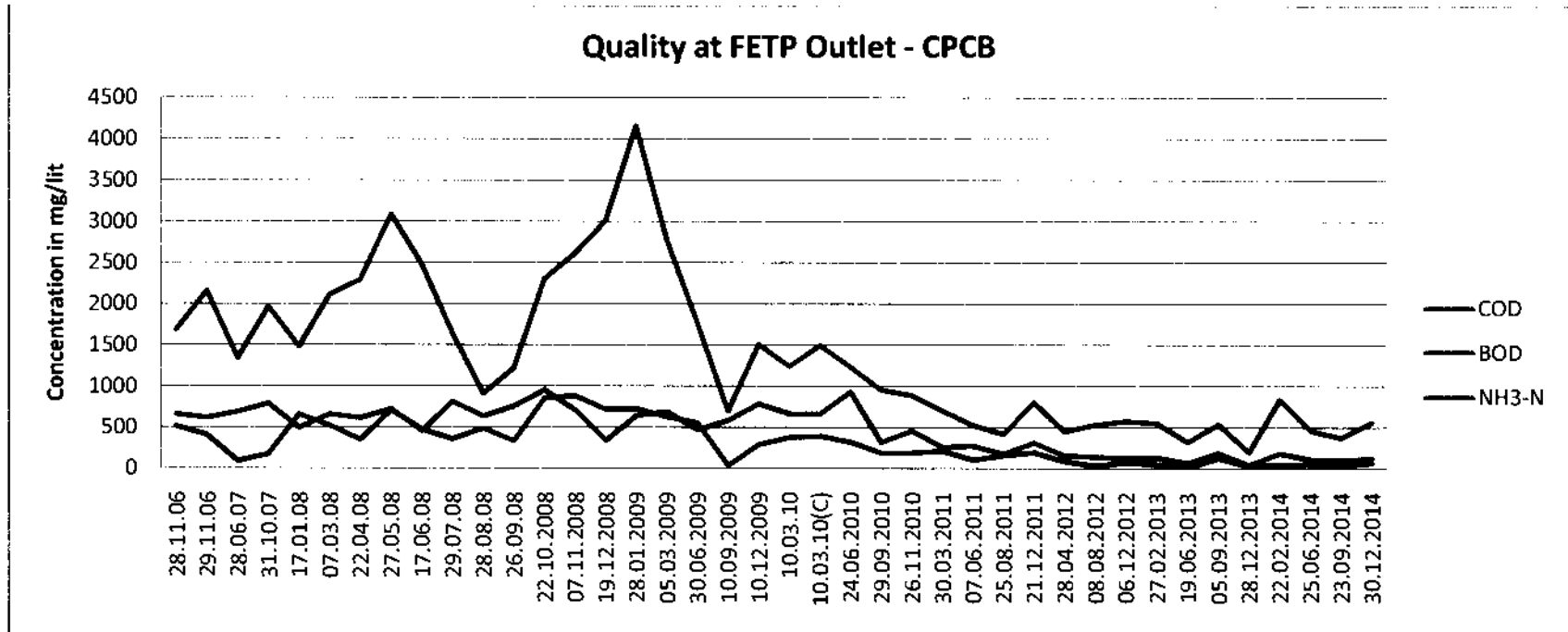
Note : Benzene concentration is expressed in $\mu\text{g}/\text{m}^3$
Benzo (a) Pyrene is expressed in ng/m^3

There was no monitoring between September 2012 and May 2013

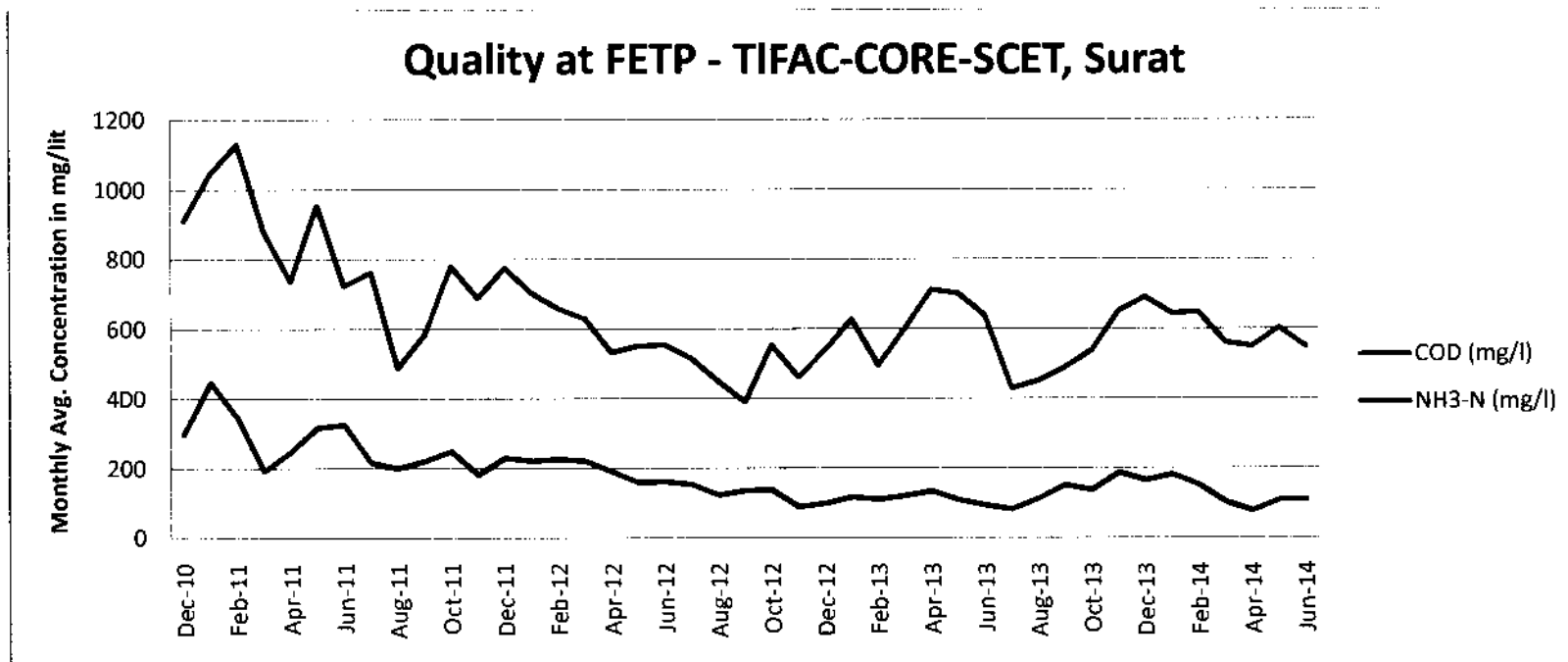
Performance of FETP at Piraman – A Trend Analysis by GPCB



Performance of FETP at Piraman – A Trend Analysis by CPCB

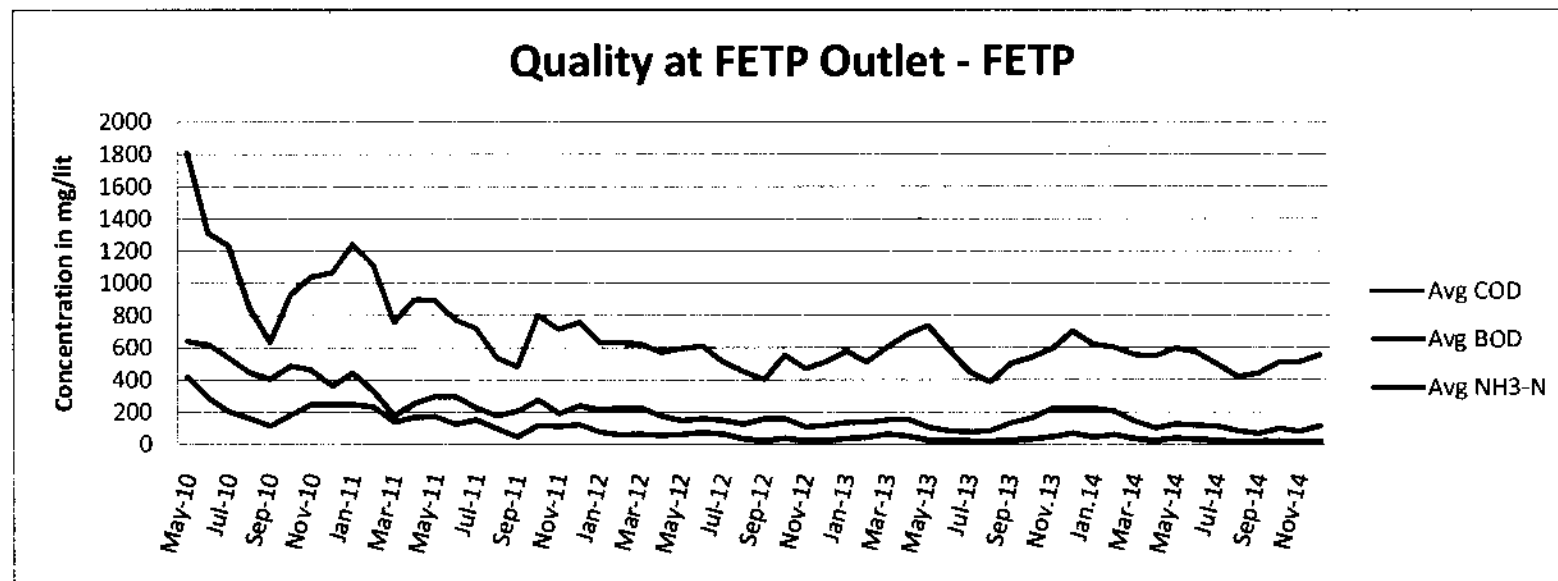
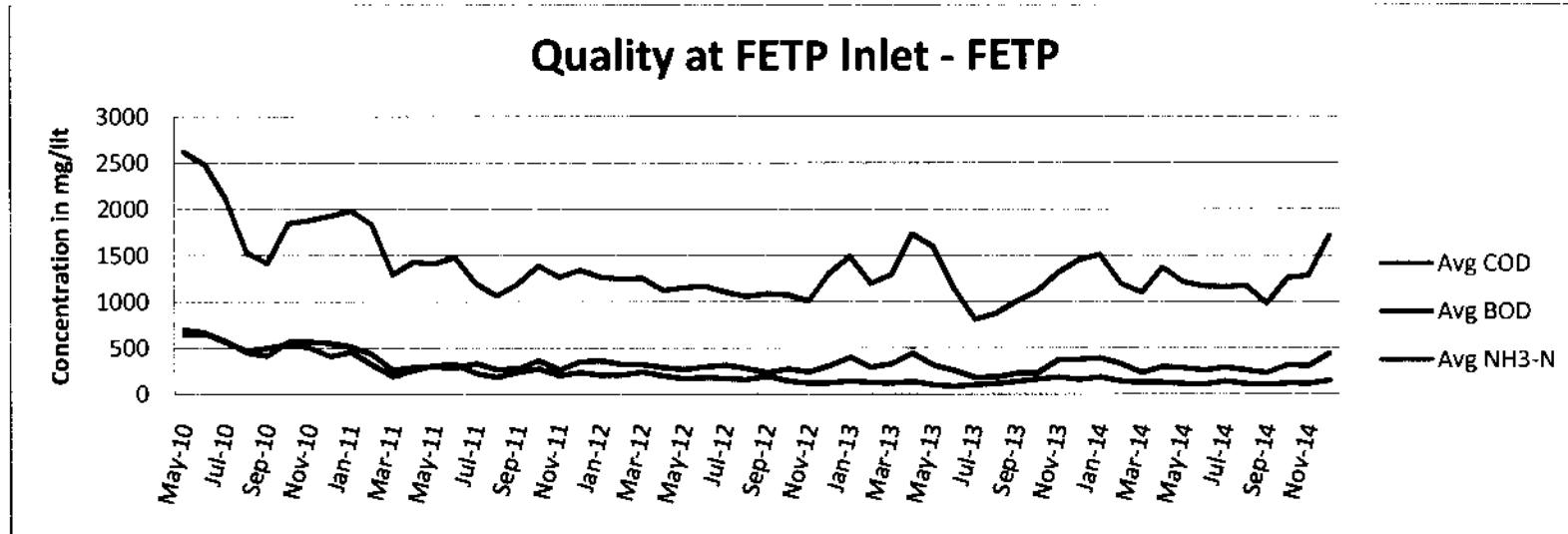


Performance of FETP at Piraman – A Trend Analysis by SCET-TIFAC-CORE

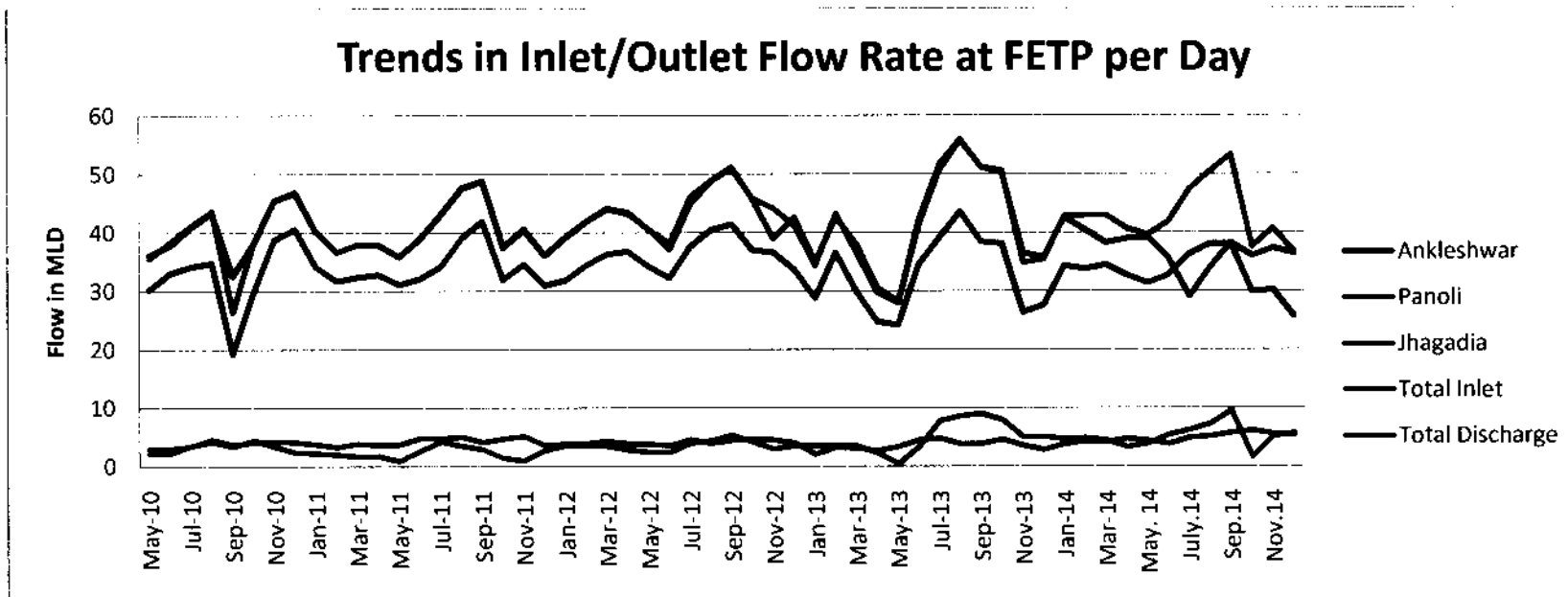


Note : Third party monitoring has been discontinued since July 2014.

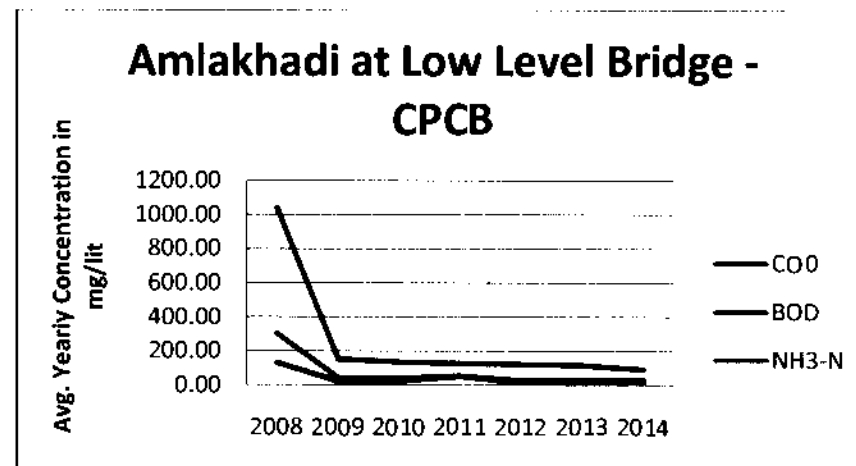
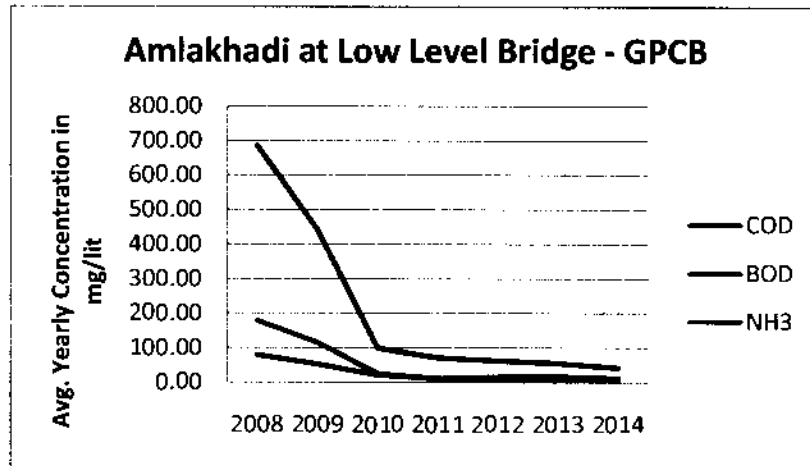
Performance of FETP at Piraman – A Trend Analysis by NCTL



Inlet & Outlet of Effluent at FETP– A Trend Analysis by NCTL



Quality of Amlakhadi at Low Level Bridge – A Trend Analysis by GPCB & CPCB



GPCB Annual Average Values				CPCB Annual Average Values			
Year	COD mg/lit	BOD mg/lit	NH3-N mg/lit	Year	COD mg/lit	BOD mg/lit	NH3-N mg/lit
2008	686.42	178.83	79.36	2008	1041.22	302.89	130.36
2009	441.42	114.75	52.67	2009	151.75	42.75	21.875
2010	99.58	25.18	20.53	2010	135.5	38	23.325
2011	71.33	11.28	11.92	2011	127.175	54.2	50.3
2012	63.17	16.06	9.47	2012	123.0	25.67	11.97
2013	55.83	16.92	6.00	2013	115.58	29.28	13.29
2014	42.91	11.82	7.56	2014	92.0	30.75	12.93

Note : (1) GPCB annual average is based on the monthly results.
 (2) CPCB annual average is based on the quarterly results.

NARMADA CLEAN TECH LIMITED ANKLESHWAR

Flow Meter List of Final Discharge Qty. for the Month of JAN-2015

Sr No	Billing code	Name of the Company	Remarks
		Ankleshwar Estate	
1	ANKA007	A-ONE CHEMICALS	
2	ANKA012	AMBAL CHEM PVT.LTD	
3	ANKA015	ASIAN PAINTS LIMITED- PAINT DIV	
4	ANKA017	ASIAN PAINTS LIMITED- PHARMAC DIV	
5	ANKA019	AMAL LIMITED	
6	ANKA020	ATUL LIMITED (GUJ AROMATICS DIV)	
7	ANKA021	ASTK DYE STUFF PVT.LTD.	
8	ANKD017	BASF INDIA LTD(UNIT-1)	
9	ANKD025	BASF INDIA LTD(UNIT-2)	
10	ANKR001	SV6 FASHIONS LTD	
11	ANKR008	BAKUL PHARMA PVT. LTD.	
12	ANKR022	DECCAN FINE CHEMICAL(SINDIA) PVT.LTD.	
13	ANKR024	ELANTAS BECK INDIA LIMITED	
14	ANKC009	CADILA HEALTHCARE LIMITED- API DIV.U-1	
15	ANKC017	CADILA PHARMACEUTICALS LTD- UNIT-1	
16	ANKC026	CADILA PHARMACEUTICALS LTD-2	
17	ANKC030	CADILA HEALTHCARE LIMITED- UNIT-2	
18	ANKR222	CHIRON BERING VACCINES PVT LTD	
19	ANKD001	DIPEN INDUSTRIES	
20	ANKD002	DEVANSHI DYE STUFF	
21	ANKE004	ENVIRO TECHNOLOGY LIMITED	
22	ANKE008	HEUBACH COLOUR PVT.LD- UNIT-11	
23	ANKE016	HEUBACH COLOUR PVT.LD- UNIT-111	
24	ANKF003	COROMANDEL FERTILISERS LTD (FICOM)	
25	ANKG006	GLENMARK GENERICS LTD.	
26	ANKG009	GUJARAT ORGANICS LTD	
27	ANKG011	GUJARAT INSECTICIDES LIMITED	
28	ANKH007	HEMANT INDUSTRIES LTD	
29	ANKH011	HEUBACH COLOUR PVT.LD unit-1	
30	ANKI004	ION EXCHANGE (INDIA) LIMITED	
31	ANKI009	INDUSTRIAL SOLVENTS PVT.LTD.	
32	ANKK002	K. PATEL CHEMO PHARMA PVT. LTD.	
33	ANKK003	K. A. MALLE PHARMACEUTICAL S.LTD.	
34	ANKK004	K. PATEL DYE CHEM INDUSTRIES PVT.LTD	
35	ANKK007	KANORIA CHEMICALS & INDUSTRIES LTD.	
36	ANKK018	KRIMA SIL PVT. LTD.	
37	ANKL006	LYKA LABS LIMITED	
38	ANKL007	LUPIN LIMITED	
39	ANKM056	MEGHANI ORGANICS LIMITED-(U-II)	
40	ANKN002	NARAYAN ORGANICS PVT. LTD.	
41	ANKN010	NARENDRA TEXTILES PVT. LTD.	
42	ANKP063	PAR DRUGS & CHEMICALS PVT.LTD	
43	ANKR004	RANDEV CHEMICAL INDUSTRIES -UNIT-1	
44	ANKR013	RPG LIFE SCIENCES LIMITED	
45	ANKR016	RANG SARJAN CHEMICALS	
46	ANKR052	RANDEV CHEMICAL INDUSTRIES -UNIT-II	
47	ANKR018	RALLIS INDIA LTD	
48	ANKS001	SHARDA INDUSTRIES	
49	ANKS003	SWATI DYING & PRINTING MILLS	
50	ANKS022	SUYOG DYE CHEMITE PVT. LTD.	
51	ANKS025	SHREE SULPHURICS PVT. LTD.	
52	ANKS037	SAJJAN INDIA LIMITED	
53	ANKS060	SUN PHARMACEUTICAL(GUJ)LVYIND.LTD	NOT DISCHARGED
54	ANKS078	SURAMOUNT LABORATORIES PVT. LTD.	
55	ANKS084	SHIV SILICA PVT. LTD.	
56	ANKS089	SUBHASRI PIGMENTS PVT.LTD.	
57	ANKS101	SHRI DINESH MILL S.LTD.	
58	ANKS159	SHREE GUAMANDY PROCESSIONS PVT. LTD.	
59	ANKLJ01	UNITED PHOSPHORUS LIMITED (UNIT-2)	
60	ANKU002	UNITED PHOSPHORUS LIMITED (UNIT-1)	
61	ANKV007	VASUDEV DYES & CHEMICALS	
62	ANKV019	SUNSHINE VALVAT(VYSHALI BLEACHING)	
63	ANKW002	WOCKHARDT LIMITED	
64	ANKZ001	ZCL CHEMICAL LTD.	
65	ANKO32	ICPA HEALTH PRODUCTS	

NARMADA CLEAN TECH LIMITED, ANKLESHWAR			
Flow Meter list of Final Discharge Qty. for the Month of JAN-2015			
Sr No.	Billing code	Name of the Company	Remarks
66	ANKI017	SHREE SYAM DYEING & PRINTING	
67	ANKA024	AKSHAR FABRICS PVT. LTD.	
68	ANKC022	CDSMOS TEXTILE PVT.LTD	
69	ANKB013	SHREE SATNATH PROCESSORS PVT.LTD (SACHANI TEXTILE PVT.LTD)	
70	ANKB223	SANOFI INDIA LIMITED	
71	ANKT001	IPCA LABDRATDRIES LTD	NOT DISCHARGED
72	ANKS142	SHREE KRISHNA SILK MILL	
73		PRAGNA DYE CHEM PVT LTD	
74		TULIP SILK MILLS PVT.LTD.	
75	ANKS048	SBS COLOURS & CHEMIQUES PVT. LTD.	
76	ANKD003	DANO PHARMA CHEMICALS	
77	ANKH003	HARISH CHEMICAL ENGG. ENTERPRISE	
78	ANKI008	Subhasha Pigment Unit-2(SHITA CHEMICALS)	
79	ANKJ001	JIGAR INDUSTRIES	
80	ANKJ005	JAY KHODIYAR CHEMICALS	
81	ANKJ008	J. S. CHEMICALS	
82	ANKJ016	JAYSHREE AROMATICS PVT. LTD.	
83	ANKK013	KAIWLYA CHEMICALS	
84	ANKK016	OCEAN CHEMICALS INDUSTRIES	
85	ANKK030	KOHINOOR COLOURS PVT. LTD.	
86	ANKK033	KOMAL PHARMACEUTICALS	
87	ANKK034	RONSON PIGMENTS PVT.LTD.	
88	ANKL00B	LAXMI CHEMICALS	
89	ANKM012	MANGAL MURTI CHEMICALS	
90	ANKN009	NAVADIA CLERIFY	
91	ANKN032	NAVADIA REFINES	
92	ANKP023	PIGMENT INDIA	
93	ANKP026	PURNIMA CHEMICAL INDUSTRIES PVT.LTD	
94	ANKR022	REGOJ CHEMICAL INDUSTRIES	
95	ANKS027	SKY & SKYLARK INDUSTRIAL PRODUCTS	
96	ANKS10B	SUPHARMA CHEM	
97	ANKS139	SAGAR CHEMICALS	
98	ANKS157	SARITA CHEMICALS	
99	ANKT003	TAO CHEMICALS	
100	ANKT005	TRIMURTI OYE CHEM INDUSTRIES	
101	ANKTD11	TEJAL INDUSTRIES	
102	ANKV017	VISHNU CHEMICALS	
103	ANKV035	VARAHI PHARMACHEM	
104	ANKY003	AVDHOOT CHEMICALS (YAMA DYE CHEM)	
105	ANKP015	PRAGNA CHEMICAL LTD	
106	ANKB010	BATCH TECH CHEMICAL	
107	ANKD016	D.J.FLURINE	NO PRODUCTION
108	ANKW001	WHITEX PVT.LTD	
109	ANKN005	NILKANTH REFINES	
110	ANKH010	HIND DYES AND DRUGES INTERMEDIATE PVT.LTD	NO PRODUCTION
111	ANKM003	MANGALAM CHEMICALS	NO DISCHARGE, PLANT STOP, DISCHRG LINE DISCONNECTED
112	ANKA106	ABHILASHA PHARMA PVT.LTD.	ZERO DISCHARGE
113	ANKN00B	NAVAIYA PLAST	METER NOT INSTALLED
114	ANKS079	STERFIL LABORATORIES PVT. LTD.	COMPANY CLOSED
115	ANKE002	ELAM PHARMA PVT. LTD.	COMPANY CLOSED
116	ANKM041	ALISHA PROCESSOR (MADHU PROC.)	COMPANY CLOSED
117	ANKM033	MARUTI COLOURS	COMPANY CLOSED
118	ANKP059	POONAM PROCESSORS PVT.LTD.	Company closed due to closer by GPCB
Jhagadia Estate			
119	JHAG003	GULSHAN POLYOLS LTD.	
120	JHAH008	J.M.HUBER INDIA PRIVATE LIMITED	
121	JHAS05B	SHRIRAM ALKALI & CHEMICALS(DIV.DCM)	
122	JHAU017	UNITED PHOSPHORUS LIMITED (UNIT-5)	
123	JHAV003	YARDHMAN ACRYLICS LTD.	NOT DISCHARGED
124	JHAL014	LANXESS INDIA PVT.LTD	
125	JHAP003	PEPSICO INDIA HOLDINGS LTD.	
126	JHAN039	NITREX LIMITED	

Annexure_A_List_of_Industry_having_Flow_Meter_MFM

NARMADA CLEAN TECH LIMITED, ANKLESHWAR			
Flow Meter list of Final Discharge Qty for the Month of JAN-2015			
Sr. No.	Billing code	Name of the Company	Remarks
127	JHAA12B	ABBOTT HEALTHCARE PVT.LTD	
128	JHAR073	REVA PROTEINS LTD	
Panoli Estate			
129	PANC011	CHEMINOVA INDIA LTD.(INTERMEDIATES)	
130	PANC012	CHEMINOVA INDIA LTD.(TECHNICAL DIV)	
131	PANG012	GHARDA CHEMICALS LIMITED	
132	PANH005	HIKAL LIMITED	
133	PANT014	ISAGRO(ASIA)AGROCHEMICALS PVT.LTD.	
134	PANM005	MEGHMANI ORGANICS LIMITED	
135	PANM009	MADURA COATS LTD.	
136	PANP007	PESTICIDES INDIA - A DIV.OF PII LTD.	
137	PANP011	PANOLI ENVIRO TECHNOLOGY LTD.	
138	PANS174	SOLVAY SPECIALITIES INDIA PVT LTD.	
139	PANU008	UNIQUE CHEMICALS	NO DISCHARGE
140	PANG015	GUJARAT AGRO CHEM LTD	
141	PANK012	KAMADHENU NUTRIETS PVT.LTD	
142		SONGWON SPECIALTY CHEMICALS-INDIA	
143	PANS011	SUN PHARMACEUTICALS INDUSTRIES LTD	ZERO DISCHARGE
144	PANS092	SHREE SWAMI HARI GIRI PAPER MILLS LTD.	GEB power cut
145	PANM061	MERCHEM LIMITED	COMPANY CLOSED

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

List of Directly Connected Members							
No	CompanyName	Address	Estate	Unit	Booked Effluent Qty. (KLD)	As per CCA Effluent Qty. (KLD)	
						Industrial	Domestic
1	A One Chemicals	A1/4701 & 02, GIDC Estate,	Ankleshwar	SSI	254.50	250.00	4.50
2	Abhilasha Pharma Pvt. Ltd.	1408/1409, GIDC Estate,	Ankleshwar	SSI	6.97	5.67	1.30
3	Aditya Life Sciences	5125, GIDC Ind. Estate,	Ankleshwar	SSI	10.75	0.00	0.00
4	Akruti Chemicals	5163, GIDC Estate,	Ankleshwar	SSI	25.60	0.00	0.00
5	Akshar Fabrics Pvt. Ltd	306, GIDC Estate,	Ankleshwar	SSI	36.00	35.00	1.00
6	Amal Limited	136/137 GIDC Estate,	Ankleshwar	MSI	55.00	40.00	15.00
7	Amsai Chem Pvt. Ltd	A-1/401/402/403, GIDC Estate,	Ankleshwar	MSI	93.00	85.00	8.00
8	Asian Paints Limited (Paints Division)	2602, GIDC Estate,	Ankleshwar	MSI	180.00	68.00	112.00
9	Asian Paints Ltd (Phthalic Division)	2702, GIDC Estate,	Ankleshwar	MSI	120.00	70.00	50.00
10	Astik Dyestuff Pvt. Ltd	707/B&CGIDC Estate,	Ankleshwar	SSI	65.00	45.00	20.00
11	Atul Limited (Aromatics Division)	297, GIDC Estate,	Ankleshwar	MSI	755.00	700.00	55.00
12	Avdhoot Chemicals	4801/A/14, GIDC Estate,	Ankleshwar	SSI	8.00	7.00	1.00
13	Bakul Pharma Pvt. Ltd	6202, GIDC Estate,	Ankleshwar	SSI	74.70	66.70	8.00
14	BASF India Ltd -ii	8001, 8001A, Phase VI, GIDC Estates,	Ankleshwar	MSI	250.00	230.00	20.00
15	BASF India Ltd -Unit I	6216, GIDC Estate,	Ankleshwar	MSI	313.00	185.00	35.00
16	Batch- Tech Chemicals	C/1 - 3428 GIDC Estate,	Ankleshwar	SSI	1.50	1.00	0.50
17	Cadila Healthcare Limited (Unit -2)	5/1/B, GIDC Estate,	Ankleshwar	MSI	181.50	170.00	11.50
18	Cadila Healthcare Limited (Unit -1)	291, GIDC Estate,	Ankleshwar	MSI	175.00	168.50	6.50
19	Cadila Pharmaceuticals Limited (Unit -1)	294, GIDC Estate,	Ankleshwar	MSI	185.00	165.00	20.00
20	Cadila Pharmaceuticals Limited (Unit -2)	3203, GIDC Estate,	Ankleshwar	MSI	493.00	80.00	15.00
21	Chiron Behring Vaccines Pvt. Ltd.	3501/A, 3502 & 03/A, GIDC Estate,	Ankleshwar	MSI	60.00	47.00	13.00
22	Coromandel International Ltd.	3204, GIDC Estate,	Ankleshwar	MSI	279.00	262.00	17.00
23	Cosmos Textiles Pvt. Ltd	312/1, GIDC Estate,	Ankleshwar	SSI	45.00	42.00	3.00

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

24	D. J. Flourine	C/1-6823,GIDC Estate,	Ankleshwar	SSI	12.19	4.99	5.25
25	Danopharma Chemicals Pvt. Ltd	C-1/7131,7132,7133,GIDC Estate,	Ankleshwar	SSI	29.65	7.20	0.60
26	Deccan Fine Chemicals (India) Pvt. Ltd	3501 to 3515, 6301 to 6313 & 16 Meter Road/B1 & 6008 to 6010, GIDC	Ankleshwar	MSI	450.00	255.00	75.00
27	Devanshi Dyestuff	141/2/F,GIDC Estate,	Ankleshwar	SSI	274.00	234.00	10.00
28	Dipen Industries	1702,1706/10, GIDC Estate,	Ankleshwar	SSI	25.00	18.00	7.00
29	Elam Pharma Pvt. Ltd	3709/4,GIDC Estate,	Ankleshwar	SSI	7.00	5.00	2.00
30	Elantas Beck India Limited	1 (A,B,C) & 122,GIDC Estate,	Ankleshwar	MSI	490.00	460.00	30.00
31	Enviro Technology Limited	2413/14, 2211,GIDC Estate,	Ankleshwar	CETP	7405.00	1800.00	1700.00
32	Glenmark Generics Ltd	3109/C,GIDC Estate,	Ankleshwar	MSI	470.00	140.00	60.00
33	Gold Star Chemicals Pvt. Ltd	5902,GIDC Estate,	Ankleshwar	SSI	6.00	0.00	1.50
34	Gujarat Insecticides Limited	805/806,GIDC Estate,	Ankleshwar	MSI	820.00	750.00	70.00
35	Gujarat Organics Ltd	127/1,GIDC Estate,	Ankleshwar	SSI	98.00	88.00	10.00
36	Harish Chemical Engg. Enterprises	C-1/B,3903,GIDC Estate,	Ankleshwar	SSI	9.00	7.50	1.50
37	Hemani Industries Ltd	3207A&B 3208/1&2,GIDC Estate,	Ankleshwar	MSI	205.00	80.00	10.00
38	Heubach Colours Pvt. Ltd. (Unit -I)	9003-9010,GIDC Estate,	Ankleshwar	MSI	2662.00	2537.00	125.00
39	Heubach Colours Pvt. Ltd. (Unit -II)	A1-406, 444 to 446, C1B-438,439GIDC Estate,	Ankleshwar	MSI	726.00	676.00	50.00
40	Heubach Colours Pvt. Ltd. (Unit -III)	6105/6107 & 6111,GIDC Estate,	Ankleshwar	MSI	686.00	638.00	50.00
41	Hind Dyes & Drugs Intermediates	C1B-4754,GIDC Estate,	Ankleshwar	SSI	4.00	3.00	1.00
42	ICPA Health Products Ltd	286-287,GIDC Estate,	Ankleshwar	MSI	10.00	0.20	5.50
43	Industrial Solvents & Chemicals Pvt. Ltd.	7906 to 7909,GIDC Estate,	Ankleshwar	MSI	395.00	72.00	20.00
44	ION Exchange (India) Limited	5811/12/13,GIDC Estate,	Ankleshwar	MSI	608.00	600.00	8.00

NAKMADA CLEAN TECH LIMITED

[a Subsidiary of GIDC]

45	IPCA Laboratories Ltd	4722, 4723 & 4731, GIDC Estate,	Ankleshwar	MSI	21.30	14.30	7.00
46	J. S. Chemicals	4801/A/8, GIDC Estate,	Ankleshwar	SSI	6.55	6.00	0.55
47	Jay Industries	601, GIDC Estate,	Ankleshwar	SSI	11.80	0.00	0.00
48	Jay Khodiyar Chemicals	C1B-2513/C, GIDC Estate,	Ankleshwar	SSI	2.40	2.00	0.40
49	Jayshree Aromatics Pvt. Ltd.	4703/04, 4705/1/2, 3, 4, GIDC,	Ankleshwar	MSI	41.60	3.00	1.00
50	Jigar Industries	3709/5 & 3710/2/AGIDC Estate,	Ankleshwar	SSI	36.00	6.00	1.00
51	K. A. Malle Pharmaceuticals Ltd	6005, GIDC Estate,	Ankleshwar	SSI	91.00	41.00	4.00
52	K. Patel Chemo Pharma Pvt. Ltd	152-155, GIDC Estate,	Ankleshwar	MSI	400.00	112.89	4.00
53	K. Patel Dye Chem Industries Pvt. Ltd.	156A/B, 157, GIDC Estate,	Ankleshwar	SSI	146.00	38.00	7.00
54	Kaiwlya Chemicals	4705/2/5, GIDC Estate,	Ankleshwar	SSI	3.30	1.80	1.50
55	Kanoria Chemicals & Industires Ltd	3407, GIDC Estate,	Ankleshwar	MSI	350.00	200.00	50.00
56	Karnavati Chemicals	6208, GIDC Estate,	Ankleshwar	SSI	97.10	0.00	0.00
57	Kenil Pharma Chem	Plot No. 707/AGIDC Estate,	Ankleshwar	SSI	39.00	0.00	0.00
58	Kohinoor Colours Pvt Ltd	7204/5, GIDC Estate,	Ankleshwar	SSI	5.30	4.50	0.80
59	Komal Pharmaceuticals	1802, GIDC Estate,	Ankleshwar	SSI	36.50	1.50	3.00
60	Krima Sil Pvt Ltd	3613, GIDC Estate,	Ankleshwar	SSI	24.50	23.00	1.50
61	Laxmi Chemicals	6006/1/B, Nr. K. A. Malle, GIDC Estate,	Ankleshwar	SSI	6.00	5.00	1.00
62	Lupin Limited	9, 123, 124, 125, GIDC Estate,	Ankleshwar	MSI	1124.00	431.00	64.00
63	Lyka Labs Limited	4801/B, 4802/A, GIDC Estate,	Ankleshwar	MSI	82.00	44.00	38.00
64	Mangal Murti Chemicals	J-1208, GIDC Estate,	Ankleshwar	SSI	5.00	4.00	1.00
65	Mangalam Chemicals	4705/1/5, GIDC Estate,	Ankleshwar	SSI	2.00	1.70	0.30
66	Maruti Colours	1805, GIDC Estate,	Ankleshwar	SSI	2.70	1.50	1.20
67	Meghmani Organics Ltd (Unit -II)	5001/B, 5027 to 5034, 5037, 4707/B, 4707/P, GIDC,	Ankleshwar	MSI	220.00	202.00	18.00
68	Narayan Organics Pvt. Ltd	1107/1&2, GIDC Estate,	Ankleshwar	SSI	175.40	38.50	1.30

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

69	Narendra Textiles Pvt Ltd	141/2E,GIDC Estate,	Ankleshwar	SSI	140.00	135.00	5.00
70	Navadia Clerify	5706/1,GIDC Estate,	Ankleshwar	SSI	8.10	1.10	0.20
71	Navadia Plast	5706/2,GIDC Estate,	Ankleshwar	SSI	1.02	1.00	0.02
72	Navadia Refines	1308,GIDC Estate,	Ankleshwar	SSI	7.45	7.00	0.45
73	Neel Pigments Pvt. Ltd. (Unit-2)	3808,GIDC Estate,	Ankleshwar	SSI	45.00	0.00	0.00
74	Nilkanth Refines	C-1-5508,Nr. Vijay Transport, GIDC Estate,	Ankleshwar	SSI	0.40	0.20	0.20
75	Ocean Chemical Industries	6810,GIDC Estate,	Ankleshwar	SSI	5.00	4.00	1.00
76	Par Drugs & Chemicals Pvt Ltd	5901/1,GIDC Estate,	Ankleshwar	SSI	71.50	70.00	1.50
77	PGC Drugs Pvt. Ltd,	159,GIDC Estate,	Ankleshwar	SSI	28.00	0.00	0.00
78	Pigment India	C-1/7013,GIDC Estate,	Ankleshwar	SSI	3.00	2.50	0.50
79	Poonam Processors Pvt. Ltd.	A/1-164,GIDC Estate,	Ankleshwar	SSI	47.00	47.00	0.00
80	Pragna Chemicals Industries	2303/A,GIDC Estate,	Ankleshwar	SSI	15.00	2.70	0.30
81	Purnima Chemical Industries Pvt Ltd	5905/3,GIDC Estate,	Ankleshwar	SSI	38.50	35.00	3.50
82	Rallis India Ltd, Agrochem Division	3301,GIDC Estate,	Ankleshwar	MSI	100.00	120.00	25.00
83	Ramdev Chemical Industries	3441/B,GIDC Estate,	Ankleshwar	SSI	46.00	17.50	0.50
84	Ramdev Chemical Industries (Unit -II)	3440 & 3443, 3441/A & J-3439GIDC Estate,	Ankleshwar	SSI	183.00	41.00	1.00
85	Rang Sarjan Chemicals	C1B/408,GIDC Estate,	Ankleshwar	SSI	36.15	32.65	3.50
86	Ree Atharva Life Science Pvt. Ltd	5178,GIDC Estate,	Ankleshwar	SSI	18.00	0.00	0.00
87	Regoj Chemical Industries	6702,GIDC Estate,	Ankleshwar	SSI	47.00	4.00	1.00
88	Ronson Pigments Pvt. Ltd.	6006/1/D,GIDC Estate,	Ankleshwar	SSI	2.50	2.05	0.45
89	RPG Life Sciences Limited	3102/A,GIDC Estate,	Ankleshwar	MSI	50.00	50.00	50.00
90	Ruby Pharma Chem	7904/B & C,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
91	Rukul Industries	1705,GIDC Estates,	Ankleshwar	SSI	10.00	0.00	0.00
92	S. D. Intermediates	7910 & 7911,GIDC Estate,	Ankleshwar	SSI	50.00	0.00	0.00
93	Sagar Chemicals	7415,GIDC Estate,	Ankleshwar	SSI	4.00	3.50	0.50

NAPMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

94	Saijan India Limited	6102-03, 6117, 19, GIDC Estate,	Ankleshwar	MSI	226.00	15.50	41.00
95	Sanofi India Ltd (Formerly Aventis)	3501,3503-15,6310B-14, GIDC,	Ankleshwar	MSI	560.00	138.00	62.00
96	Sarita Chemicals	4780, GIDC Estate,	Ankleshwar	SSI	4.80	4.10	0.70
97	Satyam Industries	A2-4906/6, GIDC Estate	Ankleshwar	SSI	45.95	0.00	0.00
98	SBS Colours & Chemiques Pvt Ltd	1904, GIDC Estate,	Ankleshwar	SSI	235.00	225.00	10.00
99	Semienate Exports	11003/3, GIDC Estate,	Ankleshwar	SSI	12.00	0.00	0.00
100	Sharda Industries	6909, GIDC Estate,	Ankleshwar	SSI	17.00	12.00	5.00
101	Shiv Silica Pvt. Ltd.	6212, GIDC Estate,	Ankleshwar	SSI	47.50	17.00	1.00
102	Shree Ganesh Dyes -Unit II	9107/3 GIDC Estate	Ankleshwar	SSI	22.00	0.00	0.00
103	Shree Gumandev Processors Pvt Ltd	706, Opp. Ultra Rubber, GIDC Estate,	Ankleshwar	SSI	36.00	35.00	1.00
104	Shree Jogi Colour Industries	6725, GIDC Estate,	Ankleshwar	SSI	6.70	0.00	0.00
105	Shree Krishna Silk Mills	A-1/448, GIDC Estate,	Ankleshwar	SSI	38.00	35.00	3.00
106	Shree Sainath Processors Pvt Ltd	3206/B, GIDC Estate,	Ankleshwar	SSI	65.00	55.00	10.00
107	Shree Shyam Dyeing & Printing Mills	A-1, 419-420, GIDC Estate,	Ankleshwar	SSI	437.00	430.00	7.00
108	Shree Sulphurics Pvt Ltd	2801/A, GIDC Estate,	Ankleshwar	MSI	55.00	48.00	7.00
109	Shreeji Pigment	5906/3A, GIDC Estate	Ankleshwar	SSI	22.00	20.00	2.00
110	Shri Dinesh Mills Ltd	P.B.NO. 14, AT: BHADKODRA	Ankleshwar	MSI	325.00	268.00	57.00
111	Shyam Life Science	2206, GIDC Estate,	Ankleshwar	SSI	0.85	0.00	0.00
112	Sky & Skylark Indu Products	C-1/B-2513/B, 2512G IDC Estate,	Ankleshwar	SSI	9.30	4.00	0.45
113	Subhasri Pigments Pvt. Ltd (Unit -II)	J/1209 & J 1209 AGIDC Estate,	Ankleshwar	SSI	32.10	31.80	0.30
114	Subhasri Pigments Pvt. Ltd.	1201, 1202, 1211, 1213, GIDC Estate,	Ankleshwar	SSI	326.88	148.00	46.00
115	Sun Pharmaceuticals Industries Ltd	4708, GIDC Estate,	Ankleshwar	MSI	170.00	140.00	30.00
116	Sunshine Velvet Pvt. Ltd	127/2-B, GIDC Estate,	Ankleshwar	SSI	60.00	51.00	9.00
117	Supharma Chem	4705/2/3 & 4, GIDC Estate,	Ankleshwar	SSI	6.42	2.40	0.95

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

118	Surmount Laboratories Pvt Ltd	A-2/4003,GIDC Estate,	Ankleshwar	SSI	2.70	0.60	2.10
119	Surya Life Sciences Ltd	3606, 3616GIDC Estate	Ankleshwar	SSI	81.90	0.00	0.00
120	Suyog Dye Chemie Pvt Ltd (Unit - II)	A1-2403/2, 2404/05,GIDC Estate,	Ankleshwar	SSI	94.15	72.00	5.00
121	SVG Fashions Limited	2,GIDC Estate,	Ankleshwar	MSI	120.00	100.00	20.00
122	Swati Dyeing & Printing Mills	A-1/421, 422,GIDC Estate,	Ankleshwar	SSI	33.00	30.00	3.00
123	Tagros Chemicals India Ltd.	133 & 134,GIDC Estate,	Ankleshwar	MSI	175.00	0.00	0.00
124	TAO Chemicals	6222,GIDC Estate,	Ankleshwar	SSI	3.00	2.00	1.00
125	Tejal Industries	730,GIDC Estate,	Ankleshwar	SSI	2.70	1.50	1.20
126	Trimurti Dye Chem Industries	9103/1,GIDC Estate,	Ankleshwar	SSI	5.00	4.00	1.00
127	United Phosphorus Limited (Unit -1)	117/118,GIDC Estate,	Ankleshwar	MSI	423.20	373.10	50.10
128	United Phosphorus Limited (Unit -2)	3405/3406,GIDC Estate,	Ankleshwar	MSI	561.00	218.00	28.00
129	Varahi Pharmachem	9108/2,GIDC Estate,	Ankleshwar	SSI	9.20	8.20	1.00
130	Vasudev Dyes & Chemicals	6006/1/A,GIDC Estate,	Ankleshwar	SSI	37.50	5.00	1.50
131	Vishal Organics	7903/A,B,C, & 7902/AGIDC Estate,	Ankleshwar	SSI	45.95	0.00	0.00
132	Vishnu Chemicals	C/1-3429,GIDC Estate,	Ankleshwar	SSI	9.70	0.45	0.30
133	Whitex Chemicals	6808,GIDC Estate,	Ankleshwar	SSI	4.00	3.50	0.50
134	Wockhardt Limited	138,GIDC Estate,	Ankleshwar	MSI	487.40	240.00	58.00
135	ZCL Chemicals Ltd	3102/B,GIDC Estate,	Ankleshwar	MSI	55.00	45.00	10.00
136	Abbott Healthcare Pvt. Ltd	901/BGIDC Estate,	Jhagadia	MSI	900.00	748.00	40.00
137	Gulshan Polyols Ltd	762,GIDC Estate,	Jhagadia	MSI	429.00	380.00	17.50
138	J. M. Huber India Private Limited	754,GIDC Estate,	Jhagadia	MSI	850.00	812.00	100.00
139	Lanxess India Private Ltd.	748/2/A, 748/4/B, 748/3,GIDC Estate,	Jhagadia	MSI	2982.00	2500.00	56.60
140	Nitrex Chemicals India Ltd.	772,GIDC Estate,	Jhagadia	MSI	4370.00	4361.00	9.00
141	Pepsico India Holdings Ltd	27,GIDC Estate,	Jhagadia	MSI	396.00	376.00	20.00

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

142	Remi Metals Gujarat Limited	1, GIDC Estate,	Jhagadia	MSI	70.00	50.00	20.00
143	Reva Proteins Ltd	832, GIDC Estate,	Jhagadia	MSI	1010.00	1000.00	10.00
144	Ricinash Oil Mill Ltd	761/BGIDC Estate,	Jhagadia	SSI	17.50	0.00	0.00
145	Shriram Aikali & Chemicals	749, GIDC Estate,	Jhagadia	MSI	460.00	460.00	10.00
146	Thermax Limited - Unit II	903/2GIDC Estate,	Jhagadia	MSI	1070.00	0.00	0.00
147	United Phosphorus Limited (Unit -5)	750, GIDC Estate,	Jhagadia	MSI	4575.00	670.00	98.00
148	Vardhman Acrylics Ltd.	755, GIDC Estate,	Jhagadia	MSI	1346.00	1325.00	21.00
149	Aikem Laboratories Ltd.	2925to2929, 3031to3042, 3127 to 3132, GIDC ind. Estate,	Panoli	MSI	86.00	0.00	0.00
150	Arcoy Biorefinery Pvt. Ltd.	29, GIDC Estate,	Panoli	MSI	100.00	0.00	0.00
151	Bhavani Enterprise	C-1/B-211/4, GIDC Estate,	Panoli	SSI	12.00	0.00	0.00
152	Cheminova India Ltd. - Technical Div.	241, 242/2 & 241/PGIDC Estate,	Panoli	MSI	166.50	52.71	33.20
153	Cheminova India Ltd.- Inter Div	27+28/A, GIDC Estate,	Panoli	MSI	220.00	181.00	25.00
154	Gharda Chemicals Limited	3525, 3512-AGIDC Estate,	Panoli	MSI	400.00	286.00	4.00
155	Gujarat Agrochem Limited	2901 to 2906, GIDC Estate,	Panoli	MSI	150.00	136.00	14.00
156	Hikal Limited	629/630, GIDC Estate,	Panoli	MSI	447.00	389.00	58.00
157	Isagro (Asia) Agrochemicals Pvt Ltd	640, GIDC Estate,	Panoli	MSI	193.00	119.70	60.00
158	Kamadhenu Nutrients Pvt. Ltd.	22/3, Phase-IV, GIDC Estate,	Panoli	MSI	0.00	316.00	5.00
159	Madura Coats Pvt. Ltd.	221/222, GIDC Estate,	Panoli	MSI	451.00	401.00	50.00
160	Meghmani Organics Ltd	21, 21/1, Phase-IV, GIDC Estate,	Panoli	MSI	500.00	217.00	10.00
161	Merchem Limited	24 + 24/1, GIDC Estates,	Panoli	MSI	235.00	205.00	30.00
162	Nutan Dye Chem	C-1/B-211/5 & C-1/B-316/3, GIDC Estate,	Panoli	SSI	12.00	0.00	0.00
163	Panoli Enviro Technology Ltd	619-619/1, GIDC Estate,	Panoli	CETP	2040.00	1000.00	20.00
164	PI Industries Ltd	237, GIDC Estate,	Panoli	MSI	359.42	109.90	33.68

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165	PI Industries Ltd.	3133 to 3139, 3231 to 3245, 3330 to 3351 & 3517 to 3524 GIDC Estate,	Panoli	MSI	525.00	0.00	0.00
166	Solvay Specialities India Pvt. Ltd.	3526/27, GIDC Estate,	Panoli	MSI	638.00	313.00	87.00
167	Sun Pharmaceuticals Industries Ltd	25, Phase - IV, GIDC Estate,	Panoli	MSI	405.00	75.00	20.00
168	Unique Chemicals	5, Phase - IV, GIDC Estate,	Panoli	MSI	200.88	100.00	30.00
					53472.63	32219.11	4318.90

Sub – Over ground and pressurized effluent carrying network – A project for Ankleshwar Estate

Philosophically it is accepted that one of the significant reasons for having deviations among the actual quality / quantity received at FETP, NCTL and what is measured (quantity) and monitored (quality) at different ends of member industries, who are the contributors of effluent to FETP, is unauthorized discharge by any mode. Apart from indiscipline from member industries' side, underground and gravity network is responsible for unauthorized discharge and therefore it is decided to replace the same by over ground and pressurized effluent carrying network so that transparently and fairly the streams could be monitored and controlled.

The present underground and gravity effluent carrying network is being replaced by over ground and pressurized effluent carrying network.

Estates are segmented conveniently and 6 – 6 industries are grouped into a segment and an overhead tank per segment is provided from where effluent would flow by pressure (due to head of tank) up to common collection facility.

It is conceptualized to have a central monitoring and control for a segment at overhead tank station. In other words, six (or any multiple of six) industries would be merged their effluent lines at an overhead tank and a controlling device having facility to monitor and record the parameters – pH, TOC, TN & flow continuously would be installed. A small control room would be devised below overhead tank where there would be online and continuous watch on these parameters and whosoever found violating with respect to any of the parameters would not be allowed to discharge their effluent into the overhead tank. A control valve for auto stop would be an integral part of the device.

A facility would be developed with provision of a close loop having monitoring and controlling device with control valve and other relevant instrumentations like communication network, related auxiliaries and recorders.

This would ensure the pollution control at source and would prohibit FETP to pollute beyond the stipulated parameters.

Salient Features:

1. 60% subsidy has been sanctioned.
2. GIDC & NCTL will jointly undertake the project.
3. GIDC & NCTL has initiated e-tendering. Contract finalization is expected by end of October, 2013.
4. Approximate time period for implementation of project is 6 months from date of order to the contractor.

The present status of Over ground and pressurized effluent carrying network project for Ankleshwar & Jhagadia Industrial Estates:

1. Conceptual Phase : Completed
2. Design Phase: The services of M/s. L&T Integrated Services, Vadodara has been retained and estate survey along with basic engineering has been completed.

Services of M/s. Mars Planning & Engineering Services, Ahmedabad has been retained for detailed engineering and cost estimation and job is completed.

3. Implementation Phase: Cost estimation for Ankleshwar Estate is approx. Rs.9 Cr and for Jhagadia is approx. Rs.13 Cr.

Sub: Over ground and pressurized pipeline

Supply:

All the HDPE pipes for Ankleshwar and Jhagadia have received at site.

Erection

Jhagadia:

Contractor has been finalized and will start the work from 16.01.2015 and will be completed before 31.05.2015.

Ankleshwar:

1. So far as three industries (UPL-1, Binakia and Atlanta) located in west side of the Highway is concerned, align / planning has been finalized and pipeline already procured would be executed by NAA. This execution will be completed by 31.03.2015 as accessibility to cross N.H. -8 is available.
2. A Committee was formed comprising of representatives from GIDC / NAA, NCTL and AIA to perform the following task
 - a. Necessary steps to make predetermined objective successful i.e. monitored quality and measured quantity at industries' end should match with what is received by NCTL at FETP inlet. This is to match receipt quantity with billed quantity and also to eliminate flow of unauthorized discharge at FETP.
 - b. As over ground network is to be terminated in the main chambers of IIUS and CIP lines. It is significant to ensure that there does not exist any unauthorized connection in both the lines.
3. President - AIA raised the issue about the safety of the system. So it is decided to carry out HAZOP study. An enquiries have been floated to 10 eminent agencies. Last date of submission of offers is 15.01.2015.
4. A request has already been made to D.M. / S.E. (C.G.) - GIDC for having formal permission for implementation of the project. Request is under consideration. Formal approval is awaited.
5. Contractor has finalized for Ankleshwar also but carry out the work after HAZOP study.

भारतीय गैर न्यायिक

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सत्यमेव जयते

Rs. 100

ONE HUNDRED RUPEES

भारत INDIA INDIA NON JUDICIAL

गुजरात गुजरात GUJARAT

NOTARY

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स्टम्प नं. ८९४९ तारीख ९-८-११
 वृ. १००१ - अंडे रुपिया अंशिकरी
 स्ट. वेनारनु नाम एच.के. जलर - युगा-२
 स्ट. वेनारनु सरनामुं वझे - १/४०६
 गुणारदीवा - अंसलपर
 स्ट. वेवा आवनारनु नाम अंशिकरी म. पंके
 स्ट. वेवा आवनारनु सरनामुं गुणारदीवा
 अंसलपर
 स्ट. वेवा आवनारनी सही अंसलपर

असल. पी. पटेल
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 स्टम्प वेन्डर ला.नं. ४/९९
 डी-१/२२, सरदार पटेल क्रोमपटेल,
 अ.आ.डी.सी., अंडलेवार, अ. अ.



UNDERTAKING

I, Gp. Capt. A.G. Chitre (Retd.), Director of M/s. Heubach Colour Pvt. Ltd. (Unit-II), Plot No. A/1 406, GIDC Estate, Ankleshwar hereby undertake that:

1. I solemnly declare that there is no unauthorized disposal of any kind of trade effluent or wastes from our industry.
2. There are no old unused connections or connections made by previous unit in what so ever manner for unauthorized disposal of trade effluent.
3. We use only consented outlet for discharge of our treated trade effluent and sewage.
4. I have thoroughly checked the entire premises of my industry and personally verified all facts mentioned herein above.

I have submitted this undertaking without any prejudice and with full consciousness and understanding.

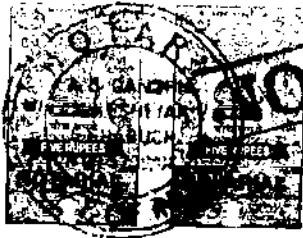
Date: 02nd August 2011

Sign:

A.G. Chitre

Name: Gp. Capt. A.G. Chitre (Retd.)

Designation: Director



NOTARY



BEFORE ME
EXECUTED ACCEPTED
& SIGNED BEFORE ME,
Ashish B. Gandhi
ASHISH B. GANDHI
NOTARY
NTR/5799/08
ANKLESHWAR & BHARUCH

ASHISH B. GANDHI
NOTARY
NTR/5799/08
GOVT. OF INDIA
02 AUG 2011
Ankleshwar & Bharuch
Reg. No. 1308/11

NARMADA CLEAN TECH LIMITED

(a Subsidiary of GIDC)

List of Zero Discharge Members							
No	CompanyName	Address	Estate	Unit	Booked Effluent Qty.	As per CCA Effluent Qty. (KLD)	
						Industrial	Domestic
1	A. S. Chemicals	9108/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
2	Acme Petrochem Pvt. Ltd.	3812,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
3	Acquire Chemicals	7901/D,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
4	Acqurate Engineering Industries	147/148,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
5	Advance Dye-Stuff Industries	9104/A,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
6	Advance Paints Ltd.	3202/AGIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
7	Aegis Intermediates	7905/D,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
8	Aerochem Industries	4773,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
9	Agro Chem Industries	J-1715,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	3.00
10	Agro Pack (Unit - II)	B-155,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
11	Agro Pack (Unit - IV)	5008,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
12	Akanksha Paper Mills Pvt. Ltd.	6108/6109GIDC Ind. Estate,	Ankleshwar	MSI	0.00	0.00	18.00
13	Akshay Chemicals	5905/2,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	4.00
14	Aikem Laboratories Ltd	8, Navagam, P. D. Mandva	Ankleshwar	SSI	0.00	0.00	0.00
15	Ambe Enterprise	C1B-423,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
16	Ambica Chemical Industries	7414,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
17	Ambica Metallic Chemicals	6408,GIDC Ind. Estate,	Ankleshwar	SSI	0.00	0.00	2.00
18	Amit & Associates	313/1&2GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
19	Anju Life Science	6007/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
20	Ankleshwar Ammonia Supply Co.	6508,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
21	Ankleshwar Metal Ind. Pvt. Ltd	1010,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	5.00
22	Ankleshwar Rubber Works	C-1B-1023/2GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
23	Apex Pharma Chem	7904-F,GIDC,	Ankleshwar	SSI	0.00	0.00	0.00

24	Arihant Chemical Industries	5144,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
25	Arty Constrachem Industries	C1B, 3417GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
26	Ashok Organic Industries Ltd	318-319GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
27	Asian Barrels	10/11,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
28	Atharva Enterprise	J-5231,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
29	Atit Pharma	4705/2/6,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
30	Aum Pharmachem	C-1, 6228GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
31	Auromaa Industries	A-1, 2403/1GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
32	Awishkar Chemical Works	6101/3-AGIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
33	B. M. Pharma	4507,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.20
34	Balmukund Chemicals	C-1/4765,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
35	Basic Pharma Life Science Pvt Ltd	146/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
36	Bectochem Organics	3815/A-1GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
37	BGP Healthcare Pvt. Ltd.	3707,GIDC Estate,	Ankleshwar	SSI	0.60	0.60	0.40
38	BGP Innovatives	3604,Opp. Advance Paints, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
39	Bhagvati Chem Tech	6807,GIDC Estates,	Ankleshwar	SSI	5.90	0.00	0.00
40	Bhakti Products	J-1714,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	3.00
41	Bharat Chemical Industries	7905/B&CGIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
42	Bharat Drum Supplying Co.	7303,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
43	Bharat Glass Tube Ltd	9208/13,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	22.50
44	Bharat Kems Corporation	313-315GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
45	Bharat Pharma Laboratories	C-1/433,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	2.50
46	Bhumi Electrochem	4906/1,Nr. Karmatur Cross, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

47	Bhumi Techno Pack	4906/A, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
48	Blitzkrieg Organics & Biochemicals Ind.	5067, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
49	Bodal Chemicals Pvt. Ltd - Unit - III	6006/2B GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
50	Bonny Chemicals	J/7016 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
51	Capricorn Coatings & Colours	7313/2, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
52	Central Chemical Industries	2807/1, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
53	Chemet Chemical Ltd.	6230-31, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	15.00
54	Chemet Wets & Flows Ltd	129/C-2, Nr. J.B. Chemicals Ltd, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	5.00
55	Chempack Industries	7410/11/12, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
56	Chevron Pharma Pvt Ltd	6505, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
57	Colochem India	C-1/4766, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
58	Colours India	C-1/7012, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
59	Creative Enterprises	612, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.25
60	Crop Life Science Ltd.	5165, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
61	D. K. Enterprises	4732, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
62	D. N. Chemicals	J/1207, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
63	D.V.S Industries	6012/2, Panam a Chokdi,	Ankleshwar	SSI	0.00	0.00	1.00
64	Dayaram Healthcare	A-1/ 4906-17, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
65	Deep Pharm Chem Pvt. Ltd	1102/1-A, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.90
66	Deepmoulesh Industries	A-1/4106 GIDC,	Ankleshwar	SSI	0.00	0.00	0.00
67	Delite Paints	4516, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
68	Deschem Industries	502/12, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
69	Devam Alum Industries	4711, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	4.40
70	Dhanlaxmi Chemicals - Unit II	4801/A/9 GIDC	Ankleshwar	SSI	40.00	0.00	0.00

71	Dhara Stationary Pvt Ltd	4910,Nr. Lyka Chowkdi, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
72	Dynemic Products Limited - Unit - II	3709/6,GIDC Estate,	Ankleshwar	SSI	100.00	0.00	0.00
73	Dystar India Private Limited	3002/A,GIDC Estates,	Ankleshwar	MSI	20.80	0.00	0.00
74	E. S. Patanwala Pvt. Ltd	4906/14(A-1),GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
75	Efkam Organics	4801/A/10&11 ,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
76	EON Aromatics	C-1B/2514,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
77	Ewac Alloys Limited	7917,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	5.00
78	Ferguson Chemicals	6217/2 & 3,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
79	Ferric Alum Industries	C-1/B-2519,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
80	Finor Pipaj Chemicals Pvt. Ltd	714,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
81	Fivebros Forgings Pvt. Ltd	145-A,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
82	Florence Industries	10006/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
83	Ganga Rasayanie (P) Ltd	141/2C,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
84	Gayatri Chemsynth Pvt. Ltd.	A-1/1404,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
85	Gayatri Enterprises	6413,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
86	Geeta Chemicals	4906/B/C/D,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
87	Ghanshyam Chemicals	7401,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
88	Gold Star Chemicals Pvt. Ltd	5902,GIDC Estate,	Ankleshwar	SSI	6.00	0.00	1.50
89	Gopal Chemicals	4521,GIDC Estate,	Ankleshwar	SSI	1.90	0.00	0.00
90	Grace Paper Industries Private Ltd	4,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
91	Gravure Packaging Products	5717,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
92	Gujarat Barrei	113-115,N. H. No. 8, Bhadkodara	Ankleshwar	SSI	0.00	0.00	0.00
93	Gujarat Ferro Oxides	A-2/2409,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
94	Gujarat Glycols Pvt. Ltd.	7503,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

95	Gujarat Reactive Chemicals Pvt. Ltd	6001, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
96	Hariom Industries	7519, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.80
97	Harsh Chemicals	4520, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
98	Harsh Pharma Lab	6610, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
99	Hemal Impex	C1B-7812, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
100	Hetal Industries	9104/2, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
101	Hindustan Bakelite Company	J-3436, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
102	Holyland Corporation	3302/D, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
103	Inco Colours India Pvt. Ltd	6114, 6115/2, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	4.00
104	Innovative Life Science OLD Juniper	9107/2, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
105	IVINN	C-1-B/2512/B, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
106	J. D. Corporation	5222, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.20
107	J. P. Industries	4309, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
108	J. S. Industries	1517, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
109	J.B. Chemicals & Pharmaceuticals Ltd	128/1, GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00
110	Jagdish Chemicals	4718, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
111	Jaiaram Box Makers Pvt. Ltd	84/2, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
112	Jay Agro Industries	5805, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
113	Jay Ganesh Chemicals	5733, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
114	Jay Process	5732, Nr. Tower Tank, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
115	JRD Chem Industries	C1/B - 3413 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
116	K. I. Chemicals	10009/5 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
117	Kadillac Chemicals Corporation	3612, Nr. Telephone Exchange, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
118	Kanchan- Taru Chemicals	703/3, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.20
119	Kanoria Dyechem Ltd (V.S.Division)	5806/1, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

120	Kaplast Chemicals	C1B/3910,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
121	Kenoor Organics Pvt. Ltd.	5006,GIDC Estate,	Ankleshwar	SSI	3.70	0.00	0.00
122	Kevee Chemicals	6718,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
123	Khodiyar Chemicals	C-49,D.G. Nagar, Gadkhol Patia,	Ankleshwar	SSI	0.00	0.00	0.00
124	Kinjai Chemicals Pvt. Ltd	5038,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
125	Kohinoor Colours Pvt. Ltd. (Unit-2)	5107,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
128	Kosan Industries Limited	302/309,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
127	KPL International Limited	5803,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
128	Krishi Crop Pvt. Ltd	7/1,2 & 3,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
129	Krishna Industries	5722,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
130	Laboris Chemicals	C1B/6834,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
131	Laurel Research Lab	C1B/3418GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
132	Laxmi Chemical Industries	2808/A-4GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
133	M-Chem Corporation	6409,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.90
134	M. J. Fine Chem	B-302GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
135	Madhu Chem industries	C-1/B-4737GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
136	MAG-Ferro Products	6804,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
137	Magnum Organics Pvt. Ltd.	C-1/413,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
138	Mahesh Industries	C-1/4767,GIDC Iqd. Estate,	Ankleshwar	SSI	0.99	0.00	0.00
139	Maheshwari Intermediates Pvt. Ltd	3611/4,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
140	Maitry Mano Industries	J-7823, 7828/4 & 5GIDC Estates,	Ankleshwar	SSI	20.90	0.00	0.00
141	Mamta Chemicals	6704,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
142	Markand Enterprises	C-1B,5507,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.80
143	Maruti Industries	4108/A,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

144	Maryada Chemicals	703/1GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
145	Matru Chemicals	6906,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
146	Mayur Associate	4705/2/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
147	Meclin Chemicals	3302/C,GIDC Estates,	Ankleshwar	SSI	17.40	0.00	0.00
148	Meridian Chem Bond Ltd	3206/A-1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
149	Meridian Chem-Bond Ltd.	5906/4,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
150	Minol Acids & Chemicals Pvt. Ltd	5904/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
151	Miranda Tools	903,904,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	8.00
152	Modheshwari Chemicals	A-1, 1511GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
153	Modheshwari Chloride	J-7017,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
154	Monal Colour Chem Pvt Ltd	4805,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
155	Movie Coats	5003/3,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
156	Mukti Chemical Industries	718/19,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
157	Namplias Chemicals Pvt Ltd	129/2-B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
158	Nandosol Industries	4806/4807,GIDC Estate,	Ankleshwar	SSI	1.00	0.00	0.00
159	Narayan Industries	6110/1/C,Nr. Mahajan Textiles, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
160	Narmada Recoveries	C-1-B-3408,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
161	Narmada Valley Rubbers Pvt Ltd	C1B,1040&L-1040/9,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
162	Narusa Industries	6724,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.80
163	Navadia Fine Chem	1309,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
164	Navadia industries	4527,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
165	Navdeep Chemicals Pvt Ltd (Unit - I)	C-1/409-11,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00
166	Navdeep Chemicals Pvt Ltd (Unit - II)	427 to 430,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00
167	Navdeep Chemicals Pvt Ltd (Unit - III)	1105,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00

168	Navjivan Chemicals - Unit II	C1B/3411GIDC Estate.	Ankleshwar	SSI	0.00	0.00	0.00
169	Neekamal Tyre Retreads	157/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
170	Neem Chemicals Private Limited	277/278,GIDC Estate.	Ankleshwar	SSI	0.00	0.00	0.00
171	Neky Dyes Pvt Ltd	C1/B/7006,GIDC Estate.	Ankleshwar	SSI	0.00	0.00	0.00
172	New Chem Industries	4721,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
173	Nigam Industries	5059 & 5060GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
174	Nigam Pharmachem Industires	5061,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
175	Nilkanth Organics Pvt. Ltd (Unit - II)	A-1,3806,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
176	Niranjan Petro Chem	C1B-5230,GIDC Estate	Ankleshwar	SSI	4.00	0.00	0.00
177	Nucleophil Chemicals	6708,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.50
178	OM Shiv Industries	6606,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.90
179	P. M. Agro Pack	6219/7,GIDC Ind. Estate,	Ankleshwar	SSI	0.00	0.00	0.00
180	Parimal Industries	9109/3,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.65
181	Parth Chemicals Industries	4606,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.10
162	Parth Industries	C-1-B,7836,Nr. Dhiraj Can, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.70
183	Patel Oils & Chemicals Pvt Ltd	6012,GIDC Estate,	Ankleshwar	SSI	0.33	0.00	0.00
184	Perfact Chemicals	4801/A/15,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.45
185	Pioneer Chemicals	6832,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.90
186	Pitru Chemethics	5150,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
187	Pole Star Industries	616,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
188	Poseidon Paper Converter	A-1/4105,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.50
189	Pragna Dyechem Pvt Ltd	1210,GIDC Estate,	Ankleshwar	SSI	49.50	0.00	0.00
190	Pranav Insulations	281,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
191	Pravin Chemicals	C/4769GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.60
192	Precious Paper Products	140/2/A/2,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	4.00

193	Preeten Healthcare Pvt Ltd	C-1/7103,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.80
194	Premier Chemical Industries	C-1/B-2013,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.20
195	Prime Corporation	C-1B/2014,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
196	Progressive Paint D Chem	C-1/3915,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
197	QV Labs Pvt. Ltd.	4616,GIDC Estate,	Ankleshwar	SSI	3.40	0.00	0.00
198	Radheshwar Rasayan	4004,GIDC Estate,	Ankleshwar	SSI	5.00	0.00	0.00
199	Raghav Industries Ltd	2802/2803,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	10.00
200	Raghuvir Chemicals	6217/4 & 5,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
201	Raina Industries	A2/6104/10,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
202	Rajesh Pharmaueticals	C-1/3912,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.80
203	Rajshree Industries	7515,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
204	Railis India Ltd	2808,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	7.00
205	Ramanand Traders (Unit-II)	10007/A,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
206	Rang Krupa Enterprises	3454,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
207	Rapicut Carbides Limited	119,GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00
208	Rashdeep Chemicals	3451/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
209	Ravichem Industries	726-27,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.50
210	Raviraj Chemicals	C-1B/7120, 7121, 7119GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
211	RED - O- Chem	2213/A-2,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
212	Regency Paints	204,Navrachna Appt., GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
213	Relief Pharma Chem	Shed No. A-2/2502Opp. Asian Paint	Ankleshwar	SSI	0.00	0.00	0.00
214	Reunion Rubber Works Pvt Ltd	A-21/5702,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

215	Riddhi Chemicals	5057 & 5058, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
216	Roxy Chemicals	A2-3447 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
217	S. B. Industries	5217, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
218	S. R. Chemicals	7516, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
219	S. V. Chemicals	J/3438, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
220	Saheb Healthcare	A-1/7304, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
221	Sai Chemicals	4753, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.60
222	Sara Chemicals	3205/B, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
223	Sarjak Pharma Chem	5137, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
224	SBS Colores & Chemiques Pvt. Ltd.-3	1905, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
225	Shah Metal Industries	C-1/3914, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.05
226	Shakti Dye Chem	3703, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
227	Shakti Insulated Wires Pvt Ltd.	624/2-A, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
228	Sharad Speciality Chemicals	4307, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
229	Shayona Intermediates Pvt. Ltd	7406, GIDC Estate	Ankleshwar	SSI	0.00	0.00	0.00
230	Shilpa Chemical Industries	4777, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
231	Shiv Chemical Industries	9917, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
232	Shiv Shakti Chloride And Chemicals	5018, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
233	Shiva Intermediates	4806/A/16, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
234	Shivam Drganics	9106/1, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	3.00
235	Shree Ambeshwar Chemicals	144, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
236	Shree Balaji Processors	450-A, GIDC Estates,	Ankleshwar	SSI	154.00	0.00	0.00
237	Shree Charbhujia Agro Fertilizer Co.	2808/A/1/2 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
238	Shree Dutt Agrochem	C1B-4746 GIDC Estate	Ankleshwar	SSI	0.00	0.00	0.00
239	Shree Ganesh Enterprises	C-1/B 195, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
240	Shree Jagdish Enterprise	5252, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00

241	Shree Jalaram Chemicals	7518, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
242	Shree Mahadev Intermediate	1509, GIDC Estate,	Ankleshwar	SSI	4.00	0.00	0.00
243	Shree Mahakali Dyes & Chemicals	C1/413, GIDC Estate,	Ankleshwar	SSI	5.00	0.00	0.00
244	Shree Mahakali Traders	4927, GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
245	Shree Padmavati Chemical - (Unit - 2)	5906/1&2 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
246	Shree Padmavati Chemicals	5906/3, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
247	Shree Ram Chemicals	C-1/7009, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
248	Shree Ram Industries	5117, GIDC Estate,	Ankleshwar	SSI	0.90	0.00	0.00
249	Shree Ram Metal Industries	C-1-1039, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
250	Shree Saibaba Chemical Industries	3709/3, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
251	Shree Shubh Chemicals	6603, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
252	Shree Sulphamic Chemicals	4518, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.20
253	Shree Tripura Enterprise	6902, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
254	Shree Tripura Enterprise	J-1207, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
255	Shreeji Gas Company	328, 329/IGIDC Estate	Ankleshwar	SSI	0.00	0.00	0.00
256	Shree Rang Industrial Enterprises	C-1/6826, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.50
257	Shyam Chemicals Pvt Ltd	6004, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
258	Shyam Enterprise	C1/B, 1512, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.45
259	Siddhi Dyes & Chemicals	C/1-5406, GIDC Estate,	Ankleshwar	SSI	6.70	0.00	0.00
260	Siddhi Samrat Dye Chem Pvt Ltd	6405, GIDC Estate,	Ankleshwar	SSI	22.70	0.00	1.00
261	Skau Chemicals	7405, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	1.00
262	Smit Enterprise	5152, 7 Tenk Road, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
263	Solar Polymers	C-1/6825, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
264	Sparkem	3611/1, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
265	Starlet Industries	4314, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

266	Sterling Chemical Industries	113/2,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
267	Sterling Chemicals	622,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
268	Stride Industries	7613/1,GIDC,	Ankleshwar	SSI	0.00	0.00	0.00
269	Sukha Chemical Industries	4705/1/6,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
270	Sun Shine Chemicals	5237,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.10
271	Sun Shine Industries	5905/4/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
272	Sun Smit Dye Chem Pvt Ltd	3455,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
273	Sun White Chemicals	C1B-3420,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.65
274	Sunrise Chemicals	J-3437,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
275	Sunshine Colours	7314/7,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
276	Super Chemicals	3423,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
277	Superfine Gypsum	9107,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
278	Supranav Chemical Industries Pvt Ltd	J-7015,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
279	Supreme Chemicals	7840/2,GIDC Estates,	Ankleshwar	SSI	0.00	0.00	0.00
280	Supreme Packaging Pvt Ltd	C1B-7834,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
281	Surat Ammonia & Chemical Company	6207/2 & 3,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
282	Suril Pharma	7615,GIDC Estate,	Ankleshwar	SSI	4.00	0.00	0.00
283	Survival Technologies Pvt Ltd	9110/1 & 9111/1,GIDC Estate,	Ankleshwar	SSI	5.50	0.00	0.00
284	Sushma Textile Pvt Ltd	801/A,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
285	Suyog Life Sciences Pvt. Ltd.	145/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
286	SVM Cera Tea Build . Limited	4802/B,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
287	Swastik Industries	C-177101,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
288	Techno -Chem Manufacturing Co.	431,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
289	Techno Forge Limited	1021,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
290	Techno Forge Ltd.	1021,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
291	Tex - Aux Chemicals	9107/1,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

292	The Hindustan Mineral Products Co. Ltd	2203, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
293	Tolani Fabricators	7315, 7301, 7302 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.50
294	Trexii Chemicals Industries	C1 B-424, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.65
295	Trimurti Chemicals	6101/B, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.50
296	Tulsi Dye Chem	C-1/B-415, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.20
297	Ultra Rubbers Pvt. Ltd.	1108-B, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
298	Uma Panels	140/2/A GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
299	Umiya Industries	4405, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
300	Unisol Chemicals (I) Pvt Ltd	418, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
301	United Phosphorus Limited (Unit - 3)	3101/2, GIDC Estate,	Ankleshwar	MSI	0.00	0.00	20.00
302	Unnati Industries	4921, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
303	Urvashi Chemicals Pvt Ltd	C1B/2009, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.72
304	Urvashi Pulp & Paper Mills Pvt Ltd	315/316/1, GIDC Estate,	Ankleshwar	SSI	50.00	0.00	0.00
305	V. R. Chemicals	5149, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
306	Varahi Chemicals Industries	9109/7, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	2.00
307	Varoon Industries	230, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.40
308	Vasudev Chemicals	C-1/B/4743, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
309	Vevir Organics	7102, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
310	Vidsa Inorganics Pvt Ltd.	9112/1, 2, 3, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
311	Viketa Electronics	4759, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.90
312	Vinayak Enterprise	5101/A, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.30
313	Vipul Pharma Chem	4906/22 GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
314	Vishal Malleables Limited	85/2, GIDC Estate,	Ankleshwar	MSI	0.00	0.00	0.00
315	Vishal Malleables Limited - II	104 & 105, GIDC Estate,	Ankleshwar	MSI	0.00	0.00	9.50
316	Vishrudh Organics Pvt Ltd,	141/2/B, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.50
317	Vishwa Chemicals	4801/A/13, GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00

318	Vivek Chemicals	C1B-3910,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
319	Vora Industries	1510,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
320	Yogi Chem	9110/3,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
321	Yogi Chem Products	502/20,GIDC Estate,	Ankleshwar	SSI	0.00	0.00	0.00
322	Aarti Industries Limited	758/1,2 & 3,GIDC,	Jhagadia	MSI	70.00	0.00	0.00
323	Air Liquide India Holding Pvt. Ltd.	38/1,GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
324	Anupam Rasayan India Ltd	907/3,GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
325	Aster Silicates Ltd.	831,GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
326	Bhanu Dyes Pvt. Ltd.	758/B,GIDC Estates,	Jhagadia	SSI	0.00	0.00	0.00
327	Birla Century	826,GIDC Estates,	Jhagadia	MSI	0.00	0.00	0.00
328	Black Rose Industries Ltd	675,GIDC Estates,	Jhagadia	MSI	0.00	0.00	0.00
329	Caltron Clays & Chemicals Pvt. Ltd	38/7,GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
330	Champion Advanced Material Pvt. Ltd	907/1,GIDC,	Jhagadia	MSI	0.00	0.00	0.00
331	Chemie Organic Chemicals (I) Pvt. Ltd	758,GIDC Estate,	Jhagadia	SSI	24.00	0.00	0.00
332	Draagon Drugs Pvt. Ltd	775/776,GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
333	Endeka Ceramics India Pvt. Ltd.	756-8 & 9,GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
334	Eskay Iodine Pvt Ltd	907/2,GIDC,	Jhagadia	SSI	0.00	0.00	0.00
335	Eurecat India Catalyst Services Pvt Ltd	Plot No. 1,GIDC	Jhagadia	MSI	0.00	0.00	0.00
336	Flometallic India Ltd	824,GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
337	Futura Ceramics (P) Ltd.	829,Near Fire Station,	Jhagadia	MSI	0.00	0.00	0.00
338	Galaxy Surfactans Ltd	892, GIDC Estate,	Jhagadia	MSI	55.00	0.00	0.00
339	Gujarat Gas Company Limited	773/A,GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
340	Gulbrandsen Technologies (India) Pvt Ltd	761/A,GIDC Estate,	Jhagadia	MSI	6.00	0.00	0.50
341	JNP Products,	748/1,GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
342	KLJ Organic Limited	759,GIDC Estate,	Jhagadia	MSI	0.00	0.00	1.50
343	Kohler India Corporation Pvt.	828/B,GIDC Estate,	Jhagadia	MSI	93.00	0.00	0.00
344	Kohler India Corporation Pvt.	828,GIDC Estate,	Jhagadia	MSI	137.00	0.00	0.00

345	Manmohari Minerals & Chemicals Pvt. Ltd	769/4, GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.50
346	Nanco Chem Products Pvt Ltd	774, GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
347	Panoli Intermediates (India) Pvt Ltd.	778/1 & 756/1, GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
348	S. Kumars Nationwide Limited	825, GIDC Estate,	Jhagadia	MSI	980.00	0.00	0.00
349	Saint-Gobain Glass India Ltd	36, GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
350	Shreeji Industries	830/8, GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.60
351	Sigachi Plasticisers Pvt. Ltd	763/2 GIDC Estate,	Jhagadia	SSI	0.00	0.00	0.00
352	Sika India Pvt Ltd	916, GIDC,	Jhagadia	MSI	0.00	0.00	0.00
353	Star Oxochem Pvt. Ltd.	756/10-A & 756/10-B GIDC Estate,	Jhagadia	MSI	32.14	0.00	0.00
354	Thermax Limited - Unit I	903/1 GIDC Estate,	Jhagadia	MSI	30.00	0.00	0.00
355	Yashashvi Rasayan Pvt. Ltd.	765, GIDC Estate,	Jhagadia	MSI	0.00	0.00	0.00
356	Ashok Organic Industries Ltd	Hansot Road, Boridra Ta. Ankleshwar	Other	SSI	0.00	0.00	0.00
357	Doshi Chemicals (P) Ltd	Hanshot Highway, Ta. Ankleshwar	Other	MSI	0.00	0.00	0.00
358	Silicon Jewel Industries Pvt. Ltd.	Survey No. 57-59, GIDC Estate,	Other	SSI	0.00	0.00	0.00
359	Zora Pharma Limited	44-B, Vill. Naldhari, Ta. Valia, Dist Bharuch	Other	MSI	0.00	0.00	0.00
360	A. B. S. Industries	408/10 GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
361	A. H. Chemicals	C1/1926, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
362	A. S. Industries	3108, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
363	Aakash Manthan Industries	914/AGIDC Estate,	Panoli	SSI	0.00	0.00	1.00
364	Aanjaney Pharma Chem Private Ltd	2306, GIDC Estate,	Panoli	SSI	0.00	0.00	2.00
365	ABC Organics & Chemicals	605, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
366	Agri Care	228, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
367	Agro Pack	227/1, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
368	Agro Pack (Unit - III)	203/1, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00

369	Aims Chemicals Industries	C-1/B-905/1,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
370	Akshay Inorganics	665,GIDC Estate,	Panoli	SSI	0.00	0.00	5.00
371	Amar Chemical	C1B, 110/2GIDC Estate,	Panoli	SSI	0.00	0.00	0.20
372	AMC Chemicals Pvt. Ltd	3402,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
373	Amruta Industries	2312,GIDC Estate, Phase III,	Panoli	SSI	0.00	0.00	0.50
374	Anchor Industries	201/15GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
375	Angreji Nitroproducts	606,Sandoz Road, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
376	Anjani Chemicals	628/AGIDC Estate,	Panoli	SSI	0.00	0.00	0.00
377	Artec Organic Industries Ltd.	204/CGIDC Estate,	Panoli	SSI	0.00	0.00	0.00
378	Atul Ltd	6 & 7,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
379	Aum Industries	610/3Phase - 11, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
380	Avantor Performance Materials India Ltd	1,GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
381	Bhagwati Enterprise	906/8,Ganesh Chowkdi, GIDC Estate,	Panoli	SSI	0.00	0.00	3.00
382	Bharat Fluorine Industries	523,GIDC Estate,	Panoli	SSI	0.00	0.00	0.30
383	Bhasali Petrochem Pvt. Ltd	2808,GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
384	Bini Chemicals	3011,Phase - III, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
385	Bini Organics Pvt. Ltd.	J-1416-18GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
386	Blue Dip Organics Industries	513,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
387	Cheminova India Ltd (Unit - 2)	27 + 28/BGIDC Estate,	Panoli	MSI	0.00	0.00	0.00
388	Cheminova India Ltd.- Formulation Div.	242/P,GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
389	Citizen Minerals	402,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
390	Clinch Silicones Pvt. Ltd	C-1/1702,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
391	Crystal Clear Products	C-I-1031/9,GIDC Estate,	Panoli	SSI	0.00	0.00	1.00

392	Crystal Clear Products	C1-1031/8, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
393	Cyclo Pharma Chem	220/A, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
394	Dalmia Chemicals Ltd	425, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
395	DeH Specialized Constructions	C/1-1028 & 1029, GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
396	Devdutt Chemical Industries	J/1015, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
397	Deven Chemicals Industries	201/23, GIDC,	Panoli	SSI	0.00	0.00	0.00
398	Dhanlaxmi Industries	504, GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
399	Dhwanil Dye Chem	102, GIDC Estate,	Panoli	SSI	0.00	0.00	1.50
400	Elbee Aqua Link	C1/1018, GIDC Estate,	Panoli	SSI	0.00	0.00	1.50
401	Evertex Industries Pvt. Ltd	227/2, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
402	Faiz Chemicals	C-1/1924, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
403	Farmson Chemical Industries	C1B/1910-11-12, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
404	GASCO	A1-1816 GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
405	Ginni Filaments Limited	205-207, GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
406	Giriraj Industries	2102, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
407	Global Associates	3001, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
408	Gopsi Pharma Pvt. Ltd	2309/10/11, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
409	Gujarat Fluorine Corporation	608, GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
410	Hi- Tech Carbon & Catalyst	J-405/4, Road No. 4, GIDC Estate,	Panoli	SSI	0.00	0.00	1.50
411	Hindusthan M-I Swaco Ltd	206/1, GIDC Estate,	Panoli	SSI	0.00	0.00	8.00
412	Hiran Paints	3029, Phase - III, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
413	Honest Chemical Industries	2104, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
414	I. G. Chemical Industries	326, Phase - I, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
415	Ibex Corporation	C-1/B-407/2, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
416	Impro Iterchem Pvt. Ltd	414, GIDC Estate,	Panoli	SSI	0.00	5.00	1.80

417	Indo Tex Chem	C-1B/1212, 1213, 1214, 1215 GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
418	Industrial Chemicals	419, GIDC Estate.	Panoli	SSI	0.00	0.00	1.00
419	J. B. Chemicals & Pharmaceuticals Ltd.	215 to 219, 304 to 310, GIDC Estate.	Panoli	MSI	0.00	0.00	0.00
420	Jackson & Sons	516, GIDC Estate,	Panoli	SSI	0.00	0.00	0.05
421	Jay Lime Industries	2305, Phase - III, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
422	Kalyani Corporation	906/23 GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
423	Kanika Sales Corporation	3121, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
424	Karunesh Remedies	417/2, GIDC Estate,	Panoli	SSI	2.00	0.00	0.00
425	Kawya Lab	3404, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
426	Kiran Pandy Chems Limited	A- 1/1104, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
427	Krishna Inter Chemicals	J-405/5, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
428	Luna Chemical Industries Pvt. Ltd.	2316, GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
429	Luxica Pharma Ind.	2308, Phase - III, GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
430	M. P. Corporation	L/1821, GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
431	Machhar Industries Limited	614, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
432	Mahadev Pharmaceuticals	1032/7&8, GID C Estate,	Panoli	SSI	0.00	0.00	0.00
433	Mahakrishna Chemicals Ltd	301, Phase-II, Nr. Water Tank, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
434	Make Fine Chemicals & Eng. Pvt. Ltd	408/1-2, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
435	Manali Gum Industries Pvt. Ltd	657/1/GS/1 to 3 , GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
436	MC-Bauchemie(India) Pvt. Ltd	A-1, 1101 GIDC Estate,	Panoli	SSI	0.00	0.00	0.10
437	Meera Dyes	3002, Phase - III, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
438	Mega Innovative Crops Pvt. Ltd.	415, GIDC Estates,	Panoli	SSI	0.00	0.00	0.00

439	Meghmani Organics Ltd(Agro Div.Unit-IV)	22/2,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
440	Micro Chemtech Pvt. Ltd.	2806,GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
441	N. J. Agrochem Pvt. Ltd.	3506/3507 & 3317/3318/3319,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
442	Nanda Fluorine Corporation	407/13,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
443	Nava-Barat Fertilizers Limited	3320 to 3322,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
444	Navkar Chemicals	3010,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
445	NED Energy Limited	1722,GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
446	Octane Chemicals	3104,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
447	Om Pile Pvt. Ltd	A-1/1506,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
448	Dm Sairam Corporation	2106,GIDC Estate,	Panoli	SSI	0.00	0.00	0.75
449	Om Sairam Industries	906/26,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
450	OMKAR Chemicals Industries	C1B,407/1, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
451	P. G. Resins & Coatings Pvt Ltd	522,GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
452	P. K. Intermediates Pvt. Ltd.	C-1B, 1906/1907, GIDC Estate,	Panoli	SSI	6.00	0.00	0.00
453	Panoli Products Pvt Ltd	3313-3316, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
454	Panorama Aromatics Ltd	2908/2911, GIDC Estate,	Panoli	SSI	0.00	0.00	0.80
455	Param Chemicals Pvt. Ltd.	612,GIDC Estate,	Panoli	SSI	0.00	0.00	1.50
456	Parth Chemical Industries	618/A,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
457	Pestkill Pesticides Industries	233-236, GIDC Estate,	Panoli	SSI	0.00	0.00	2.00
458	Pooja Industries	C-1/B-317/1, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
459	Poorab Sales Corporation	C-1,1931,B/h Sandoz, GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
460	Prime Chemicals	3113,GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
461	Pushpa J. Shah	906/12-13,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
462	Pushpa J. Shah (Unit - 2)	906/17, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00

463	Rahul Intermediates	422,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
464	Raj Chemo Plast	2701,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
465	Raj Manufacturing & Trading (P) Ltd.	3530,GIDC Estate,	Panoli	SSI	47.00	0.00	0.00
466	Rajeev Chlorides & Carbonics Pvt Ltd	3124 & 3125,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
467	Rama Ferti - Chem Ltd.	A-1501 & 1502,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
468	Ramdoot Industries	C-1B-1712,GIDC Estate	Panoli	SSI	0.00	0.00	0.00
469	Remik Chemicals Pvt. Ltd.	3109 & 3110,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
470	Reshmika Minerals & Chemicals Pvt. Ltd	23,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
471	Rhodia Polymers & Specialties India Pvt. Ltd	Survey No. 432/1+2, Adjacent to 237,GIDC,	Panoli	MSI	0.00	0.00	0.00
472	Richa Intermediates Pvt Ltd	505,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
473	Rohan Chemicals	3045,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
474	S Y N Chemicals	2930,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
475	S. D. Chemicals	407/14,GIDC,	Panoli	SSI	0.00	0.00	0.00
476	S. R. Chemicals	1917 & C-1/1918,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
477	Saga Chemie Pvt. Ltd	201/3,GIDC,	Panoli	SSI	0.00	0.00	0.00
478	Sahyadri Rasayan	2931-32,GIDC Estate,	Panoli	SSI	0.00	0.00	0.45
479	Sahyog Industries	3212,GIDC Estate	Panoli	SSI	0.00	0.00	0.00
480	Sakata Inx (India) Limited	U-2,GIDC Estate,	Panoli	MSI	50.00	0.00	0.00
481	Shivam Incorporation	521,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
482	Shivam Silica Industries	3539,GIDC,	Panoli	SSI	0.00	0.00	0.00
483	Shravan Chemoxide Pvt. Ltd.	A-1/1819,GIDC Estate,	Panoli	SSI	3.40	0.00	0.00
484	Shree Ashapura Chemicals	2919,Phase - I, GIDC Estate,	Panoli	SSI	0.00	0.00	1.20
485	Shree Balaji Enterprise	2601, 3408, 3409,GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
486	Shreenath & Associates	1814/1,Dpp. Snajali Station, GIDC Estate,	Panoli	SSI	0.00	0.00	1.50

487	Siddharth Chlorochem Pvt Lto	313,Phase - II, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
488	Siddhi Products	2313,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
489	Simrone Products	C-1/1706,GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
490	Skay Chem Corpration	3009,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
491	Snow - White Products	C1-1027,GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
492	Soham Plaster Industries	201/9 & 13,GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
493	Sukhdev Chemicals (P) Ltd	318 & 319,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
494	Sulphur Mills Ltd	C1B/1904-1905,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
495	Sulphur Mills Ltd	230,231,232, GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
496	Sulphur Mills Ltd	C1B-1828/29/30,GI DC Estate,	Panoli	SSI	0.00	0.00	0.00
497	Sulphur Mills Ltd	A-1/1818,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
498	Sumeet Organic Industries	524,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
499	Sumil Chemicals Industries Pvt. Ltd.	C-1/B-211-1,2,3GIDC Estates,	Panoli	SSI	0.00	0.00	0.00
500	Sun Chemicals	A-2,624,GIDC Estate,	Panoli	SSI	0.00	0.00	0.15
501	Sunil Nitrate Pvt. Ltd	A-1/1820,GIDC,	Panoli	SSI	0.00	0.00	0.00
502	Super Chem & Co.	C1B-1910,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
503	Tagros Chemicals India Ltd	16,GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
504	Tec Enterprise	106,GIDC,	Panoli	SSI	0.00	0.00	0.00
505	Techno Drugs & Intermediates Pvt. Ltd	C-1/B-1914,GIDC Estate,	Panoli	SSI	10.00	0.00	0.00
506	Thakkar Castrect Export (P) Ltd	3504,Phase-III, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
507	Thakor Exports	J-1016,GIDC Estate,	Panoli	SSI	0.00	0.00	0.40
508	Thakor Reductants Pvt Ltd	103,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00

509	Trikaldarshi Chemical Industries	104,GIDC Estate,	Panoli	SSI	0.00	0.00	1.00
510	Unique Pharmaceutical Laboratories	304-308,GIDC Estate,	Panoli	MSI	0.00	0.00	0.00
511	Unisco Paints & Varnishes	666,GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
512	Unity Chemicals,	C-1/1922,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
513	V. K. Chemical Industries	Plot No. C1B 905/6, Nr. Indian BankGIDC Estate,	Panoli	SSI	0.00	0.00	0.00
514	Vadilal Chemicals Limited	615,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
515	Vardan Petrochemicals (P) Ltd	526/27 & 670,GIDC Estate,	Panoli	SSI	0.00	0.00	0.60
516	Varun Chemicals	C-1/1919-20,GIDC Estate,	Panoli	SSI	0.00	0.00	1.40
517	Vasudev Drug Intermediates	3103,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
518	Veer Inorganics	C-1/B-905/2, & C-1/B-905/9, GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
519	Venus Plaster Industries	1727,GIDC Estate,	Panoli	SSI	0.00	0.00	0.50
520	Verma Gases (India) Pvt Ltd	669,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
521	Vinayak Chemicals	668,GIDC Estate,	Panoli	SSI	0.00	0.00	0.70
522	Vishwa Chemicals	3030,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
523	Vismita Intermediates Pvt Ltd	3016,3017,3018,GIDC Estate,	Panoli	SSI	0.00	0.00	4.00
524	Vrundavan Chemicals	C1B-407/6,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
525	World Chem industries	C1B-407/4,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
526	Zeel Dye-Chem	3026,GIDC Estate,	Panoli	SSI	0.00	0.00	0.00
					2079.78	5.60	318.57

Annexure - E

Financial Outlay for various major activities related to EMS and its up gradation in Ankleshwar Cluster:

Sr No	Activity	Financial Outlay (Lakh Rs)	Remarks
Investment by Individual Industries			
1	Investment by individual industries for up gradation of EMS	34022.37	Work completed except for one case.
Total (A)		34022.37	
Investment by Common Environment Infrastructure Providers			
2	Up gradation of FETP by NCTL	1555=00	Work completed. Additional work of Rs. 250 Lakhs is under progress.
3	Up gradation of underground Drainage system & lining of open creek by NAA	1379=00	
4	Proposed overhead pressure pipeline and overhead tanks (in total 19 clusters) in GIOC Ankleshwar for disposal of trade effluent	2000=00	Feasibility study completed by L & T. Services of M/S Mars Planning & Engg. Services, A'bad retained for detailed engineering and cost estimation and is completed. Project to be executed by GIOC / NCTL. The scheme is sanctioned under CIP scheme of IC office. Presently contractor finalized. Likely to be completed by March 2015 after HAZOP study.
5	Plazma Plant for incineration of hazardous waste	8500=00	EC and CTE for the plazma plant namefy M/5 Plasma Energy Applied Technologies Ankleshwar Pvt. Ltd. are already obtained.
6	Common MEE and additional incinerator at BEIL	3432=00	Rotary kiln incinerator having capacity of 6.5 million K Cal / Hr is commissioned. Common MEE is commissioned.
7	CETP for pharmaceutical industries	0000=00	Since concerned pharmaceutical units are now treating their effluent in MEE / CMEE, the need of CETP is not envisaged and hence dropped by project proponent.
Total (B)		16866.00	
Other investment			
8	Magnetic Flow meters installations by NCTL	38.30	
9	Third Party Monitoring by TIFAC-CORE-SCET, a Surat based Govt. Approved Engineering College and GEMI, Gandhinagar.	514.68	For the period May 2010 to July-14
10	AAQM in GIDC Estates of Ankleshwar & Panoli through Industries Association	20.80	Annual recurring cost
Total (C)		573.78	
GRAND TOTAL = A + B + C		51462.15	

Over and above, the collective cost of operation of new EMS adopted by various industries in the Ankleshwar cluster is estimated to be @ Rs. 1500 Lakhs per month.

ANNEXURE - F

List of units having Multiple Effect Evaporators (MEE)

Sr. No.	NAME OF INDUSTRIES	ADDRESS	GIDC	Remarks
1	AARTI INDUSTRIES LIMITED	758/1-2	JHA	
2	ATUL LTD.	297, 297/1	ANK	2 MEEs 1 Comm.
3	CADILA HEALTHCARE LTD UNIT 1.	291 -293	ANK	
4	CADILA HEALTHCARE LTD UNIT 2	5/1/B	ANK	2 MEEs
5	CADILA PHARMACEUTICAL LTD . UNIT 1	294	ANK	
6	CHEMIEORGANICS CHEMICALS PVT. LTD	758	JHA	
7	CDROMANDEL FERTILIZERS LIMITED	3204	ANK	
8	GLENMARK GENERIC LIMITED	3102/C TO 3109/A, 3103	ANK	
9	GULSHAN PDLYOLS LTD	762	JHA	
10	HEMANI INTERMEDIATE PVT LTD	3208	ANK	
11	INDUSTRIAL SOLVENT LIMITED	7906-09	ANK	
12	ISAGRO ASIA AGRO CHEMICALS PVT LTD	640	PAN	
13	KANORIA CHEMICALS AND INDUSTRIES LIMITED	3407	ANK	
14	LUPIN LTD	124,125,123,12 3/1&9	ANK	4 MEEs
15	MEGHMANI DRGANICS LTD	21/1	PAN	
16	MEGHMANI DRGANICS LTD	5037	ANK	
17	PI INDUSTRIES LTD	237	PAN	
18	SAJJAN INDIA LIMITED	6102/3	ANK	3 MEEs
19	SUN PHARMACEUTICALS LTD	4708	ANK	2 MEEs
20	SUN PHARMACEUTICALS LIMITED	24/2, 25	PAN	2 MEEs
21	TONIRA PHARMA LTD	4752	ANK	2 MEEs
22	UNITED PHOSPHORUS (UNIT - 5)	750	JHA	
23	WDCKHARDT LTD (BULK DRUG DIVIDION)	138	ANK	
24	ZANDU CHEMICALS LTD (ZCL CHEMICALS LTD)	3102/B	ANK	
25	CHEMCRUX ENTERPRISES LTD	4712-14	ANK	
26	DYNEMIC PRODUCTS LIMITED UNIT-II	3709/6	ANK	2 MEEs
27	HIRAN ORGOCHEM LTD	663	PAN	
28	GUJARAT AGROCHEM LIMITED	2901	PAN	
29	SDLVAY SPECIALITY INDIA PVT LTD	35	PAN	
30	AVENTIS PHARMA LTD	3501-3503- 15,6310-B-14	ANK	
31	BASF INDIA LIMITED, UNIT-1	6216	ANK	

Sr. No.	NAME OF INDUSTRIES	ADDRESS	GIDC	Remarks
32	BASF INDIA LIMITED, UNIT-2	8001, 8001A	ANK	
33	BAKUL PHARMA PVT LIMITED	6202	ANK	
34	ARCOY BIO-REFINERY PVT. LIMITED	29	PAN	
35	RAMDEV CHEMICAL INDUSTRIES (UNIT II)	3440, 3443, J-3439	ANK	
36	CENTURY TEXTILES AND INDUSTRIES LIMITED	826	JHA	
37	UPL (UNIT 1)	117, 118	ANK	
38	SUBHASRI PIGMENTS PVT. LIMITED	1211, 1213, 1201, 1202	ANK	2 MEEs Proposed
39	YASHASHVI RASAYAN PVT. LIMITED	765	JHA	
40	R. P. INDUSTRIES	519,1,2,3	PAN	
41	RACHANA DYECHM	2917	PAN	
42	GUJARAT ORGANICS LIMITED	127/1	ANK	
43	J.B. CHEMICALS & PHARMACEUTICALS LTD	215 TO 219, 308 TO 310	PAN	
44	BEIL (COMMON MEE)		ANK	
45	RIDDHI PHARMA	A2/2511	ANK	
46	RUKUL INDUSTRIES	1705/B & C	ANK	
47	UPL (UNIT 5)	750, 746	JHA	
48	UNIQUE CHEMICALS	5	PAN	
49	J.B. CHEMICALS & PHARMACEUTICALS LTD	128/1	ANK	
50	HIKAL LTD.,	629, 630	PAN	
51	CHEMINOVA (INDIA) LTD. (TECH. DIV.)	241	PAN	
52	MERCHEM LTD	24/1	PAN	
53	ALKEM LABORATORIES LTD.	NAUGAMA		2 MEEs
54	GHARDA CHEMICALS LTD	3525,3512-A	PAN	
55	DYNEMIC PRODUCTS LIMITED UNIT-I	6401	ANK	
56	TATVA CHINTAN PHARMACHEM PVT. LTD.	502/B,17 &18,	ANK	
57	SAINTH INDUSTRIES	2109-10	PAN	
58	JAYSHREE INDUSTRIES	4705/1/3 & 4	ANK	
59	CHAMPION ADVANCED MATERIALS PVT. LIMITED	907/1	JHA	
60	OHM DYECHM	517	PAN	
61	SUPHARMA CHEM	4705/2-3 & 4	ANK	
62	RALLIS INDIA LIMITED	3301	ANK	Comm.
63	GUJARAT RECLAIM & RUBBER PRODUCTS LTD.	664 & 520	PAN	
64	BHANU DYES PVT. LTD.	758/B	JHA	

U/C : Under Construction
Comm. : Commissioning

List of units having Single Effect Evaporators (SEE)

Sr. No.	NAME OF INDUSTRIES	ADDRESS	GIDC	Remarks
1	BAYER CROPSCIENCE LIMITED	3501-15, 6301-6313 / B1	ANK	
2	RFCL LIMITED	1	PAN	
3	MAYUR ASSOCIATES	4705/2/1	ANK	
4	ABHILASHA PHARMA PVT. LIMITED	1408,1409	ANK	
5	MAITRY NANO INDUSTRIES	J - 7828/4 & 5	ANK	
6	HOLYLAND CORPORATION	3392/D	ANK	
7	YASHDEEP CHEMICALS (INDIA) PVT. LTD.	676	JHA	U/C
8	UPL (UNIT 1)	117, 118	ANK	3 SEE
9	UPL (UNIT 2)	3405/3406	ANK	2 SEE 1 U/C

U/C : Under Construction
Comm. : Commissioning

ANNEXURE - G

List of units having Reverse Osmosis (R.O.) System

SR	NAME OF INDUSTRIES	ADDRESS	GIDC	Remarks
1	AARTI INDUSTRIES LIMITED	758/1-2	JHA	
2	ATUL LTD.	297, 297/1	ANK	
3	CADILA HEALTHCARE LTD UNIT 1.	291 -293	ANK	
4	CADILA HEALTHCARE LTD UNIT 2	5/1/B	ANK	
5	CADILA PHARMACEUTICAL LTD . UNIT 1	294	ANK	3 ROs
6	DYSTAR INDIA PRIVATE LIMITED	3002	ANK	
7	GLENMARK GENERIC LIMITED	3102/C TO 3109/A, 3103	ANK	
8	GULSHAN POLYOLS LTD	762	JHA	
9	INDUSTRIAL SOLVENT LIMITED	7906-09	ANK	
10	ISAGRO ASIA AGRO CHEMICALS PVT LTD	640	PAN	
11	KANORIA CHEMICALS AND INDUSTRIES LIMITED	3407	ANK	2 ROs
12	LUPIN LTD	124,125,123,123 /1&9	ANK	3 ROs
13	PI INDUSTRIES LTD	237	PAN	
14	TONIRA PHARMA LTD	4752	ANK	
15	UNITED PHOSPHORUS LTD. (UNIT - 5)	750	JHA	
16	WOCKHARDT LTD	138	ANK	
17	GUJARAT AGROCHEM LIMITED	2901	PAN	
18	ZANDU CHEMICALS LTD.(ZCL LTD)	1201,02,13	ANK	
19	ALKEM LABORATORIES LIMITED	289-290	ANK	
20	CHEMCRUX ENTERPRISES LTD	4712-14	ANK	
21	UNIQUE CHEMICALS	5	PAN	
22	SOLVAY SPECIALITY INDIA PVT LTD	35	PAN	
23	BAKUL PHARMA PVT LIMITED	6202	ANK	
24	J.B. CHEMICALS & PHARMACEUTICALS LTD	215 TD 219, 308 TO 310	PAN	
25	J.B. CHEMICALS & PHARMACEUTICALS LTD	128/1	ANK	
26	ARCOY BIO-REFINERY PVT. LIMITED	29	PAN	
27	CENTURY TEXTILES AND INDUSTRIES LIMITED	826	JHA	
28	S. KUMARS NATIDNWISE LIMITED	825	JHA	
29	SUN PHARMACEUTICALS LIMITED	24/2, 25	PAN	
30	BASF (UNIT II)	8001	ANK	UF & NF - Comm.
31	GUJARAT INSECTICIDES LIMITED	805, 806	ANK	

SR	NAME OF INDUSTRIES	ADDRESS	GIDC	Remarks
32	ABHILASHA PHARMA PVT LTD	1408, 1409	ANK	
33	MAITRY NAND INDUSTRIES	J - 7828/4 & 5	ANK	
34	K.PATEL CHEMO PHARMA P.LTD.	151 TO 155	ANK	
35	RALLIS INDIA LTD	3301	ANK	
36	ALKEM LABORATORIES LTD.	NAUGAMA		
37	HUNSTMAN (PRVIOUSLY LAFFANS PETROCHEMICALS LTD)	321	PAN	
38	DYNEMIC PRODUCTS LIMITED UNIT-I	6401	ANK	
39	HEUBACH COLORS P. LTD (UNIT-II)	A-406, 444-446	ANK	Proposed
40	MEGHMANI ORGANICS LTD	21/1	PAN	Dropped
41	SUBHASRI PIGMENTS PVT. LIMITED	1211, 1213, 1201, 1202	ANK	Proposed
42	RAMDEV CHEMICAL INDUSTRIES (UNIT II)	3440, 3443, J- 3439	ANK	Proposed
43	GEECEE VENTURES LIMITED (OLD NAME - GWALIOR CHEMICALS)	7201, 7212-13	ANK	Proposed Closed since long

Comm. : Commissioning

ANNEXURE - H

List of units having Fenton System

1. CETP- Enviro Technology Ltd, ETL, Ankleshwar
2. CETP- Panoli Enviro Technology Ltd, PETL, Panoli
3. Bayer Cropscience Ltd., Ankleshwar
4. BASF (Unit II), Ankleshwar
5. Sun Pharmaceuticals Ltd, Ankleshwar
6. Sun Pharmaceuticals Ltd, Panoli
7. Tonira Pharma Ltd, Ankleshwar
8. Gujarat Insecticides Ltd, Ankleshwar
9. United Phosphorous Ltd, Unit-1, Ankleshwar (FACCO System)
10. Zandu Chemicals Ltd(ZCL Ltd), Ankleshwar
11. Merchem Limited, Panoli
12. Solvay Speciality Chemicals Ltd, Panoli
13. Subhashri Pigments Pvt Ltd, Ankleshwar

Other Advanced Treatment Methods (Other than MEE, RO And Fenton / Facco mentioned above) / Air Pollution Control Measures

1. Bayer Cropscience Ltd- AEROX system for odour control
2. Cheminova (India) Limited – (Intermediate Division), Panoli- Fumes Incinerator for Odour Control
3. Cheminova (India) Limited – (Technical Division), Panoli- Ozonizer for odour control
4. United Phosphorous Limited – (Unit-2), Ankleshwar – Fumes Incinerator for Odour Control
5. Heubach Colors Ltd- recovery of ammonia from Ammonium Carbonate Solution and mfg Soda ash, Biological -Anoxic treatment for reduction of ammonical nitrogen
6. ETL, CETP- MAP process for reduction of ammonical nitrogen
7. United Phosphorous Limited – (Unit-2), Ankleshwar – ETP Expansion with MBR Technology for secondary treatment of trade effluent
8. Rallis India Limited, Ankleshwar – Tertiary Treatment with Electro Coagulation and Nano filtration for reduction of COD & Ammonical Nitrogen
9. Cadila Healthcare Limited – Unit-2, Ankleshwar - Tertiary Treatment with Electro Coagulation for reduction of Ammonical Nitrogen

Annexure I

Progress Report - NEERI

(Upgradation of performance of final effluent treatment plant at Ankleshwar)

Work carried out

- Phase I : Lab scale studies under control condition on tertiary treatment using activated carbon is evaluated and progress report is submitted to NCTL.
- Phase II : Lab scale AOP process with different oxidation and catalyst was evaluated and report regarding the lab scale studies is also submitted to NCTL.
- Column adsorption studies are carried out for the removal of colour as well as degradable and non biodegradable compounds. Identification of adsorbed compounds are carried out through GC-MS
- The compounds being adsorbed are identified and their degradation and non biodegradation is in process
- Biological studies with different options of seeding & possibility of enhancement of biomass are carried out.
- For advance oxidation process certain variables like flow rate of ozone and the time are optimized.
- Experiments with UV are also carried out.
- NEERI assured NCTL that work is undertaken as per current scenario at FETP in order to achieve marine discharge norms.
- NEERI informed NCTL that because of cocktail nature of the inlet effluent and unanticipated variables, more time is taken. NEERI will give an effective and efficient treatment scheme.

Studies are completed. Report is under preparation.

Current No. 1234
Action Ticket Report

Date 30/07/11
 (AS ON 29/01/11)

SR	Description	Qty	Unit	Amount (Rs. in Lac)
1	M.H. Repaired and New Constructed	242	Nos	14.64
2	U.G Drainage line repaired			
	(E) 200 MM Dia PVC (Housing Sector)	201	RMT	0.94
	(F) 315 MM Dia PVC (Housing Sector)	350	RMT	3.99
	(G) 400 MM Dia PVC (N. Ramdev Chokdi)	132	RMT	1.35
	(H) 400 MM Dia GRP (N. Vaha Chokdi)	210	RMT	2.10
3	Remodelling of Existing Natural Open channel through in interior of Amlakhadi			
	(C) Open Silt	3000	RMT	1.00 (0.00 Lac)
	(D) PIPE 100			
	(V) 315 MM Dia. PIPE in Housing Sector	1500.1	RMT	
	(VI) 400 MM Dia. GRP PIPE LINE	2500.00	RMT	
	(VII) 600 MM Dia. GRP Pipe	843.00	RMT	
	(VIII) 700 MM Dia. GRP Pipe	2236	RMT	

To stop the disposal of sewage in the open towards to Amlakhadi notified area and only has been started in Amlakhadi notified area to see the work as per the plan of 200, 600, 400 and 315 mm Dia. All the surveying and estimating work for this has already been completed by 15/07/11 and cost for the same is amounting to Rs. 1546.00 Lac.

- > The final report from DDIT was already has been received and the necessary improvement on existing drainage line shall be taken on hand. After the monsoon i.e. end of the sep. 2011 and work will be completed within the one month from the day of starting the work. also are connections have been identified and there is no any unauthorized connection.
- > As per directives of NCTL & GPCB, the 5 units selected surrounded B pumping station, for over ground line i.e. above ground level drainage line. Have started to discharge effluent through over ground level drainage line.
- > To stop the disposal of unauthorised effluent, it is decided to lay. The over ground drainage line for 131 units. The consultant is also appointed for survey and tender. Procedure for tender etc. is in process.
- > Now, No quantity of sewage effluent from STP is discharged in Amlakhadi.

Ankleshwar
 CHIEF OFFICER
 Notified Area, ANKLESHWAR

Annexure K

Ground Water Monitoring Data

Source of Sample : Borewell of Shri Ahmedbhai Patel, Piraman Village								
Year	pH	TDS mg/l	DO mg/l	COD mg/l	NO3 -N mg/l	F mg/l	NO2 -N mg/l	NH3 -N mg/l
2005-06	8.31	1422	---	11.0	3.6	0.3		
2006-07	7.13	1604	5.02	19.0	2.4	0.8		
2007-08	7.45	1588	6.08	18.0	5.54	0.56	0.04	BDL
2008-09	7.82	1504	3.25	3.95	1.425	0.0208	0.05	BDL
2009-10	7.78	2482	5.91	7.97	0.54	0.02	0.4	BDL
2010-11	7.14	1972		2.6	0.56	0.51	BDL	0.56
2011-12	7.12	1536	7.87	5.0	1.49	0.46	0.029	BDL
2012-13	8.05	1634	5.46	2.0	0.84	0.40	0.004	BDL
2013-14	7.91	1744	2.06	12.0	0.18	0.42	BDL	
Source of Sample : Borewell of Khadiwala, Mottafalia Piraman Village								
Year	pH	TDS mg/l	DO mg/l	COD mg/l	NO3 -N mg/l	F mg/l	NO2 -N mg/l	NH3 -N mg/l
2005-06	8.25	676	6.5	5.3	6.5	0.28		
2006-07	8.15	976	5.77	7.8	1.6	0.89		
2007-08	7.55	1116	5.21	8	3.32	0.56	0.08	BDL
2008-09	8.1	1128	3.22	3.95	2.875	0.0208	BDL	BDL
2009-10	8.28	1788	4.61	7.97	0.54	0.02	0.45	BDL
2010-11	7.90	1929		5.3	1.54	0.33	0.12	0.56
2011-12	7.90	960	4.75	3.5	0.5	0.59	0.026	0.5
2012-13	8.02	972	8.37	2.0	0.54	0.75	0.01	BDL
2013-14	8.39	974	6.34	14.0	0.34	0.42	BDL	
Source of Sample : Borewell of Piraman Village Panchayat								
Year	pH	TDS mg/l	DD mg/l	CDD mg/l	ND3 -N mg/l	F mg/l	NO2 -N mg/l	NH3 -N mg/l

2005-06	8.36	1100	---	5.7	2.5	0.4		
2006-07	7.62	1586	5.11	18.1	6.6	0.73		
2007-08	8.05	106	5.77	16	2	0.46	0.09	BDL
2008-09	8.28	192	3.37	3.95	3.325	0.0234	0.02	BDL
2009-10	8.46	604	3.82	7.97	0.05	0.02	0.3	BDL
2010-11	7.56	1976		5.3	6.05	0.4	0.01	0.56
2011-12	7.93	146	3.86	12.0	0.15	0.08	0.03	0.62
2012-13	8.30	1548	8.24	13	1.06	0.68	0.01	BDL
2013-14	8.27	1726	7.76	14.0	0.18	0.04	BDL	

(Source GPCB: Regional Office)

BOREWELL OF ALUNJ							
MONTH	BOD	PH	TDS	DO	COD (mg/ltr)	NITRATE (mg/ltr)	FLUORIDE (mg/ltr)
Apr-09	0.98	7.77	1784	3.96	7.82	2.8	0.36
May-09	0.94	7.43	950	3.1	8.00	2.21	0.45
Jun-09	0.82	7.88	1282	2.84	8.06	0.7134	0.60
Jul-09	0.9	7.57	1434	3.45	8.03	0.5412	1.00
Aug-09	0.7	7.84	1818	5.55	8.00	0.1476	0.30
Sep-09	0.67	7.84	1832	3.96	7.84	0.369	0.30
Oct-09	0.76	7.80	1872	3.98	7.97	0.1722	0.35
Nov-09	0.89	7.68	1972	5.11	7.94	0.1476	0.25
Dec-09	0.79	7.82	2812	4.39	7.90	1.00	0.15
Jan-10	0.82	8.17	1906	4.97	7.94	0.64	0.20
Feb-10	0.83	8.20	1798	7.75	7.90	1.23	0.25
Mar-10	0.81	7.37	1858	4.88	8.00	0.64	0.18
Apr-10	0.83	8.15	1922.00	4.72	12.00	0.36	1.13
May-10	1.09	8.29	1796.00	4.97	8.00	0.34	0.09

Jan-10	1.06	7.76	1972 00	4.89	8	0.32	0.18
Jul-10	0.97	7.98	1932	5.34	8		0.31
Aug-10	1.57	7.89	1938	4.21	8	1.6	0.63
Sep-10	1.29	8.25	1760	4.39	8	2.43	0.5
Oct-10	2.71	7.89	1942	4.62	8	1.97	0.44
Nov-10	1.39	8.16	1774	6.02	8	0.90	0.59
Dec-10	<5	8.20	1934	3.87	20	1.85	0.67
Jan-11	2.36	7.63	1890	4.81	12	0.042	0.41
Feb-11	2.11	7.48	1030	-	12	0.95	0.80
Mar-11	0.93	7.80	2040	-	2.6	2.28	0.66
Apr - 11	2.2	7.64	2090	-	12	6.13	0.67
May - 11	6.51	7.71	2032	-	22	2.45	0.426
Jun - 11	2.1	8.11	2078	-	10	1.73	0.64
July - 11	< 5	7.49	1910	-	4	0.024	0.33
Aug-11	<5	8.73	1768	-	12.3	1.14	0.26
Sept-11	0.32	7.32	1866	-	< 5	1.41	BDL
Oct-11	1.62	8.38	2056	-	8	1.76	0.65
Nov-11	5	8.42	1978	-	13	1.58	0.21
Dec-11	2.19	7.87	1988	-	13	2.09	0.82
Jan-12	4.0	7.75	2074	-	22	0.75	0.66
Feb-12	2.09	7.78	1964	-	8	2.11	0.44
Mar-12	4.2	7.98	2024	-	20	1.82	1.38
Apr - 12	2.0	8.57	1886	-	9	0.71	0.31
May - 12	6.3	8.12	1896	-	25	2.80	0.48
Jun - 12	1.3	7.98	1916	-	35	1.21	0.49
July - 12	2.26	7.62	1906	-	12	1.78	0.78
Aug-12	0.96	7.77	2014	-	12	0.20	0.22
Sept-12	2.8	7.59	1892	-	18	1.06	0.35

Oct-12	< 5	8.07	1898	-	12	1.88	0.59
Nov-12	1.8	8.02	2158	-	10	1.01	0.21
Dec-12	< 5	8.22	1728	-	17	0.51	0.12
Jan-13	< 5	7.69	2060	-	08	0.78	0.42
Feb-13	3	7.99	1974	-	20	0.19	0.243
Mar-13	2.02	8.61	1872	-	8	1.02	0.15
Apr-13	2.15	8.0	2220	-	7	1.05	0.243
May-13	1.94	7.78	2164	-	6	0.35	0.29
June-13	0.99	7.56	1998	-	7	1.70	0.22
July-13	0.31	7.57	1754	-	5	1.97	0.37
Aug-13	1.05	7.35	1844	-	11	0.72	0.33
Sept-13	0.66	7.48	2082	-	4	0.64	0.40
Oct-13	1.11	7.56	1900	-	4	0.24	0.26
Nov-13	0.94	7.33	2200	-	4	0.22	0.35
Dec-13	0.82	7.40	2056	-	4	0.98	0.14
Jan-14	1.01	7.39	2162	-	5	0.28	0.28
Feb-14	1.22	7.76	2034	-	6	0.24	0.28
March-14	0.98	7.47	1944	-	8	0.36	0.45
Apr-14	1.13	7.37	1978	-	3	0.42	0.59
May-14	1.51	7.62	2008	-	4	0.40	0.43
June-14	1.44	7.47	2024	-	4	0.44	0.44
July-14	1.63	7.62	1744	-	4	0.56	0.57
Aug-14	1.69	7.34	1900	-	8	0.84	0.78
Sept-14	1.34	7.55	1870	-	8	0.64	0.70
Oct-14	1.04	7.69	1918	-	3	0.68	0.78
Nov-14	0.99	7.85	1918	-	3	4.38	0.78

Annexure L

Monthly Data for Ambient Air Quality at GIDC – Ankleshwar						
Sr.No.	Location	Month	Parameters			
			RSPM	SPM	SO ₂	NO _x
1	NAMP M/s Ralis Pharma India Ltd, GIDC, Ankleshwar (Industrial Area)	Jan-08	123.56	250.56	23.58	29.76
		Feb-08	121.88	245.63	23.56	29.26
		Mar-08	105.56	212.22	21.02	26.51
		Apr-08	103.30	205.60	23.45	29.17
		May-08	119.63	239.50	25.06	31.89
		Jun-08	119.00	239.13	22.76	28.83
		Jul-08	107.67	214.22	20.87	26.21
		Aug-08	95.11	184.44	19.48	24.39
		Sep-08	98.50	189.63	20.66	25.71
		Oct-08	104.17	203.25	21.96	27.27
		Nov-08	92.83	183.00	20.45	25.78
		Dec-08	97.56	197.22	20.92	26.43
		Jan-09	99.89	199.00	21.57	27.04
		Feb-09	22.10	27.70	22.10	27.70
		Mar-09	104.63	208.75	22.31	27.93
		Apr-09	103.11	205.89	21.40	26.40
		May-09	107.44	221.11	22.33	28.60
		Jun-09	113.50	233.50	22.68	29.09
Jul-09	93.56	188.67	18.80	24.81		
Aug-09	88.38	175.63	18.83	25.25		

	Sep-09	91.67	182.22	19.50	25.81
	Oct-09	98.33	196.67	22.50	29.51
	Nov-09	88.00	175.13	22.79	29.95
	Dec-09	91.59	182.41	20.90	27.63
	Jan-10	81.78	163.44	22.90	29.62
	Feb-10	80.25	143.25	23.35	30.18
	Mar-10	84.56	176.00	22.26	29.10
	Apr-10	90.29	187.58	21.56	28.20
	May10	94.93	200.17	16.93	22.56
	Jun-10	91.58	191.92	18.94	26.06
	Jul-10	75.08	156.58	16.91	23.57
	Aug-10	61.77	121.3	13.07	19.12
	Sep-10	71.54	146.17	14.72	20.46
	Oct-10	73.83	151.33	15.04	20.99
	Nov-10	79.63	163.50	15.68	22.12
	Dec-10	86.75	183.42	16.58	24.15
	Jan-11	96.00	197.33	17.07	25.52
	Feb-11	101.00	209.00	19.50	26.30
	Mar-11	107.00	220.00	21.10	30.20
	Apr-11	114.00	234.00	22.30	32.50
	May-11	126.00	244.00	21.70	30.50
		PM₁₀	PM_{2.5}	SO₂	NO_x
	Jun-11	109.00	33.00	19.90	28.80
	July-11	92.00	27.00	16.00	25.50
	Aug-11	68.00	20.00	13.20	21.90

Sept-11	77.00	23.00	15.00	23.30
Oct-11	88.00	26.00	16.70	25.40
Nov-11	91.19	27.67	16.63	24.95
Dec-11	94.44	27.50	17.78	26.54
Jan-12	100.63	30.38	20.68	29.71
Feb-12	103.93	30.89	21.43	30.62
Mar-12	121.07	39.11	22.47	32.06
Apr-12	108.38	36.88	18.13	27.96
May-12	111.78	41.22	17.36	26.62
Jun-12	115.32	44.25	16.63	25.43
July-12	95.50	26.38	14.06	23.20
Aug-12	86.57	23.19	13.80	23.52
Sept-12	98.00	-	12.81	10.34
Oct-12	98.00	-	13.93	29.34
Nov-12	91.38	30.25	18.75	26.50
Dec-12	91.22	29.11	19.22	25.67
Jan-13	83.89	29.89	17.78	26.67
Feb-13	77.63	26.00	17.88	24.88
Mar-13	98.79	37.00	15.58	26.37
Apr-13	105.63	32.63	16.82	23.51
May-13	92.63	28.88	14.36	23.56
Jun-13	74.04	19.50	14.91	21.75
July-13	78.78	24.00	14.46	20.23
Aug-13	80.19	20.89	14.93	20.13
Sept-13	91.81	22.78	15.18	20.37

		Oct-13	36.04	28.44	16.16	20.77
		Nov-13	90.50	24.88	13.66	20.10
		Dec-13	89.33	28.00	14.12	19.26
		Jan-14	85.10	27.50	18.04	17.40
		Feb-14	88.96	29.13	14.88	17.70
		Mar-14	73.71	27.13	16.39	20.53
		Apr-14	91.58	32.13	24.29	24.09
		May-14	96.22	36.67	16.34	24.91
		Jun-14	101.00	32.00	15.58	22.94
		Jul-14	97.88	31.13	15.21	22.88
		Aug-14	89.75	28.38	14.97	22.84
			RSPM	SPM	SO₂	NO_x
II	<p style="text-align: center;">NAMP</p> <p>M/s Durga Traders, Rajpipala Road, Near ONGC Colony) Ankleshwar (Residential Area, in the North-West direction of Ankleshwar Industrial Area)</p>	Jan-08	90.11	182.33	15.40	25.56
		Feb-08	89.56	180.44	15.46	24.37
		Mar-08	77.88	159.38	14.73	23.14
		Apr-08	76.80	155.30	19.30	26.68
		May-08	77.63	157.25	20.31	29.24
		Jun-08	75.00	151.00	19.73	27.35
		Jul-08	74.44	149.89	16.00	23.34
		Aug-08	70.00	136.22	13.98	20.56
		Sep-08	67.78	133.22	13.49	19.71
		Oct-08	74.27	144.00	14.80	22.70
		Nov-08	75.50	150.63	14.43	22.30
		Dec-08	77.44	155.78	15.38	23.52
		Jan-09	80.11	158.33	18.09	24.33

		Feb-09	81.75	162.00	16.68	25.33
		Mar-09	84.67	169.89	17.00	26.62
		Apr-09	79.38	157.88	16.88	25.33
		May-09	83.00	171.44	17.90	25.61
		Jun-09	82.44	169.56	19.07	27.11
		Jul-09	69.78	140.11	16.02	22.16
		Aug-09	72.13	144.25	16.58	23.50
		Sep-09	75.44	150.00	17.08	24.68
		Oct-09	82.44	164.44	18.58	26.50
		Nov-09	79.75	159.63	18.14	26.35
		Dec-09	74.56	149.89	17.88	25.88
		Jan-10	72.00	144.00	18.30	26.40
		Feb-10	76.00	152.00	17.80	25.60
		Mar-10	73.11	152.56	17.31	24.51
		Apr-10	74.88	155.42	16.42	23.75
		May10	82.1	173.1	15.09	22.6
		Jun-10	78.13	164.88	14.00	21.87
		Jul-10	71.25	148.50	12.99	20.70
		Aug-10	51.50	103.5	10.61	17.21
		Sep-10	61.25	126.13	12.10	18.88
		Oct-10	67.08	138.46	12.76	19.41
		Nov-10	74.43	152.57	13.33	22.11
		Dec-10	80.46	173.67	14.05	23.80
		Jan-11	87.57	179.53	14.66	24.14
		Feb-11	95.00	197.00	15.90	26.00

Mar-11	101.33	208.71	17.71	28.86
Apr-11	98.00	202.00	16.90	26.40
May-11	113.00	208.00	15.90	25.30
	PM₁₀	PM_{2.5}	SO₂	NO_x
Jun-11	91.00	26.00	13.70	23.09
July11	80.00	22.00	11.50	20.50
Aug-11	60.00	18.00	10.30	19.30
Sept-11	72.00	20.00	11.70	20.90
Oct-11	79.00	24.00	13.40	23.30
Nov-11	77.57	23.00	12.73	22.11
Dec-11	76.75	24.00	13.17	22.27
Jan-12	83.67	26.00	15.10	24.34
Feb-12	87.13	27.63	16.21	25.21
Mar-12	91.33	30.33	17.43	26.52
Apr-12	90.50	27.50	16.29	25.21
May-12	91.67	33.22	15.62	24.84
Jun-12	93.00	33.62	14.39	23.40
July-12	70.89	20.56	11.50	20.46
Aug-12	64.25	16.88	10.27	19.19
Sept-12	75.00	-	11.51	6.85
Oct-12	91.00	-	11.10	10.53
Nov-12	85.50	26.25	16.75	22.75
Dec-12	86.33	26.33	18.44	22.00
Jan-13	80.67	26.11	16.89	21.22
Feb-13	73.13	23.88	15.75	21.50

		Mar-13	88.46	24.88	14.65	27.10
		Apr-13	97.54	32.50	16.70	24.28
		May-13	87.38	28.75	13.38	24.11
		Jun-13	77.50	19.75	11.46	18.41
		July-13	73.89	21.89	11.71	17.48
		Aug-13	72.74	19.78	9.99	14.82
		Sept-13	73.37	19.00	10.50	14.81
		Oct-13	86.26	32.33	15.83	20.58
		Nov-13	84.92	26.75	13.20	20.04
		Dec-13	80.58	27.63	10.46	16.38
		Jan-14	87.37	27.40	19.98	21.45
		Feb-14	88.48	25.91	13.44	16.52
		Mar-14	84.92	30.88	14.03	20.26
		Apr-14	93.17	36.50	15.84	23.58
		May-14	91.81	36.44	15.63	24.12
		Jun-14	88.70	29.78	13.85	21.16
		Jul-14	97.61	30.00	14.11	21.87
		Aug-14	86.54	28.38	12.72	20.07
			RSPM	SPM	SO₂	NO_x
		Jan-08	82.56	169.44	13.79	22.61
		Feb-08	83.11	169.56	15.03	25.61
		Mar-08	79.88	160.88	15.03	24.14
		Apr-08	73.30	146.70	15.74	23.65
		May-08	81.38	164.75	16.81	24.61
		Jun-08	78.13	156.63	16.09	23.65

III	SAMP Gram Panchayat, Piraman, Dist. Bharuch (Residential Area, Adjacent to Ankleshwar Town, in the South-West direction of Ankleshwar Industrial Area)	Jul-08	75.89	149.67	15.46	21.97
		Aug-08	71.67	139.78	13.90	20.29
		Sep-08	69.56	133.22	12.23	19.47
		Oct-08	72.09	137.82	12.47	19.87
		Nov-08	71.00	141.00	12.40	19.20
		Dec-08	71.67	144.56	12.64	20.06
		Jan-09	74.22	150.00	12.92	20.89
		Feb-09	77.00	154.00	13.00	21.40
		Mar-09	74.89	151.33	12.87	21.18
		Apr-09	71.86	144.00	12.42	19.80
		May-09	75.40	156.00	12.90	20.70
		Jun-09	77.78	161.11	13.03	20.89
		Jul-09	75.11	147.56	12.72	19.89
		Aug-09	78.75	156.63	13.38	22.28
		Sep-09	80.22	159.89	13.49	21.88
		Oct-09	85.11	170.22	18.52	22.16
		Nov-09	89.38	175.50	14.44	23.35
		Dec-09	90.44	182.89	14.73	24.56
		Jan-10	91.11	182.56	15.16	25.08
		Feb-10	87.50	174.75	14.93	23.35
		Mar-10	82.89	173.78	14.10	22.41
		Apr-10	84.58	176.58	13.87	23.34
		May-10	92.83	194.33	14.59	24.41
		Jun-10	80.42	169.21	13.22	22.54
		Jul-10	74.13	154.33	12.37	20.75

	Aug-10	60.11	118.10	10.54	17.51
	Sep-10	64.04	131.08	11.84	19.33
	Oct-10	70.63	144.96	12.64	20.09
	Nov-10	75.53	155.53	13.00	21.15
	Dec-10	78.42	164.00	13.44	22.23
	Jan-11	81.60	171.53	14.44	23.66
	Feb-11	83.33	171.67	14.78	24.62
	Mar-11	90.00	185.33	15.86	25.62
	Apr-11	88.00	182.00	15.50	25.30
		PM₁₀	PM_{2.5}	SO₂	NO_x
	May-11	94.00	30.00	14.70	24.80
	Jun-11	90.00	26.00	12.70	21.80
	Jul-11	78.00	21.00	11.40	20.00
	Aug-11	61.00	17.00	10.60	19.00
	Sep-11	71.22	21.22	11.86	20.64
	Oct-11	74.13	22.13	13.10	23.03
	Nov-11	73.62	20.71	12.72	22.72
	Dec-11	76.11	22.44	13.30	23.54
	Jan-12	79.89	23.89	14.10	24.42
	Feb-12	82.63	25.38	14.58	25.26
	Mar-12	90.78	30.22	15.32	26.57
	Apr-12	85.13	28.00	13.20	22.83
	May-12	86.22	32.89	12.62	22.01
	Jun-12	88.75	35.25	12.23	21.37
	Jul-12	74.67	20.33	10.12	18.68

	Aug-12	67.69	18.38	9.27	17.65
	Sept-12	-	-	-	-
	Oct-12	71.50	-	6.73	8.06
	Nov-12	82.50	20.75	11.13	19.63
	Dec-12	84.56	20.78	11.44	20.56
	Jan-13	78.00	20.00	11.22	19.56
	Feb-13	69.63	19.88	11.38	17.63
	Mar-13	77.92	29.13	12.10	19.76
	Apr-13	105.50	25.50	16.70	24.28
	May-13	87.38	30.00	13.90	23.40
	Jun-13	79.42	23.50	10.74	16.40
	July-13	77.74	20.33	9.57	14.10
	Aug-13	73.81	19.67	9.64	13.74
	Sept-13	66.08	18.25	9.90	12.83
	Oct-13	80.11	26.11	14.47	19.86
	Nov-13	86.15	29.11	13.12	19.62
	Dec-13	70.70	24.78	14.98	20.86
	Jan-14	85.00	28.33	13.50	17.78
	Feb-14	69.88	25.61	11.92	17.40
	Mar-14	69.58	24.75	12.14	17.95
	Apr-14	68.33	25.44	14.18	23.29
	May-14	87.38	30.00	13.90	23.40
	Jun-14	84.83	26.25	13.30	20.27
	Jul-14	86.86	28.57	12.13	19.53
	Aug-14	89.19	28.11	11.59	19.53

		RSPM	SPM	SO ₂	NO _x	
V	SAMP Kumkum Banglow, Village Kosamadi, Dist. Bharuch (Residential Area, In the South-East direction of Ankleshwar Industrial Area)	Jan-08	77.67	158.11	13.28	21.66
		Feb-08	82.00	166.63	13.83	22.94
		Mar-08	76.78	155.56	13.38	22.52
		Apr-08	69.40	139.70	14.20	22.05
		May-08	77.38	157.13	13.73	22.46
		Jun-08	73.88	148.38	13.49	21.25
		Jul-08	71.89	142.00	13.23	20.33
		Aug-08	66.00	130.44	11.58	16.63
		Sep-08	71.00	139.00	13.00	19.09
		Oct-08	73.25	141.00	13.83	20.50
		Nov-08	72.00	142.00	13.00	21.00
		Dec-08	74.56	149.78	13.69	21.57
		Jan-09	77.00	154.89	13.81	22.02
		Feb-09	80.00	159.00	14.10	22.20
		Mar-09	76.63	154.25	13.63	21.55
		Apr-09	78.50	157.00	14.05	22.85
		May-09	83.50	173.50	13.80	21.80
		Jun-09	85.00	175.38	13.96	22.18
		Jul-09	80.78	161.11	13.08	20.17
		Aug-09	79.47	158.86	13.59	21.57
		Sep-09	83.56	167.22	14.50	23.64
		Oct-09	89.44	179.11	16.67	25.16
		Nov-09	92.75	184.88	17.20	26.30
		Dec-09	96.44	196.33	17.94	27.32

Jan-10	96.89	193.78	18.31	27.48
Feb-10	93.88	187.50	18.01	25.95
Mar-10	95.89	199.78	17.50	25.34
Apr-10	99.38	205.83	16.73	24.23
May10	104.30	217.40	17.28	25.64
Jun-10	94.13	197.91	16.24	24.14
Jul-10	87.13	182.08	14.49	22.81
Aug-10	71.33	139.50	11.86	18.51
Sep-10	68.21	138.83	13.0	20.76
Oct-10	76.69	157.71	14.07	22.48
Nov-10	79.13	164.93	14.39	22.78
Dec-10	81.21	171.58	14.67	23.26
Jan-11	92.53	194.33	15.74	24.47
Feb-11	93.50	193.50	16.40	25.82
Mar-11	100.67	208.11	17.22	26.83
Apr-11	98.00	197.00	16.80	26.20
	PM₁₀	PM_{2.5}	SO₂	NO_x
May-11	103.00	37.00	16.00	25.40
Jun-11	99.00	32.00	14.50	23.90
July11	81.00	24.00	12.40	19.80
Aug-11	66.00	17.00	11.50	18.40
Sept-11	74.88	23.13	12.35	20.16
Oct-11	81.63	24.63	13.53	23.01
Nov-11	78.76	23.43	13.77	23.88
Dec-11	82.67	25.00	14.17	24.56

Jan-12	88.50	29.00	14.99	25.24
Feb-12	88.00	27.67	15.93	26.16
Mar-12	108.67	40.78	17.01	26.94
Apr-12	91.75	30.13	15.80	25.90
May-12	97.22	38.78	14.64	24.46
Jun-12	96.69	37.50	13.80	23.22
Jul-12	78.20	24.88	11.35	20.18
Aug-12	78.62	20.38	10.20	18.58
Sept-12	-	-	-	-
Oct-12	86.50	-	5.79	11.06
Nov-12	81.50	25.38	13.25	20.25
Dec-12	82.56	26.56	13.00	21.56
Jan-13	77.00	27.11	12.89	21.67
Feb-13	67.88	23.38	13.50	19.75
Mar-13	80.54	32.38	13.15	16.61
Apr-13	-	-	-	-
May-13	-	-	-	-
Jun-13	-	-	-	-
July-13	74.39	21.11	11.85	18.06
Aug-13	76.74	19.78	11.27	15.66
Sept-13	79.50	20.25	11.86	15.11
Oct-13	63.22	26.44	10.81	17.42
Nov-13	67.41	28.67	11.32	19.04
Dec-13	74.78	24.89	11.56	20.39
Jan-14	79.15	24.44	13.13	16.42

	Feb-14	62.93	24.33	11.70	17.60
	Mar-14	79.83	29.75	12.73	19.75
	Apr-14	85.89	28.22	16.39	22.96
	May-14	88.85	32.78	15.53	23.29
	Jun-14	85.46	26.88	11.96	17.01
	Jul-14	83.71	25.57	12.55	20.25
	Aug-14	87.89	30.33	12.79	20.25

(Source GPCB / GEMI / Siddhi Consultant/ Bhagwati Analab)

ANNUAL AVERAGE OF AMBIENT AIR QUALITY UNDER NAMP

Location	Year	Average values			
		RSPM	SPM	SO ₂	NOx
Rallis India Ltd., GIDC, Ankleshwar	2008	107.40	213.70	21.98	27.60
	2009	91.85	183.06	21.31	27.48
	2010	81.00	165.39	18.16	24.68
	2011 (up to May)	108.80	220.87	20.33	29.00
		PM10	PM2.5	SO₂	NOx
	2011 (From June)	88.52	26.31	16.46	25.20
	2012	101.82	33.17	17.44	25.91
	2013	87.44	26.91	15.49	22.30
	2014 (up to Aug)	90.53	30.51	16.96	21.66

Location	Year	Average values			
		RSPM	SPM	SO ₂	NOx
Durga Traders, Bhavna Farm, Rajpipla road, Ankleshwar	2008	77.20	154.64	16.08	24.04
	2009	78.79	158.12	17.33	25.28
	2010	71.85	148.73	14.56	22.24
	2011 (up to May)	98.98	199.05	16.21	26.14
		PM10	PM2.5	SO₂	NOx
	2011 (From June)	76.62	22.43	12.36	21.64
	2012	84.19	26.85	14.55	20.94
	2013	81.37	25.27	13.38	20.06
	2014 (up to Aug)	89.83	30.66	14.95	21.13

ANNUAL AVERAGE OF AMBIENT AIR QUALITY UNDER SAMP

Location	Year	Average values			
		RSPM	SPM	SO ₂	NO _x
Piraman Gram Panchayat, Piraman, Ta. Ankleshwar	2008	75.85	151.17	14.30	22.09
	2009	79.18	159.09	13.70	21.58
	2010	78.52	161.60	13.31	21.85
	2011 (up to April)	85.73	177.63	15.15	24.80
		PM10	PM2.5	SO₂	NO_x
	2011 (From May)	77.26	22.56	12.55	21.94
	2012	81.30	25.59	11.89	20.64
	2013	79.37	23.86	12.31	18.50
	2014 (up to Aug)	80.13	27.13	12.83	19.89

Location	Year	Average values			
		RSPM	SPM	SO ₂	NO _x
Kumkum Bungalows, Valia road, Kosamadi	2008	73.82	147.48	13.35	21.00
	2009	83.59	168.46	14.69	23.07
	2010	87.35	179.74	15.55	23.62
	2011 (up to April)	96.18	198.24	16.54	25.83
		PM10	PM2.5	SO₂	NO_x
	2011 (From May)	83.37	25.77	13.53	22.39
	2012	88.93	30.11	13.25	22.14
	2013	73.50	24.89	12.02	18.19
	2014 (up to Aug)	81.71	27.79	13.35	19.69

Annexure M

AAQM Results (Carried out through Industries Associations) : Ankleshwar Estate

Sampling Location : Above Sports Club, Nr.Gattu School, Ankleshwar			
Month	No. of Days	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Jun.10	7	ND	ND
Jul.10	7	ND	ND
Aug.10	7	ND	ND
Sep.10	7	ND	ND

Sampling Location : Nr. Blitox Plant (M/s. Rallis India Ltd. (Unit-III), Ankleshwar			
Month	No. of Days	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Jun.10	7	ND	ND
Jul.10	7	2.2225	0.31025
Aug.10	7	2.025	0.363
Sep.10	7	1.686	0.35
Oct.10	4	1.27	0.25
Nov.10	2	3.59	ND
Dec.10	1	ND	ND

Sampling Location : Above E.V.T. Block (M/S Rajat Pharma Ltd., P.No.307,311, GIDC, Ankleshwar			
Month	No. of Days	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Dec.10	1	ND	ND
Jan.11	2	ND	ND
Feb.11	2	ND	ND
Mar.11	2	1.02	0.90
Apr.11	1	0.96	0.52
May.11	2	1.52	0.45
Jun.11	2	0.30	1.00
Jul.11	2	2.96	0.74
Aug.11	2	3.03	0.39
Sep.11	2	ND	ND
Oct.11	2	ND	ND
Nov.11	2	1.49	0.74
Dec.11	2	2.23	1.06
Jan.12	2	1.42	0.52
Feb.12	2	2.75	0.82
Mar.12	2	2.31	0.73
Apr.12	2	2.27	0.81
May.12	2	2.11	0.77
Jun.12	2	2.42	0.91
Jul.12	2	2.29	0.95
Aug.12	2	2.19	0.88
Sep.12	2	2.44	0.91
Oct.12	2	2.84	0.73

Nov-12	2	2.77	0.70
Dec-12	2	2.48	0.74
Jan-13	2	2.44	0.77
Feb-13	2	2.32	0.72
Mar-13	2	2.34	0.67
Apr-13	2	2.18	0.64
May-13	2	2.47	0.59
Jun-13	2	2.28	0.59
Jul-13	2	2.40	0.60
Aug-13	2	2.19	0.68
Sep-13	2	2.33	0.63
Oct-13	2	2.27	0.59
Nov-13	2	2.39	0.61
Dec-13	2	2.51	0.70
Jan-14	2	2.59	0.57
Feb-14	2	2.52	0.63
Mar-14	2	2.48	0.66
Apr-14	2	2.31	0.61
May-14	2	2.67	0.68
Jun-14	2	2.20	0.68
Jul-14	2	2.36	0.64
Aug-14	2	2.42	0.71
Sep-14	2	2.46	0.75
Oct-14	2	2.32	0.66
Nov-14	2	2.45	0.73
Dec-14	2	2.28	0.56

(Source : AIA / Aqua-Air Environmental Engineers Pvt. Ltd.)

Sampling Location : Nr. Water Storage Tank (M/S Resins & Plastic Ltd., P.No.3607, GIDC, Ankleshwar			
Month	No. of Days	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Jan.11	2	ND	ND
Feb.11	2	ND	ND
Mar.11	2	1.22	0.50
Apr.11	2	0.70	0.90
May.11	2	2.14	0.47
Jun.11	2	1.40	1.48
Jul.11	2	2.15	0.59
Aug.11	2	2.89	0.67
Sep.11	2	3.03	0.62
Oct.11	2	1.12	0.36
Nov.11	2	2.94	1.06
Dec.11	2	2.92	1.22
Jan-12	2	2.58	0.50
Feb-12	2	2.60	1.03
Mar-12	2	2.72	1.07
Apr.12	2	3.20	1.29
May.12	2	2.99	1.21
Jun.12	2	3.15	1.18
Jul.12	2	2.22	0.83
Aug.12	2	2.40	0.76
Sep.12	2	2.37	0.70
Oct.12	2	2.66	0.77
Nov-12	2	2.52	0.70
Dec-12	2	2.29	0.65
Jan-13	2	2.33	0.80
Feb-13	2	2.42	0.76
Mar-13	2	2.32	0.73

Apr-13	2	2.41	0.64
May-13	2	2.52	0.73
Jun-13	2	2.38	0.60
Jul-13	2	2.47	0.61
Aug-13	2	2.27	0.63
Sep-13	2	2.31	0.58
Oct-13	2	2.20	0.58
Nov-13	2	2.39	0.66
Dec-13	2	2.54	0.61
Jan-14	2	2.38	0.54
Feb-14	2	2.40	0.61
Mar-14	2	2.34	0.64
Apr-14	2	2.40	0.62
May-14	2	2.06	0.56
Jun-14	2	2.52	0.64
Jul-14	2	2.56	0.67
Aug-14	2	2.51	0.78
Sep-14	2	2.67	0.87
Oct-14	2	2.49	0.69
Nov-14	2	2.55	0.70
Dec-14	2	2.38	0.67

(Source : AIA / Aqua-Air Environmental Engineers Pvt. Ltd.)

**Sampling Location : M/S Patel Auto Garage, P.No.901/1,
GIDC, Ankleshwar**

Month	No. of Days	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Apr.11	2	1.37	0.65
May.11	2	2.35	0.62
Jun.11	2	1.89	0.34
Jul.11	2	ND	ND
Aug.11	2	ND	ND
Sep.11	2	ND	ND
Oct.11	2	ND	ND
Nov-11	2	ND	ND
Dec-11	2	0.41	ND
Jan-12	2	ND	ND
Feb-12	2	ND	ND
Mar-12	2	ND	ND
Apr.12	2	ND	ND
May.12	2	ND	ND
Jun.12	2	ND	ND
Jul.12	2	ND	ND
Aug.12	2	ND	ND
Sep.12	2	ND	ND
Oct.12	2	ND	ND
Nov-12	2	ND	ND
Dec-12	2	ND	ND
Jan-13	2	ND	ND
Feb-13	2	ND	ND
Mar-13	2	ND	ND
Apr-13	2	ND	ND
May-13	2	ND	ND
Jun-13	2	ND	ND
Jul-13	2	ND	ND
Aug-13	2	ND	ND
Sep-13	2	ND	ND
Oct.13	2	ND	ND
Nov-13	2	ND	ND
Dec-13	2	ND	ND
Jan-14	2	ND	ND

Feb-14	2	ND	ND
Mar-14	2	ND	ND
Apr-14	2	ND	ND
May-14	2	ND	ND
Jun-14	2	ND	ND
Jul-14	2	ND	ND
Aug-14	2	ND	ND
Sep-14	2	ND	ND
Oct-14	2	ND	ND
Nov-14	2	ND	ND
Dec-14	2	ND	ND

(Source : AIA / Aqua-Air Environmental Engineers Pvt. Ltd.)

Annexure N

VOC Monitoring by GEMI (Till August-12)

By Siddhi Consultants (Till February-13) &

By Bhagwathi Ana Lab (From March-13 onwards)

Sampling Location : Railis (india) Limited, Plot No.3301,GIDC, Ankleshwar		
Month	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Dec.10	17.17	1.40
Jan.11	33.38	1.42
Feb.11	28.74	< 0.5
Mar.11	27.51	< 0.5
Apr.11	18.22	< 0.5
May-11	11.91	<0.5
June-11	10.91	<0.5
July-11	11.70	<0.5
Aug -11	11.07	<0.5
Sept-11	4.47	<0.5
Oct-11	5.49	<0.5
Nov-11	6.3	<0.5
Dec-11	11.12	<0.5
Jan-12	4.66	<0.5
Feb-12	8.76	<0.5
Mar-12	8.62	<0.5
Apr.12	9.36	< 0.5
May-12	4.59	< 0.5
June-12	5.96	< 0.5
July-12	6.00	< 0.5
Aug -12	11.39	< 0.5
Sept-12	--	--
Oct-12	--	--

(Source : GPCB / GEMI / Siddhi Consultant/ Bhagawati AnaLab)

Sampling Location: Rallis (India) Ltd. (Meghmani Organics Ltd.),
Plot No.5009/B, GIDC, Ankleshwar

Nov-12	BDL	BDL
Dec-12	BDL	BDL
Jan-13	BOL	BDL
Feb-13	BDL	BDL
Mar-13	3.20	< 0.5
Apr-13	2.91	< 0.5
May-13	2.80	< 0.5
June-13	2.00	< 0.5
July-13	1.80	< 0.5
Aug-13	2.02	< 0.5
Sept-13	1.98	< 0.5
Oct-13	1.74	< 0.5
Nov-13	1.38	< 0.5
Dec-13	1.95	< 0.5
Jan-14	2.42	< 0.5
Feb-14	2.47	< 0.5
Mar-14	2.67	< 0.5
Apr-14	2.62	< 0.5
May-14	2.29	< 0.5
Jun-14	2.21	< 0.5
Jul-14	2.12	< 0.5
Aug-14	2.11	< 0.5

Sampling Location : Hikal Ltd., Plot No.629,630,GIDC,Panoli		
Month	Benzene $\mu\text{g}/\text{m}^3$	Benzo (a) Pyrene ng/m^3
Dec.10	5.30	<0.5
Jan.11	2.64	<0.5
Feb.11	14.96	<0.5
Mar.11	14.83	<0.5
Apr.11	16.80	<0.5
May-11	10.74	<0.5
June-11	10.98	<0.5
July-11	11.72	<0.5
Aug-11	11.33	<0.5
Sept-11	8.40	<0.5
Oct-11	7.65	<0.5
Nov-11	9.56	<0.5
Dec-11	4.99	<0.5
Jan-12	6.82	<0.5
Feb-12	8.07	<0.5
Mar-12	2.68	<0.5
Apr.12	1.55	<0.5
May-12	11.65	<0.5
June-12	11.33	<0.5
July-12	11.31	<0.5
Aug-12	10.58	<0.5
Sept-12	--	--
Oct-12	--	--
Nov-12	--	--
Dec-12	--	--
Jan-13	--	--
Feb-13	--	--
Mar-13	--	--

Apr-13	--	--
May-13	--	--
June-13	3.47	< 0.5
July-13	4.92	< 0.5
Aug-13	4.61	< 0.5
Sept-13	10.30	< 0.5
Oct-13	6.75	< 0.5
Nov-13	12.00	< 0.5
Dec-13	10.95	< 0.5
Jan-14	6.75	< 0.5
Feb-14	9.75	< 0.5
Mar-14	4.65	< 0.5
Apr-14	5.65	< 0.5
May-14	3.95	< 0.5
Jun-14	3.00	< 0.5
Jul-14	2.65	< 0.5
Aug-14	2.05	< 0.5

(Source : GPCB / GEMI / Bhagawati Ana Lab)

Annexure – N1

Captive Hazardous Waste Incinerators

Sr. No.	Name of Industry	Location	District
1	Gujarat Insecticides Limited	Ankleshwar	Bharuch
2	Luna Chemical Industries Pvt. Ltd.	Panoli	Bharuch
3	Rallis India Limited	Ankleshwar	Bharuch
4	P. I. Industries Limited	Panoli	Bharuch
5	Coromandel Fertilizers Limited	Ankleshwar	Bharuch
6	Wockhardt Limited	Ankleshwar	Bharuch
7	Impro Interchem Pvt Ltd	Panoli	Bharuch
8	Isagro Asia Agrochemical Limited	Panoli	Bharuch
9	Bayer Crop Science Limited	Ankleshwar	Bharuch
10	Asian Paints (I) Limited (Phathalic Division)	Ankleshwar	Bharuch
11	Siddhi Samrat Dye Chem Pvt. Limited	Ankleshwar	Bharuch
12	Minol Acid and Chemicals	Ankleshwar	Bharuch
13	Cheminova (India) Limited (Tech. Division)	Panoli	Bharuch
14	Cheminova (India) Limited (Intermediate Division)	Panoli	Bharuch
15	Sajjan India Limited	Ankleshwar	Bharuch
16	Amsal Chem Pvt. Limited	Ankleshwar	Bharuch
17	Hemani Intermediates Pvt. Limited	Ankleshwar	Bharuch
18	Bodal Chemical Pvt. Limited (Unit V)	Ankleshwar	Bharuch
19	Aarti Industries Limited	Jhagadia	Bharuch
20	Padmavati Chemical Limited	Ankleshwar	Bharuch

Annexure - 0

PERFORMANCE OF FETP AT PIRAMAN - A TREND ANALYSIS BY GPCB

Sampling Location : Outlet of FETP

MONTH	Permissible Limit					
	PH	NH3-N	COD	BOD	O&G	PHENOL
		Mg/ltr	Mg/ltr	mg/ltr	mg/ltr	mg/ltr
	5.5 -8.5	50	250	100	10	5
	Concentration of Parameter					
	PH	NH3-N	COD	BOD	O&G	PHENOL
		Mg/ltr	Mg/ltr	mg/ltr	mg/ltr	mg/ltr
Jan-09	7.53	806.4	2369	835	8.8	2.16
Feb-09	7.48	817.6	3002	1427	7.2	9.16
Mar-09	7.5	784	1407	439	1.2	1.42
Apr-09	6.86	714	2349	662.5	4.2	6.16
May-09	7.16	342.4	1545	428	2.8	5.16
Jun-09	7.46	418	1407	403	2.4	3.39
Jul-09	7.88	621.6	1217	375	2.8	6.66
Aug-09	7.72	961	1106	338	2.2	4.965
Sep-09	7.64	543	974	216	2.7	6.83
Oct-09	7.97	868	876	210	3.2	5.33
Nov-09	7.72	563	904	188	2.4	3.83
Dec-09	7.77	638	1148	228	4	3.83
Jan.10	7.3	742	1496	287	3.2	2.83
Feb-10	8.19	733.6	1731	393	3.6	1.75

Feb-10	7.16	664	1703	302	5.6	3.33
Mar-10	7.39	599	1945	597		
Apr-10	7.65	795	1953	642	9.2	3
May-10	7.21	560	1397	360	7.2	2.67
Jun-10	7.64	762	1240	241	2.0	BDL
Jul-10	7.46	403	762	175	2.8	BDL
Aug-10	7.65	304	598	116	1.2	1.1
Sep-10	7.64	515	634	213	4.8	0.69
Oct-10	7.96	502	976	300	2.0	6.78
Nov-10	7.55	439	1001	261	2.8	2.15
Dec-10	7.50	354	907	236	3.6	2.34
Feb-11	8.53	425.6	983	227	5.6	2.68
Mar-11	7.62	190	521	140	1.2	2.60
Apr-11	7.49	266	816	222	21.9	4.73
May-11	7.81	526	814	113	0.8	8.83
Jun-11	7.93	464	861	209	0.4	3.53
Jul-11	7.74	153	695	140	3.2	2.45
Aug-11	7.27	195	637	192	0.8	0.57
Sept-11	8.14	339	407	216	1.6	1.68
Oct-11	7.94	379	930	178	3.2	0.51
Nov-11	7.97	178	629	148	2.8	0.62
Jan-12	7.94	196	595	167	10.4	1.64
Mar-12	7.89	235	705	111	1.4	BDL
April-12	7.82	165	505	135	0.8	BDL
May-12	7.37	214	463	143	3.2	0.24

Jun-12	7.63	153	548	114	1.6	0.93
July-12	7.64	149	520	134	0.8	BDL
Aug-12	7.61	80	419	56	1.6	0.13
Sept-12	7.44	123	823	258	7.2	0.16
Oct-12	7.90		432	148	2.8	0.77
Nov-12	7.11	18	662	192	1.6	0.47
Dec-12	7.40	73	392	27	2.0	0.16
Jan-13	7.29	73	442	41	1.2	0.11
Feb-13	7.17	60	331	51	1.6	0.8
Mar-13	7.87	60	513	36	2.8	BDL
April-13	7.47	65	482	30	2.0	BDL
May-13	7.03	89.6	581	111	2.0	0.47
Jun-13	7.16	90	461	116	0.8	0.37
July-13	6.97	14	327	21	1.6	BDL
Aug-13	7.24	18	322	21	1.6	BDL
Sept-13	6.58	51.5	658	145	1.2	0.28
Oct-13	No Sample					
Nov-13	7.59	144.5	401	100	1.2	0.59
Dec-13	7.35		393	28	0.8	BDL
Jan-14	7.70	70	428.5	106.5	0.6	0.42
Feb-14	7.75	103.4	377	28	0.4	0.49
Mar-14	7.56	102	472.5	29.5	0.8	1.02
April-14	7.36	62	399	25	0.4	0.03
May-14	7.69	66	441	40	1.2	BDL
June-14	7.55	50	305	30	0.8	BDL

July-14	7.6	45	320	86	0.8	0.34
Aug-14	7.34	59	378	38	0.8	0.68
Sept-14	6.75	72	361	34	1.2	BDL
Oct-14	7.07	74	443	40	1.2	BDL
Nov-14	6.99	78	536	43	1.2	0.86

PERFORMANCE OF FETP AT PIRAMAN - A TREND ANALYSIS BY CPCB

Sampling Location : Outlet of FETP

Date of monitoring	Permissible Limit in mg/lit except pH									
	pH	TSS	TDS	COD	BOD	NH ₃ -N	CN	Phenol	S	O&G
	5.5 - 8.5	100	-	250	100	50	0.2	5	5	10
	Concentration of Parameter in mg/lit except pH									
	pH	TSS	TDS	COD	BOD	NH ₃ -N	CN	Phenol	S	O&G
28.11.06	7.3	375	9130	1689	514	661	--	-	1.95	227
29.11.06	7.4	370	9274	2160	408	616	--	-	1.28	17
28.06.07	7.5	395	9274	1341	94	688	--	7.3	BDL	26.8
31.10.07	7.02	353	13567	1965	175	788	--	17.3	8.9	33.8
17.01.08	7.6	489	7954	1482	659	495	3.85	18.1	13.5	23.0
07.03.08	7.9	290	10304	2112	524	661	--	5.75	12	10.2
22.04.08	7.8	470	12457	2292	351	612	1.50	14.86	--	--
27.05.08	8.04	1220	8060	3090	708	725	0.11	13.68	--	14
17.06.08	8.0	256	9216	2483	475	454	0.21	9.47	37.3	12
29.07.08	7.76	273	9629	1645	356	813	0.25	--	34.8	22.4
28.08.08	8.31	563	9162	911	487	636	0.37	11.36	26.4	27.5
26.09.08	8.45	246	6530	1223	338	756	0.39	8.65	17.3	14.0
22.10.2008	8.4	553	11420	2303	857	953	1.85	13.60	34.2	38.0
07.11.2008	8.37	386	11167	2613	885	708	0.91	10.19	38.1	20.0
19.12.2008	8.23	571	11780	3008	721	338	--	5.64	--	--
28.01.2009	7.97	430	9151	4158	728	642.6	--	19.33	65.9	47
05.03.2009	8.20	397	11853	2779	630	690.4	0.21	9.37	62.5	19.5
30.06.2009	7.82	327	9164	1764	556	475	0.19	8.04	--	18
10.09.2009	7.55	173	8798	702	39	586	0.34	0.82	0.5	13.9
10.12.2009	7.11	496	11228	1510	294	785	--	4.84	--	8.06
10.03.10	7.78	371	12413	1241	380	666	1.61	3.41	13.1	59
10.03.10(C)	--	405	9823	1498	394	664	2.12	2.75	10.4	--
24.06.2010	7.7	238	11513	1235	321	932	0.02	9.4	7.68	17.8
29.09.2010	7.78	202	8353	956	188	320	0.81	5.71	3.5	20
26.11.2010	7.64	148	7407	891	192	460	0.226	4.16	0.8	21.9
30.03.2011	7.36	106	6875	703	215	263	0.17			
07.06.2011	7.78	115	6520	528	106	276	0.48		7.26	9.50
25.08.2011	7.27	120	5784	419	159	182	0.19	0.55	1.48	0.56
21.12.2011	7.43	146	8099	804	198	316	0.35	1.47	1.12	9.9
28.04.2012	7.68	160	7034	452	90	164	0.37	1.93	BDL	8.2
08.08.2012	7.30	143	7039	537	39	146	0.16	0.61	1.0	5.6
06.12.2012	7.02	186	7158	579	75	129.3	0.52	1.135	8.0	3.7
27.02.2013	7.49	94	7284	555	52	136.9	--	0.91	0.77	19
19.06.2013	7.34	140	6723	325	17	69.4	0.5	0.32	0.49	--
05.09.2013	7.49	246	7882	539	128	191.7	0.52	2.4	0.47	7.5
28.12.2013	7.32	69	12794	202	32	48	0.44	0.08	--	4.3
22.02.2014	6.97	138	8790	837	52	186.9	0.38	1.30	2.8	6.6
25.06.2014	7.46	60	8729	464	54	117	0.38	0.66	0.35	3.8
23.09.2014	7.09	67	8110	379	41	102.6	0.14	0.63	1.3	7.4
30.12.2014	6.77	40	10116	567	72	128	--	1.95	0.55	8.7

PERFORMANCE OF FETP: AT ANKLESHWAR - ANALYSIS BY FETP

Trends in FETP Inlet

Month & Year	Avg COD	Avg BOD	Avg NH3-N	Avg TDS
May 2010	2617	703	645	9142
June 2010	2483	669	655	8500
July 2010	2118	580	562	7961
Aug 2010	1536	453	476	7016
Sept 2010	1416	418	503	6439
Oct 2010	1848	573	542	6333
Nov 2010	1879	572	505	6565
Dec 2010	1928	555	410	6569
Jan 2011	1982	522	459	6714
Feb 2011	1831	436	318	5725
Mar 2011	1295	266	192	4616
April 2011	1432	293	264	4710
May 2011	1413	301	313	6028
June 2011	1480	285	323	5969
July 2011	1199	336	225	6466
Aug 2011	1066	272	187	5163
Sept 2011	1195	279	237	5017
Oct 2011	1392	369	278	5166
Nov 2011	1266	268	203	4810
Dec 2011	1344	355	239	5364
Jan 2012	1265	367	208	6339
Feb 2012	1248	329	212	6530
Mar 2012	1260	324	241	6329
April 2012	1127	293	202	5959
May 2012	1155	272	171	6052
June 2012	1169	299	183	5138
July 2012	1107	317	172	4445
Aug 2012	1061	283	160	4205

Sep 2012	1090	239	196	4619
Oct 2012	1078	276	146	5776
Nov 2012	1011	245	123	5512
Dec 2012	1313	312	124	6511
Jan 2013	1492	404	147	7632
Feb 2013	1198	293	128	6332
March 2013	1298	331	122	6803
April 2013	1736	447	138	7907
May 2013	1599	319	103	6854
June 2013	1145	259	87	7137
July 2013	812	183	105	5373
Aug 2013	873	190	113	5951
Sept 2013	1009	227	140	6229
Oct 2013	1117	234	164	6805
Nov 2013	1319	376	187	8047
Dec 2013	1454	378	159	8636
Jan 2014	1511	394	187	8437
Feb 2014	1198	331	142	7057
Mar 2014	1102	234	130	6894
April. 14	1373	300	129	7122
May. 14	1215	285	116	7878
June. 14	1171	262	109	6848
July. 14	1162	294	142	6468
Aug. 14	1173	261	116	6255
Sep. 14	984	236	105	5875
Oct. 14	1261	321	123	6024
Nov. 14	1285	307	116	8347
Dec. 14	1713	444	148	9551

(All values in mg/lit)

Trends in FETP Outlet

Month & Year	Avg COD	Avg BOD	Avg NH3-N	Avg TDS
May 2010	1812	421	640	9717
June 2010	1315	290	620	8504
July 2010	1236	205	538	8142
Aug 2010	851	162	446	6936
Sept 2010	635	116	407	6227
Oct 2010	932	184	488	6220
Nov 2010	1042	252	461	6549
Dec 2010	1067	250	363	6537
Jan 2011	1244	250	445	6714
Feb 2011	1115	235	330	5725
Mar 2011	758	141	178	4616
April 2011	900	171	255	4710
May 2011	896	174	297	6028
June 2011	772	126	296	5969
July 2011	723	154	228	6466
Aug 2011	539	99	177	5299
Sept 2011	484	47	207	4803
Oct 2011	801	120	275	5261
Nov 2011	715	112	191	4781
Dec 2011	759	125	241	5522
Jan 2012	633	78	214	6559
Feb 2012	634	61	226	6858
Mar 2012	626	66	228	6516
April 2012	572	58	174	6022
May 2012	596	63	147	6070
June 2012	612	75	160	5416
July 2012	514	65	149	4596
Aug 2012	453	36	126	4227
Sep 2012	403	25	159	4828
Oct 2012	554	40	159	6353

Nov 2012	470	24	108	5591
Dec 2012	512	25	118	6493
Jan 2013	580	37	136	7833
Feb 2013	510	43	135	6448
March 2013	603	66	151	7186
April 2013	686	51	155	8119
May 2013	738	28	106	7067
June 2013	589	23	83	7475
July 2013	449	21	75	5586
Aug 2013	388	19	84	5775
Sept 2013	502	27	134	6819
Oct 2013	540	33	163	6821
Nov 2013	593	48	223	8204
Dec 2013	703	69	223	9190
Jan 2014	622	45	222	8684
Feb 2014	604	61	204	7924
Mar 2014	557	35	144	7351
April. 14	548	25	100	7250
May. 14	598	39	125	8457
June.14	573	31	117	7303
July.14	498	27	112	6842
Aug.14	422	14	84	5939
Sep.14	442	19	66	5788
Oct.14	511	22	97	6102
Nov.14	510	18	79	7912
Dec.14	554	21	114	9515

(All values in mg/lit)

Trends in Inlet/Outlet Flow Rate at FETP per Day in MLD

Month & Year	Ankleshwar	Panoli	Jhagadia	Total Inlet	Total Discharge
May 2010	30.26	3.05	2.27	35.58	36.18
June 2010	33.06	3.07	2.24	38.37	37.81
July 2010	34.17	3.47	3.50	41.14	40.89
Aug 2010	34.80	4.62	4.24	43.66	43.35
Sept 2010	19.26	3.72	3.43	26.41	32.60
Oct 2010	29.74	4.13	4.49	38.22	38.10
Nov 2010	38.71	4.36	3.43	45.59	45.36
Dec 2010	40.61	4.17	2.41	46.97	46.75
Jan 2011	34.17	3.83	2.26	40.26	40.16
Feb 2011	31.73	3.36	2.04	36.67	36.64
Mar 2011	32.41	3.90	1.71	38.02	37.97
April 2011	32.81	3.64	1.79	37.89	37.94
May 2011	31.16	3.78	0.95	35.87	35.92
June 2011	32.10	4.85	2.70	39.02	38.87
July 2011	34.18	4.81	4.23	43.21	43.04
Aug 2011	39.05	5.10	3.52	47.67	47.47
Sept 2011	41.92	4.21	2.91	48.84	48.69
Oct 2011	31.95	4.76	1.48	37.62	37.43
Nov 2011	34.57	5.16	1.02	40.68	40.47
Dec 2011	30.97	3.65	2.79	36.20	36.07
Jan 2012	31.89	3.86	3.59	39.34	39.13
Feb 2012	34.41	3.95	3.67	42.03	41.81
Mar 2012	36.32	4.36	3.47	44.15	44.01
April 2012	36.74	3.92	2.84	43.50	43.22
May 2012	34.22	3.83	2.48	40.53	40.54
June 2012	32.23	3.62	2.39	38.24	37.14
July 2012	37.55	4.61	3.96	46.12	44.85
Aug 2012	40.49	3.95	4.45	48.89	48.82

Sep 2012	41.37	4.50	5.31	51.17	50.96
Oct 2012	37.00	4.74	4.12	45.86	45.66
Nov 2012	36.62	4.57	3.01	44.20	38.93
Dec 2012	33.64	4.03	3.51	41.19	42.53
Jan 2013	28.77	2.03	3.53	34.33	34.95
Feb 2013	36.51	3.23	3.55	43.28	42.65
March 2013	29.86	3.06	3.50	36.42	37.97
April 2013	24.75	2.67	2.27	29.69	30.51
May 2013	24.17	3.38	0.43	27.98	28.17
June 2013	34.55	4.49	3.33	42.36	41.35
July 2013	39.16	4.76	7.78	51.70	50.65
Aug 2013	43.54	3.83	8.58	55.94	55.77
Sept 2013	38.40	3.86	8.97	51.23	51.18
Oct. 13	38.08	4.59	7.95	50.62	50.28
Nov. 13	26.35	3.54	4.97	34.86	36.53
Dec. 13	27.56	2.83	5.08	35.47	35.78
Jan. 14	34.35	3.82	4.64	42.81	42.59
Feb. 14	33.78	4.29	4.86	42.93	40.43
Mar. 14	34.49	4.20	4.45	43.00	38.28
April. 14	32.69	4.76	3.29	40.74	38.93
May. 14	31.35	4.41	3.86	39.62	39.14
June. 14	32.69	3.80	5.41	41.90	35.57
July. 14	36.27	4.87	6.24	47.39	29.04
Aug. 14	38.07	5.12	7.26	50.45	34.06
Sep. 14	38.04	5.73	9.51	53.28	38.23
Oct. 14	29.89	6.13	1.60	37.62	36.00
Nov. 14	30.22	5.55	5.11	40.71	37.34
Dec. 14	25.69	5.42	5.63	36.74	36.41

Note: Average flow of sewage of following month is included in flow of Ankleshwar

Month	Flow MLD
Jan 2011	5.97
Feb 2011	6.01
Mar 2011	4.34
April 2011	5.58
May 2011	5.85
June 2011	6.16
July 2011	3.99
Aug 2011	3.97
Sept 2011	4.00
Oct 2011	4.00
Nov 2011	4.00
Dec 2011	4.00
Jan 2012	3.87
Feb 2012	4.00
Mar 2012	4.00
April 2012	4.00
May 2012	4.00 (NCTL discontinued receipt of sewage at FETP wef 12-5-2012
June 2012	Nil

Annexure - R

PERFORMANCE OF FETP : AT ANKLESHWAR - ANALYSIS BY TIFAC-CORE-SCET, SURAT

Month	COD (mg/l)	NH ₃ -N (mg/l)
Aug-10	1220.8	277.6
Sep-10	640.0	424.8
Oct-10	1084.4	457.7
Nov-10	916.5	435.2
Dec-10	909.7	298.8
Jan-11	1046.3	447.0
Feb-11	1128.9	346.3
Mar-11	879.3	193.4
Apr-11	736.3	248.5
May-11	955.0	318.0
Jun-11	723.8	325.6
Jul-11	762.6	217.4
Aug-11	488.2	201.4
Sep-11	584.0	222.2
Oct-11	779.6	249.8
Nov-11	689.2	182.7
Dec-11	775.9	231.0
Jan-12	704.0	222.1
Feb-12	659.1	227.3
Mar-12	629.4	222.2
Apr-12	532.4	191.5
May-12	551.5	160.2
Jun-12	553.9	162.6
Jul-12	514.5	154.7
Aug-12	450.4	124.4
Sep-12	390.9	136.3
Oct-12	554.7	139.4
Nov-12	461.4	89.7
Dec-12	538.0	99.7
Jan-13	627.8	118.1
Feb-13	496.0	111.3
Mar-13	601.0	121.7
Apr-13	712.0	134.9
May-13	701.5	109.3
June-13	639.1	97.3
July-13	429.4	82.8
Aug-13	451.1	115.0
Sept-13	489.8	122.1
Oct-13	537.9	177.2
Nov-13	651.6	188.2
Dec-13	691.0	165.9
Jan-14	643.9	152.1
Feb. 14	648.04	153.05
Mar. 14	560.7	103.2

April 14	549.83	78.40
May 14	602.66	110.16
June 14	548.57	110.27
July 14		
Average	671.35	199.35

Annexure S

SAMPLE COLLECTED UNDER AMLAKHADI ACTION PLAN						
SAMPLING POINT : AMLAKHADI AT LOW LEVEL BRIDGE ON N. H. NO. 8 ULTIMATELY REACHING TO ESTUARY OF RIVER NARMADA						
Month	COD	NH3	BOD	pH	PHENOL	O&G
02-01-2009	1200	42.56	137	7.08	2.17	3.2
07-02-2009	1651	123.2	419	6.6	0.1	8
03-03-2009	372	28.56	135	7.21	0.3	2
04-04-2009	371	41.44	109	6.75	BDL	2
08-05-2009	97	3.36	27	6.93	-	0.4
03-06-2009	185	15.68	58	6.24	0.42	0.8
02-07-2009	225	15.68	79	7.37	BDL	0.8
03-08-2009	792	212.24	289	7.23	1.25	2.4
02-09-2009	67	BDL	19	7.48	BDL	8
05-10-2009	218	40.61	78	7.5	BDL	1.6
05-11-2009	60	BDL	13	7.64	BDL	0.4
03-12-2009	59	3.36	14	7.6	BDL	0.4
04-01-2010	20	3.36	4.9	7.7	BDL	0.4
06-02-2010	43	20.16	7.78	7.56	BDL	0.4
02-03-2010	44	11.2	11.44	7.65	BDL	0.4
05-04-2010	124	36	27	7.4	BDL	1.2
06-05-2010	149	14	41	7.52	BDL	4.8
21-06-2010	93	16	22	7.9	BDL	0.4
05-07-2010	200	42	45	7.45	0.58	1.2
03-08-2010	247	32	65	8.11	BDL	1.2
01-09-2010	124	42	34	8.24	BDL	1.2
02-10-2010	107	23.52	34	7.51	0.295	2.4
02-11-2010	20	2.24	5	7.75	BDL	BDL
13-12-2010	24	3.92	5	7.75	BDL	BDL
03-01-2011	96	47.04	28	7.82	0.4	BDL
01-02-2011	20	10.08	5.1	7.75	BDL	BDL
05-03-2011	10	8	1.56	8.6	BDL	BDL
06-04-2011	87	12	18	7.74	0.32	BDL
02-05-2011	42	10	6.65	8.06	BDL	BDL
01-06-2011	205	20	26.5	7.7	0.21	BDL
02-07-2011	18	3.92	4.2	8.24	BDL	BDL
01-08-2011	241	5.6	25	7.66	0.66	1.6
02-09-2011	7	0.5	1.03	7.37	p.nil	p.nil
05-10-2011	23	0.6	3.33	8.42	Nil	nil
01-12-2011	67	20	9	7.95	0.52	0.4
03-01-2012	145	3	43	7.63	0.09	0.8
01-02-2012	54	3.92	12	7.52	BDL	BDL
01-03-2012	37	28	15	8.45	BDL	BDL
05-04-2012	44	20	7.7	8.45	BDL	BDL
01-05-2012	96	11.76	23	8.09	BDL	BDL
01-06-2012	92	13.38	23	8.08	BDL	BDL
02-07-2012	37	0.28	6.0	7.53	BDL	BDL
03-08-2012	52	BDL	13	7.28	0.12	BDL
10-09-2012	73	BDL	20	7.46	BDL	BDL

01-10-2012	40	1.68	12	8.50	BDL	BDL
01-11-2012	35	BDL	8.0	8.11	BDL	0.8
03-12-2012	53	3.12	10	7.92	BDL	BDL
01-01-2013	39	BDL	9	7.47	BDL	BDL
02-02-2013	65	8	24	8.15	BDL	0.4
02-03-2013	42	BDL	11	7.79	BDL	BDL
01-04-2013	61	3	15	7.72	BDL	0.4
03-05-2013	45	7	13	7.67	BDL	BDL
03-06-2013	71	8	25	8.02	BDL	BDL
01-07-2013	37	10	10	7.66	BDL	BDL
02-08-2013	75	2	23	7.52	BDL	0.8
02-09-2013	55	6	18	7.65	BDL	BDL
03-10-2013	62	4	21	7.80	BDL	BDL
06-11-2013	91	BDL	27	7.56	BDL	BDL
02-12-2013	27	BDL	7	7.77	BDL	BDL
01-01-02014	70	BDL	20	7.86	BDL	BDL
03-02-2014	52	6	15	7.83	BDL	BDL
01-03-2014	55	12	17	7.63	BDL	BDL
02-04-2014	31	8	7.01	7.85	BDL	BDL
02-05-2014	33	6	9	7.61	BDL	BDL
02-06-2014	30	8	8	7.44	BDL	BDL
D3-07-2014	91	8	26	7.14	BDL	BDL
02-08-2014	41	4	11	7.07	BDL	BDL
01-09-2014	24	2	6	7.44	BDL	BDL
01-10-2014	20	BDL	5	7.44	BDL	BDL
01-11-2014	25	14	6	7.61	BDL	BDL

(Source : GPCB)

Annexure I

CPCB DATA: WATER QUALITY OF THE AMLAKHADI OVER THE YEARS AT ANKLESHWAR								
(Sampling was carried out near NH-8, Mumbai-Ahmedabad, Ankleshwar, and * near FETP, Ankleshwar)								
Year(s)	Parameter(s)							
	pH	TSS	TDS	BOD	COD	O & G	NH ₃ -N	CN
1997	5.25	343	5200	1000	6468	0.52	39.2	--
2001	6.87	400	8222	484	1635	--	123.2	--
2003	7.5	188	12422	700	2323	50	404	--
2005	7.5	335	8304	653	1958	--	--	--
Jan-06	4.5	329	13041	1393	2877	-	434	--
Jun-06	6.7	115	3908	323	914	-	139	--
Jul-06	7.7	394	5293	251	1152	29	101	--
July 2006*	7.5	136	798	29	128	10	12	--
Oct-07	7.3	82	1243	75	207	--	27	--
Oct 2007*	6.9	204	1503	101	489	--	38	--
Jan-08	7.7	282	5495	657	2263	28	286	1.11
Mar-08	7.7	95	2744	135	411	--	--	--
27.05.2008	6.45	276	9224	658	2519	--	222	0.76
17.06.2008	7.36	174	5784	662	1411	40	217	0.08
29.07.2008	7.34	80	2122	85	508	-	63	--
28.08.2008	8.05	169	1533	203	948	14.5	86	0.2
26.09.2008	8.41	21	955	11	54	5.5	5.9	0.11
22.10.2008	6.62	119	3184	138	583	8.65	99	2.4
07.11.2008	6.95	65	3261	177	674	17	64	0.06
05.03.2009	8.16	26	1132	56	155	--	31	--
06.08.2009	7.72	49	934	18	83	5.3	18	--
10.09.2009	7.25	53	1493	57	186	6.5	26.5	--
10.12.2009	7.48	70	1270	40	183	2.84	12	--
30.03.2010	7.87	84	1043	18	87	9.8	7.1	--
24.06.2010	7.72	117	1688	29	128	7.6	8.7	0.13
29.09.10	7.32	79	2040	84	276	14	70	1.22
26.11.10	7.56	62	1099	21	51	7.3	7.5	0.067
30.03.2011	7.53	83	2234	111	224	-	14.2	0.10
08.06.2011	8.04	41	720	28	122	2.4	61	0.13
25.08.2011	7.99	29	783	3.8	23.7	0.17	5.0	--
21.12.2011	7.48	58	1515	74	139	--	121	--
28.04.2012	7.48	38	701	27	102	5.8	12.6	--
08.08.2012	7.27	61	841	26	180	--	12.5	--
06.12.2012	7.41	100	752	24	87	4.1	10.8	0.12
27.02.2013	8.04	85	936	19.1	81.9	9.4	13.43	--
19.06.2013	7.31	89	768	30	84	1	21.7	0.23
17.07.2013	7.34	34	729	9.3	61	--	2.6	--
05.09.2013	7.48	29	869	29	104	4.2	11.7	0.19
28.12.2013	7.27	92	1459	59	247	19.5	17	0.05

22.02.2014	6.23	45	520	26	80	0.27	7.0	--
25.06.2014	7.20	30	804	34	79	2.6	19.2	BDL
23.09.2014	8.11	17	815	16	82	1.7	11.8	0.08
23.12.2014	7.39	36	1533	47	127	5.1	13.7	BDL

(Source : CPCB)

Annexure U

Yearly Average Data

GPCB data for FETP outlet				CPCB data for FETP outlet			
Year	COD, mg/l	BOD mg/l	Amm-N, mg/l	Year	COD, mg/l	BOD mg/l	Amm-N, mg/l
2008	1757.37	426.77	638.14	2008	2168	570.2	665.6
2009	1525.33	479.13	673.08	2009	2182.6	449.4	635.8
2010	1257.15	317.15	567.12	2010	1164.2	295	608.4
2011	729.3	178.5	311.56	2011	613.5	169.5	259.25
2012	551.30	135	140.60	2012	522.67	68	146.43
2013	446.45	63.64	66.56	2013	405.25	57.25	111.50
2014	420.27	52.27	67.80	2014	561.75	54.75	133.63

GPCB data for Amlakhadi				CPCB data for Amlakhadi			
Year	COD, mg/l	BOD mg/l	Amm-N, mg/l	Year	COD, mg/l	BOD mg/l	Amm-N, mg/l
2008	686.42	178.83	79.36	2008	1041.22	302.89	130.36
2009	441.42	114.75	52.67	2009	151.75	42.75	21.87
2010	99.58	25.18	20.53	2010	135.5	38.00	23.33
2011	71.33	11.28	11.92	2011	127.17	54.20	50.30
2012	63.17	16.06	9.47	2012	123.0	25.67	11.97
2013	55.83	16.92	6.00	2013	115.58	29.28	13.29
2014	42.91	11.82	7.56	2014	92.0	30.75	12.93

NCTL data for FETP Inlet				NCTL data for FETP outlet			
Year	COD, mg/l	BOD mg/l	Amm-N, mg/l	Year	COD, mg/l	BOD mg/l	Amm-N, mg/l
2008	2560	581	680	2008	1449	256	491
2009	2302	728	529	2009	1335	322	481
2010	1978.13	565.38	537.25	2010	1111.25	235	495.38
2011	1407.92	331.83	269.83	2011	808.83	146.17	260
2012	1157	296.33	178.17	2012	548.25	51.33	164
2013	1254.33	303.42	132.75	2013	573.42	38.75	139
2014	1262.33	305.75	130.75	2014	536.58	29.75	122

Final Report
Date: 20/05/2013

Analysis & Calculation of Comprehensive Environmental Pollution Index(CEPI) for ANKLESHWAR Industrial Estates, Gujarat

Submitted to
Submitted to: Narmada Clean
Tech Limited, Ankleshwar, Gujarat

Prepared by
Department of Civil Engineering,
IIT Delhi

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Disclaimer:

"This report is based on the calculations done based on the data and information provided by Narmada Clean Tech Limited, Ankleshwar, Gujarat. IIT Delhi does not take any legal or otherwise responsibility on the validity and adequacy of the monitoring data, selection of pollutants and other important information used in the calculations. The results of this report may be used for the purpose of internal assessment and improving the environmental performance of the industrial cluster. This document is not legally binding."

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1.0 Introduction

CEPI is a rational number to characterize the quality of the environment at a given location following the algorithm of source, pathway, and receptor. As CEPI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects. As far as the role of the environmental pollution index in identifying and assessing the environmental health of critically polluted area is concerned, it is required to identify environmental aspects and create an asset of core pollutants adopted for each industrial cluster, develop monitoring programme for set of pollutants selected, develop the database for CEPI, and process it and develop CEPI for industrial clusters.

The Ministry of Environment and Forests has adopted a Comprehensive Environmental Pollution Index (CEPI) system of environmental assessment of the 88 Industrial Clusters, evolved by the Central Pollution Control Board in collaboration with the IIT, Delhi. On the CEPI scale, 10 industrial clusters (CEPI>80) have been identified to be alarmingly polluted, 33 critically polluted (70-80), 32 seriously polluted (60-70) and 10 clusters (50-60) fall in the warning zone.

For those 43 clusters which are severely polluted the expansion of those areas are not allowed. In future also CEPI score is going to be vital for expansion of any project.

Therefore, calculation of CEPI fulfills the following objectives:

- To identify critically polluted industrial clusters/areas from the point of view of pollution and taking concerted action and for being centrally monitored at the national level to improve the current status of environmental components, for example, air and water quality data, public complaints, ecological damage, and visual environmental conditions.
- To facilitate the definition of critically polluted industrial clusters/areas based on the environmental parameter index and prioritization of an economically feasible solution through the formulation of an adequate action plan for environmental sustainability

2.0 Brief of ANKLESHWAR Industrial Estate

Gujarat State is poised for significant industrial growth in the country. Ankleshwar Industrial Estate, one of the largest Industrial Estates of Asia Continent was set up in mid 70s by GIDC. More than 1200 industrial units are functioning in this estate. As majority of them are chemical, Ankleshwar is also popular as Major Chemical Zone of the State. Ankleshwar is the hub of the

industrial activity in Bharuch District. It provides industrial and social infrastructure to other nearby estates like Panoli, Jhagadia and Valia. 35% of the total exports of the State is from this area. Ankleshwar's contribution to growth of Gujarat State as well as the Nation is therefore well known.

Ankleshwar Industries Association was established in 1978, when it was the initial stage of industrial development. Since then AIA has been playing a key role and acts catalyst for accelerating growth in this area. Over a period of 26 years, AIA could establish industrial and social infrastructure in the area. Today, the estate have Common Effluent Treatment Plant for treatment and safe disposal of industrial effluent, Secured Landfill site for disposal of hazardous solid waste, Common Incinerator, Effluent Conveyance Pipeline Project for safe conveyance of effluent to deep sea through 55 km. length pipeline, Disaster Prevention & Management Centre for tackling and controlling safety hazards, a 60 bed full fledge hospital for medical facilities, 8 schools for educational facilities and other social infrastructure.

AIA works with the Government Administration and with Social and Political Leaders in the interest of development of the estate, which has helped in many, played a key role in helping the District and Government Administration, whenever there is a need in situations of flood, drought, earthquake, tsunami or any other natural calamity.

Table 1: Type of industries in ANKLESHWAR Industrial Area

Type of Industry	Numbers
R17	185
R54	377

3.0 Methodology of CEPI calculation

A comprehensive CEPI to assess the industrial clusters/areas is a three-step process as described below.

STEP I -The status of the area is assessed based on ground information. The framework proposed is as follows:-

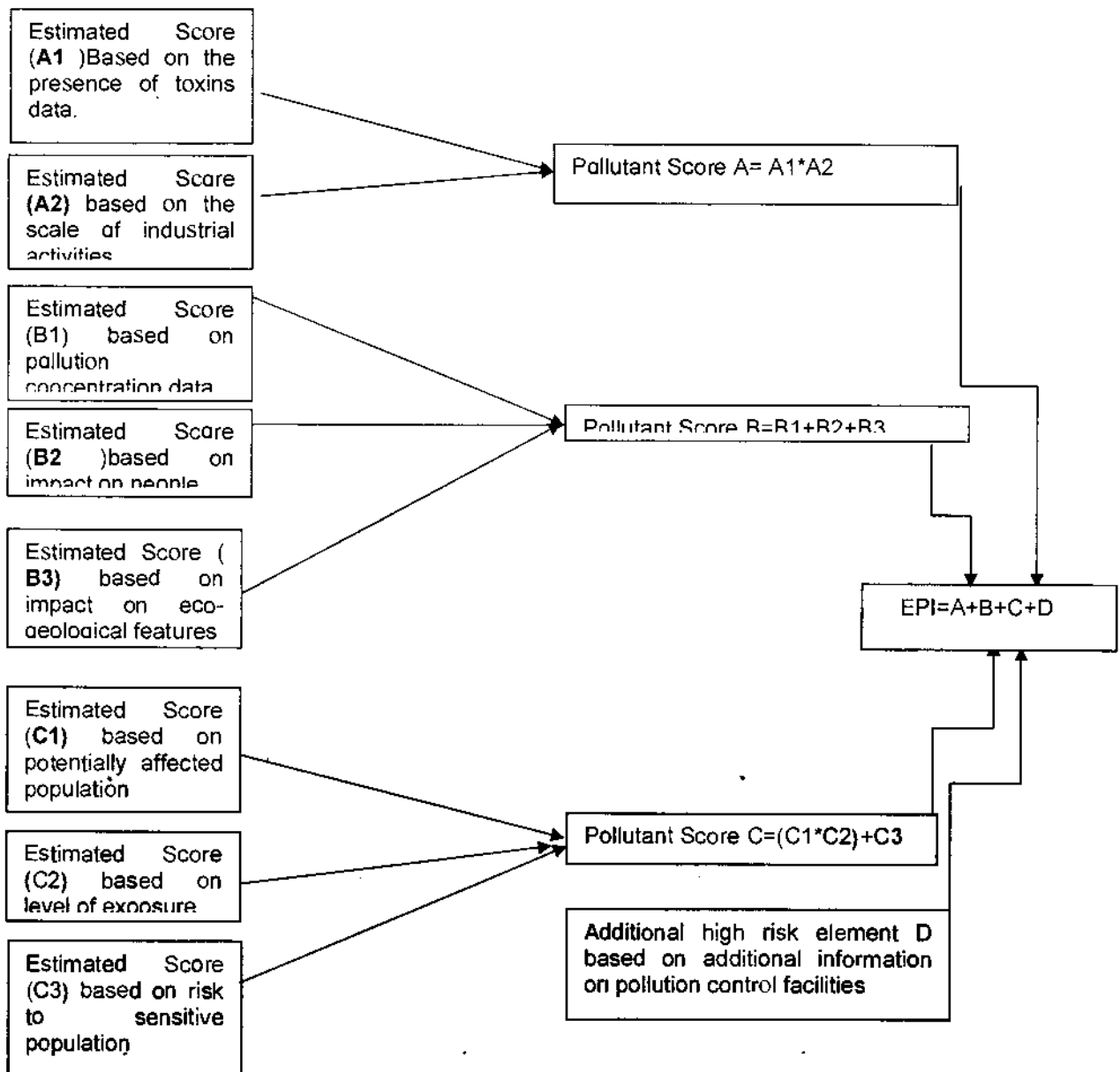
Source —> Pathways —> Receptor

STEP II -Various environmental indicators are assessed and the status of environmental resources such as land, vegetation, air, and water is investigated. Spatial and temporal data/information shall be used for this purpose.

STEP III- Structured consultation with the local stake holders and policy makers.

The complete calculation procedure of CEPI has been shown in following schematic diagram. (Figure 1).

Plate 1: Schematic Diagram of CEPI calculation Methodology



CEPI is calculated separately for air, water, and land in selected industrial clusters. The basic framework of the proposed CEPI – based on three factors namely pollutant, pathway, and receptor – has been described below.

POLLUTANT (up to three most critical pollutants to be taken)

Factor #A1 – Presence of toxin

Group A – Toxins that are not assessed as acute or systemic = 1

Group B – Organics that are probable carcinogens (USEPA Class 2 and 3) or substances with some systemic toxicity, for example, VOCs, PAHs, PCBs, PM₁₀ and PM_{2.5} = 2

Group C – Known carcinogens or chemicals with significant systemic or organ system toxicity, for example, vinyl chloride, benzene, lead, radionuclide, hexa-chromium, cadmium etc.

Table2: Penalty Values for combination of most critical pollutants Factor A1

S.I. No	Pollutant 1	Pollutant 2	Pollutant 3	Penalty
1	C	C	C	2.0
2	C	C	B/A	1.75
3	C	B	B/A	1.5
4	B	B	B/A	1.0

Factor #A2 – Scale of industrial activities

Large = 5 (if there are

> 10 R17* per 10 km² area or fraction OR

> 2 R17 + 10 R54** per 10 km² area or fraction OR

> 100 R54 per 10 km² area or fraction

*R17 are 17 category of highly polluting industries other than red category industries categorized by CPCB

** R54 are red category industries categorized by CPCB

Moderate = 2.5 (if there are

2 to 10 R17 per 10 km² area or fraction OR
 10-100 R54 10 km² area or fraction

Limited = 1 (else there is any industry within 10 km² area or fraction)

These two factors are taken as multiplicative and so the overall score for this element is as follows.

SCORE A = A1 × A2 (max score = 6 × 5 = 30)

Factor #B1 – Ambient Pollutant Concentration

Critical = 6 (when exceedence factor* is more than 1.5)

High = 3 (when exceedence factor is between 1 and 1.5)

Moderate = 2 (when exceedence factor is between 0.5 and 1.0)

Low = 1 (when exceedence factor is < 0.5)

Table 3: Penalty Values for combination of most critical pollutants Factor B1

S. No	Pollutant 1	Pollutant2	Pollutant 3	Penalty
1	Critical	Critical	Critical/Moderate/High	2.0
2	Critical	High	High/ Moderate	1.75
3	High	High	High	1.5
4	High	High	Moderate	1.0

Factor #B2 – Evidence of adverse impact on people

No = 0 (when no reliable evidence is available)

Yes (when evidence of symptoms of exposure) = 3

Yes (when evidence of fatality or disease(s) leading to fatality (such as cancer) due to exposure)
 = 6

Factor #B3 – Reliable evidence of adverse impact on eco-geological features

No = 0 (when no reliable evidence is available)

Yes (when evidence of symptoms of exposure) = 3

Yes (when evidence of loss of flora/fauna/significant damage to eco-geological features.

(Irreparable loss/damage)) = 6

Overall score for this element is as follows.

$$\text{SCORE B} = B1 + B2 + B3 = (8 + 6 + 6) = 20$$

Factor #C1 – Number of people potentially affected within 2 km radius from the industrial pollution source.

$$<1000 = 1$$

$$1000 \text{ to } 10\,000 = 1.5$$

$$10\,000 \text{ to } 100\,000 = 3$$

$$> 100\,000 = 5$$

Factor #C2 – Level of exposure

A surrogate number, which will represent the level of exposure (SNLF) is calculated using Percentage violation of ambient pollutant concentration, which is calculated as follows.

$$\text{SNLF} = (\text{Number of samples exceeded} / \text{total number of samples}) \times (\text{Exceedances factor})$$

$$\text{– Low} = 1 \text{ (SNLF} < 0)$$

$$\text{– Moderate} = 1.5 \text{ (SNLF} < 0.25)$$

$$\text{– High} = 2 \text{ (SNLF } 0.25 - 0.5)$$

$$\text{– Critical} = 3 \text{ (SNLF} > 0.5)$$

Table 4: Penalty Values for combination of most critical pollutants Factor C2

S. No	Pollutant 1	Pollutant2	Pollutant 3	Penalty
1	Critical	Critical	Critical/Moderate/High	2.0
2	Critical	High	High/ Moderate	1.75
3	High	High	High	1.5
4	High	High	Moderate	1.0

Factors C1 and C2 are taken as multiplicative.

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Factor #C3 – Additional risk to sensitive receptors

No = 0

Yes (if > 500 sensitive people/ a sensitive historical/ archaeological/ religious/ national parks/ Sanctuary/ecological habitat are within 2 km distance from source, additional risk) = 5

SCORE C = (C1 × C2) + C3 (max score = (5 × 5) + 5 = 30)

Factor D- Additional High Risk Element

Factor D – Additional high-risk element (inadequacy of pollution control measures for large-scale, medium- and small-scale industries and also due to the unorganized sector). It is cumulative of effluent treatment plants (ETPs), common effluent treatment plants (CETPs), air pollution control devises (APCDs), and unorganized waste disposal. Maximum score = 20.

If all the industries in the area have adequately designed/operated and maintained pollution control facilities and also common facilities, such as CETP/EETP/CHWDF, this means that they have adequate capacity and are having state-of-the-art technology = 0.

If all the large industries in the area have adequately designed/operated and maintained pollution control facilities but small and medium industries are defaulting. Common facilities, such as CETP/FETP/CHWDF, are having adequate in capacity or operation/ maintenance = 5.

If all the industries in the area have adequately designed/operated and maintained pollution control facilities but the common facilities, such as CETP/FETP/CHWDF, are having inadequate in capacity or operation/maintenance = 10.

If all the large industries in the area have adequately designed/operated and maintained pollution control facilities but small- and medium-industries are defaulting. Common facilities, such as CETP/FETP/CHWDF, are having inadequate in capacity or operation/ maintenance = 15. Inadequate facilities of individual as well as common facilities, full penalty = 20.

Table 5: Score for Additional High Risk-Element: Factor D

S No	Large-Scale Industries	Small/Medium Scale Industries	Common facilities for pollution control	Score
1	Adequate	Adequate	Adequate	0
2	Adequate	Inadequate	Adequate	5
3	Adequate	Adequate	Inadequate	10
4	Adequate	Inadequate	Inadequate	15
5	Inadequate	Inadequate	Inadequate	20

Calculation of the Sub-Index

After calculating A, B, C, D, the Sub-index score is calculated as:

$$\text{Sub-Index Score} = (A+B+C+D) = (30+20+30+20)$$

Calculation of the Aggregated CEPI

The aggregated CEPI Score can be calculated as:

$$\text{CEPI} = i_m + \{(100 - i_m) \times (i_2/100) \times (i_3/100)\}$$

Where i_m - Maximum sub-index and i_2 and i_3 are sub-indices of other media.

4.0 CEPI Calculation

4.1 Air EPI

➤ A1 (Presence of toxin)

As per the ambient air monitoring report at six locations (6 x 3 =18 samples), 3 air pollutants are selected based on presence of toxins and pollutants exceedance factor

- Arsenic - (C)
- Nickel - (C)
- PM₁₀ -(B)

$$A1 = 4 + 1.75 (\text{Penalty}) = 5.75$$

Pollutant characterization and identification of toxins for a particular industrial area is very important as far as criticality of the area is being assessed. So it would be very beneficial and helpful for us if we compare the pollutants and the EPI and aggregate CEPI scores obtained for Ankleshwar Industrial area, Gujarat.

➤ A2 (Scale of industrial activities)

- Total red categories industries in ANKLESHWAR Industrial

Type of Industry	Numbers
R17	185
R54	377

- Therefore, based on
 - > 10 R17* per 10 km² area or fraction OR
 - > 2 R17 + 10 R54** per 10 km² area or fraction OR
 - > 100 R54 per 10 km² area or fraction

A2 score is estimated (A2) = 5

$$A \text{ score} = (A1 \times A2) = 5.75 \times 5 = 28.75$$

➤ B1 (Pollutant concentration)

The following steps were followed for calculation of B1

- Mean values for each of the pollutant at the monitoring site was found out.
- The pollutant concentration was divided by the respective standard and a factor called exceedance factor was found out.
- The exceedance factor was then checked to fall in which category and relevant score was given.

Accordingly the penalty values were also given

Based on 18 air quality samples,

The estimate score of B1 = 2

➤ B2 (Effect on human health)

No evidence of symptoms on human health is observed.

Accordingly score B2= 0

➤ B3 (Effect on eco-geological features)

No evidence of impact on eco-geological is observed.

Accordingly score B3 = 0

B score is = (B1+B2+B3) = 2+0+0= 2

➤ C1 (Potentially affected Population)

The following methodology was adopted for calculating C1

As per the latest study the population within the 2 km radius of Ankleshwar Industrial area are found 19415 (including residential and employed population)

C1 score =3

➤ C2 (Level of exposure)

Based on the exceedance value and no. of sample exceeding the permissible limits.

C2 value =1.5

➤ C3 (Sensitive Population)

The schools and hospitals are accordingly present which will contribute to the sensitive population greater than 500.

So the score C3= 5

C score is = (C1x C2) +C3 = (3 X 1.5) + 5 = 9.5

➤ D (Additional score on pollution control facilities)

All the large industries in the area have adequately designed/operated and maintained pollution control facilities but small and medium industries are defaulting. Common facilities for air pollution management plan are having adequate in capacity or operation/ maintenance = (D=5).

AIR EPI score

A+B+C+D = 28.75 + 2 + 9.5 + 5 = 45.25

Detailed calculation is enclosed as **Appendix –I**

4.2 Water EPI

A1 (Presence of toxins)

As per the surface water quality monitoring report at five location (5 x 3 = 15 samples), 3 air pollutants are selected based on presence of toxins

- Nitrite-Nitrogen and Nitrate-Nitrogen (NO₂+NO₃) = B
- Bio-chemical Oxygen Demand (BOD) = B
- Total Phosphorous as P = A

A1 score is 2+1 (Penalty) = 3

Pollutant characterization and identification of toxins for a particular industrial area is very important as far as criticality of the area is being assessed. So it would be very beneficial and helpful for us if we compare the pollutants and the EPI and aggregate CEPI scores obtained for ANKLESHWAR Industrial area, Gujarat.

➤ A2 (Scale of industrial activities)

- Total red categories industries in Ankleshwar Industrial area. Therefore, based on

Type of Industry	Numbers
R17	185
R54	377

> 10 R17* per 10 km² area or fraction OR

> 2 R17 + 10 R54** per 10 km² area or fraction OR

> 100 R54 per 10 km² area or fraction

A2 score is estimated (A2) = 5

A score = (A1xA2) = 3 x 5=15

➤ B1 (Pollutant concentration)

The following steps were followed for calculation of B1

- Mean values for each of the pollutant at the monitoring site was found out.
- The pollutant concentration was divided by the respective standard and a factor called exceedance factor was found out.
- The exceedance factor was then checked to fall in which category and relevant score was given.

Accordingly the penalty values were also given.

Based on 15 samples of inland water bodies.

Finally the score B1 = 3

➤ B2 (Effect on human health)

No evidence of symptoms on human beings is observed.

Accordingly score B2= 0

➤ B3 (Effect on eco-geological features)

No evidence of adverse impact on eco-geological has been considered.

Accordingly score B3 = 0

B score is = (B1+B2+B3) = 3+0+0= 3

➤ C1 (Potentially affected Population)

The following methodology was adopted for calculating C1

As per the latest study the population within the 2 km radius of ANKLESHWAR Industrial area are found 19415 (including residential and employed population)

C1 score =3

➤ **C2 (Level of exposure)**

Based on the exceedance value and no. of sample exceeding the permissible limits.

C2 value = 3

➤ **C3 (Sensitive Population)**

Schools and hospitals are accordingly present which will contribute to the sensitive population greater than 500.

So the score = 5

C score is = (C1x C2) +C3 = (3 X 3) + 5 =14

➤ **D (Additional score on pollution control facilities)**

All the large industries in the area have adequately designed/operated and maintained pollution control facilities but small- and medium-industries are defaulting. Common facilities, such as CETP, are having inadequate in capacity or operation/ maintenance.

D score = 15.

Water EPI score

A+B+C+D = 15 +3 + 14 +15 = 47

Detailed calculation is enclosed as **Appendix -II**

4.3 Land EPI

A1 (Presence of toxins)

As per the ground water quality monitoring report at six location (3 x 6 =18 samples), 3 air pollutants are selected based on presence of toxins

- Nitrite-Nitrogen and Nitrate-Nitrogen (NO₂+NO₃) = B
- Suspended Solid = A
- E C = A

A1 score is 2+0 (Penalty) = 2

Pollutant characterization and identification of toxins for a particular industrial area is very important as far as criticality of the area is being assessed. So it would be very beneficial and helpful for us if we compare the pollutants and the EPI and aggregate CEPI scores obtained for ANKLESHWAR Industrial area, Gujarat.

➤ A2 (Scale of industrial activities)

- Total red categories industries in ANKLESHWAR Industrial area

Type of Industry	Numbers
R17	185
R54	377

- Therefore, based on

- > 10 R17* per 10 km² area or fraction OR
- > 2 R17 + 10 R54** per 10 km² area or fraction OR
- > 100 R54 per 10 km² area or fraction

A2 score is estimated (A2) = 5

A score = (A1xA2) = 2 x 5=10

➤ B1 (Pollutant concentration)

The following steps were followed for calculation of B1

- Mean values for each of the pollutant at the monitoring site was found out.
- The pollutant concentration was divided by the respective standard and a factor called exceedance factor was found out.
- The exceedance factor was then checked to fall in which category and relevant score was given.

Accordingly the penalty values were also given.

Based on four samples,

Finally the score B1 = 1

➤ B2 (Effect on human health)

No evidence of symptoms on human beings is observed.

Accordingly score B2= 0

➤ B3 (Effect on eco-geological features)

No evidence of adverse impact on eco-geological has been considered.

Accordingly score B3 = 0

B score is = (B1+B2+B3) = 1+0+0= 1

➤ **C1 (Potentially affected Population)**

The following methodology was adopted for calculating C1

As per the latest study the population within the 2 km radius of ANKLESHWAR Industrial Estate are found 19415 (including residential and employed population)

C1 score =3

➤ **C2 (Level of exposure)**

Based on the exceedance value and no. of sample exceeding the permissible limits.

C2 value = 1

➤ **C3 (Sensitive Population)**

Schools and hospitals are accordingly present which will contribute to the sensitive population greater than 500.

So the score = 5

C score is = (C1x C2) +C3 = (3 X 1) + 5 =8

➤ **D (Additional score on pollution control facilities)**

All the industries in the area have adequately designed/operated and maintained pollution control facilities and also common facilities, such as CHWDF, this means that they have adequate capacity and are having state-of-the-art technology = 0.

D Score = 0

Land EPI score

A+B+C+D = 10 + 1 + 8 + 0 = 19

Detailed calculation is enclosed as **Appendix –III**

4.4 Aggregate CEPI for ANKLESHWAR Industrial area

The aggregated CEPI Score can be calculated as:

$$CEPI = i_m + \{(100 - i_m) \times (i_2/100) \times (i_3/100)\}$$

Where i_m - Maximum sub-index and i_2 and i_3 are sub-indices of other media.

$$CEPI = 47 + (100-47) \times (45.25/100) \times (24/100)$$

Aggregate CEPI value = 51. 56

5.0 Summary and Conclusions

The calculated aggregate CEPI for ANKLESHWAR Industrial area is 51.56. The individual EPI for Water, Air and Land are 47, 45.25 and 19 respectively.

References:

1. Central Pollution Control Board (2009a), Report on Criteria for Comprehensive Environmental Assessment of Industrial Clusters, CPCB, Ecological Impact Assessment, Series: EIAS/4/2009-10, December 2009.
2. Central Pollution Control Board (2009b), Report on Comprehensive Environmental Assessment of Industrial clusters, CPCB, Ecological Impact Assessment, Series: EIAS/5/2009-10, December 2009.
3. GPCB (2010). Comprehensive Environmental Pollution Abatement Action Plan, Ankleshwar Industrial Cluster - Gujarat, Gujarat Pollution Control Board, Gandhinagar.

Appendixes

Appendix-I

EMI (AIR)						
SOURCE						
POLLUTANT (AS, SO ₂ , CRUDE OIL, HT, NO _x , CO, CH ₄ , STN)						
A:						
Pollutant 1	AS			C		
Pollutant 2	Ni			C		
Pollutant 3	PM10			B		
Presence of Toxin =		4				
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
C	C	B	1.75			
A1 =		5.75				
A2						
Type of R17 industries present in the Industrial Area =				1		
Number of R17 industries present in the Industrial Area =				20		
Type of R54 industries present in the Industrial Area =				20		
Number of R54 industries present in the Industrial Area =				100		
A2 =		5		based on > 10 R17 OR > 2 R17 + 10 R54 OR > 100 R54		
SCORE A =		A1 x A2 =		28.75		
PAATHWAY						
B1=Pollutant Concentration						
Ambient Concentration	Concentration	Permissible Conc	Excedence fact	Criticality		
AS	1.54	6	0.26	1	Low	
N ₂	5.08	20	0.25	1	Low	
PM10	8.06	100.00	0.78	2	Moderate	
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
Low	Low	Moderate	0			
B1 =		2				
B2= Reliable evidence of symptoms of adverse impact on people or fatality due to exposure						
B2 =		No evidence of symptoms - B2 = 0		0		
B3 = Reliable evidence of adverse impact on ecological features is collected						
B3 =		No evidence of symptoms - B2 = 0		0		
B =		= B1+B2+B3		2		
RECEPTOR						
C1 = Number of people potentially affected within 2 km boundary from the industrial pollution source				19115		
C1 =		=		3		
C2 =		Level of Exposure				
Pollutant	Number of Samples Exceeded	Total Number of samples	Excedence fact	S.N.L.F	Criticality	
AS	0	18	8.26	0	1	Low
Ni	0	18	8.25	0	1	Low
PM10	1	18	0.78	0.04	1.5	Moderate
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
Low	Low	Moderate	0			
C2 =		1.5				
C3 = Additional Risk to sensitive receptors				Yes 5		
C =		=(C1 X C2)+ C3		9.5		
D						
Additional High Risk Element		Common Facilities for pollution control		Score		
Large Scale industries		Small/Medium scale industries				
Adequate		Inadequate		5.0		
EPI =		= A+ B + C + D		45.25		

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Ambient air quality monitoring data

Pollutants	AAQ-1 Acton Plains Colony, SW direction to Industrial Area			AAQ-2 BASF India Limited Unit - II			AAQ-3 Meghannant Organics Limited			AAQ-4 Durga Traders			AAQ-5 Solvay Specialty chemicals			AAQ-6 Hikal Chemicals Limited			NAAQ Standards
	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	
	28.12.2013	28.12.2013	30.12.2013	26.12.2013	28.12.2013	30.12.2013	26.12.2013	28.12.2013	30.12.2013	26.12.2013	28.12.2013	30.12.2013	26.12.2013	28.12.2013	30.12.2013	26.12.2013	28.12.2013	30.12.2013	
PM ₁₀ (µg/m ³)	57	69	75	61	76	68	75	84	92	85	106	72	91	84	79	78	81	63	100
Arsenic (ng/m ³)	1.2	1.1	1.7	1.1	1.3	1.6	2.3	1.4	1.9	1.6	2.1	1.5	2.3	1.5	1.2	1.1	1.4	1.1	6
Nickel (ng/m ³)	3.4	4.7	4.2	6.1	4.7	3.9	5.6	7.3	6.5	4.9	6.7	5.8	5.8	4.3	7.1	3.6	2.8	1.1	25

Appendix -II

EPI (WATER)						
x. POLLUTANT (TO 3 MOST CRITICAL POLLUTANTS TO BE LISTED)						
A1						
Pollutant 1	Nitrite-Nitrogen and Nitrate-Nitrogen (NO ₂ +NO ₃)			B		
Pollutant 2	Total Phosphorous as P			B		
Pollutant 3	Bio-chemical Oxygen Demand (BOD)			A		
Presence of Toxic =				2		
Pollutant 1		Pollutant 2		Pollutant 3		Penalty
B		B		A		1
A1 =				3		
A2=Scale of industrial activities						
Type of R17 industries present in the Industrial Area =				1		
Number of R17 industries present in the Industrial Area =				20		(refer Sheet No. "Type of Industries")
Type of R54 industries present in the Industrial Area =				10		
Number of R54 industries present in the Industrial Area =				100		(refer Sheet No. "Type of Industries")
A2 =				5		based on > 10 R17 OR > 2 R17 + 10 R54 OR > 100 R54
SCDRE A				A1 x A2 =		15
b. PATHWAY						
B1= Pollutant Concentration						
Ambient Concentration for		Concentration	Permissible Conc.	Exceedance factor	Criticality	
Nitrite-Nitrogen and Nitrate-Nitrogen (NO ₂)		0.38	15	0.06	1	Low
Total Phosphorous as P		0.44	0.3	1.46	3	High
Bio-chemical Oxygen Demand (BOD)		9.2*	8	1.16	3	High
Pollutant 1		Pollutant 2		Pollutant 3		Penalty
Low		High		High		0
B1 =				3		
B2= Reliable evidence of symptoms of adverse impacts on people or fatality due to exposure						
B2 = No evidence of symptoms - D2 = 0				0		
B2 = Reliable evidence of adverse impact on ecological features is collected						
B3 = No evidence of symptoms - B2 = 0				0		
B =				= B1+B2+B3		3
Receptor factor C						
C1 = Number of people potentially affected within 2 km boundary from the industrial pollution source				19415		
C1 =				3		
C1 =				Level of Exposure		
Pollutant		Number of Samples Exceeded	Total Number of samples	Exceedance factor	S.N.L.F	Criticality
Nitrite-Nitrogen and Nitrate-Nitrogen (NO ₂)		0	15	0.06	0	1 Low
Total Phosphorous as P		7	15	1.46	0.679259259	3 Critical
Bio-chemical Oxygen Demand (BOD)		15	15	1.16	1.158333333	3 Critical
Pollutant 1		Pollutant 2		Pollutant 3		Penalty
Low		Critical		Critical		0
C2 =				3		
C3 = Additional Risk to sensitive receptors						
C3 =				Yes		5
C =				= (C1 X C2)+ C3		14
D Additional High Risk Element						
Large Scale industries		Subs/Medium scale industries	Common Facilities for pollution control		Score	
Adequate		Inadequate	Inadequate		15	
EPI =				= A+B + C + O		47

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Water Quality Monitoring Results

Sl No.	Test Parameters	UOM	SW - 1: Lake at Sanjali Village			SW - 2: Anla Khadi			SW - 3: Vand Khadi			SW - 4: Amaravathi River			SW - 5: Chapra Khadi			
			1 st Round 27.12.2013	2 nd Round 29.12.2013	3 rd Round 31.12.2013	1 st Round 27.12.2013	2 nd Round 29.12.2013	3 rd Round 31.12.2013	1 st Round 27.12.2013	2 nd Round 29.12.2013	3 rd Round 31.12.2013	1 st Round 27.12.2013	2 nd Round 29.12.2013	3 rd Round 31.12.2013	1 st Round 27.12.2013	2 nd Round 29.12.2013	3 rd Round 31.12.2013	
1	Nitrite-Nitrogen and Nitrate-Nitrogen (NO ₂ +NO ₃)	mg/l	0.67	0.72	0.59	0.61	0.7	0.58	0.49	0.6	0.49	0.6	0.49	1.37	1.6	0.91	1.33	1.37
2	Total Phosphorous as P	mg/l	0.62	0.58	0.54	0.42	0.56	0.4	0.38	0.36	0.35	0.36	0.32	0.36	0.32	0.38	0.52	0.5
3	Bio-chemical Oxygen Demand (BOD)	mg/l	10	9	9	9	7	7	7	6	4	4	4	4	4	3	20	12

Appendix -III

POLYMER TO MOST CRITICAL POLLUTANTS POLYMER						
Pollutant 1	Nitrite-Nitrogen and Nitrate Nitrogen (NO2+NO3)		B			
Pollutant 2	Suspended Solids		A			
Pollutant 3	F C		A			
Presence of Toxic =		2				
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
B	A	A	0			
A1 =	2					
A2=Scale of Industrial activities						
Type of R17 industries present in the Industrial Area =			1			
Number of R17 industries present in the Industrial Area =			20		It may be = 20	
Type of R54 industries present in the Industrial Area =			10			
Number of R54 industries present in the Industrial Area =			19			
A2 =		5	based on		> 10 R17 OR > 2 R17 + 10 R54 OR > 100 R54	
SCORE A =	A1 x A2 =	10				
PATHWAY						
B1= Pollutant Concentration						
Ambient Concentration	Concentration	Permissible Conc.	Exceedance fact	Criticality		
Nitrite-Nitrogen and Ni	4.10	15	0.273185185	1	Low	
Suspended Solids	5.00	100	0.05	1	Low	
F C	1984.44	4600	0.496111111	1	Low	
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
Moderate	Low	Low	0			
B1 =	1					
B2= Reliable evidence of symptoms of adverse impact on people or fatality due to exposure						
B2 =	No evidence of symptoms - B2 = 0		0			
B3 = Reliable evidence of adverse impact on ecological features is collected						
B3 =	No evidence of symptoms - B2 = 0		0			
B =	= B1+B2+B3		1			
Receptor factor C						
C1 =	Number of people potentially affected within 2 km boundary from the industrial pollution source		18418			
C1 =		3				
C2 =	Level of Exposure					
Pollutant	Number of Samples Exceeded	Total Number of samples	Exceedance fact	S.N.L.F	Criticality	
Nitrite-Nitrogen and Ni	0	18	0.273	0	1	Low
Suspended Solids	0	18	0.050	0	1	Low
F C	0	18	0.496	0	1	Low
Pollutant 1	Pollutant 2	Pollutant 3	Penalty			
Low	Low	Low	0			
C2 =	1					
C3 = Additional Risk to sensitive receptors						
C3 =	Yes	5				
C =	=(C1 X C2)+ C3	8				
D Additional High Risk Element						
Large Scale industries	Small/Medium scale industries	Common Facilities for pollution control	Score			
Adequate	Adequate	Adequate	0.0			
EPI =	= A+ B + C + D	19				

Ground Water Monitoring Results

Sl. No.	Test Parameters	UOM	GW-1: Sanjali Village			GW-2: Gujarat Gas Compound			GW-3: Pansli Village			GW-4: Jirai Village			GW-5: Andala Village			GW-6: Old Pungam Village		
			1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round	1 st Round	2 nd Round	3 rd Round
1	Nitrite-Nitrogen and Nitrate-Nitrogen (NO ₂ -NO ₃)	mg/l	8.36	8.14	8.36	5.43	5.2	6.1	1.65	1.55	1.82	4.07	4.3	4.53	3.39	3.61	4.06	1.14	1.02	1.14
4	Suspended Solids	mg/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
3	E C	µS/cm	2290	2240	2180	2760	2740	2760	1510	1490	1540	2060	1980	2040	2080	2030	2060	1600	1590	1590