

Effluent Treatment Facilities across Golden Corridor does not conform to GPCB Norms.

BUT WHO CARES?

Stop effluent discharge at Tadgam Sarigam Pipeline, from FETP, Ankleshwar, ECP, Vadodara, CETPs of Ahmedabad as the effluent is not able to meet the norms prescribed by Gujarat Pollution Control Board. - Paryavaran Suraksha Samiti

The problem of industrial pollution first came to light in the nineties, when the issue gained momentum among urban entities about a decade after the Bhopal disaster. Due to pressure from various communities and environmental organizations, courts began intervening in cases to ultimately build the waste “treatment facilities” that exist today. These actions, which were championed by the media, created an entire culture of complacency that “something” great had been done about the pollution. There was a collective urban sentiment that citizens were protected from industries because of the mitigation infrastructure. Despite the “Polluter Pays” principle, even in the nineties the then developing common effluent treatment plants (CETPs) were highly supported by public money; 25% of the cost was state subsidy, 25% central subsidy, 30% loans from financial institute, and 20% directly paid by the industry. In essence half of the proposed solution to the pollution generated for private profit was funded by the general public. Moreover this happened at the same time that the state was withdrawing from its social responsibilities, such as education, health care and transportation. It seems paradoxical that the mounting laissez faire sentiment allowed the state to intervene on behalf of industries – which come to exist by virtue of concentrated resources and power – but not for the welfare of the common masses. Even after such huge investment many of the CETPs including Vapi, FETP - Ankleshwar, Panoli, Nandesari, Vatva, Odhav, Narol etc. are not able to meet the prescribed GPCB norms.

Sarigam: Legal Notice dated 4th December 2009 issued to Sarigam Waste & Effluent Management Co. Ltd., Sarigam, District - Valsad by Gujarat Pollution Control Board under section 33-A of The Water (Prevention and Control of Pollution) Act, 1974 clearly states that “[...] the consent granted to you vide order No. 1623 dated 12-2-2004 has lapsed on dated 31-3-2004 hence, at present you are operating industrial effluent disposal system without CC & A of the Gujarat Pollution control Board under the provision of Water Act.” It further states “[...] during the inspection of your plant on 18-11-2009 ... The analysis reports indicates that the concentration like SS, BOD, COD, Chloride, Ammonical Nitrogen, Phenolic Compound, Zinc, & Sulphides, are most of the time higher than the permissible limit specified by the Board.” This clearly indicates that the treatment facility dumps the effluent at village Tadgam without proper permission and effluent does not meet GPCB’s norms.

Vapi CETP: The CPCB report dated 29-3-2010 indicates that effluent being discharged into Damanganga river shows COD: 869 i.e. 347.60% more (GPCB norms 250 mg/l), TDS: 9088 i.e. 432.76% more (GPCB norms 2100 mg/l), and NH3-N: 98 i.e. 196% more (GPCB norms 50 mg/l).

Ankleshwar FETP: The report dated 10-3-2010 of CPCB indicates that effluent discharged into the Gulf of Cambay shows COD: 1241 i.e. 248.20% more (GPCB norms 500 mg/l), and NH3-N: 664 i.e. 1328% more (GPCB norms 50 mg/l).

Effluent Channel Project (ECP), Vadodara: The report indicates that effluent discharged into estuary of Mahisagar river shows pH: 4.6 (GPCB norms 6.5 – 8.5), TSS: 361 (GPCB norms 100 mg/l), TDS: 14458 (GPCB norms 5000 mg/l), COD: 1826 (GPCB norms 250 mg/l), BOD: 334 (GPCB norms 100 mg/l), NH₃-N: 387 (GPCB norms 50 mg/l), Cyanide: 2.857 (GPCB norms 0.2 mg/l), and Phenols: 15.37 (GPCB norms 1.0 mg/l).

Ahmedabad, CETP: (1) CETP, Vatva: The report dated 27-1-2010 of CPCB indicates that effluent discharged into Sabarmati river shows COD: 2189 i.e. 879.20% more (GPCB norms 250 mg/l), TDS: 16141 i.e. 768.60% more (GPCB norms 2100 mg/l), and NH₃-N: 190 i.e. 380% more (GPCB norms 50 mg/l). **(2) CETP M/s GECSL, Vatva:** The report dated 29-1-2010 of CPCB indicates that effluent discharged into Sabarmati river shows COD: 1100 i.e. 440% more (GPCB norms 250 mg/l), and TDS: 2506 i.e. 119.33% more (GPCB norms 2100 mg/l). **(3) CETP M/s GVMSAVL, Odhav:** The report dated 28-1-2010 of CPCB indicates that effluent discharged into Sabarmati river shows COD: 7315 i.e. 2926% more (GPCB norms 250 mg/l), TDS: 6928 i.e. 329.90% more (GPCB norms 2100 mg/l), and NH₃-N: 1260 i.e. 2520% more (GPCB norms 50 mg/l). **(4) CETP M/s NEPL, Naroda:** The report dated 28-1-2010 of CPCB indicates that effluent discharged into Sabarmati river shows COD: 2471 i.e. 988.40% more (GPCB norms 250 mg/l), TDS: 11971 i.e. 570.00% more (GPCB norms 2100 mg/l), and NH₃-N: 190 i.e. 380% more (GPCB norms 50 mg/l).

An expensive distraction

In Gujarat, one of the newest such projects is the Final Effluent Treatment Plant (FETP). Touted by the Chief Minister, Mr. Narendra Modi, the Gujarat Pollution Control Board (GPCB), and various Industries Associations as a state-of-the-art solution the structure is designed to divert industrial pollution from Amlakhadi and the Narmada River. First, all of the effluent from the CETPs at Industrial Estates at Ankleshwar, Panoli, and Jhagadia are transported to the FETP plant located in Piraman village, Ankleshwar. Next, the consolidated “treated” effluent is theoretically re-treated to meet GPCB norms. The final “treated” effluent is then transported via a 53 km pipeline to Hansot where it is ultimately discharged into the sea. Operated by Bharuch Eco Aqua Infrastructure Ltd, the pipeline was inaugurated with a capacity of 40 million liters per day (MLD), which has since been increase to 60 MLD to meet the need of the estates.

The FETP was built by the sweat of tax payers. Out of a total project cost of Rs 131.43 crores, the industries paid only Rs 21.75 crores (about 17%); the rest of the tab (Rs 109 crores) was picked up the Central Government, Gujarat Government, and Gujarat Industrial Development Corporation (GIDC) - all of which ultimately draw from public money. It is a familiar story: the profits are distributed privately, but the institutional costs and environmental burden are borne by general public.

The FETP was conceived to relieve local communities of the waste waters from Ankleshwar, Panoli, and Jhagadia Industrial Estates for which it is responsible. It is an open secret that the people living along Amla Khadi, however, are still suffering from industrial effluents. Any passerby can still see the colored water, and the tributary still has fluctuating acidity (some time a pH of 2 to 6). These observations suggest that illegal discharge into the Amlakhadi, the classic industrial dustbin of Ankleshwar, has not ended. But it gets more disconcerting. We investigated the performance of the FETP itself, by exercising our Right to Information regarding this essentially publicly funded and endorsed endeavor. We learned that the Central Pollution Control Board (CPCB) has been concerned with the prescribed norms of the FETP from the onset. As early as 2006 and repeatedly in 2007, the CPCB has noted that the FETP is not able to meet the prescribed norms. And because of that no expansions and no new industries can legally be sited in the area from 7-7-2007. At the behest of CPCB, GPCB was forced to issue a letter to the

Industries Association of Ankleshwar, Panoli, and Jhagadia that no NOC could be given for new industrial and expansion in this area. Any increased traffic in the FETP would exacerbate the existing non-compliance of environmental protocols. We were shocked to discover through state documentation that between 2006 and March 2010, none of the routine monthly checking of standard pollutants in released effluent was within GPCB norms. This is not solely a failure of the FETP – the waste waters sent to the FETP (“inlet” effluent) were outside the norms in the first place – so it is also a failure of the CETP process of Ankleshwar, Panoli and Jhagadia. There is hardly any dent made by the FETP – not just that outlet norms not are achieved but even inlet norms are not met. In effect, the FETP seems to be a physical structure for consolidating and transporting waste, not for treating it. One of the main shocking information is that this plant was not able to meet the norms since 2006 even then the Chief Minister of Gujarat inaugurated a pipeline of the same plant on 25th January 2007 and Centre and State Government invested more than Rs. 100 crores in the company. The explanation for such an act was asked by us from the Chief Minister Office but there was no reply.

Environmental injustice

Adding insult to tax-payers' injury, pollution mitigation infrastructure is as neglected as the pollutants themselves, causing a mutually reinforcing stalemate in the problem of pollution control. Yet, instead of becoming stricter with environmental clearances given to new and expanding potentially polluting industries, the Centre is taking steps to make the process more lenient so that India can march forward to “develop” without obstruction. Instead of focusing on the infrastructure that we do have and making it functional, the state seems obsessed with building new projects that tend to fail just like their predecessors.

The above open secret - realities invites strong action from GPCB under Environment Laws against all these facilities and we strongly feel that no effluent discharge should be allowed from any of these facilities with immediate effect.

We demand: Stop effluent discharge at Tadgam Sarigam Pipeline, from FETP, Ankleshwar, ECP, Vadodara, CETPs of Ahmedabad as the effluent is not able to meet the norms prescribed by Gujarat Pollution Control Board.

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VAPI

PERFORMANCE OF CETP AT VAPI- A TREND ANALYSIS BY CPCB, VADODARA

(Grab Sampling)

Sampling Location(s)	Year(s)	Parameter(s)

	15.09.2008	7.54	394	4569	64	706	24.4	135
	27.11.2008	7.66	94	8492	244	748	19	248
GPCB Standards		5.5-9.0	100	2100	100	250	10	50

CETP, Vapi Monitoring Results...contd...

Sampling Location(s)	Year(s)	Parameter(s)						
		pH	TSS	TDS	BOD	COD	O & G	NH ₃ -N
Inlet/Design Norms		6.5-8.5	300	--	400	1000	--	--
Inlet to CETP	18.02.2009	6.58	931	8708	910	5358	52	104
	20.05.2009	7.13	272	6011	333	1509	--	117
	02.09.2009	7.60	1215	5924	376	1324	50	63.3
	09.12.2009	6.61	710	9580	444	1517	4.73	64.3
	29.03.2010	6.95	1032	7791	743	2223	14	71
Outlet of CETP								
Outlet of CETP	18.02.2009	7.56	711	7298	417	1281	26	105
	20.05.2009	7.32	460	8177	153	842	14.9	98.8
	02.09.2009	7.32	60	5768	20	481	32	63.4
	09.12.2009	6.90	140	8916	84	432	4.86	68
	29.03.2010	6.99	233	9088	178	869	11	98

GPCB Standards	5.5-9.0	100	2100	100	250	10	50

ANKLESHWAR

PERFORMANCE OF FETP AT ANKLESHWAR

- A TREND ANALYSIS BY CPCB, ZOW, VADODARA

Sampling locations	Date of monitoring	Parameters									
		pH	TSS	TDS	COD	BOD	NH ₃ -N	CN ⁻	Phenol	S ⁻	O&G
Inlet Design Norms		5.0-8.5	150	12000	1000	200	-	--	-	-	-
Inlet to FETP	28.06.07	6.50	445	7500	1776	453	447	--	7.98	BDL	55.7
	31.10.07	6.07	721	19623	4882	1261	1021	--	25.7	14.4	39
	17.01.08	8.32	503	8617	2459	820	477	0.89	8.9	2.0	31.0
	07.03.08	7.15	402	9776	2538	688	--	--	13.3	2.4	--
	22.04.08	7.00	411	10776	2408	488	496	1.98	6.06	11.2	19.5
	27.05.08	8.67	423	10568	2698	687	1657	--	--	--	--
	17.06.08	6.14	344	9764	2875	900	633	0.72	4.27	3.2	17
	29.07.08	6.93	532	26922	2510	438	900	1.19	--	0.96	--
	28.08.08	8.15	583	9838	2173	705	1269	0.31	9.48	3.96	17.8
	26.09.08	8.60	417	6122	2323	600	749	0.71	5.45	2.8	35

Inlet Design Norms		5.0-8.5	150	12000	1000	200	-	--	-	-	-
Inlet to FETP	22.10.2008	7.8	298	9546	2547	926	738	--	9.54	3.4	--
	07.11.2008	8.15	281	11012	2357	840	695	2.01	5.62	4.0	30
	19.12.2008	8.31	856	7488	3764	1033	32	--	10.67	--	--
	28.01.2009	6.73	511	8553	4127	852	399.2	--	13.6	--	--
	05.03.2009	7.67	747	29081	2495	733	371.3	0.27	7.35	3.87	60
Outlet of FETP											
	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
GPCB Outlet Norms		6.5-8.5	100	--	500	100	50	0.2	5	5	20
Note: All values except pH are expressed in mg/l											

PERFORMANCE OF FETP AT ANKLESHWAR
- A TREND ANALYSIS BY CPCB, ZOW, VADODARA

Sampling locations	Date of	Parameters
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		monitoring										
		pH	TSS	TDS	COD	BOD	NH ₃ -N	CN ⁻	Phenol	S ⁻	O&G	
Inlet Design Norms		5.0-8.5	150	12000	1000	200	-	--	-	-	-	
Inlet to FETP	28.01.2009	6.73	511	8553	4127	852	399.2	--	13.6	--	--	
	05.03.2009	7.67	747	29081	2495	733	371.3	0.27	7.35	3.87	60	
	30.06.2009	8.00	159	8500	2725	585	532	0.38	8.42	--	19	
	10.09.2009	8.04	638	12952	2231	646	1158	0.30	3.86	2.8	61.1	
	10.12.2009	6.66	420	7896	2038	683	585	--	8.84	--	--	
	10.03.10	7.99	209	11059	2809	549	391	--	--	--	--	
	10.03.10(C)	8.07	465	6881	2598	728	594	--	--	--	--	
	Final Outlet	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	--	--	
	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	--	
GPCB Outlet Norms		6.5-8.5	100	--	500	100	50	0.2	5	5	20	

	ECP-2,	7.58	94	5481	611	57	195	217	2136	0.793	12.76
	Near Mujpur Village crossing (@ 20 km d/s of Dhanora Take off Point)										
	ECP-3,	4.60	361	14458	1826	334	387	419	3665	2.857	15.37
	J-Point (Final discharge Point, end of Channel, @ 55 km from d/s of Dhanora Take off Point)										
	GPCB Norms	6.5-8.5	100	5000	250	100	50	--	600	0.2	1.0

CENTRAL POLLUTION CONTROL BOARD, West Zone Office, Vadodara

ANALYSIS RESULTS OF MONITORING CARRIED OUT AT M/ ECPL

Date of sample collection: 10.03.2008, 27.03.2008, 28.03.2008
collection: Grab

Type of sample

Sampling Location(s)	Date of Sampling	pH	TSS	COD	BOD	NH ₃ -N	TKN	Cl ⁻	CN ⁻	Phenols
@ 2 kms downstream from start of Channel (ECP), Dhanora Take off Point	10.03.2008	7.44	63	338	47	35	59	1797	0.03	0.20
	27.03.2008, night time	7.7	69	407	25	35	39	1580	0.08	0.71
	28.03.2008, morning time	7.1	54	357	28	13	50	1602	0.11	1.52
	28.03.2008, afternoon	7.0	77	594	26	50	82	2753	0.15	8.23
@9 kms downstream from Dhanora Take off	10.03.2008	8.01	55	247	42	35	51	876	0.02	0.29

Monitoring									
		pH	TSS	TDS	COD	BOD	NH-3-N	O&G	Phenol
29/01/2010	Inlet	6.42	220	3851	1496	648	8.6	--	0.38
	Outlet	6.43	195	2506	1100	372	6.9	1.1	0.35

Performance of CETP M/s, GVMSAVL, Odhav, Ahmedabad

Date of Monitoring	Locations	Parameters							
		pH	TSS	TDS	COD	BOD	NH-3-N	O&G	Phenol
28/01/2010	Inlet	6.18	3555	10243	3447	1500	370	--	4.63
	Outlet	7.27	888	6928	7315	2800	1260	5.4	4.13

Performance of CETP M/s, OEPL Odhav, Ahmedabad

Date of Monitoring	Location	Parameters							
		pH	TSS	TDS	COD	BOD	NH-3-N	O&G	Phenol
29/01/2010	Inlet	7.08	313	12306	1397	256	52	--	1.79
	Outlet	6.65	96	9391	478	119	22	1.4	0.41

Performance of CETP M/s, NEPL, Naroda, Ahmedabad

Date of Monitoring	Locations	Parameters							
		pH	TSS	TDS	COD	BOD	NH-3 N	O&G	Phenol
28/01/2010	Inlet	7.27	2133	62350	12778	1856	1042	--	28.75
	Outlet	7.16	164	11971	2471	584	190	8.2	1.62

Performance of CETP M/s, Narol Dyestuff Enviro Society, Narol, Ahmedabad

Date of Monitoring	Location	Parameters							
		pH	TSS	TDS	COD	BOD	NH-3 N	O&G	Phenol
29/01/2010	Inlet	7.0	70	26226	3267	951	77	--	0.39
	Outlet	8.21	155	5869	579	60	10	6.7	0.44

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