

# **INTRODUCTION**

Object of this chapter is to describe in brief the actions initiated by Gujarat after OM dated 13.1.2010 declaring critically polluted areas in the country.

It is worth mentioning that Gujarat is a fast developing State and has concentration of chemical units in certain areas, which have more pollution potential and hence the State has created more pollution control infrastructure also.

## **1. DECLARED POLICY POINTS FOR POLLUTION CONTROL (PILLARS OF ACTION PLANS):**

During February to May 2010, following main points of pollution control were widely published and circulated to industries associations for further communication to their member industries. Some of these points were also published as 'Public Appeal' on 1.2.2010 and as 'General Improvement Notice' on 20.2.2010 in three leading newspapers of Gujarat. These are the points specific to nature of industries in the State and main pillars of action plans. These briefly stated points have to incorporate detailed procedure and planning for their floor level compliance and are under gradual execution by due deliberation with concerned stakeholders.

1. To measure and control discharges to ETP and CETP, each outlet of ETP and each inlet and outlet of CETP shall have standard flow meter and flow recorder. Only one authorized outlet will be allowed. SCADA system will be required for CETP.
2. Waste generation streams shall be identified from the process plant and collected separately to decide about their treatability. The collected effluent should be subjected to proper treatment method before discharging it to ETP or CETP. Big units (discharge >100 KLD) should have their own incinerator/ evaporator/ dryer/solvent distillation plant, acid handling or recovery plant etc to make the treated waste reusable or to reduce the load on ETP or CETP.
3. All units including zero discharge units should have pH correction and SS removal system, so that they cannot discharge any acidic effluent to CETP or to any unauthorized disposal point. Where spent or mixed acid is generated in

large quantity, plan for its recovery or re-use or to send it to authorized place will be required.

4. By-pass system for untreated effluent, stack emission or pumping station shall not be allowed. Adequacy and efficacy certificate will be required for ETP, CETP and APCM.
5. Dual disposal modes i.e. pipeline and truck/tanker vehicle shall not be allowed to any unit. Only one safer mode of disposal should be selected.
6. All big units having more than 100 KLD discharge should have their own treatment plant to meet with the GPCB norms. They should use the technology to run their treatment plants independently.
7. CETP will be required for each industrial cluster for effluent treatment and safe disposal. No direct discharge in GIDC pipeline or any disposal point will be permitted. Narol, Jhagadia, Khambhat, Dahej, Vilayat, Sarigam, Jetpur, Junagadh, Jamnagar etc. will need CETP on this principle.
8. Interlocking system (e.g. TOC sensing, trip, alarm and safe diversion) should be provided by all big units (discharge > 100 KLD) and CETP to control their excessive hydraulic and pollution discharge.
9. More than one source of water intake will generally be discouraged. Ground (borewell) water source should be stopped if pipe water source is available. Metering system for water consumption should be implemented.
10. Domestic waste will not be allowed in industrial effluent pipeline. Septic tank, STP or separate pipeline will be required for that purpose.
11. Only authorized fuel shall be permitted to reduce air pollution. Where natural gas is available, no other fuel should be used by industry. Wood as fuel is not at all permitted. More chimney height will be required for more dispersion and dilution.
12. Proper APCM – bag filters, ESP, local exhaust ventilation, scrubber, flare, column-condenser, vent chiller etc shall be required in working condition to reduce gas emission, flying particles, dust, ash etc in air.

13. All TSDF sites will be required to follow the guidelines regarding quantity and time period of waste retention, working of incinerator, sheds for wastes segregation, leachate treatment facility, storm water drain, dyke for liquid tanks, non-acceptance of plastic waste at landfill site, fire fighting facility, information and record of all wastes at site and no dumping of unauthorized waste in active cell etc.
14. Cleaner production options will be required at CTE/CCA levels. They may be suggested also. Its implementation will be monitored.
15. Plan for reduce, recycle, reuse and recover of resources and trade wastes will be required from each industry. Plans to reduce CO<sub>2</sub> emission, ground water recharging, rain water harvesting, water and electricity conservation and reduction of noise, vibration and plastic wastes will also be required with CTE application. It will be monitored till CCA continuation.
16. Baseline data of land, water and air will be required with CTE application and its status report will be required with annual report to GPCB.
17. Plan to use solar or wind energy for lighting / heating purpose will be required.
18. Transportation of hazardous wastes for a longer distance or throwing at unauthorized place will not be allowed. It will be transported in authorized and covered trucks only.
19. Tree plantation plan will be required and monitored from each unit.
20. Regular monitoring of water and ambient air quality in different areas will be carried out.

## **2. RECENT INFRASTRUCTURE EXPANSION IN THE STATE:**

To have vigorous and intensive monitoring of pollution control laws in the State and for speedy execution of action plans, following steps have already been taken in the State during last two months:

1. Five new GPCB offices are opened at Ankleshwar, Gandhinagar, Himmatnagar, Surendranagar and Porbandar. Including these, now GPCB is functioning at 18 places - (1) Gandhinagar (2) Ahmedabad, (3) Nadiad (4) Vadodara (5) Godhara (6) Bharuch (7) Ankleshwar (8) Surat (9) Vapi (10) Mehsana (11) Himmatnagar (12) Surendranagar (13) Rajkot (14) Bhavnagar (15) Jamnagar (16) Porbandar (17) Junagadh and (18) Bhuj.
2. Three new vigilance teams (Zonal Offices) are started at Surat, Vadodara and Rajkot. Now, total four such vigilance teams are stationed at Gandhinagar, Surat, Vadodara and Rajkot. These teams are equipped with new vehicles and staff.
3. Two new laboratories are started at Mehsana and Bhuj. Now, total at 9 places, GPCB has its own laboratories for sample analysis – Gandhinagar, Vadodara, Bharuch, Surat, Vapi, Mehsana, Rajkot, Jamnagar and Bhuj.
4. Fourteen new vehicles (four-wheelers) have been purchased and allotted to new offices and vigilance teams.
5. 67 new officers are being recruited to GPCB strength. Application receiving process is over and selection procedure is about to start.
6. Full time Chairman from 20.1.2010 and full-time Member Secretary from 21.6.2010 are given by the State to strengthen GPCB.
7. New four storeyed building is at the stage of completion near the existing building of Head Office at Gandhinagar. This will accommodate more and multifarious activities of pollution control from Head Office of GPCB.
8. New Sections of R&D, Cleaner Production options, training & development, environment awareness and award scheme are started at Head Office.

9. New Data Collection Forms are issued and being filled by field visits to record current status of all units. This will also reveal changes made at site.
10. New ambient air quality monitoring station is started at Chitra (Bhavnagar) on 25.6.2010 to monitor PM<sub>2.5</sub>.
11. GPCB is actively participating in Door Darshan TV programs sponsored by MoEF, GOI, to create statewide awareness on environment and pollution control aspects.
12. On-line computer system (XGN) of GPCB has won second prize at National level for e-Governance programme in India and other States inquire to follow this.
13. Planning has been done to procure new laboratory equipments for strengthening of analysis of pollutants.
14. Barcode system for sample containers is introduced.
15. GPCB has received ISO: 9001 and ISO: 14001 certificates and training is being given to staff for internal audit of all its offices.
16. GPCB has reconstituted Technical Committee of Board Members and outside experts to discuss and decide upon the cases of the change of product mix and some typical applications from critically polluted areas.

**3. ENVIRONMENTAL INFRASTRUCTURE FACILITIES IN THE STATE:**

Comparatively, more environmental infrastructure facilities (CETP, FETP, TSDF, Incinerators, Pipe conveyance etc.) for pollution control are setup and functional in Gujarat.

Following Table provides, at a glance, pollution control facilities existing in the State:

<b>No.</b>	<b>Facility</b>	<b>Total No.</b>
1	ETPs	5808
2	Individual incinerators	41
3	Individual TSDF	15
4	Individual pipe conveyance to sea	18
5	CETPs	26
6	FETP	01
7	Common TSDF with incinerators	04
8	Common TSDF without incinerators	04
9	Common pipe conveyance to sea	05
	<b>TOTAL</b>	<b>5922</b>

31 New MoUs are done to invite more such common facilities.

**SOME FACILITIES AT INDUSTRIAL CLUSTERS:**

Cluster wise facilities are mentioned in respective action plan of the industrial cluster.