

# **Groundtruths: Status of Hazardous Wastes and Pollution in SIPCOT Chemical Estate, Cuddalore**

**Presented to the Supreme Court Monitoring Committee on Hazardous  
Wastes on occasion of their visit to Cuddalore on 31 January, 2005**

**SIPCOT Area Community Environmental Monitors  
January 31, 2005**

## **Submission to Supreme Court Monitoring Committee on Hazardous Wastes about SIPCOT Industrial Complex**

### **Introduction:**

SIPCOT industries have polluted the area around the Cuddalore chemical industrial estate for the last 20 years. Although, the Tamilnadu Pollution Control Board (TNPCB) and the industries claim that the situation has improved remarkably over the last decade, neither offers even a shred of scientific evidence to back their claims. There are no time trend data on the status of pollution over the last 10 years.

Complaints of SIPCOT residents have been treated with disdain. Government regulators and the industry treat villagers with disrespect. TNPCB engineers have dismissed chemical incidents that render tens of people unconscious as “mass hysteria.” Numerous written complaints about illegal discharge of effluent water go un-responded to. Others that receive a response have standard platitudes stating that the matter was investigated and no problems found.

Till date, the Pollution Control Board tends to perceive environmentalists, NGOs and communities as adversaries. Organised meetings with industry are routine, but meetings with communities in and around SIPCOT are unheard of. Pollution Control Board and even Central Pollution Control Board officials naturally gravitate towards, consult and even work closely with industry representatives to monitor the industry’s violations. Till date, the same degree of consultation has not happened with communities.

Starting December 2003, village representatives from SIPCOT villages decided to monitor industries, gather evidence of pollution incidents and present it in a language that regulators and industry cannot ignore. In September 2004, the SIPCOT Area Community Environmental Monitoring came out with the first report on air quality in SIPCOT villages. The report, based on only five samples, found 22 toxic chemicals in the air; 13 of these were raw materials, and 8 were cancer-causing chemicals. None of these chemicals were being monitored for.

The Supreme Court Monitoring Committee on Hazardous Waste took notice of the report and passed orders to monitor and restore the air quality in SIPCOT by December 31, 2004.

On January 31, 2005, the Supreme Court Monitoring Committee was scheduled to visit Cuddalore SIPCOT. The following report sums up the findings of routine pollution patrols, sampling, complaints and investigations carried out by the SIPCOT Area Community Environmental Monitors in the four months since September 21, 2004, when the SCMC first visited Tamilnadu.

SACEM wishes to place on record that while it is totally opposed to the setting up of polluting industries in SIPCOT and elsewhere, it is also interested in ensuring that existing industries are forced to operate a safe workplace for their workers, and a healthy living environment for the communities. That said, repeat violators and companies that

show no intention of improving their environmental or worker safety ought to be shut down with due regard paid to ensuring the livelihood security of workers, including contract workers.

## **Details of industries in SIPCOT complex**

### **Elf Atofina Chemicals:**

Raw materials: Benzoyl Chloride  
Hydrogen Peroxide (50%, 70%)  
Potassium Hydroxide  
Sodium Hydroxide  
Sulphuric Acid  
Tertiary Butyl Alcohol

Products: Benzoyl Peroxide\*  
Bis – (Ter-Butyl-Peroxy) Cyclohexane

ETP: The Effluent treatment plant of the company is located on the fork in the river Uppanar. The plant reportedly uses recirculation technology. The river bed in the fork leading to the company has black slimy sludge to a depth of at least 0.5 metres.

Waste: Information Not Available

Chemical Odour: Frequent odours of mosquito repellent mats

Health effects: Suffocation and headache

### **Pioneer Miyagi Chemicals:**

Raw materials: The Board displaying the hazardous waste, quantity and the raw material was removed in early January. Sources say that the Pollution Control Board advised the company to remove the board as the company did not fall under the hazardous category.

ETP: The ETP is located in the northern end behind the factory.

Waste: The ETP sludge is disposed at the company backside; it is also stored near the river and at location in the southern end, behind the factory. The pond at the backside of the factory has been filled with the sludge from the factory.

At least 60 tons of solid waste have reportedly left Pioneer in container trucks between 25 and 29 January, according to workers in the factory. SACEM noticed one truck suspected of carrying such wastes – it emitted a strong odour of rotten flesh -- on 28 January, 2005, at 3 p.m. The trucks were reportedly headed towards Villupuram.

Chemical Odour: Smell of roasted bones. Pioneer is one of the smelliest companies in SIPCOT. It has also been reprimanded numerous times for illegal discharge of acidic effluents into the River Uppanar. In 2002, illegal discharges into Uppanar from Pioneer injured fishermen from two villages, and kept them away from the river for more than a month. Numerous complaints have been filed against the company's pollution by SACEM and community members.

Health Effects: Headache

**SPIC Pharmaceuticals Division:**

Raw materials: Ammonia

Chlorine

Hydrochloric Acid

Sodium Hydroxide

Sulphuric Acid

Formalin

Butyl Alcohol

Products: Penicillin G\*

ETP: The ETP for the company is located near the mango orchard at the north end of the company.

Waste: The waste from the company is stored in a lined pit with cement walls, behind the company. The land that the pit is located on used to be part of the flood areas of the river. Sludge, occasionally mixed with effluent, is reportedly disposed in the landfill. The once-fertile lands around the landfill have been abandoned by farmers after effluents and leachates destroyed their productivity. The company supposedly sends treated effluent to CUSECS pump no. 3. However, locals and knowledgeable sources say that the company routinely diverts effluents to the river. Also, because the CUSECS pump capacity is lower than the trade effluent generated, overflows are frequent.

Used drums and scrap are stored along the southern compound wall of the factory premises. The old ETP sludge has been stored without protection in a pond and the waste has not been taken care of till date.

Chemical Odour: Roasted sugar smell, toilet smell and ammonia smell

Health Effects: Headache and suffocation

There have been frequent gas leaks, especially ammonia leaks from the company. The District Environment Engineer has taken no action despite repeated complaints of gas leaks from SPIC. Responding to one complaint made in 2004 when more than 20 people reported health effects following a particularly intense ammonia leak, the District

Environmental Engineer told one of the monitors that the report was an exaggeration, and that it was a case of “mass hysteria.”

**Tantech Chemicals:**

Raw materials: Acetyl Chloride  
Ethylene Dichloride

Undisclosed raw materials: Bromine  
NMSM

Products: Hydrochloric Acid  
Iso Butyl Acetophenone\*

ETP: The ETP for the company is located in the western portion of the factory.

Waste: The ETP sludge is stored near the ETP itself.

Chemical Odour: Frequent smell of acid and mosquito repellent mat is reported. The factory emits a lot of visible smoke. Since early December, there has been an overwhelming smell of mosquito repellent mats throughout the night, combined with dense foggy smoke. Residents of Eachangadu have complained of suffocation, giddiness and burning sensation in the eyes. This pattern continued until at least 26 January.

The emissions are soot laden, and residents report soot deposits in their homes and utensils after emissions.

Villagers also report dense air emissions from an allegedly illegal outlet at or near ground level between the Electricity Board (EB) service structure and the Sintex tank a few metres South of it. The EB structure is along the Northern compound wall on the service road on which Tantech’s main entrance is located.

The TNPCB frequently visits the company, but that has brought about no change in the emissions or pollution patterns.

Health effects: Suffocation, headache, induced hunger

Other Comments: The company is reportedly manufacturing products that it is not licensed for. According to one report, the company was doing contract manufacturing for Shasun Chemicals using NMSM. Details are not available, though.

**Asian Paints:**

Raw materials: Acetaldehyde  
Methanol

Products: Formaldehyde  
Tech Pentaerythritol\*  
Mono Pentaerythritol\*  
Di Pentaerythritol\*  
Sodium Formate\*

ETP: The ETP for the factory is located at the southern end of the premises.

Waste: Effluents are released on open land in the front portion of the factory. Stagnant effluents are visible from the Cuddalore-Chidambaram highway. In rainy season, frequent release is reported of effluents into a stream running between SPIC Pharma's Northern compound wall and the Eachangadu village road.

A SIPCOT freshwater pipe runs perpendicular to the stream. This pipe is frequently found to be leaking. It is not known whether this leak is routine inefficiency, or intended to dilute effluents discharged into the stream.

Coal-like black powder is dumped in the open. In dry season, black dust blows around, and during the rainy season, the effluents carrying these wastes are released into the environment.

Chemical Odour: Sapotta (Chikoo) fruit smell

Health effects: Headache, nausea, dizziness

**Loyal Super Fabrics Ltd:**

Products: Textile Cloth, polyester cotton suiting dyeing\*  
Cotton Fabric bleached\*  
Cotton Fabric dyed\*  
Bleaching and dyeing of yarn\*  
Bleaching and dyeing of hosiery

A board has been put up at the factory gate but there are no details in it.

ETP: The ETP is located in the northern end of the company.

Waste: The ETP sludge is stored near the ETP in a cement tank. Wastes belonging to this company have been stored in sacks and stacked roof-high in sheds in a nearby factory.

Comments: The Company uses a wood boiler due to which there is plenty of damage on the environment.

**Shasun Chemicals and Drugs Ltd:**

Raw materials: Formaldehyde

Toluene  
Potassium Hydroxide  
Hexane  
Chloroform  
Methyl Iso Thio Cyanide  
Hydrochloric Acid  
Sodium metal  
Thionyl Chloride  
Methanol  
Acetone  
Methyl Dichloride  
Acetic Acid  
Bromine  
Ammonia  
Acetic Anhydride  
Sulphuric Acid

Products: Ranitidine Hydrochloride\*  
Ibuprofen\*  
Nizatidine\*  
Atenolol\*  
Analgin\*  
Dichlorofenac Sodium\*  
Salmeterol\*  
S – (+) Ibuprofen\*  
D1 – Naproxen\*  
3-5 dehydroxybenzani Acid\*  
Ciproflazacin\*  
Pentoxypylline\*  
Hydralazine Hydrochloride\*  
Alpha Tacopheryl Acetate\*  
P-Hydraxy Acetophenune\*  
RI – II Cystofur\*  
D- Hydroxyl phenyl acetamide\*  
NMSM (note that this product is manufactured by Tantech Agro chemicals, and is undisclosed in the company's list)

ETP: The ETP for the unit is located at the centre of the factory.

Waste: The hazardous waste is stacked behind the Amagin Company. The wastes from "Recovery Plant" are discharged into a stream instead of being sent to the ETP.

Chemical Odour: Spirit, acid, rotten fruit, toilet, rotten cabbage, radish

Health Effects: Stomach churning, suffocation and headache.

### **Vanavil Dyes and Chemicals Ltd:**

Raw materials: Hydroquinone  
Chlorine  
Phosphorous Trichloride  
Chlorobenzene  
Ammonia  
Aniline  
Methanol

Products: Naphthols  
Fast colour base  
Intermediates  
Pigment Blue

ETP: The effluent treatment plant for the factory is located at the backside of the factory premises.

Waste: ETP sludge is stored in a cement tank in the rear portion of the factory. Blue coloured material is stacked near the river along the southern compound wall of the factory. Usually visible from near Morgan Acids.

### **TANFAC Industries:**

Raw materials: Ammonia  
Ammonium Fluoride

Undisclosed raw materials/ products: Titanium Dioxide, Blue Boric Acid and Fluorine

Products: Not mentioned on the board  
Anhydrous Hydrofluoric Acid\*  
Aluminium Fluoride\*  
Sulphuric Acid\*  
Oleum\*  
Cryolite\*  
Miscellaneous Fluoride\*

ETP: The Effluent treatment plant for the factory is located inside the factory near the main plant.

Waste: The ETP sludge is mixed with lime and dumped behind the factory, sometimes it is dumped outside the factory too. The sulphur waste is buried or dumped in the rear portion of the Company. The wastes from different plants are buried in open spaces behind the factory. Some effluents bypass ETP and are sent out using "cutters" or earthmovers. The gypsum smoke coming from the drier in the main plant causes much pollution in the nearby areas.

Toxic wastes can also be found lying in the open grounds in the rear portion of the factory.

Chemical Odour: DDHF odour released; very bad odour and smoke from the biomass and gypsum smoke from the drier of the main plant. Acid smell

Health effects: Headache and suffocation

Comments: Worker's health and occupational safety is a matter of concern in the factory. On 11 April 2004, one of the contract workers in TANFAC, met with an accident while cleaning the acid tank and died eventually. There was no protective gears or training provided to the worker for carrying such a job. Moreover, even after the accident, the factory failed to inform the various authorities about the incident. There is court case pending against the factory on the same issue. This points to the widespread use of untrained contract workers for specialised functions involving hazardous operations requiring special training.

### **Tagros Chemicals:**

Raw materials: Acetonitrile  
Acrylonitrile  
Caustic Lye  
Carbon Tetrachloride  
Di ethyl Amine  
Isobutylene  
Ammonia  
Hexane  
Sodium Cyanide  
Thionyl Chloride  
Triethyl amine

Products: Alpha Methrin  
Cyper Methrin  
Per Methrin  
D. V. Chloride

ETP: The ETP is located inside the factory premises.

Waste: Most of the wastes were buried and covered within the factory premises about six months ago and a road was made on top of it. Currently used containers are stacked in this area, along the Northern compound wall of the factory.

Chemical Odour: Hospital smell, excessive pollution with smoke and chemical odour especially at nights.

Health Effects: Headache and shortness of breath. Upon entering the plant one experiences an itching/burning sensation. According to some workers, company staff are given a special ointment to control the burning sensation, but contract workers are left to use coconut oil.

Recently pollution control board conducted a public hearing on the proposed expansion of Tagros Chemicals production capacity. Though the hearing was conducted on 7<sup>th</sup> September 2004, the company had already expanded more than a year ago without valid consents and permissions. The production data submitted by the company to the Registrar of Companies confirm the same (please refer to the attached documents on Tagros). This clearly indicates that the public hearing was a 'post – facto' hearing and there should strict action taken against the industry for operating without valid permissions.

The role of the Pollution Control Board is also thrown in question. The agency was warned of the fact that the company was attempting to regularise its illegal expansion through a post-facto public hearing. We're not aware of any follow up, or sincere investigation by the agency.

**Victory Chemicals:**

Raw materials: NA

Products: Barium Nitrate  
Sodium Sulphide

ETP: There is no Effluent treatment plant at the factory.

Waste: Barium wastes generated in the factory. Some material resembling granite – reportedly raw material (barite ore) – was found stored in the open outside Victory Chemical's during a pollution patrol on 28 January, 2005.

In December 2004 the company was locked out as an action for illegal dumping of hazardous waste in a nearby village. About 100 tonnes of hazardous waste was dumped on the Vandipalayam road in Cuddalore New Town area. The waste had a peculiar odour of explosives to it.

Sampling results of the waste are as follows:

| S No. | Chemical | Levels found (mg/l)<br>TCLP | USEPA Toxicity<br>Characteristic Regulatory<br>Levels (mg/l) |
|-------|----------|-----------------------------|--|
| 1.    | Barium   | 712                         | 100  |
| 2.    | Cadmium  | 0.035                       | 1.0  |
| 3.    | Chromium | BDL                         | 5.0  |
| 4.    | Lead     | 0.59                        | 5.0  |
| 5.    | Nickel   | 0.17                        | NA   |

The Pollution Control Board ordered a closure of the company after this incident for about a month. The company resumed operation on the 29<sup>th</sup> December 2004.

It is reported that waste is stored in empty lots within the factory. Waste was also stacked along the factory wall which is not strong. The factory wall is literally on the river.

Chemical Odour: Black smoke from the chimney. Hazardous waste is disposed of in the air when the wind blows.

**Morgan Acids:**

Non-bio degradable waste (Polythene) openly dumped in the area. Five large tanks of Toluene are stored in the factory premises about 100 meters away from Vanavil Dyes. This represents a serious disaster hazard.

**Aurobindo Pharma:**

Raw materials: Dichloroethane  
Ammonia  
Hydrochloric acid

Products: Information Not Available

Waste: The waste is stored in a pit near the ETP.

Chemical Odour: A characteristic odour of old tea leaves, and smells similar to those recorded at Shasun are frequently reported.

**Tamil Nadu Pigments:** (Status – Not in operation)

There is no ETP in the factory and the waste is stored in unlined pits in the area. This has reportedly contaminated the ground water.

**Pentafour:** (Status – Not in operation)

The hazardous waste has been left unattended for years after the company has shut down. On 8<sup>th</sup> September 2004 the phosphorous drums in Pentafour spontaneously combusted causing fire in the premises. The solid waste is still stored inside the factory.

The matter was sought to be hushed up as a minor incident.

**Kumaran Carbonates:** (Status – Not in operation)

The industry is closed. It needs to be visited to ascertain quantity of hazardous wastes abandoned. Piles of asbestos waste from dilapidated sheds alongside the Eachangadu village road are visible.

**Maruti Labs:** (Status – Not in operation)

Solid waste is stored inside the factory premises.

**Maruthi Synthetics:** (Status – Not in operation)  
Solid waste is stored inside the factory premises.

**Oswali Chemicals:** (Status – Not in operation)  
Solid waste is stored inside the factory premises.

**J. K. Parmachem Ltd:** (Status – Not in operation)  
Solid waste is stored inside the factory premises.

### **Cuddalore SIPCOT Industries Common Utilities Ltd (CUSECS):**

CUSECS is the *collection point* of all the “*treated effluent*” from the industries in SIPCOT. The effluent is sent to sea through a pipeline. According to CUSECS, it only forwards to sea effluents pre-treated by the individual industries. CUSECS also says it routinely monitors the influent, and provides feedback to the individual industries if quality parameters are not met. CUSECS acknowledged that all violations of quality parameters are not automatically reported to PCB. Rather violations are sought to be corrected by providing feedback to the errant industry.

Not all the industries in SIPCOT are members of CUSECS, some of the industries send their effluents directly to Uppanar. The lists of industry that are members of CUSECS are as follows (Source SIPCOT):

- Asian Paints
- Arkema Peroxides Pvt. Ltd
- Aurobindo Pharma Ltd
- Bayer Material Sciences
- J. K. Pharmachem Ltd (Not in operation)
- Kumar Chemical Corporation
- Loyal Super Fabrics Pvt. Ltd
- Origin Agro Star Ltd. (Not in operation)
- Pioneer Miyagi Chemicals Pvt. Ltd
- Rallis India Ltd (Not in operation)
- SIPCOT
- Shasun Chemicals and Drugs Ltd
- SPIC Pharmaceuticals Ltd
- Sudhakar Chemicals (P) Ltd (Not in operation)
- Tagros Chemicals (P) Ltd
- Tamilnad Pigments Pvt. Ltd (Not in operation)
- TANFAC Industries Ltd
- Tantech Agro Chemicals Ltd
- Victory Chemicals (P) Ltd

There have been constant complaints of intense chemicals odour around CUSECS. The common odours reported from CUSECS are – smell of sewer, human excreta and rotten eggs. In one instance the air down wind of CUSECS was sampled and tested for Volatile

Organic and Sulphur compounds. Seven toxic chemicals were found, of which four exceeded the USEPA regulations for safe levels. (See the list below)

**Sample 1: CUSECS 5.**

**Date of Sampling: 04 March, 2004.**

**Location: SIPCOT Road No. 5, opp. Loyal Super Fabrics**

| Chemical found     | µg/m3 | ppbV | EPA Level µg/m3 |
|--------------------|-------|------|-----------------|
| Hydrogen Sulphide  | 874*  | 627  | 1.00            |
| Methyl Mercaptan   | 13.3* | 6.74 | 2.1             |
| Dimethyl Sulphide  | 9.04  | 3.56 |                 |
| Ethanol            | 44    | 24   |                 |
| Methylene Chloride | 3700* | 1100 | 4.09            |
| Trichloroethene    | 780*  | 150  | 1.10            |
| Toluene            | 42    | 11   | 400             |

\* Exceeds EPA Effects Screening Levels

From the chemical odours reported and the chemicals found in the air sample downwind of CUSECS (pump no 5) it is clear that the effluents sent to CUSECS do not meet the regulatory standards prescribed by the Pollution Control Board.

There have also been constant complaints of leaks in pipes carrying effluents to CUSECS and overflows from the CUSECS sumps. One complaint was filed with the DEE of PCB on January 28, 2005, about overflow of CUSECS pump no 3, which carries effluents from SPIC Pharma and Pioneer Miyagi Chemicals. SACEM is not aware of any action taken on this complaint till date.

**Air Quality in SIPCOT – pollution patrol, indicative odour monitoring study and result of one bucket sample taken in between October 2004 to January 2005:**

The SIPCOT Area Community Environmental Monitors carried out routine pollution patrols to monitor and record the pollution level in the SIPCOT complex. The reports of these patrols were also shared with the local pollution control board on a regular basis. Along with the patrols some of the monitors also recorded the chemicals odours emitted from the various industries in SIPCOT complex. Here is a gist of the observations:

**Pollution patrol:**

A total of 18 pollution patrols were carried from the month of October 2004 to January 2005. Pollution patrols were carried regularly, even daily depending on the situation. For example, four patrols were carried on a daily basis during the Central Pollution Control Board’s visit to take air samples from SIPCOT in October 2004. We found out during these patrols that the most of the industries were operating far below capacity and the chemical odours emitted from the industries were not noticeable. This information has been shared with the Pollution Control Board too.

Observations from the patrols have been communicated to the PCB with a request for immediate intervention and action; so far no action has been taken on any of the pollution patrol reports. A list of few serious incidents communicated to the PCB is as follows:

| <b>Date of patrol</b> | <b>Observation</b>  | <b>Action taken by the PCB</b>   |
|-----------------------|---|--|
| 20 October 2004       | High intensity of smell and above average smoke reported from SIPCOT complex. The monitors reported headache, suffocation, and eye and throat irritation as major health effects.     | No action taken by TNPCB on the issue; no response to the report.  |
| 30 October 2004       | High intensity of chemical odour and smoke reported from the SIPCOT complex. Gas leak from Tantech Agro Chemicals; severe health effects were reported in the pollution patrol report | Nature of action taken, if any, not known. The company continues to pollute and operate. No response to the report |
| 10 December 2004      | High intensity of smell and above average smoke reported from SIPCOT complex.   | Nature of action taken, if any, not known. No response to the report   |
| 15 December 2004      | High intensity of smell and above average smoke reported from SIPCOT complex.   | Nature of action taken, if any, not known. No response to the report   |
| 16 January 2005       | High intensity of smell and above average smoke reported from SIPCOT complex.   | Nature of action taken, if any, not known. No response to the report   |

**Air sample:**

During the pollution patrol on 30 October 2004, the intensity of the chemical odour from SIPCOT was reported to be very high. Under these circumstances the SACEM monitors took one Bucket sample downwind of Tantech Agro Chemicals in SIPOCT Area. The results of the sample are as follows:

**Date of the sample: 30 October 2004**

**Location of sampling: Downwind of Tantech Agro Chemicals, opposite Eechangadu village**

| <b>Chemical found</b> | <b>µg/m<sup>3</sup></b> | <b>EPA Level µg/m<sup>3</sup></b> | <b>Intensity</b> | <b>Carcinogen</b> |
|-----------------------|-------------------------|-----------------------------------|------------------|-------------------|
| Carbon Disulphide     | 64.7                    |                                   | 21.56 times      | No                |

|                      |     |      |  |                                   |
|----------------------|-----|------|--|-----------------------------------|
|                      |     |      | above the Texas Short term Screening Level             |                                   |
| Bromomethane         | 11  | 5.2  | 2.11 times above the USEPA Region 6 Screening Levels   | Potential occupational Carcinogen |
| Trichloroethene      | 460 | 1.10 | 418.18 times above the USEPA Region 6 Screening Levels | Potential occupational carcinogen |
| 4-Methyl-2-Pentanone | 230 | 83   | 2.77 times above the USEPA Region 6 Screening Levels   | NA                                |
| Acetone              | 40  | --   | --   | No                                |
| Isopropyl Alcohol    | 340 | --   | --   | No                                |
| Toluene              | 35  | 400  | --   | No                                |
| 2 – Butanone         | 8.3 | --   | --   | No                                |

The results of the air samples clearly indicate that the levels of volatiles and sulphur compounds in the SIPCOT air have not gone down despite strict instructions from the Supreme Court Monitoring Committee (Order No and Date) to control and monitor the levels of these chemicals.

#### **Complaints made to the DEE, TNPCB:**

SACEM monitors have filed at least nine complaints with the local TNPCB report violations in SIPCOT. These complaints are independent of the pollution patrol reports filed with the TNPCB. Following is a list of complaints and action taken report.

| <b>S No.</b> | <b>Date of complaint/ incident</b> | <b>Subject matter of the complaint</b>  | <b>Response from DEE - TNPCB</b>  |
|--------------|------------------------------------|---|---|
| 1.           | 4 October 2004                     | Complaint about effluent discharge from Victory Chemicals on 3 <sup>rd</sup> October 2004 | PCB made a site visit and stated that there was no problem. No scientific basis |

|    |                  |   |   |
|----|------------------|---|---|
|    |                  |   | provided to substantiate claim.   |
| 2. | 13 October 2004  | Complaint about biscuit colour effluent discharge in an illegal channel from Asian Paints           | PCB visited the site, and declared that it was not effluent, but fresh water. However, no scientific evidence was provided to explain the presence of biscuit coloured water. |
| 3. | 1 November 2004  | Complaint about gas leak from SPIC Pharma, complaint was made by the villagers in the area          | DEE made a site visit several hours after the leak and reported that everything was “normal.”   |
| 4. | 4 November 2004  | Complaint about Gas leak from Tantech Agro Chemicals on 30 October 2004                             | No response   |
| 5. |                  | Complaint about the effluent discharge from Pioneer Miyagi Chemicals                                | No response   |
| 6. | 6 December 2004  | Complaint about the illegal dumping of hazardous waste by Victory Chemicals.                        | The PCB ordered for investigations and closure of the unit  |
| 7. | 20 December 2004 | Complaint about the leak in CUSECS pump 2 in Semankuppam  | DEE was present on the spot of the incident   |
| 8. | 7 January 2005   | Complaint about the effects of Tsunami on the CUSECS and hazardous waste lying unattended in SIPCOT | No response   |
| 9. | 28 January 2005  | Complaint about the leak of effluent from CUSECS pump 3.  | No response   |