BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

M.A. No. 05 of 2021 (SZ) in
ORIGINAL APPLICATION No. 90 OF 2013 (SZ)

IN THE MATTER OF:

Asian Paints Ltd.,
Patancheru District,
Telangana .... Applicant

Versus

State of Telangana,
rep. by its Prl. Secretary,
EFS&T Dept., Hyderabad & Ors. .... Respondent(s)

ADDITIONAL REPLY OF THE TELANGANA STATE POLLUTION CONTROL BOARD (RESPONDENT No. 2)

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Place: Hyderabad

Date: 27-01-2022.

BEFORE THE HON'BLE NATIONAL GREEN TRIBNUNAL,
SOUTHERN ZONE, CHENNAI

M.A.No: 5 of 2021

In

O.A.No:90 of 2013

ASIAN PAINTS LTD **.....Applicant/67th Respondent**

-Vs-

STATE OF TELANGANA & OTHERS **.....Respondents/Respondents**

ADDITIONAL REPLY FILED BY THE SECOND RESPONDENT

The Second Respondent states as follows:

1) It is submitted that this Hon'ble Tribunal vide order dt.23.12.2021 has directed the Respondent No.2 Telangana State Pollution Control Board (TSPCB) to submit certain information regarding the performance of ETP, non-compliance of the Applicant Industry, violations notices, details of compensation paid to the farmers, etc.,.

2) In this regard, complying with the directions of the Hon'ble Tribunal the following information is submitted by the Respondent No.2 for its kind perusal.

3) The Applicant Industry M/s. Asian Paints Ltd., (Formerly M/s. Asian Paints (India) Ltd.,) is categorized under 'Red' category as per CPCB categorization i.e., "Manufacturing of paints varnishes, pigments and intermediate (excluding blending/mixing)". The 'Red' category industries are most pollution potential industries.

M. SADA SIVA KUMAR REDDY, ADVOCATE
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
NOTARY
Regn. No. 198.
F-102, KUKATPALLY, HYDERABAD, 31

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

4) It is submitted that as per the Environmental Impact Assessment notification schedule all the industrial units involved in the manufacturing of paints, varnishes, pigments, intermediates (excluding blending /mixing) requires a prior Environmental Clearance from the Environmental Affairs Ministry. The legislative intent and the rationale of keeping the category of petitioner industry in the schedule of the notification is apparent and clear that this category of industry contribute enormously to water pollution.

5) The cause title clearly reveals that the petitioner unit is located in one of the Industrial Area covered by the ban notification in G.O Ms No 95. The Petitioner is an integrated highly polluting manufacturing unit, whose production capabilities results in large volume of water pollution.

6) Earlier, the industry obtained No Objection Certificate from the Telangana State Pollution Control Board (erstwhile APPCB) vide order dt.28.01.1983 to set up a unit at IDA, Patancheru for the manufacturing of Paints/Enamels, Acrylic Emulsion, etc. Copy of the same is attached as **Annexure-I.** Subsequently, the industry also obtained 2nd No Objection Certificate from the Telangana State Pollution Control Board (erstwhile APPCB) vide order dt.17.07.1985. Copy of the same is attached as **Annexure-II.** Vide above CFE orders, the Board has stipulated to construct ETP to treat the effluents confirming the Board standards.

M. SADA SIVA KUMAR REDDY, ADVOCATE
SWATHI ENCLAVE, BHAGYANAGAR COLONY
NOTARY
Regn. No. 198
KUKATPALLY, HYDERABAD, T.S.

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

7) Since its installation the Board has found the following performance parameters and violations of the ETP on its inspections:

Performance of ETP / Violations:

S.No.	Date	Violations observed w.r.t to performance of ETP.
a.	23.07.1996 & 23.08.1996	During inspection of the industry on 23.07.1996, it was observed that the industry discharging process and wash effluents by mixing with the sanitary & canteen waste water in gross violation of the conditions stipulated in the consent order. During inspection of the industry on 23.08.1996, it was observed that the part of the process and wash effluents are discharged into storm water drains, which are finally flowing outside the premises joining Nakkavagu. Accordingly, the Board vide lr.dt.02.09.1996 sought reply on above violations **Annexure-III.**
b.	Year 1996 & 1997	The Govt. & the Board have facilitated for Establishment of a Common Effluent Treatment Plant (CETP) by name M/s. Pattancheru Enviro Tech Ltd., (PETL) in Patancheru during 1994 to treat 7,500 m3/day of industrial effluents generated by the industries in and around Patancheru. Earlier, PETL was discharging partially treated effluents into adjacent Isukavagu, which joins Nakkavagu. This has resulted in pollution of 20 villages in Nakkavagu basin. **The applicant industry was a member of the Common Effluent Treatment Plant (CETP) by name M/s. Pattancheru Enviro**

V. SADA SIVA KUMAR REDDY, ADVOCATE * SARASWATHI ENCLAVE, BHAGYANAGAR COLONY * KUKATPALLY, HYDERABAD, T.S. INDIA * F-102 * NOTARY Regn. No. 198

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

		Tech Ltd., (PETL) and sent the pre-treated effluents to the CETP during the years 1994 to 1999 that same was observed and recorded in the Hon'ble NGT Judgment dt.2410.2017 (Para No.90, Page No.149). The same also can be confirmed from the industry reply dt.20.06.1997 (1511 Nos of tankers from April' 1996 to Oct' 1996) **Annexure-IV**, industry lr.dt, 28.07.1997 (214 Nos of tankers in June' 1997) **Annexure-V**, industry lr.dt, 07.08.1997 (205 Nos of tankers in July' 1997) **Annexure-VI**, Board analysis reports dt.17.10.1997, 31.12.1996, 15.07.1998, 07.08.1998 **Annexure-VII**, However, as M/s. PETL has made substantial progress and is meeting the outlet standards. The Board requested M/s. Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS & SB) to give the connectivity of 18 Km Pipeline to the outlet of PETL effluents, through K&S main sewer to STP at Amberpet. Accordingly, the outlet of M/s. PETL was given connectivity from 07.07.2009 to 26.03.2010, in a phased manner. At present all the treated effluents of M/s. PETL are joining the STP at Amberpet for further treatment and also M/s. PETL and STP at Amberpet are meeting the prescribed discharge standards.
c.	19.09.1997	The Board issued notice to the industry for non-compliance of conditions stipulated in Hazardous Waste authorization issued by the Board **Annexure-VIII**.

M. SADA SIVA KUMAR REDDY, ADVOCATE
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
NOTARY
Regn. No. 198.
F-102, KUKATPALLY, HYDERABAD, T.S.

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

d.	24.09.1997	Industry indulged in illegal dumping of Hazardous Waste through vehicle No. AP13T 8571 at unauthorized site. The Board made a complaint to SHO, Patancheru vide lr.dt.24.09.1997. Annexure - IX The Board also issued show cause notice to the industry on 25.09.1997 **Annexure-IX. A**
e.	07.10.1997	The Board issued notice dt/01.10.1997to the industry for non-compliance of action plan on the Hon'ble Supreme Courts' interim order dt.16.07.1996 in W.P. No.1056/90 regarding establishment of pre-treament facilities to meet the MoEF standards, etc., **Annexure-X.**
f.	28.02.1998	During inspection on 22.02.1998, it was observed that the industry was discharging effluents into Nakkavagu near the submerible bridge on Nandigama (V) road ultimately joining in Nakkavagu resulting surface and ground water pollution. Accordingly, the Board issued notice to the industry on 28.02.1998 **Annexure-XI.**
g.	29.06.1998	Board issued directions to the industry regarding air pollution **Annexure-XII.**
h.	14.06.2000	The industry exceeded the ETP outlet parameter i.e., TSS – 172 mg/ltr (against the standard of 100 mg/ltr) **Annexure-XIII.**
i.	19.09.2000	The industry exceeded the ETP outlet parameter i.e., TSS – 300 mg/ltr (against the standard of 100 mg/ltr), COD – 977 mg/ltr (against the standard of

M. SADA SIVA KUMAR REDDY, ADVOCATE
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
KUKATPALLY, HYDERABAD, T.S. INDIA
NOTARY
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F-102

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

		250 mg/ltr) and BOD – 220 mg/ltr (against the standard of 100 mg/ltr) **Annexure-XIV.**
j.	06.10.2001	The industry exceeded the ETP outlet parameter i.e., TSS – 140 mg/ltr (against the standard of 100 mg/ltr) **Annexure-XV.**
k.	23.11.2001	The industry exceeded the ETP outlet parameter i.e., Lead (Pb) – 1.4 mg/ltr (against the standard of 0.1 mg/ltr) **Annexure-XVI.**
l.	20.01.2003	The industry exceeded the ETP outlet parameter i.e., BOD – 80 mg/ltr (against the standard of 50 mg/ltr) **Annexure-XVII**
m.	20.08.2004	The industry exceeded the SPM value to the stack attached ot the incinerator i.e., SPM – 1394 mg/Nm3 (against the standard of 115 mg/Nm3) **Annexure-XVIII.**
n.	28.11.2005	The Board issued notice to the industry for overflow of effluents from ETP and leakages from ETP pipes and entering into storm water drains **Annexure-XIX.**
o.	20.10.2006	The industry vide lr.dt.20.10.2006 paid Rs. 28,570/- towards implementing & upgradation work connected with drinking water supply to pollution affected villages **Annexure-XX.**
p.	13.09.2008	The industry vide lr.dt.13.09.2008 paid Rs. 38,464.91/- towards crop compensation to the farmers for the period form 1999 for 2002 for loss due to damage of crops on account of pollution **Annexure-XXI.**
q.	16.04.2016	The industry exceeded the RSPM value during AAQM conducted on 13.04.2016 i.e., RSPM – 156 ug/Nm3 (against the standard of 100 ug/Nm3) **Annexure-XXII.**
r.	14.12.2021	It also further submitted that, the Board during monitoring of Online Continuous Emission Monitoring System (OECMS) data pertaining to the

M. SADA SIVA KUMAR REDDY, ADVOCATE & NOTARY
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
KUKATPALLY, HYDERABAD, T.S. INDIA
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Regn. No. 198

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

		above industry during the period 1st November 2021 to 30th November 2021 (2 fortnights), the Volatile Organic Compounds (VOC) values recorded more than 10 PPM in 11 instances. Accordingly, the Board vide reference 9th cited (Notice No.96/TSPCB/HO/OCEMS/2021, Dt.14.12.2021), issued notice to the industry for not taking appropriate measures for control of Volatile Organic Compounds (VOCs) and for continuous streaming of data to the TSPCB server, thus causing air pollution and water pollution in the area. Copy of the same is herewith enclosed as **annexure-XXIII.**

8) The Applicant / Petitioner i.e, M/s. Asian Paints Ltd (Formerly M/s. Asian Paints (India) Ltd.,) Plot No.50 –55, IDA, Phase – II, Patancheru, Sangareddy District has reiterated in their rejoinder dt.11.12.2021 submitted before the Hon'ble NGT, that the applicant has Effluent Treatment Plant (ETP) since 1985 in its plant, not causing pollution in the area, not a polluting industry and the applicant be treated different from the polluting industries in the Patancheru and Bollaram area with respect to the contribution to the Corpus Fund to remediate the pollution. However in the final judgment dt.24.10.2017 passed by the Hon'ble NGT (SZ), Chennai in **which it has been very clearly mentioned that it applies to all the industries which are located in and around the Patancheru-Bollaram industrial cluster and who were also sending all the effluents for the treatment to Common Effluent Treatment Plant (CETP) by name M/s. Pattancheru Enviro Tech Ltd., (PETL)** and are directly responsible for the pollution caused in the

SADA SIVA KUMAR REDDY, ADVOCATE
SARASWATHI ENCLAVE, BHAGYANAGAR COLONY
NOTARY
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F-102
KUKATPALLY, HYDERABAD, T.S.

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Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

surrounding areas. **That the undeniable fact is the applicant industry is located in Patancheru Industrial Area and was contributor of effluents to the PETL between the years 1994 to 1999, that same was observed and recorded in the Hon'ble NGT Judgment dt.2410.2017 (Para No.90, Page No.149).**

9) It is further submitted that the Hon'ble High Court of Telangana (erstwhile Andhra Pradesh) vide order dated 25.09.2003 constituted Fact Finding Committee in W.P. No. 19661 of 2002. The Fact Finding Committee has visited 60 major & medium pollution potential units and issued certain recommendations to improve the existing systems in Annexure-9.2 attached to the report. The Fact Finding Committee has issued following observations / remarks pertaining to M/s. Asian Paints Ltd (Copy of the FFC report dt. March, 2004 is herewith enclosed as **Annexure-XXIV**):

"During the visit of the FFC, it was mentioned that RO rejects which are high concentrated are used for gardening purposes. Hence, the industry shall install and evaporate RO rejects in forced evaporation system".

10) The Applicant Industry has paid crop damage compensation of Rs. 14,000/- for the period 1984-1998, as per the Hon'ble High Court Order dated 18.08.2003 in W.P. No. 19661 of 2002 (Copy of the B.O. letter dt. 26.11.2005 is herewith enclosed as **Annexure-XXV**).

11) It if further pertinent to bring on record that many other industries situated in around Pattancheru previously has approached the Hon'ble High Court for the State of Telangana with a motive to stall the collection of

contributions to the environment corpus fund. But the Hon'ble High Court rightly refused to interfere in the operation of the Hon'ble NGT's judgment. The Hon'ble High Court vide its order dated 26-03-2021 in W.P.Nos.4118 & 4143 of 2021 has upheld that,

"2. At the outset, we have requested learned counsel for the petitioners to address this court on the maintainability of the present petitions when, even as per the impugned order dated 01.02.2021 passed by the respondent No.2/Telangana State Pollution Control Board, payment in the corpus fund is being called upon to be made by the concerned industries in terms of the order of the National Green Tribunal, Southern Bench, Chennai. In our opinion, if the petitioners are aggrieved by the aforesaid action of the respondent No.2/Telangana State Pollution Control Board, its remedy lies before the National Green Tribunal. Instead, the petitioners are calling upon this court to interpret the order of the National Green Tribunal one way or the other, which is not permissible.

3. We decline to entertain the present petitions. The same are accordingly closed along with the pending applications, if any. It is for the petitioners to approach the National Green Tribunal for clarification of its order dated 24.10.2017 and/or to seek appropriate orders to the effect that they are not under any obligation to contribute to the corpus fund as directed to be created by the National Green Tribunal in terms of the order dated 24.10.2017." (Copy of the said order is herewith enclosed as **Annexure-XXVI**).

M. SADA SIVA KUMAR REDDY, ADVOCATE
SAI SWATHI ENCLAVE, BHAGYANAGAR COLONY
NOTARY
Regn. No. 198.
F-102, SARAVANA
KUKATPALLY, HYDERABAD, T.S.

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

12) Further in a similar circumstances in a different Writ Petition vide WP.No.6105 of 2021 the Hon'ble High Court again refused to interfere in the collection of contributions to the corpus fund Patancheru and Bollaram Environment Relief Fund. The Hon'ble High Court vide its order dated 12-11-2021 stated that

"The petitioner company was one of the respondents before the National Green Tribunal and after hearing the petitioner-company, the judgment was delivered by the Tribunal. In compliance of the judgment delivered by the National Green Tribunal, the petitioner-company made contributions in the year 2018-19 by paying a sum of Rs.4,22,00,000/-. The undisputed facts of the case also reveal that the petitioner-company is supplying drinking water to various villages keeping in view the various orders passed by this High Court from time to time."

"In the considered opinion of this court, as the impugned orders have been passed by the Telangana State Pollution Control Board in respect of payment of Corpus Fund in terms of the order of the National Green Tribunal and in case the petitioners are aggrieved, the remedy lies before the National Green Tribunal and admission has been declined in identical case by this court." (Copy of the order is herewith enclosed as **Annexure-XXVII**).

13) This respondent respectfully submits that the above information is submitted for taking further necessary action in this matter, as this miscellaneous application is wholly misconceived and not at all maintainable and deserves to be dismissed and it is prayed that this Hon'ble Tribunal may be pleased to issue directions to the applicant, a

pollution potential industrial unit, located in the Patancheru Industrial Area to forthwith comply with the directions of this Hon'ble Tribunal dated 24/10/2017 in O.A.No:90 of 2013 and batch cases and thus render justice.

Dated at Hyderabad on this the 27th day of January, 2022

Counsel for 2nd Respondent

2nd Respondent

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

VERIFICATION

I, Neetu Kumari Prasad, Member Secretary of the Telangana State Pollution Control Board, the 2nd respondent herein do hereby verify that what all are stated above are true and correct to the best of my knowledge as per the records available in the office.

Verified at Hyderabad on this the 27th day of January, 2022

2nd Respondent

MEMBER SECRETARY
T.S. Pollution Control Board
Paryavaran Bhavan, A-3, I.E.,
Sanathnagar, Hyderabad-18.

M. SADA SIVA KUMAR REDDY, ADVOCATE, SARASWATHI ENCLAVE, BHAGYANAGAR COLONY, F-102, KUKATPALLY, HYDERABAD, TS
NOTARY Regn. No. 198
NOTARIAL

ATTESTED

M. SADA SIVA KUMAR REDDY, B.Com., B.L.
ADVOCATE & NOTARY
Appointed by Govt., India
G.O. Ms. No. 198, Rev (Regn-II), dt. 11.04.2000
102, Saraswathi Enclave, Bhagyanagar Colony,
Kukatpally, Hyderabad, T.S., India. (Ph: 98480 44395)

ANNEXURE-I

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Annexure-8

A.P. STATE BOARD FOR PREVENTION & CONTROL OF WATER POLLUTION.

P. RAMAYYA NAIDU,
B.E., M.E.(PH), M.I.E.,
MEMBER SECRETARY.

Phone: 74034
6-6-115/124,
Kavadiguda Main Road,
Secunderabad-500003, A.P.

Lr.No. 190/PCB/83-248

Dated: 15-2-1983.

To

M/s. Asian Paints (India) Limited,
'Nirmal', 4th floor,
Nariman Point,
P.B.No. 1946,
Bombay-400 021.

Sirs,

Sub: No Objection Certificate of the Board - Issued - Regarding.

Ref: Your Lr.No. ESF/P-16, dated 28-1-1983.

*****

With reference to your letter cited, I am to inform that the A.P. State Board for Prevention & Control of Water Pollution has no objection to set up the above unit at Industrial Development Area, Patancheru, Phase II, Medak District for the manufacture of Paints/Enamels (50 tons/day), Acrylic Emulsion (3 tons/d and Synthetic Resin (9to10 tons/day) subject to the following conditions.

1. The industry shall submit the detailed proposals on effluen treatment within two months from the date of issue of this letter.

2. The industry shall construct and commission the effluent treatment works before the factory goes into production.

3. The treated effluents shall conform to the following standards.

pH	-	5.5 - 9.0
B.O.D.	-	30 mg/l.
C.O.D.	-	250 mg/l.
Total Suspended Solids		100 mg/l.
Oil and Grease	-	10 mg/l.

4. The quantity of waste water shall not exceed 148 M^3/day.

5. The treated effluents shall be discharged in to Nullah.

(13)

000028

7. The industry shall carry out necessary measures to control air pollution as and when found necessary.

8. The applicant shall obtain a second No Objection Certificate of the Board before the factory goes into production.

9. Trees shall be planted and maintained in the vacant spaces of the premises.

10. Regular consent of the Board shall be obtained as required under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 before the factory goes into production.

Yours faithfully
Sd/-
MEMBER SECRETARY

*nmk/-16283.

Copy to the Assistant Engineer, Regional Office, Hyderabad for information and necessary action.

D. Ramayya
MEMBER SECRETARY.

(14)

NEAT TYPED COPY

ANNEXURE-I

A.P STATE BOARD FOR PREVENTION & CONTROL OF WATER POLLUTION.

P. RAMAYYA NAIDU,
B.E., M.E (PH); MIE,
MEMBER SECRETARY

Phone: 74034
6-6-115/124,
Kavadiguda Main Road,
Secunderabad – 500 003, A.P.

Lr.No.190/PCB/83-2481

Date: 15-2-1983

To

M/s. Asian Paints (India) Limited,
'Nirmal', 5th floor,
Nariman Point,
P.B.No.1946,
Bombay – 400 021.

Sir,

Sub: No Objection Certificate of the Board – Issued – Reg.

Ref: Your Lr.No.ESF/P-16, dated 28-1-1983.

* * *

With reference to your letter cited, I am to inform that the A.P.State Board for Prevention & Control of Water Pollution has no objection to set up the above unit at Industrial Development Area, Patancheru, Phase II, Medak District for the manufacture of Paints / Enamels (50 tons/day), Acrylic Emulsion (3 tons / day) and Synthetic Resin (9 to 10 tons/day) subject to the following conditions.

1. The industry shall submit the detailed proposals on effluent treatment within two months from the date of issue of this letter.

2. The industry shall construct and commission the effluent treatment works before the factory goes into production.

3. The treated effluents shall conform to the following standards.

pH	--	5.5 – 9.0
B.O.D	--	30 mg/l.
C.O.D	--	250 mg/l.
Total Suspended Solids	--	100 mg/l.
Oil and Grease	--	10 mg/l.

4. The quantity of waste water shall not exceed 148 M3/day.

5. The treated effluents shall be discharged into Nallah.

(15)

6. The industry shall carry out necessary measures to control air pollution as and when found necessary.

7. The applicant shall obtain a second No Objection Certificate of the Board before the Factory goes into production.

8. Trees shall be planted and maintained in the vacant spaces of the premises.

9. Regular consent of the Board shall be obtained as required under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 before the factory goes into production.

Yours faithfully,
Sd/-
MEMBER SECRETARY

*nmk/-16283.

Copy to the Assistant Engineer, Regional Office, Hyderabad for information and necessary action.

Sd/-
MEMBER SECRETARY

(16)

ANNEXURE-II

Annexure-3

000029

Grams KALUSHYA NIVARANA

Phone Off : 74034

ANDHRA PRADESH POLLUTION CONTROL BOARD

6-6-115/124, Kavadiguda, Secunderabad - 500 003.

Lr.No. 190/PCB/83- 1166

Date 17-7-1985.

To

M/s. Asian Paints (India) Ltd.,
Plot.No. 50-55,
Phase-II, I.D.A.,
Patancheru,
Medak District.

Sir,

Sub:- 2nd No Objection Certificate of the Board - Issued - Regarding.

Ref:- Your Lr.No.ESF/PAT/10.7/5.06. dt.6.5.85.

*****

With reference to your letter cited, I am to inform that 2nd No Objection Certificate is hereby granted to your industry subject to the following conditions.

1. The treated effluents shall conform to the standards laid down in I.S. 2490 Part- 1981 (Second revision).

2. In no case the untreated effluent shall find entry outside the factory premises due to over flow or percolation.

3. The industry shall carryout necessary measures to control Air pollution as and when found necessary.

4. Trees shall be planted and maintained in and around the factory premises.

5. Regular consent of the Board may be obtained as required under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21/22 of Air (Prevention & Control of Pollution) Act, 1981 before the unit goes into production.

Yours faithfully,

MEMBER SECRETARY.

*cvr/-

(17)

ANNEXURE-III

C/C

BY REGD.POST ACK.DUE.

A.P. POLLUTION CONTROL BOARD
REGIONAL OFFICE::SANGAREDDY

Office of the A. P. Pollution Control Board
13 SEP 1996

B. MADHUSUDHANA RAO,
M.E.,LL.B.,
Environmental Engineer.

5-1-28, Shakthinagar,
Sangareddy-502 001.

Lr.No.190/PCB|RO|SRD|96-1153 Date: 2-9-1996.

To
M/s Asian Paints (I) Ltd.,
Phase-II, IDA, Patancheru-502 319,
Medak Dist.

Sir,

Sub: Air & Water consent applications - certain observations during the inspection - Reply called for - Reg.

Ref: 1. Air & water consent applications received by this office on 27.5.96.

2. Inspections by this office staff on 23.7.96 and 23.8.96.

During the inspection of your industry on 23.8.96, it was observed that the part of the process and wash effluents are discharged into storm water drains, which are finally flowing outside the premises joining Nakkavagu. During the previous inspection i.e., on 23-7-96 also, it was observed that you are discharging process and wash effluents by mixing with the sanitary & canteen waste water in gross violation of the conditions stipulated in the consent order.

Therefore, you are directed to segregate the effluents into process and wash, sanitary/domestic and storm water and collect them separately. All the drains in your plant shall be modified so as to segregate and collect the effluents separately and treat them to the Board standards. Under no circumstances storm water shall not mix with other effluents.

You are also requested to furnish a detailed ~~dix~~ drawing indicating the alignment of drains carrying process and wash effluent, domestic (sanitary), canteen effluents and storm water.

Your reply shall reach this office within a week's time from the date of receipt of this letter so as to take further action on your consent applications, failing which your consent applications will be deemed to be rejected.

Yours faithfully,

Environmental Engineer.

3/9/96

Copy submitted to the Member Secretary, A.P.P.C.B., Hyderabad.

(18)

ANNEXURE - IV

asian paints (INDIA) LIMITED

PLEASE REPLY TO :
PLOT NOS. 50-55, INDUSTRIAL DEVELOPMENT AREA, PHASE II, PATANCHERU-502 319, MEDAK DISTRICT (A.P.) TELEX : 0422-223 GATU IN. TEL : (08453) 42475/42476/42493/42494 FAX : 4246

To

June 20, 1997

THE ENVIRONMENTAL ENGINEER
A.P. POLLUTION CONTROL BOARD.
SANGAREDDY.

Dear Sir,

Sub:- Submission of Air & Water analysis(Effluent) and Production details for May 1997 & Action Plan.

Herewith we are submitting the air and water analysis for the month of May. We are also enclosing the data on the number of tankers sent to CETP, the amount of effluent generated, Chemicals consumed for the treatment and Production details for the month of May & Action Plan.

Please acknowledge the receipt of the same.

Yours faithfully,
for ASIAN PAINTS (INDIA) LIMITED

D. Lakshmana Rao

D. LAKSHMANA RAO
MANAGER - QUALITY ASSURANCE.

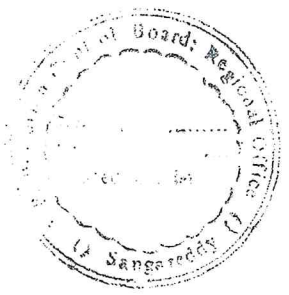
Recd
S. [illegible] 8/7/97

c.c : APPCB,MAITRIVANAM, HYDERABAD

(19)

asia paints (INDIA) LIMITED

PLEASE REPLY TO:
PLOT NOS. 50-55, INDL. DVLP. AREA, PHASE-II, PATANCHERU-502319, DIST. MEDAK (A.P.) TLX.: 0422-223 GATU IN, TEL.: 2682/2683/2782/2783



May 18, 1997

To

The Environmental Engineer,
A P P C B , Sangareddy.

Sir,

Sub:- Submission of Action Plan, air & water analysis, effluent and production details for April'97

We are herewith submitting the air and water analysis and Action Plan -- Individual Industries for the month of April'97. We are also enclosing the data on the number of tankers sent to CETP, the amount of effluent generated, chemicals consumed for treatment and production details for the month of April'97.

Please acknowledge the receipt of the same.

Yours faithfully,
for ASIAN PAINTS (INDIA) LIMITED

D. Lakshmana Rao

D.LAKSHMANA RAO
MANAGER, QUALITY ASSURANCE.

CC : APPCB, MAITRIVANAM, HYDERABAD.

Received
D. Lakshmana Rao 9/7/97

MONTH	PRODUCTION QTY.TONS	NO OF TANKERS	ETP BILLS
APRIL	2948.95	222	6665.00
MAY	2717.715	216 ✓	19378.00
JUNE	2545.10	212 ✓	18574.00
JULY	2670.00	223 ✓	19825.00
AUG	2854.00	196 ✓	17324.00
SEPT	3103.43	200 ✓	17860.00
OCT	2381.00	232 ✓	

asian paints (INDIA) LIMITED

(21)

ANNEXURE -V

asian paints (INDIA) LIMITED

PLEASE REPLY TO :
PLOT NOS. 50-55, INDUSTRIAL DEVELOPMENT AREA, PHASE II, PATANCHERU-502 319, MEDAK DISTRICT (A.P.) TELEX : 0422-223 GATU IN, TEL : (08453) 42475/42476/42493/42494 FAX : 42464

To

July 28, 1997

THE ENVIRONMENTAL ENGINEER
A.P. POLLUTION CONTROL BOARD.
SANGAREDDY.

Dear Sir,

Sub:- Submission of Air & Water analysis (Effluent) and Production details for June 1997 & Action Plan.

Herewith we are submitting the air and water analysis for the month of June. We are also enclosing the data on the number of tankers sent to CETP, the amount of effluent generated, Chemicals consumed for the treatment and Production details for the month of June & Action Plan.

Please acknowledge the receipt of the same.

Yours faithfully,

for ASIAN PAINTS (INDIA) LIMITED

D. LAKSHMANA RAO
MANAGER - QUALITY ASSURANCE.

c.c : APPCB,MAITRIVANAM, HYDERABAD

ACTION PLAN - INDIVIDUAL INDUSTRIES

1. Name of the Industry & Location : M/s Asian Paints (I) Ltd,
   Plot No. 50-55,
   Phase - II, I D A,
   PATANCHERU, MEDAK DT.

2. Products Manufactured & Capacity :

SECTION	PRODUCTION IN JUNE	CAPACITY
Solvent base range of paints	1169.41	1800 MT
Water base range of paints	1739.26	1800 MT
Resins	822.49	950 MT

3. Main Raw Materials : See annexure - I

4. Quantity of Effluents(Kl/day) : See annexure - II

5. Quantity of Segregated Effluents (Kl/day) : We donot have strong inorganic or organic streams.

6. Quantity of Solid Waste Generated (Kg/day) : Sludge approx. 33 Kg per day (See annexure - III)

S.No.	Item	Target	Achievement	Remarks
(1)	(2)	(3)	(4)	(5)
1.	Segregation of strong in-organic and organic streams.	--	--	We donot have strong in-organic or organic streams.
2.	Establishing the Solar evaporation/ incineration facilities	--	--	We have 4 sludge drying beds where the water is evoparated by sun light.
3.	Establishing the pretreatment facilities to meet the Ministry of Environment & Forests Standards.	--	--	We have full fledged effluent treatment plant with activated sludge process. The brief discription of the process is enclosed in annexure - IV.
4.	Establishing the solid waste secured storage facilities.	Completed	--	We are storing sludge in the polypropylene lined concrete tanks.

asian paints (INDIA) LIMITED

NEAT TYPED COPY

JUNE 97

MONTHLY PROGRESS REPORT FROM INDIVIDUAL INDUSTRIES

NAME OF THE INDUSTRY: _____

Sl. No.	Total effluents generated during the month	Segregated effluents quantity		Quantity of effluent sent to CETP during the month**	Quantity of effluent sent to solar evaporation / incineration	Total capacity of storage tanks in each case.	Area of solar ponds / incineration capacity (if provided)	Qty of effluent in storage tank	Qty of sludge generated both from process & pre-treatment plant.	Mode of sludge disposal
		Strong inorganic stream	Strong organic stream							
1	2	3	4	5	6	7	8	9	10	11
	2160 KL	--	--	2160 KL	--	25 KL and 40 KL storage tanks for treated effluents 2x50 KL Equalisation Tanks.	80 Sq. Mtr	--	Approx 1 Ton/month	After drying in sludge drying beds, it will be transferred to Concrete Tank.

** Note – Analysis reports.

Test report of treated water is enclosed (Annexure-V)

(24)

ANNEXURE - I

RAW MATERIALS REQUIREMENT

	Raw Material
01.	Titanium Dioxide
02.	Coloured Pigments (Blues, Reds, Yellows etc)
03.	Vegetable Oils (Soya, RLO, DCO, Castor Oil etc)
04.	Phthalic anhydride
05.	Penta erythritol
06.	Glycerin
07.	Stand Oil
08.	Driers (Lead Octoate, Octoate etc)
09.	Monomers (Butyl acryylate, methyl acrylate, styrene etc.)
10.	Additives (Soya, Licithin, LOFA, Silicone Oils, surfcatants etc)
11.	Neopentyl glycol
12.	Trimethylol propane
13.	Melamine
14.	Paraformaldehyde

asian paints

ANNEXURE – I

RAW MATERIALS REQUIREMENT

	Raw Material
15.	Extenders
	BCK China clay
	Forcal U
	Forcal S
	Whiting
	China clay
	Staeatite etc
16.	Caesin
17.	Glue
18.	Borax
19.	Caldet
20.	Cepol/Natrosol
21.	Mineral Terpentine
22.	Xylene
23.	Buatanol
24.	Solvent CIX
25.	Cellosolve
26.	Water

(26)

ANNEXURE = II

MAXIMUM EFFLUENTS PER DAY
1996 - 97

DOMESTIC	100 KL
INDUSTRIAL	60 KL

asian paints
(INDIA) LIMITED

(27)

ANNEXURE III

VIMTA LABS LTD.

REGD. OFFICE & LABORATORY:
142, IDA, CHERLAPALLY,
HYDERABAD-500 051, INDIA.
Ph: 624141 (7 Lines)
TELEFAX : 040-623617
TELEX : 0425-7077 TEST IN GRAMS : VIMTA

TEST REPORT

ORIGINAL

Name & Address of the Client:

ASIAN PAINTS (I) Ltd.,
PLOT NOS.50-55,
IDA, PHASE-II,
PATANCHERU- 502 319.
MEDAK DIST.

Reg No: VLL/ENV/96/APIL/0187/2
Issue Date: 1996/02/27
Your Ref: HIL
Date: 1996/02/15

SAMPLE PARTICULARS: SLUDGE

Qty : 1 No. about 500 gms. in plastic bottle.
Tests Read : As per letter.
Sample Code : HIL.
Sample Receipt Date : 16/02/96;
Analysis Starting Date : 19/02/96;
Analysis Completion Date : 27/02/96.
Sample tested as received.

TEST RESULTS

S.NO.	DETERMINANT(S)	VALUE(S) (%)
1.	Total Cadmium as Cd	6.149×10^{-5}
2.	Total Chromium as Cr	0.23
3.	Total Copper as Cu	0.005
4.	Total Iron as Fe	0.26
5.	Total Nickel as Ni	2.2×10^{-4}
6.	Total Zinc as Zn	0.22
7.	Total Mercury as Hg	$< 7 \times 10^{-6}$
8.	Total Lead as Pb	0.19

All the above values are expressed on dry basis.

TEST METHODS :

(1) Standard methods for the examination of Water & Wastewater APHA AWWA WPCF 1992, after suitable extractions & digestion of Sludge.

(2) Soil Chemical analysis by M.L.Jackson, Prentice Hall of India Pvt. Ltd., New Delhi, 1973.

S.ANURADHA
ANALYST

Dr. V.N.IYER
DEPUTY DIRECTOR
AUTHORISED SIGNATORY

ANNEXURE-IV

EFFLUENT TREATMENT PLANT

PROCESS DESCRIPTION :

All the effluents are collected in a pit and they are pumped to Oil and Grease trap.Here Oil and Grease is removed periodically.From Oil and Grease trap, the water flows to Equilisation tank.Here air is bubbled to make it uniform and saturate with oxygen.PH adjustment is done here.The water from Equilisation Tank is pumped into Flash Mixer.Here the effluent water is mixed with alum water solution and the mixed water is let into Primary Clarifier.Polyelectrolyte is also added to the Primary Clarifier.The overflow from the Primary Clarifier is send to aerator for Biological Treatment.The sludge from the Primary Clarifier will be removed into sludge drying beds.The overflow from aerator is send to second clarifier.Here Biological sludge settles down and purified water comes to top.Part of the sludge is removed into sludge drying beds and part of it is circulated.This water goes to V-notch chamber.From V-notch chamber the water goes to the collection Pond.Part of it is used for gardening and the remaining is send to CETP for further treatment.

(29)

Pollu-tech Laboratory & Consultancy Services

Analysts & Consultants in Pollution Control
Lab : 4-1-26, Snehapuri, Nacharam, Hyderabad - 500 076.
Branch : MIG, II A-283 Pedagantyada Vuda Colony, Gajuwaka, Visakhapatnam - 530044.
✆ : H.O. : 673437 Fax : 040 - 673437 Br. : 515623 Fax : 0891 - 515623
Recognised by A.P. Pollution Control Board as an Environmental Laboratory

Ref:PTLCS/APIL/97-98/EA/074. Date: 07 06 97

NAME & ADDRESS : M/S.ASIAN PAINTS INDIA LTD.,
PLOT NOS 50-55, IDA, PHASE II,
PATANCHERU.
MEDAK DIST.

SAMPLE PARTICULARS : EFFLUENTS.

SOURCE OF COLLECTION : DOMESTIC

DATE OF COLLECTION : 18.06.97.

RESULTS:
EXPRESSED IN Milligram/litre. except pH

pH	7.20
DISSOLVED SOLIDS	1,640
SUSPENDED SOLIDS	50
CHEMICAL OXYGEN DEMAND - COD	260
BIO-CHEMICAL OXYGEN DEMAND - BOD (5 days incubation at 20 C)	105

POLLU-TECH LABORATORY &
CONSULTANCY SERVICES.

(30)

Pollu-tech Laboratory & Consultancy Services

Analysts & Consultants in Pollution Control
Lab : 4-1-26, Snehapuri, Nacharam, Hyderabad - 500 076.
Branch : MIG, II A-283 Pedagantyada Vuda Colony, Gajuwaka, Visakhapatnam - 530044.
✆ : H.O. : 673437 Fax : 040 - 673437 Br. : 515623 Fax : 0891 - 515623
Recognised by A.P. Pollution Control Board as an Environmental Laboratory

Ref:PTLCS/APIL/97-98/EA/073. Date: 97 07 21

NAME & ADDRESS : M/S.ASIAN PAINTS INDIA LTD.,
PLOT NOS 50-55, IDA, PHASE II,
PATANCHERU.
MEDAK DIST.

SAMPLE PARTICULARS : EFFLUENTS.

SOURCE OF COLLECTION : 1. RAW 2. TREATED

DATE OF COLLECTION : 18.06.97.

RESULTS:
EXPRESSED IN Milligram/litre, except pH

	(1)	(2)
pH	9.70	7.59
DISSOLVED SOLIDS	4,200	2,450
SUSPENDED SOLIDS	120	70
CHEMICAL OXYGEN DEMAND - COD	6,020	200
BIO-CHEMICAL OXYGEN DEMAND - BOD (5 days incubation at 20 C)	1,900	60

POLLU-TECH LABORATORY & CONSULTANCY SERVICES

TYPED NEAT COPY.

(31)

VIMTA LABS LTD
Regd. Office & Laboratory
142, IDA, Cherlapally, Hyderabad, India

Test reports

Reg. No. VLL/ENV/96/APIL/4187/2
Issue Date: 1996/02/27
Your Ref: BILL
Date: 1996/02/15

Name & Address of the client
Asian paints (I) Ltd., Plot No. 50 -59,
IDA, Phase – II, Patancheru 502 319,
Medak District

Sam

Qty. : 1 No. about 500 gms. In plastic bottle
Tests Regd: As per letter
Sample Code: NIL
Sample Receipt date: 16/02/96
Analysis starting Date: 19/02/96
Analysis completion Date: 27/02/96
Sample tested as received .

Sl. No.	Determinant(S)	Value(S) (%)
1	Total Cadmium as Cd	$6.141.10^{-5}$
2	Total Chromium as Cr.	0.23
3.	Total Copper as Cu	0.005
4.	Total Iron as Fe	0.20
5.	Total Nickel as Ni	$2.2*10^{-4}$
6.	Total Zinc as Zn	0.22
7.	Total Mercury as Hg	$<7 * 10^{-6}$
8.	Total Lead as Pb	0.19

All the above values are expressed on dry basis.

Test methods.

(1). Standards methods for the examination of values & Waste water APIIA, AHHA, HPCF 1992, after suitable extractions & digestion of sludge.
(2) Soil Chemical analysis by B L Jackson, Prentice Hall of India Pvt. Ltd., New Delhi 1973.

S. Anuradha
Analyst

Dr. V. H. Iyer
Deputy Director

TYPED NEAT COPY

31-A

EFFLUENT TREATMENT PLANT

Process Description:

All the effluents are collected in a pit and they are pumped to oil and grease trap .There oil and Grease is removed periodically .From oil and grease trap, the water flows to Equalisation tank. Here air is bubbled to make it uniform and saturate with oxygen. PH adjustment is done here. The water from Equalisation tank is pumped into flash mixer. Here the effluent water is mixed with alum water solution and the mixed water is let into primary clarifier. Polyelectrolyte is also added to the primary clarifier. The overflow from the primary clarifier is send to aerator for Biological treatment. The sludge from the primary clarifier will be removed into sludge dying beds. The overflow from aerator in send to second clarifier. Here Biological sludge settles down and purified water comes to top. Part of the sludge is removed into sludge drying beds and part of it is circulated. This water goes to V – notch chamber. From V – notch chamber the water goes to the collection pond. Part of it is used for gardening and the remaining is send to CETP for further treatment.

TYPED NEAT COPY.

31-B

Pollu – tech Laboratory & Consultancy Services
Analysis & consultants in pollution control
Lab : 4-1-26, Snehapuri, Nahcaram, Hyderabad – 500 0763,
Branch: MIG – Iia 283 Pedagantyada Vuda colony, Gajuwaka, Visakhapatnam – 530044.
H.O 673437 Fax 673437 Br,. 515623, Fax: 0891 515623
Recognised by A.P Pollution Control Board as an Environmental Laboratory.

Ref: PTLCS/APIL/97-98/EA/074.

Date: 97.06.08

Name & Address :	M/s. Asian Paints India Ltd., Plot Nos. 50 -55, IDA, Phase – II, Patancheru, Medak Dist.
Sample Particulars :	Effluents
Source of collection :	Domestic
Date of collection :	18.06.97

Results
Expressed in milligram / litre. Except PH

PH	:	7.20
Dissolved Solids	:	1.640
Suspended Solids	:	50
Chemical Oxygen Demand – COD	:	260
Bio Chemical oxygen Demand – BOD (5 days incubation at 20 c)	:	106

Pollu – Tech Laboratory
Consultancy Services

TYPED NEAT COPY

31-c

Pollu – tech Laboratory & Consultancy Services
Analysis & consultants in pollution control
Lab : 4-1-26, Snehapuri, Nahcaram, Hyderabad – 500 0763,
Branch: MIG – Iia 283 Pedagantyada Vuda colony, Gajuwaka, Visakhapatnam – 530044.
H.O 673437 Fax 673437 Br,. 515623, Fax: 0891 515623
Recognised by A.P Pollution Control Board as an Environmental Laboratory.

Ref: PTLCS/APIL/97-98/EA/073.

Date: 97.06.08

Name & Address : M/s. Asian Paints India Ltd., Plot Nos. 50 -55, IDA, Phase – II, Patancheru, Medak Dist.

Sample Particulars : Effluents

Source of collection : 1. Raw, 2. Treated

Date of collection : 18.06.97

Results
Expressed in milligram / litre. Except PH

		(1)	(2)
PH	:	8.70	7.50
Dissolved Solids	:	Not visible	Not visible
Suspended Solids	:	120	70
Chemical Oxygen Demand – COD	:	6,020	Not visible
Bio Chemical oxygen Demand – BOD (5 days incubation at 20 c)	:	1.900	80

Pollu – Tech Laboratory
Consultancy Services

18.

JUNE 97

S N°	DATE	DAILY PRODUCTION (TONS)	QUANTITY OF EFFLUENT GENERATED (KL)	QTY OF EFFLUENT LIFTED INCL DOMESTIC WATER (KL)	N° OF TANKERS SENT TO CEPT	BALANCE QUANTITY OF EFFLUENT (KL)	N° OF TANKERS RETD (EMPTY) FROM CETP
1	1-06-97	66.75	8	70	7	12	0
2	2-06-97	88.49	10	50	5	16	0
3	3-06-97	88.92	10	80	8	12	0
4	4-06-97	114.82	20	60	6	10	0
5	5-06-97	105.30	12	10	1	9	0
6	6-06-97	111.00	14	80	8	8	0
7	7-06-97	105.77	13	60	6	6	0
8	8-06-97	113.20	14	60	6	9	0
9	9-06-97	129.54	18	20	2	8	0
10	10-06-97	121.62	20	80	8	7	0
11	11-06-97	200.72	32	80	8	10	0
12	12-06-97	101.52	10	60	6	12	0
13	13-06-97	108.67	12	80	8	11	0
14	14-06-97	120.15	14	60	6	9	0
15	15-06-97	115.26	16	100	10	8	0
16	16-06-97	118.62	14	90	9	9	0
17	17-06-97	197.27	6	90	9	9	0
18	18-06-97		20	90	9	6	0
19	19-06-97	91.76	10	90	9	8	0
20	20-06-97	106.20	20	110	11	8	0
21	21-06-97	107.17	21	50	5	7	0
22	22-06-97	91.030	23	80	8	12	0
23	23-06-97	114.446	42	80	8	16	0
24	24-06-97	120.710	18	80	8	18	0
25	25-06-97	75.880	21	120	12	12	0
26	26-06-97	113.75	35	70	7	14	0
27	27-06-97	87.298	41	50	5	9	0
28	28-06-97	76.742	12	70	7	7	0
29	29-06-97	84.310	30	60	6	6	0
30	30-06-97	66.42	12	60	6	9	0

20

S N°	DATE	PH	CAUSTIC SODA (NaOH) kg	SULPHURIC ACID (H_2SO_4) kg	ALUM (kg)	LIME (kg)	INDFLOC -243 gm	UREA (kg)	PHOSPHORIC ACID kg	BARYTES
1	01-06-97	7.5	55	50	20	–	250	5	1	–
2	02-06-97	7.3	125	125	45	–	750	5	1	–
3	03-06-97	6.9	45	40	50	–	500	5	1	–
4	04-06-97	7.0	75	70	50	–	500	5	1	–
5	05-06-97	6.8	100	80	85	–	500	5	1	–
6	06-06-97	7.2	50	50	25	–	500	5	1	–
7	07-06-97	6.9	110	95	50	–	1750	5	1	–
8	08-06-97	6.8	40	30	25	–	500	10	1	–
9	09.06-97	7.2	6	–	50	–	500	4	1	–
10	10-06-97	6.9	60	50	25	–	250	15	1	–
11	11-06-97	7.2	45	40	25	–	500	4	1	–
12	12-06-97	7.21	80	65	50	–	250	2	1	–
13	13-06-97	7.32	40	35	25	–	500	4	1	–
14	14-06-97	7.46	35	30	25	–	500	4	1	–
15	15-06-97	7.4	65	35	50	–	1000	4	1	–
16	16-06-97	6.9	25	25	25	–	500	4	1	–
17	17-06-97	7.2	50	105	50	–	1000	4	1	–
18	18-06-97	7.0	30	40	25	–	500	4	1	–
19	19-06-97	7.0	50	60	25	–	250	4	1	–
20	20-06-97	7.1	50	60	250	–	250	4	1	–
21	21-06-97	7.0	70	60	25	–	500	3	1	–
22	22-06-97	7.3	100	110	50	–	1000	–	–	–
23	23-06-97	7.0	75	25	75	–	1000	–	–	–
24	24-06-97	7.2	140	120	50	–	500	–	–	–
25	25-06-97	7.2	–	–	–	–	–	–	–	–
26	26-06-97	7.3	135	130	50	–	500	–	–	–
27	27-06-97	6.9	140	130	50	–	500	–	–	–
28	28-06-97	7.0	120	100	50	–	750	1	1	–
29	29-06-97	7.1	105	60	75	–	1250	1	1	–
30	30-06-97	7.0	–	–	50	–	500	1	1	–

ANNEXURE - VI

(34)

asian paints (INDIA) LIMITED

PLEASE REPLY TO :
PLOT NOS: 50-55, INDUSTRIAL DEVELOPMENT AREA, PHASE II, PATANCHERU-502 319, MEDAK DISTRICT (A.P.) TELEX : 0422-223 GATU IN, TEL : (08453) 42475/42476/42493/42494 FAX : 42464.

August 7, 1997

To

THE ENVIRONMENTAL ENGINEER
A.P. POLLUTION CONTROL BOARD.
SANGAREDDY.

Dear Sir,

Sub:- Submission of Air & Water analysis (Effluent) and Production details for July 1997 & Action Plan.

Herewith we are submitting the air and water analysis for the month of July. We are also enclosing the data on the number of tankers sent to CETP, the amount of effluent generated, Chemicals consumed for the treatment and Production details for the month of July & Action Plan.

Please acknowledge the receipt of the same.

Yours faithfully,

for ASIAN PAINTS (INDIA) LIMITED

D. Lakshmana Rao.

D. LAKSHMANA RAO
MANAGER - QUALITY ASSURANCE.

c.c : APPCB,MAITRIVANAM, HYDERABAD

Recd. 11.8.97

ACTION PLAN - INDIVIDUAL INDUSTRIES

1. Name of the Industry & Location : M/s Asian Paints (I) Ltd,
Plot No. 50-55,
Phase - II, I D A,
PATANCHERU, MEDAK DT.

2. Products Manufactured & Capacity :

SECTION	PRODUCTION IN JULY	CAPACITY
Solvent base range of paints	1786.00	1800 MT
Water base range of paints	1777.00	1800 MT
Resins	762.28	950 MT

3. Main Raw Materials : See annexure - I

4. Quantity of Effluents(Kl/day) : See annexure - II

5. Quantity of Segregated Effluents (Kl/day) : We donot have strong inorganic or organic streams.

6. Quantity of Solid Waste Generated (Kg/day) : Sludge approx. 33 Kg per day (See annexure - III)

S.No.	Item	Target	Achievement	Remarks
(1)	(2)	(3)	(4)	(5)
1.	Segregation of strong in-organic and organic streams.	--	--	We donot have strong in-organic or organic streams.
2.	Establishing the Solar evaporation/ incineration facilities	--	--	We have 4 sludge drying beds where the water is evoparated by sun light.
3.	Establishing the pretreatment facilities to meet the Ministry of Environment & Forests Standards.	--	--	We have full fledged effluent treatment plant with activated sludge process. The brief discription of the process is enclosed in annexure - IV.
4.	Establishing the solid waste secured storage facilities.	Completed	--	We are storing sludge in the polypropylene lined concrete

asian paints (INDIA) LIMITED

JULY 97

Monthly PROGRESS REPORT FROM INDIVIDUAL INDUSTRIES

NAME OF THE INDUSTRY: _____

Sl. No.	Total effluents generated during the month	Segregated effluents quantity		Quantity of effluent sent to CETP during the month **	Qty. of effluent sent to solar evapo-ration/ incineration	Total capacity of storage tanks in each case.	Area of solar ponds/ incine-ration capacity (If provided)	Qty. of effluent in storage tank.	Qty. of sludge generated both from process & Pre-treatment plant.	Mode of sludge disposal
		Strong Inorganic stream	Strong Organic stream							
1	2	3	4	5	6	7	8	9	10	11
	2030 KL	–	–	2030KL	–	25KL and 40KL Storage tankers for treated effluents 2x50KL Equalisation tanks	80 sq.mt	–	Approx 1 Ton/month	After drying in sludge drying bed. it will be transferred to Concrete bin.

** Note:- Analysis reports.

Test report of treated water is enclosed (Annexure-V)

ANNEXURE - I

RAW MATERIALS REQUIREMENT

	Raw Material
01.	Titanium Dioxide
02.	Coloured Pigments (Blues, Reds, Yellows etc)
03.	Vegetable Oils (Soya, RLO, DCO, Castor Oil etc)
04.	Phthalic anhydride
05.	Penta erythritol
06.	Glycerin
07.	Stand Oil
08.	Driers (Lead Octoate, Octoate etc)
09.	Monomers (Butyl acryylate, methyl acrylate, styrene etc.)
10.	Additives (Soya, Licithin, LOFA, Silicone Oils, surfcatants etc)
11.	Neopentyl glycol
12.	Trimethylol propane
13.	Melamine
14.	Paraformaldehyde

asian paint (INDIA) LIMITED

ANNEXURE - I

RAW MATERIALS REQUIREMENT :

	Raw Material
15.	Extenders BCK China/clay Forcal U Forcal S Whiting China clay Steatite etc
16.	Casein
17.	Glue
18.	Borax
19.	Caldet
20.	Cepol/Natrosol
21.	Mineral Terpentine
22.	Xylene
23.	Buatanol
24.	Solvent CIX
25.	Cellosolve
26.	Water

ANNEXURE – I

RAW MATERIALS REQUIREMENT

	Raw Material
15.	Extenders
	BCK China/clay
	Forcal U
	Forcal S
	Whiting
	China clay
	Steatite etc
16.	Caesin
17.	Glue
18.	Borax
19.	Caldet
20.	Cepol/Natrosol
21.	Mineral Terpentine
22.	Xylene
23.	Buatanol
24.	Solvent CIX
25.	Cellosolve
26.	Water

ANNEXURE III

VIMTA LABS LTD.
HEAD OFFICE & LABORATORY:
142, IDA, CHERLAPALLY,
HYDERABAD-500 051, INDIA.
☎ 624141 (7 Lines)
TELEFAX : 040-623837
TELEX : 0425-7077 TEST IN GRAMS : VIMTA

TEST REPORT

ORIGINAL

Name & Address of the Client:
ASIAN PAINTS ( ) Ltd.,
PLOT NOS.50-55,
IDA, PHASE-II,
PATANCHERU 502 319,
MEDAK DIST.

Reg No: VEL/ENV/96/APIL/0187/2
Issue Date: 1996/02/27
Your Ref: NIL
Date: 1996/02/15

SAMPLE PARTICULARS :

SLUDGE

Qty : 1 No. about 500 gms. in plastic bottle.
Tests Read : As per letter.
Sample Code : NIL.
Sample Receipt Date : 16/02/96;
Analysis Starting Date : 19/02/96;
Analysis Completion Date : 27/02/96.
Sample tested as received.

TEST RESULTS

S.NO.	DETERMINANT(S)	VALUE(S) (%)
1.	Total Cadmium as Cd	$6.149\ 10^{-5}$
2.	Total Chromium as Cr	0.23
3.	Total Copper as Cu	0.005
4.	Total Iron as Fe	0.36
5.	Total Nickel as Ni	$2.2*10^{-4}$
6.	Total Zinc as Zn	0.22
7.	Total Mercury as Hg	$< 7*10^{-6}$
8.	Total Lead as Pb	0.19

All the above values are expressed on dry basis.

TEST METHODS :

(1) Standard methods for the examination of Water & Wastewater APHA AWWA WPCF 1992, after suitable extractions & digestion of Sludge.

(2) Soil Chemical analysis by M.L.Jackson, Prentice Hall of India Pvt. Ltd., New Delhi, 1973.

V.Anuradha.S
S.ANURADHA
ANALYST

V.N.Iyer
Dr. V.N.IYER
DEPUTY DIRECTOR
AUTHORISED SIGNATORY

ANNEXURE-IV

EFFLUENT TREATMENT PLANT

PROCESS DESCRIPTION :

All the effluents are collected in a pit and they are pumped to Oil and Grease trap where Oil and Grease is removed periodically. From Oil and Grease trap, the water flows to Equilisation tank. Here air is bubbled to make it uniform and saturate with oxygen. PH adjustment is done here. The water from Equilisation Tank is pumped into Flash Mixer. Here the effluent water is mixed with alum water solution and the mixed water is let into Primary Clarifier. Polyelectrolyte is also added to the Primary Clarifier. The overflow from the Primary Clarifier is send to aerator for Biological Treatment. The sludge from the Primary Clarifier will be removed into sludge drying beds. The overflow from aerator is send to second clarifier. Here biological sludge settles down and purified water comes to top. Part of the sludge is removed into sludge drying beds and part of it is circulated. This water goes to V-notch chamber. From V-notch chamber the water goes to the collection Pond. Part of it is used for gardening and the remaining is send to CETP for further treatment.

(42)

Pollu-tech Laboratory & Consultancy Services

Analysts & Consultants in Pollution Control - A Decade of Service
Lab : 4-1-26, Snehapuri, Nacharam, Hyderabad - 500 076.
Branch : MIG, II A-283 Pedaganlyada Vuda Colony, Gajuwaka, Visakhapatnam - 530044.
TeleFax : H.O. : 040-7173437 B.O. : 0891 - 515623

Recognised by A.P. Pollution Control Board as an Environmental Laboratory

Ref. : [illegible] 97-9[illegible]

Date : [illegible]

NAME & ADDRESS : M/S.ASIAN PAINTS INDIA LTD.,
PLOT NOS 50-55, IDA, PHASE II,
PATANCHERU,
MEDAK DIST.

SAMPLE PARTICULARS : [illegible]

SOURCE OF COLLECTION : 1. RAW 2. TREATED

DATE OF COLLECTION : 17.07.97.

RESULTS:
EXPRESSED IN Milligram/litre, excent pH

	(1)	(2)
pH	7.40	7.60
DISSOLVED SOLIDS	[illegible],000	2,380
SUSPENDED SOLIDS	80	40
CHEMICAL OXYGEN DEMAND - COD	3,600	420
BIO-CHEMICAL OXYGEN DEMAND - BOD (5 days incubation at 20 C)	1,240	100

POLLU-TECH LABORATORY &
CONSULTANCY SERVICES.,

TYPED NEAT COPY.

43

VIMTA LABS LTD
Regd. Office & Laboratory
142, IDA, Cherlapally, Hyderabad, India

Test reports

Reg. No. VLL/ENV/96/APIL/4187/2
Issue Date: 1996/02/27
Your Ref: BILL
Date: 1996/02/15

Name & Address of the client
Asian paints (I) Ltd., Plot No. 50 -59,
IDA, Phase – II, Patancheru 502 319,
Medak District

Sam

Qty. : 1 No. about 500 gms. In plastic bottle
Tests Regd: As per letter
Sample Code: NIL
Sample Receipt date: 16/02/96
Analysis starting Date: 19/02/96
Analysis completion Date: 27/02/96
Sample tested as received .

Sl. No.	Determinate (S)	Value(S) (%)
1	Total Cadmium as Cd	$6.141.10^{-5}$
2	Total Chromium as Cr.	0.23
3.	Total Copper as Cu	0.005
4.	Total Iron as Fe	0.20
5.	Total Nickel as Ni	$2.2*10^{-4}$
6.	Total Zinc as Zn	0.22
7.	Total Mercury as Hg	$<7 * 10^{-6}$
8.	Total Load as Pb	0.19

All the above values are expressed on dry basis.

Test methods.

(1)Standards methods for the examination of values & Waste water APIIA, AHHA, HPCF 1992, after suitable extractions & digestion of sludge.
(2) Soil Chemical analysis by B L Jackson, Prentice Hall of India Pvt. Ltd., New Delhi 1973.

S. Anuradha
Analyst

Dr. V. H. Iyer
Deputy Director

TYPED NEAT COPY.

43-A

Pollu – tech Laboratory & Consultancy Services
Analysis & consultants in pollution control
Lab : 4-1-26, Snehapuri, Nahcaram, Hyderabad – 500 0763,
Branch: MIG – Iia 283 Pedagantyada Vuda colony, Gajuwaka, Visakhapatnam – 530044.
H.O 673437 Fax 673437 Br,. 515623, Fax: 0891 515623
Recognised by A.P Pollution Control Board as an Environmental Laboratory.

Ref: PTLCS/APIL/97-98/EA/073.

Date: 97.07.08

Name & Address : M/s. Asian Paints India Ltd.,
Plot Nos. 50 -55, IDA, Phase – II,
Patancheru, Medak Dist.

Sample Particulars : Effluents

Source of collection : 1. Raw, 2. Treated

Date of collection : 17.07.97

Results
Expressed in milligram / litre. Except PH

		(1)	(2)
PH	:	7.40	7.60
Dissolved Solids	:	Not visible	Not visible
Suspended Solids	:	80	40
Chemical Oxygen Demand – COD	:	Not visible	420
Bio Chemical oxygen Demand – BOD (5 days incubation at 20 c)	:	1.240	100

Pollu – Tech Laboratory
Consultancy Services

(44)

JULY 97

19

SR. NO.	DATE	DAILY PRODUCTION (TONS)	QUANTITY OF EFFLUENT GENERATED (KL)	QTY OF EFFLUENT RECYCLED INCL EXISTING WATER (KL)	NO OF TANKERS SENT TO CETP	BALANCE QTY OF EFFLUENT	NO OF TANKERS REJECTED FROM CETP
1	01-07-97	22.52	42	120	12	8	0
2	02-07-97	31.22	28	100	10	9	0
3	03-07-97	42.58	20	70	7	7	0
4	04-07-97	79.32	21	50	5	9	0
5	05-07-97	133.41	38	40	4	9	0
6	06-07-97	138.86	23	40	4	12	0
7	07-07-97	114.70	19	90	9	11	0
8	08-07-97	[illegible]	17	60	6	10	0
9	09-07-97	214.64	13	60	6	9	0
10	10-07-97	105.57	16	50	5	4	0
11	11-07-97	126.22	18	60	6	9	0
12	12-07-97	114.33	17	50	5	8	0
13	13-07-97	110.28	16	90	9	8	0
14	14-07-97	111.97	16	100	10	7	0
15	15-07-97	134.36	10	50	5	6	0
16	16-07-97		13	60	6	8	0
17	17-07-97	103.47	15	50	5	8	0
18	18-07-97	104	16	160	16	9	0
19	19-07-97	107.32	15	70	7	7	0
20	20-07-97	148.63	18	80	8	10	0
21	21-07-97	120.01	16	40	4	12	0
22	22-07-97		8	30	3	4	0
23	23-07-97	178.93	18	30	3	5	0
24	24-07-97	123.66	16	60	6	9	0
25	25-07-97	108.21	17	10	1	6	0
26	26-07-97	116.13	10	40	4	5	0
27	27-07-97	127.59	11	40	4	6	0
28	28-07-97	111.21	10	50	5	7	0
29	29-07-97	[illegible]	11	90	9	5	0
30	30-07-97	193.97	4	60	6	6	0
31	31-07-97	95.70	8	90	9	4	0

ANNEXURE - V 11

(45)

ANDHRA PRADESH POLLUTION CONTROL BOARD
BOARD LABORATORY, MAITRIVANAM, HUDA COMPLEX, AMEERPET, HYDERABAD.

ANALYSIS REPORT

SAMPLE NO. 9710-100

SAMPLE SOURCE: M/s. Asian Paints Ltd., Outlet of ETP before lifting to CETP, Patancheru.

COLLECTED ON : 17-10-97

RECEIVED ON : 18-10-97

COLLECTED & SUBMITTED BY ENVIRONMENTAL ENGINEER, R/o. Sangareddy.

Sl.No.	Parameter	Value
1.	pH	7.0
2.	Total Solids at 105^0C.	3,074.0
3.	Total Suspended Solids at 105^0C.	70.0
4.	Total Dissolved Solids at 105^0C.	3,004.0
5.	Chlorides (as Cl^-)	1,240.0
6.	Sulphates (as SO_4)	485.0
7.	Chemical Oxygen Demand	984.0
8.	B.O.D.$_3$ @ 27^0C.	420.0
9.	Oil & Grease	-
10.	Color (Visual)	Reddish.
	ANY OTHER TESTS:	
(a)		
(b)		
(c)		
(d)		
(e)		

N.B.: All Results are expressed in mg/l except Sl.No.1.

REMARKS:

Analyst 19/10/97

J.S.O.

SENIOR ENVIRONMENTAL SCIENTIST.

(46)

ANDHRA PRADESH POLLUTION CONTROL BOARD

BOARD LABORATORY, MAITRIVANAM, HUDA COMPLEX, AMEERPET, HYDERABAD.

ANALYSIS REPORT

SAMPLE NO. 3768

SAMPLE SOURCE: M/s. Asian Paints Ltd., treated water before lifting to PETL, Patancheru.

COLLECTED ON: 31-12-96

RECEIVED ON: 04-01-97.

COLLECTED & SUBMITTED BY ENVIRONMENTAL ENGINEER, R/O., Sangareddy.

Sl.No.	Parameter	Value
1.	pH	8.3
2.	Total Solids at 105^0C.	3,180.0
3.	Total Suspended Solids at 105^0C.	170.0
4.	Total Dissolved Solids at 105^0C.	3,010.0
5.	Chlorides (as Cl^-)	400.0
6.	Sulphates (as SO_4)	1,455.0
7.	Chemical Oxygen Demand	96.0
8.	B.O.D.$_3$ @ 27^0C.	35.0
9.	Oil & Grease.	-
10.	Color (Visual)	None.
	ANY OTHER TESTS:	
(a)		
(b)		
(c)		
(d)		
(e)		

N.B.L All Results are expressed in mg/1 except Sl.No. 1.

REMARKS:

3/3/97

Analyst. J.S.O. SENIOR ENVIRONMENTAL SCIENTIST.

03/3/97

(47)

ANDHRA PRADESH POLLUTION CONTROL BOARD

CENTRAL LABORATORY

HUDA Complex, Maitrivanam, Ameer pet, Hyderabad - 500 038

Phones: 291120
294043
293278
292132

Fax : 040 293261

Grams. Kalushya Nivarana

ANALYSIS REPORT

Sample No. SC 7 - 20

Sample Source: B 13 member Indsutry at CETP, Patancheru

M/s. Asian Paints (I) Ltd, Patancheru.

Sample Collected on: 15-07-98

Sample Submitted by: E.E. R.O. Sangareddy

Sl.No.	*Parameters*	*Value*
1.	pH	7.3
2.	Total Suspended Solids at 105°C	156.0
3.	Total Dissolved Solids at 105°C	10,200.0
4.	C.O.D	379.0

Note: All values expressed in mg/l except pH

Remarks:

SENIOR ENVIRONMENTAL SCIENTIST

Dign. by: tvs Mail

(48)

A .P.POLLUTION COMTROL BOARD
CENTRAL LABORATORY
MAITRIVANAM, HUDA COMPLEX, HYDERABAD.

Sample No. SC.8-50

Sample collected at "PETL" - Patancheru/Bollarum.

Sample Source: Code No. B-36 (Tanker No.)

M/s. Asian paints (I) Ltd. Patancheru.

Date of Collection: 06.08.98

Received On : 07.08.98

Collected & Submitted by : S.E., R.O., Sangareddy

Sl.No.	Parameter	Value
1.	pH	7.59
2.	Total Suspended Solids (@ 105^0C)	52.0
3.	Total Dissolved Solids (@ 105^0C)	912.0
4.	C.O.D.	480.0

Date: 28/8/98

SENIOR ENVIRONMENTAL SCIENTIST.

27/8

ANNEXURE- VIII

(49)

ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE:: SANGAREDDY

B. MURALIDHAR REDDY,
B.Tech.,
ENVIRONMENTAL ENGINEER.

5-1-28, Shantinagar,
Sangareddy-502 001.

Lr.No.190/PCB/RO-SRD/97-355

Dated: 19-9-1997.

To

M/s

Sir,

Sub: Treatment, Storage and Disposal of Hazardous Wastes - Non-compliance of the conditions of authorisation issued by Board - Reg.

Ref: The Authorisation No. [illegible] dated: [illegible]

In the reference cited above, you have been issued Authorisation under Rule 5 of Hazardous Wastes (Management and Handling) Rules 1989 for onsite treatment and storage of Hazardous Wastes with certain terms and conditions.

It is observed that you are not complying the terms and conditions of the above referred authorisation. Therefore you are directed to take action on the following:-

1. Storing the hazardous wastes in lined underground storage tanks (preferably HDPE lining) in the premises.
2. Detoxification of secured storage.
3. Safety equipment to the persons handling the hazardous wastes.
4. Demarcation of the storage area.
5. Maintaining records of storage of hazardous wastes in form III.

Your reply should reach this office within a fortnight from the date of receipt of this notice, failing which action will be initiated under Section '5' of Environment Protection Act, 1986.

Yours faithfully,

B. [illegible]

for ENVIRONMENTAL ENGINEER

Copy submitted to the Member Secretary, APPCB, Hyderabad, for kind information & necessary action.

KMG/8997.

NEAT TYPED COPY 49-A

ANNEXURE-VIII

ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE:: SANGAREDY

B. MURALIDHAR REDDY,
B.Tech
ENVIRONMENTAL ENGINEER.

5-1-28, Shantinagar,
Sangareddy-502 001.

Lr.No.190/PCB/RO-SRD/97-355

Date: 19-9-1997

To

M/s. Asian Paints (India) Limited,
Phase II, IDA Patancheru,
Medak District.

Sir,

Sub: Treatment, Storage and Disposal of Hazardous Wastes – Non-compliance of the conditions of authorisation issued by Board – Reg.

Ref: The Authorisation No. PTCR-07/W-18, dated 28-09-96.

* * *

In the reference cited above, you have been issued Authorisation under Rule 5 of Hazardous Wastes (Management and Handling) Rules, 1989 for onsite treatment and storage of Hazardous Wastes with certain terms and conditions.

It is observed that you are not complying the terms and conditions of the above referred authorization. Therefore you are directed to take action on the following: -

1. Storing the hazardous wastes in lined underground storage tanks (preferably HDPE lining) in the premises.
2. Detoxification of secured storage.
3. Safety equipment to the persons handling the hazardous wastes.
4. Demarcation of the storage area.
5. Maintaining records of storage of hazardous wastes in form III.

Your reply should reach this office within a fortnight from the date of receipt of this notice, failing which action will be initiated under Section '5' of Environment Protection Act, 1986.

Yours faithfully,
Sd/-
ENVIRONMENTAL ENGINEER

Copy submitted to the Member Secretary, APPCB, Hyderabad for kind information and necessary action.

KMG / 8997.

dc 50

ANNEXURE - IX
dt 24.09.1997

To
The Station House Officer
Patancheru
Medak Dist.

Sir

Sub: Illegal transportation and dumping of Hazardous waste at unauthorised site in near Nakkavagu on Shankarpalli road - Seizer of vehicle bearing no. AP 13T 8571 - Reg

Ref: Complaint received from Dr. K. Kuttumbarao, resident of Patancheru on 24.09.97.

With Reference to the above complaint a lorry which was carrying hazardous waste material (vehicle no. AP 13T 8571) and dumping at unauthorised sites was seized and kept in your police station on 24-9-97. This activity carried out by lorries or industries is illegal.

Hence you are requested to file FIR against the lorry owner and also take the written undertaking from the driver from which industry he has lifted it and please communicate copies of the same to the undersigned so as to take further action against the industry as well as lorry owners.

Yours faithfully

B. Rao 24/9/97
Environmental Engineer
AP Pollution Control Board
Regional office,
5-1-28, Shantinagar,
Sangareddy.

Copy submitted to the Superintendent of Police, Sangareddy, Medak Dist for kind of information and necessary action.

TYPED NEAT COPY.

O/c 51

ANNEXURE - IX

Dt: 24.09.1997

To
The Station House Officer,
Patancheru,
Medak District.

Sir,

Sub: Illegal transportation and dumping of Hazardous waste at un-authorized site near Nakkavagu on Shankarpally road – Sized of vehicle bearing No. AP13T 8571 – Reg.

Ref: Complaint received from Dr. K. Kishan Rao, Resident of Patancheru on 24.09.97.

With reference to the above complaint a lorry which was carrying hazardous waste material (vehicle No. AP13T 8571) and dumping at unauthorized sites was seized and kept in your police station on 24-9-97. This activity carried out by trucks or industries is illegal.

Hence you are requested to file FIR against the lorry owner and also take the written undertaking from the driver from which industry he has lifted it and please communicate copies of the same to the undersigned so as to take further action against the industry as well as lorry owner.

Yours faithfully

(Signature of the Officer dated 24-09-1997)
Environmental Engineer,
A.P. Pollution Control Board,
Regional Officer, 5-1-28,
Shantinagar,Sangareddy.

Copy submitted to the Superintendent of Police, Sangareddy, Medak District for favour of information and necessary action.

(52)

ANNEXURE - IX-A

ANDHRA PRADESH POLLUTION CONTROL BOARD

2nd Floor, HUDA Complex, Maitrivanam, S.R. Nagar, HYDERABAD - 500 038.

Phones : 291120
294043
293278
292132
Fax : 040-293261
Grams : Kalushya Nivarana

BY REGD. POST WITH ACK DUE

Notice No. 52/PCB/TF/97- /0535 Date:25/09/97.

Sub: M/s. Asian Paints (India) Ltd.,Phase -II, IDA, Patancheru, Medak District - Discharge of untreated effluents - Non-Compliance of Board directives - SHOW CAUSE NOTICE - Issued - Regarding.

Ref:1. Complaint made by the villagers of Patancheru, dt.24/09/97 regarding dumping of Hazardous solid waste beside Sankarpally - Patancheru Road.

2. Inspection of your industry by Board Officials on 25/09/97.

* * *

WHEREAS you have been operating your industry located at Plot Nos. 50 to 55, Phase-II, IDA, Patancheru, Medak District and manufacturing Paints & Enamels, Synthetic resins with installed capacities of 1250 MT/month and 234 MT/month respectively.

WHEREAS complaints were received in this office regarding dumping of hazardous solid waste outside your premises resulting nearby ground & surface water pollution in the surrounding areas thereby endangering public health and Environment.

WHEREAS a truck bearning no. AP13T-8571 was caught by the villagers of Patancheru while disposing hazardous solid waste beside Sankarpally - Patancheru road. On enquiry, the driver of the vehicle informed that the truck is transporting the solid waste generated from your unit for illegal dumping.

WHEREAS the Board officials inspected the area and your industry on 25/09/97 and observed that you are transporting hazardous solid waste outside your factory premises thereby causing ground & surface water pollution in the surrounding area endangering public health and environment.

WHEREAS the Board Officials collected legal samplse of solid waste from your industry and the vehicle bearing no. AP13T-8571 on 25/09/97 and the analysis reports indicated that the solid waste is being transported from your unit.

(53)

Hence, you are hereby directed to 'SHOW CAUSE' why action should not be taken against you under section 33(A) of the Water (Prevention and Control of Pollution) Amendment Act, 1988 and section 8 of E(P) Act, 1986 directing closure of your industry and disconnection of power supply to your unit for non-compliance of the standards and directives of the Board.

You are directed to be present before the Member Secretary on 04/10/97 at 4.00 PM with your reply in person failing which your action will be initiated under provisions of the above said acts without any further notice in the interest of Public health and Environment.

MEMBER SECRETARY.

To
M/s. Asian Paints (India) Ltd.,
Plot Nos. 50 to 55, Phase-II,
IDA, Patnacheru, Medak District.

10535

Regd. Post Ack. Due

08 X 97

A. P. Pollution Control Board,
II Floor, HUDA Complex, Maitrivanam,
S. R. Nagar, Hyderabad-500 038.

L.R. No. 4677 Date 8-1

ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE :: SANGAREDDY

ANNEXURE-X

(54)

B. MURALIDHAR REDDY,
B.Tech.,
Environmental Engineer.

5-1-26, Shantinagar,
Sangareddy-502 001.

Lr.No.190/PCB/RO-SRD/ACTION PLAN/97-

Date: 7-10-1997.

To

M/s Asian Paints (I) Ltd
Phase II, IDA Patancheru
Medak Dist

Sir,

Sub: W.P.No.1056/90 of Hon'ble Supreme Court - Interim orders - Pollution in Patancheru & Bollarum areas - Non-compliance of Action Plan - Notice Issued - Reg.

Ref: 1) Interim orders dt.16.7.96 of Hon'ble Supreme Court in W.P.No.1056/90.

2) Meeting held on 16.8.96 by Principal Secretary, E.F.S.&T Dept. and Chairman of A.P.P.C.B. with individual industries and others.

3) Board office Lr.No.44007/PCB/SPC/A.P./96- dt.12.11.96.

4) Meeting held on 16.11.1996 by Member Secretary on implementation of Action Plan.

Your kind attention is drawn to the reference 2nd & 4th cited above, wherein meetings were held on 16-8-1996 and 16-11-1996 in connection with the follow-up action on the Hon'ble Supreme Court's interim orders dt. 16.7.96 in W.P.No. 1056/90.

During the above meetings it was resolved that all the industries located in Patancheru/Bollarum areas and the industries sending their effluents to C.E.T.Ps shall have pretreatment facilities and segregation of high T.D.S. inorganic wastes and the treated effluents shall comply with MOEF standards. And the industries agreed to take immediate steps to fulfil their action plan.

It was observed by the Board's officials during inspection that you have not complied the action plan so far, and also the status of implementation of action plan is not received in this office.

P.T.O...2.

(55)

Therefore you are hereby informed to follow the following directives:-

1. The industry shall establish the pretreatment facilities to meet the Ministry of Environment & Forests standards.

2. Present status of implementation of Action Plan, should be submitted to this office within 3 days.

3. Monthly progress report on implementation of Action Plan should be submitted by 10th of every month in prescribed format.

4. Log Books for the segregation of strong inorganic and organic streams shall be maintained and made available to the Board's official during the inspection.

5. The industry should establish the solar evaporation/incineration facilities for strong inorganic effluents.

You are hereby directed to give your reply to this office on the above points with a copy to Member Secretary, A.P.P.C.B., Hyderabad within seven days from the date of receipt of this notice failing which the Board will be constrained to take legal action as per the provisions of Water (Prevention & control of Pollution) Act, 1974 and its amendments.

Yours faithfully,

for Environmental Engineer.

Copy submitted to the Member Secretary, APPCB, Hyderabad, for kind information.

KMG/61097.

ANNEXURE - XI

(56)

dc

BY REGD.ACK.DUE.

A.P. POLLUTION CONTROL BOARD
REGIONAL OFFICE::SANGAREDDY

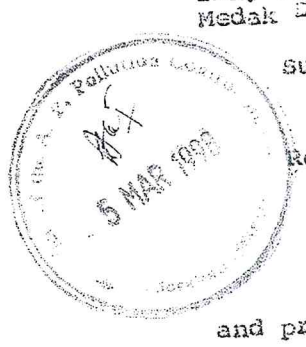
B. MURALIDHAR REDDY,
B.Tech.,
Environmental Engineer.

5-1-28, Shantinagar,
Sangareddy-502 001.

Lr.Notice No.329/PCB|RO|SRD|PTCR|98-77 Date:28-2-1998.

SHOW CAUSE NOTICE

TO
M/s Asian Paints Ltd.,
IDA, Phase-II, Patancheru,
Medak Dist.



Sub: M/s Asian Paints Ltd., IDA Patancheru - Discharge of effluents into Nakkavagu on Nandigam Road - Notice-issued-Reg.

Ref: 1. Telephonic complaint given by Dr. Kishan Rao on 22.2.98.
2. Notice No.52/PCB|TF|97-10535 dt.25.9.97.
3. Your letter dt. .10.1997.
4. Inspection of your industry by Board officials on 26.2.9

WHEREAS you are operating your industry at IDA, Patancheru and producing solvent based and water based paints.

WHEREAS the Board received complaint that you are discharging effluents in Nakkavagu near the submersible bridge on Nandigama(V) Road which ultimately join Manjeera river thereby causing surface and ground water pollution problems.

WHEREAS the Board officials inspected the site where the effluents are discharged and collected the sample for analysis.On physical verification the effluents ~~are~~ appears to be from your industry.

WHEREAS the Board issued show cause notice vide ref.2nd cited for non-compliance of Board directives.

WHEREAS the Board is of the opinion that you have failed to prevent the effluents discharged into Nakkavagu resulting surface and ground water pollution endangering public health and environment

Hence you are hereby directed to 'SHOW CAUSE' why action shoul not be initiated against your industry for the violation of Board directives under Section 33 (A) of the Water (prevention & control of pollution) Amendment Act,1988 directing closure of your industry in the interest of public health.

Your reply on the above should reach this office within 15 days failing which appropriate action will be taken as per the provisions of the above Act.

B. Murali 28/2/98

ENVIRONMENTAL ENGINEER.

Copy submitted to the Member Secretary, APPCB, Hyderabad, for kind information and necessary action.

(57)

ANNEXURE - XII

Under Certificate of Posting

ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE :: SANGAREDDY

B. MURALIDHAR REDDY,
B.Tech.,
Environmental Engineer.

5-1-28, Shantinagar,
Sangareddy-502 001.

Notice No. 329 /PCB/RO-SRD/98- Dated: 29 - 6 -1998.

Sub: Complaints - Air pollution in and around Industrial areas - certain directions - Issued - Reg.

Ref: 1. News items in Andhra Bhoomi dated: 18.5.1998 and in Eenadu dated: 24-5-1998.
2. D.O.Lr.No.F/130/98 received on 15.6.98 of Revenue Divisional Officer, Medak.
3. D.O.Lr.No.F/Press/145/98 received on 15.6.98.

In the references cited above, this office received complaints on air pollution in and around industrial areas in the Medak District, thereby causing severe health problems to the villagers of nearby villages as well as workers in the factories. The contents of the complaints are the following:-

1. Air pollution control equipment are not operated continuously. They are not operated particularly during night times and power cut periods.

2. Generators are not connected to air pollution control equipments to cut expenditure.

3. Scrubbing media efficiency is not checked properly.

In view of the above, you are directed to comply the following directions with immediate effect:-

1. Industry shall provide interlocking arrangements between process and pollution control equipments in such a way that whenever the tolerance limits of emissions are exceeded, the process comes to a halt.

2. Pollution Control systems like scrubbers and dust collectors shall be connected to D.G. Sets, so that in case of power cuts, pollution control systems operate with D.G. sets power.

P.T.O....2.

(58)

ANNEXURE - XIII

FORM XI
REPORT BY THE BOARD ANALYST

(See Rule 26)

Report No: 2006-14 & 2006-15
Dated the 14.06.00

I hereby certify that I P.Ramesh chandra, Board Analyst duly appointed under sub section (1) of section 53 of the water (Prevention and control of pollution) Act, 1974 (6 of 1974) received on the 07th day of June, 2000 from the Environmental Engineer, Sangareddy-I, A a sample of wastewater

M/S. Asian Paints India Ltd.1. Out let of ETP 2. Inlet of ETP

The sample was in a condition fit for the analysis reported below.
I further certify that I have analyzed the aforementioned sample on 07.06.00 to 14.06.00 and declare the result of the analysis to be as follows:-

S.No.	Parameter	Unit	Sample-I	Sample-II
1	pH		7.3	7.2
2	Total solids	mg/L	1400.0	3500.0
3	Total suspended solids	mg/L	172.0	720.0
4	Total dissolved solids	mg/L	1228.0	2780.0
5	Chlorides, as Cl^-	mg/L	90.0	100.0
6	Sulphates, as SO_4^{--}	mg/L	390.0	345.0
7	Chemical Oxygen Demand	mg/l	112.0	5040.0
8	B.O.D (3 days @ 27° C)	mg/L	40.0	900.0

Note: Analysis were performed using Standard Methods for the examination of water and wastewater by APHA, WPCF, and AWWA.

The condition of the seals fastening and container on receipt was as follows:-
The seals were intact and tallied with specimen seal of the board.

Board Analyst

Signed this 14th day of June, 2000

Address:

Board Analyst
A.P. Pollution Control Board,
Zonal Laboratory,
25-35/11, Tulsi Reddy complex,
R.C.Puram, Medak (Dist.)
To
The Environmental Engineer,
APPCB, Regi. Office,

18-X-00

ANNEXURE - XIV

(59)

A.P POLLUTION CONTROL BOARD
ZONAL LABORATORY
25-35/11, Tulsi Reddy Complex, Ramachandrapuram, Medak Dist.

ANALYSIS REPORT

Sample No. 2009-86

Sample
Source: M/s. Asian Paints Ltd., IDA, Patancheru, (Inlet of ETP).

Sample
Collected On: 19-09-2000.

Sample
Received on : 19-09-2000

Sample
Collected by: E.E., R.O. Sangareddy-I.

Sl. No.	Parameter	Value
1.	pH	7.9
2.	Total Solids at 105° C	2120.0
3.	Total Suspended solids at 105° C	300.0
4.	Total Dissolved Solids at 105° C	1820.0
5.	Chlorides, as Cl.	350.0
6.	Sulphates, as So4-2	445.0
7.	COD	672.0
8.	BOD (3 days at 27°C)	220.0

Note: All values expressed in mg/l except pH.

Remarks:

SENIOR ENVIRONMENTAL SCIENTIST

NEAT TYPED COPY 60-A

ANNEXURE-XV

A.P. POLLUTION CONTROL BOARD
ZONAL LABORATORY
25-35/11,Tulsi Reddy Complex, Ramachandrapuram, Medak District.

ANALYSIS REPORT

Sample No. 2809-86

Sample
Source: M/s. Asian Paints Ltd., IDA Patancheru (Outlet of ETP).

Sample:
Collected on 09-09-2000.

Sample:
Received on 19-09-2000.

Sample:
Collected by EE, RO, Sangareddy-I.

Sl. No.	Parameter	Value
1.	pH	7.9
2.	Total Solids at 105°C.	2120.0
3.	Total Suspended Solids at 105°C.	300.0
4.	Total Dissolved Solids at 105°C.	1820.0
5.	Chlorides as CL	360.0
6.	Sulphates as SO4	445.0
7.	COD	970.0
8.	BOD (3 days at 27°C).	220.0

Note: All values expressed in mg/l except pH.

Remarks:

Sd/-
SENIOR ENVIRONMENTAL SCIENTIST

 (60-B)

NEAT TYPED COPY

A.P. POLLUTION CONTROL BOARD
ZONAL LABORATORY
25-35/11,Tulsi Reddy Complex, Ramachandrapuram, Medak District.

ANALYSIS REPORT

Sample No. 2009-87

Sample
Source: M/s. Asian Paints Ltd., IDA Patancheru (inlet of ETP).

Sample:
Collected on 09-09-2000.

Sample:
Received on 19-09-2000.

Sample:
Collected by EE, RO, Sangareddy-I.

Sl. No.	Parameter	Value
1.	pH	9.1
2.	Total Solids at 105°C.	4240.0
3.	Total Suspended Solids at 105°C.	1460.0
4.	Total Dissolved Solids at 105°C.	2774.0
5.	Chlorides as CL	481.0
6.	Sulphates as SO4	830.0
7.	COD	1143.0
8.	BOD (3 days at 27°C).	---

Note: All values expressed in mg/l except pH.

Remarks:

Sd/-
SENIOR ENVIRONMENTAL SCIENTIST

ANNEXURE - XV

A.P POLLUTION CONTROL BOARD
ZONAL LABORATORY
25-35/11, Tulsi Reddy Complex, Ramachandrapuram, Medak Dist.

ANDHRA PRADESH

ANALYSIS REPORT

Sample No. 2K1-10-36

Samples
Source: M/s. Asian Paints (I) Ltd., IDA, Patancheru, (Outlet of ETP).

Sample
Collected On: 06.10.2001

Sample
Received on : 08.10.2001

Sample
Collected by: E.E., R.O., Sangareddy-I.

Sl. No.	Parameter	Value
1.	pH	7.38
2.	Total Solids at 105° C	5,340.0
3.	Total Suspended Solids at 105° C	140.0
4.	Total Dissolved Solids at 105° C	5,200.0
5.	Chlorides, as Cl.	2,597.0
6.	COD	108.0
7.	BOD (3 days at 27°C)	34.0

Note: All values expressed in mg/1 except pH.

Remarks:

for SENIOR ENVIORNMENTAL SCIENTIST

(62)

ANNEXURE - XVI

ANDHRA PRADESH POLLUTION CONTROL BOARD

RAMACHANDRAPURAM ZO

~~HUDA COMPLEX, II Floor, Maitrivanam, Ameerpet, Hyderabad - 500038~~

Phones : 3731120, 3737625(D)
3734043, 3732132
Fax : 040 3733261

Grams : Kalushya Nivarana
WebSite: WWW.apspcb.org
email: info@apspcb.org

Analysis Report

Reg. No.	SR/05/APPCB/PTN/LAB/2001/24	**Collected By**	E.E., R.O., Sangareddy-I.
Collected On	23/11/2001	**Received On**	24/11/2001
Collection Point	Outlet of ETP.		
Source	**Asian Paints (India) Ltd.,Plot No.50-55,I D A , Phase -I I, Patancheru,**		

Parameter(s)	Result	
pH	8.3	
Total Solids (TS at 103 - 105 oC)	1020.0	mg/L
Total Suspended Solids (TSS at 103 - 105 oC)	80.0	mg/L
Total Dissolved Solids (TDS)	940.0	mg/L
Chlorides as Cl-	144.0	mg/L
Chemical oxygen demand (COD)	47.0	mg/L
Biochemical Oxygen Demand (BOD 3 at 27 oC)	15.0	mg/L
Lead (Pb)	1.4	mg/L
Cadmium	0.4	mg/L

Remarks Results related to sample as received.

Senior Environmental Scientist

(63)

ANNEXURE-XVII

ANDHRA PRADESH POLLUTION CONTROL BOARD

RAMACHANDRAPURAM ZO

D.No. 25-35/11, 2nd floor,Tulasi Reddy Complex, Beside M.R.O Office,Ramachandrapuram. Medak

Phones : 040-3027222,3027333
Fax 040-3027111
Grams : Kalushya Nivarana
WebSite : WWW.apspcb.org
email : info@apspcb.org

Analysis Report

Reg. No. SR/LAB/APPCB/PTN/LAB/2003/75 **Collected By** E.E., R.O., Sangareddy-I

Collected On 20/01/2003 **Received On** 20/01/2003

Collection Point Outlet of ETP.

Source **Asian Paints (india) Ltd.,Plot No.50-55,I D A , Phase -I I, Patancheru, Medak.**

Parameter(s)	Result	
pH	7.4	
Total Solids (TS at 103 - 105 oC)	3050.0	mg/L
Total Suspended Solids (TSS at 103 - 105 oC)	60.0	mg/L
Total Dissolved Solids (TDS)	2990.0	mg/L
Chemical oxygen demand (COD)	209.0	mg/L
Biochemical Oxygen Demand (BOD 3 at 27 oC)	80.0	mg/L

Remarks Results related to sample as received.

Senior Environmental Scientist

Run Date : 06/03/2003

Total amount

(64)

ANNEXURE-XVIII

FORM IV
REPORT BY THE STATE BOARD ANALYST
(See Rule -34 and sub-section (3) of Section 26 of the Act)

Report No. 1A/S-08-2K4 Dated the 20.08.2004

I hereby certify that I, P. Ramesh Chandra, State Board Analyst duly appointed under sub-section (2) of Section 29 of the Air (Prevention and Control of Pollution) Act, 1981, analysed the sample of Emission of Stack attached to the Incinerator of M/s Asian Paints India Ltd., Plot No.50 to 55, IDA, Phase-II, Patancheru collected on 19.08.2004 by the Zonal Laboratory as per the request of Regional Office,Sangareddy-I.

The sample was in a condition fit for analysis reported below.

I further certify that I have analysed the aforementioned sample on 20.08.2004 and declare the results of the analysis to be as follows:

Sl.No.	Parameter	Results (mg/Nm^3)	Standard (mg/Nm^3)
1.	SPM (Suspended Particulate Matter)	1394.00	115.0
2.	So2	405	800
3.	NOX	220	800

The condition of the seals, fastening and container on receipt was as follows:

The seals were intact and tallied with specimen seal of the board.

Signed this 20.08.2004

STATE BOARD ANALYST

Address:
The Board Analyst,
25-35/11, Tulsi Reddy Complex,
Ramachandrapuram,
Medak – 500 032.

To
The Environmental Engineer,
A.P. Pollution Control Board,
Regional Office, Sangareddy-I

(65)

ANNEXURE - XIX

A. P. POLLUTION CONTROL BOARD

Regional Office-I: Sangareddy

L. Vishveswar Goud. M.E.,
Environmental Engineer

5 -1-28, Shantinagar,
Sangareddy – 502 001
Medak District.
Phone: 08455 -276795

Notice No. 328/PCB/RO-I: SRD /05- Dt: 28-11-2005

-- NOTICE --

Sub: PCB – Non compliance of Board Directions – Notice issued - Reg.

Ref: Inspection of your industry by Board Officials on 25-11-2005.

--xxXxx--

DESPATCHED ON: 30-11-05

WHEREAS you are operating your industry located at Plot No. 50 – 55, IDA, Phase – II, Patancheru, Medak District and producing Paints & Resins.

WHEREAS vide reference cited above Board Officials inspected your industry on 25-11-2005. During the inspection Sri K. S. Mahapatra, Team Leader ETP, was present during inspection following observations were made:

1) Effluents are overflowing from ETP gutters and leakages from ETP pipes are entering into storm water drains. A legal sample was collected and submitted to Zonal Laboratory R.C. Puram for analysis.
2) DAF of ETP is not running properly.
3) Drums washings are entering into storm water drains.
4) Huge amount of hazardous waste is stored in drums directly on open ground.
5) The hazardous waste in the form of sludge and effluents are entering into ETP gutters. A legal sample was collected and submitted to Zonal Laboratory, R.C. Puram for analysis.
6) The industry is not implementing waste minimization measures as per the commitments made.
7) Incinerator meant for hazardous waste incineration is not in operation.

Therefore you are hereby directed to take necessary action immediately to prevent overflow of effluents from ETP, failing which legal action shall be initiated against your industry under section 33 (A) of the Water (Prevention and Control of Pollution) Amendment Act 1988 and under section 31 (A) of the Air (Prevention and Control of Pollution) Amendment Act 1987. Your reply if any should reach this office within 3 days from the date of receipt of this notice.

Sd/-
ENVIRONMENTAL ENGINEER

To
M/s. Asian Paints (I) Ltd.,
Plot No. 50 – 55, IDA, Phase – II,
Patancheru, Medak District

Copy to the JCE&I, APPCB, ZO, R.C. Puram for kind information and necessary action

(66)

ANNEXURE - XX

asian

Asian Paints Limited
Plot Nos. 50-55, Industrial,
Development Area, Phase II,
Patancheru-502319,
Medak District (A.P.)

tel: (08455) 242475 / 242476/
242493 / 242494
fax:(08455) 242464

October 20th, 2006

To,

Sh. G Visveswar Rao,
Joint Chief Environmental Engineer
Zonal Office
Andhra Pradesh Pollution Control Board
R. C. Puram
Medak District

Dear Sir,

Sub: Charge for implementing & upgradation work connected with drinking water supply to pollution affected villages in Medak district.

We are in receipt of your Notice No.APPCB/CFO/Gen/MDK/DWS/2006-822 dated 25.09.2006, whereby we have been asked to deposit amount of 28,570/- for implementing & upgradation work connected with drinking water supply to pollution affected villages in Medak district. We submit as follows

- We are operating the Effluent Treatment Plant right from the inception of the manufacturing facility. The treated effluent from tertiary unit is used for reuse in process, cooling tower, toilet flushing, floor washing and green belt development. Reuse of treated water is as per APPCB norms mentioned in Consent for operation.
- We are a Zero discharge unit.
- It may also be noted that there is a gradual decrease in quantity of ETP treated water used for green belt development. This is due to decrease in the quantity of effluent generated and due to increased reuse of treated water in process.

However, since the payment is towards a social cause of drinking water supply to villages in Medak district, we are herewith making a payment of Rs. 28,570/- as communicated by your notice.

Thanking you,

For Asian Paints Ltd

Salil Chinchore
General Works Manager

File
AE-I
25/10

CC: RO, Sangareddy

Received
23/10

ANNEXURE-XXI

67

asian

Asian Paints Limited
Plot Nos. 59-65, Industrial
Development Area, Phase II,
Patancheru-502319,
Medak District (A.P.)

tel: (08455) 304000
fax:(08455) 304380

September 13th, 2008

To,

The District Collector,
Medak District
Sangareddy
Medak District

Respected Sir,

Sub: Payment of compensation to the farmers for the period from 1999-2002 for loss due to damage of crops on account of pollution in Medak district

We are in receipt of your letter Lr.No.H2/4446/02- dated 28.08.2008, whereby we have been asked to deposit amount of Rs.38,464.91/- towards payment of compensation to the farmers for the period from 1999-2002 for loss due to damage of crops on account of pollution in Medak district. We submit as follows

- We are operating the Effluent Treatment Plant right from the inception of the manufacturing facility. The treated effluent from tertiary unit is used for reuse in process, cooling water, toilet flushing, floor washing and green belt development. Reuse of treated water is as per APPCB norms mentioned in the Consent for Operation.
- We are a Zero discharge unit.
- It may also be noted that there is a gradual decrease in quantity of ETP treated water used for green belt development. This is due to decrease in the quantity of effluent generated and due to increased reuse of treated water in process.

However, since the payment is towards a socially responsible cause and for the betterment of community in general, we are herewith making a payment of Rs.38, 465/- as communicated by your notice. Please find enclosed a demand draft dated 11/09/2008 no "011678" for the amount of Rs.38,465/- drawn in favour of "The District Collector" Medak District.

Thanking You,

For **Asian Paints Ltd**

Ranade

Siddharth Ranade
Manager EHS
Encl: As above
CC: APPCB, Regional Office

Received on 15.09.08
P. V. Krishna Reddy

HDFC BANK

MANAGER'S CHEQUE
VALID FOR SIX MONTHS FROM THE DATE OF ISSUE

Ref. No. [illegible]
DATE [illegible]

A/C PAYEE ONLY
NOT NEGOTIABLE

PAY DISTRICT COLLECTOR MEDAK DISTRICT

RUPEES THIRTY EIGHT THOUSAND FOUR HUNDRED SIXTY FIVE ONLY. OR ORDER

Rs. [illegible]

For HDFC BANK LTD.

HDFC BANK LTD.
[illegible]
HYDERABAD - 500032

AUTHORISED SIGNATORIES

C3649

UTILITY FORMS PVT. LTD., NEW DELHI

⑈011678⑈ 500240002⑆ 99999⑈ 12

(68)

ANNEXURE - XXII

TELANGANA STATE POLLUTION CONTROL BOARD

ZONAL LABORATORY
25-35/11, Tulasi Reddy Complex, R.C.Puram, Medak Dist.

ANALYSIS REPORT

(Ambient Air)

Reports No: $2K_{16}$ - 04- 16A

1. Name & Address of the Industry : **M/s.Asian Paints Ltd., (Formerly M/s.Asian Paints (India) Ltd, Plot No.50-55, IDA, Phase-II, Patancheru, Medak District.**

2. Date of sampling : 13.4.2016
3. Sample Received on : 16.4.2016
4. Sample collected by : RO-Sangareddy-I

S.No	Sample Location	Results		
		RSPM $\mu g/m^3$	SO_2 $\mu g/m^3$	NO_2 $\mu g/m^3$
1.	AAQM: Periphery of the industry in downwind direction on west.	**156**	5	13.4
National Ambient Air Quality Standards(NAAQS)		**100**	**80**	**80**

RSPM : Respirable suspended particulate matter.
SO_2 : Sulphur Dioxide.
NO_2 : Nitrogen Dioxide.

Observation of Sampling In charge

1) During the monitoring dominant wind speed is low.

2) Instrument was placed in down wind direction

Remark:

1) The RSPM Value is exceeding the National Ambient Air Quality Standards.

Mohd. Sadiq Ali
SENIOR ENVIRONMENTAL SCIENTIST

(69) ANNEXURE-XXVII

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar,
Hyderabad-500 018, Phones : 040-23887500

SHOWCAUSE NOTICE

Notice No.96/TSPCB/HO/OCEMS/2021 **Dt:14.12.2021**

Sub: **TSPCB– OCEMS- M/s. Asian Paints Ltd, Plot No.50-55, IDA Phase-II, Patancheru, Medak District** – Exceedance reported & Not transmitting data to the TSPCB OCEMS Server for monitoring of Standards stipulated in Air and Water Consents **– Notice Issued - Reg.**

Ref:
1. CFO Order No.TSPCB/RCP/HO/CFO/2016-555, Dt: 28.05.2016.
2. TSPCB OCEMS Online Server data from 1st November 2021 to 30th November 2021.

* * *

1. **WHEREAS,** you are operating **M/s. Asian Paints Ltd.,** industry which is located at **Plot No.50-55, IDA Phase-II, Patancheru, Medak District** and is involved in manufacturing of Paints and Resins.

2. **WHEREAS,** vide reference 1st cited, the industry has obtained CFO vide order Dt:28.05.2016 with a validity period up to 30.06.2021 for manufacturing of Paints and Resins, stipulating certain conditions to comply with and to meet the standards for environmental parameters connecting to the TSPCB Server through OCEMS and **the CFO validity is expired.**

3. **WHEREAS,** As per condition No.14 schedule-B of the CFO order Dt:28.05.2016, the industry has to provide online connectivity of VOC to the TSPCB server and for online monitoring of the environmental standards.

4. **WHEREAS,** the industry connected only VOC parameters for continuous online transfer of the data to the TSPCB OCEMS Server for monitoring environmental standards/quantities of effluent generation & treatment.

5. **WHEREAS,** during monitoring of OCEMS data pertaining to the period from 1st November 2021 to 30th November 2021 (2 fortnights), the following exceedance was recorded against the standards prescribed by the Board and also VOC values were recorded more than 10 PPM:

Sl. No	Date	Station Name	Parameter-Permissible Limit	Exceeded Value (PPM)	Exceeded duration (Hrs: Min)	No of times Exceeded
1	13.11.2021	VOC	VOC 1-10	20.87	06:18	1
2	15.11.2021	VOC	VOC 1-10	14.59	00:57	1
3	19.11.2021	VOC	VOC 1-10	18.10	02:46	2
4	20.11.2021	VOC	VOC 1-10	22.17	07:06	3
5	22.11.2021	VOC	VOC 3-10	16.62	01:57	2
6	23.11.2021	VOC	VOC 3-10	12.58	00:39	2

6. **WHEREAS,** automated SMS (11 No.s) and Mail alerts were sent to the industry from the OCEMS Server on the exceedence noticed above and the industry did not responded to the same alarms.

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7. **WHEREAS,** from the above it is evident that, the industry failed to take appropriate measures for control of VOCs and for continuous streaming of data to the TSPCB server, thus causing air pollution and water pollution in the area.

8. In view of the above, the industry is hereby directed to show cause, why an action should not be initiated under provisions of the Air & Water Acts for violation of the conditions stipulated in the CFO&HWA Order thus causing pollution in the area. The reply shall reach this office within Ten days from the date of the notice, failing which legal action will be initiated against your industry under Sec.33(A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31(A) of Air (Prevention and Control of Pollution) Amendment Act, 1987 and under Sec.5 of Environment (Protection) Act 1986 directing closure of the industry in the interest of Public Health and Environment without any further notice.

Sd/-
MEMBER SECRETARY

To
M/s. Asian Paints Ltd.,
Plot No.50-55, IDA,
Phase-II, Patancheru,
Medak District.

Copy to:

1. The JCEE., Z.O., RC Puram for information and necessary action.
2. The SEE(FAC), Task Force, Board Office for information and necessary action.
3. The EE, RO.,Sangareddy is directed to monitor the industry for compliance of the online parameters.
4. Concerned file.

//T.C.F.B.O//

Joint Chief Environmental Engineer

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ANNEXURE-XXIV

REPORT OF
FACT FINDING COMMITTEE

CONSTITUTED BY THE HON'BLE HIGH COURT
IN ITS ORDER DATED 25th SEPTEMBER 2003
IN W.P.No.19661/02.

MEMBERS

Justice A. Gopal Rao (Chairman)
Sri M. Parabrahmam
Dr. M. Haribabu
Dr. S. Bapu Rao
Sri A. Surender Raj (Convener)

MARCH 2004

REPORT OF
FACT FINDING COMMITTEE

CONSTITUTED BY THE HON'BLE HIGH COURT
IN ITS ORDER DATED 25th SEPTEMBER 2003
IN W.P.No.19661/02.

MARCH 2004

INDEX

LIST OF ANNEXURES

PREAMBLE

By Order dated 25th September 2003, the Hon'ble High Court, Andhra Pradesh, has constituted a Fact Finding Committee with the following Members :

1. Justice A. Gopal Rao ... Chairman
   Retired Justice
   AP HIGH COURT
   Hyderabad

2. Sri M. Parabrahmam ... Member
   Advisor (Retd.)
   Ministry of Environment & Forests
   Government of India
   Secunderabad

3. Dr. M. Haribabu ... Member
   Deputy Director & Head
   Specially Gas-Based Chemicals & Processes Division
   Indian Institute of Chemical Technology
   Hyderabad

4. Dr. S. Bapu Rao ... Member
   Head, Analytical Chemistry Division
   National Institute of Nutrition
   Hyderabad

5. Mr. A. Surender Raj ... Convener
   A.P. POLLUTION CONTROL BOARD
   Zonal Office
   Hyderabad

The Committee has to submit a Status Report with reference to Terms of Reference mentioned therein. The Committee met and decided the strategy to be adopted to collect the necessary data required for the report. The Committee visited the polluting Industries located in different areas, villages and had interaction with NGOs, Agriculturists, Officials and ZPP Members. The observations of the Committee are filed hereunder.

The Committee visited major polluting industries that have pollution potential exercising their discretion.

The procedure adopted for collection of samples/effluents by the Committee

The Committee has carried out the following during the period October 2003 to February 2004 :

- Quality control in sample analysis
- Analysis of samples by four different, approved and accredited laboratories.
- Confidentiality in visits to industries
- Coding/blinding of samples
- Crosschecks on coding and decoding

The details of samples are as follows:

Collection of samples of effluents

The Committee's visit to industries was not announced in advance. The members met and decided on the units to be inspected, located in one/other areas. Visit to second or subsequent unit was decided at the time of completion of visit to the first unit. The members discussed with officers of the industrial unit regarding products produced, processes adopted use and recovery of solvents conservation of water, generation of effluents, preliminary treatment and whether the wastes are treated before their dispatch to PETL at Patancheru. At each of these units confirmation was sought whether they have valid approvals (CFE & CFO) for the products and quantities under environmental laws. The teams also visited the facilities setup, if any, for handling High Total Dissolved Solids (HTDS) effluents, enquiries were also made.

Information with regard to disposal of hazardous and non-hazardous wastes was also sought. Industrial effluent samples were collected from the industry premises either from the effluent storage tanks or from the tanks or from the effluent transport tankers. The team members visited the areas outside the perimeter of the units to observe any unauthorized discharges. In some instances, samples of such waste water outside and adjacent to the units were also collected.

Grab samples were collected (Five samples) at each location in new polyethylene sample cans of uniform type and one litre capacity. They were collected in the presence of an authorized representative of the industry unit and PCB officer. All the sample cans so collected, were sealed as per laid down procedure. Each of the samples was given a standard number, one sample for each location was passed on to Industrial unit officer and the remaining four were given statistically valid computer generated random, code numbers, and distributed to four approved and accredited laboratories under Environmental Protection Act, 1986.

Utmost confidentiality of samples sent results received and their analysis was maintained through out.

The effluent samples collected were sent to four approved laboratories for analysis of stipulated parameters with code numbers. The results obtained are furnished in Annexure 9.1.

Bore well(s) water and their quality

The Committee members have visited nineteen (19) villages in the vicinity of the industrial areas, proximity of Nakkavagu and collected 48 Borewell water samples. The location and identification of the borewell was done as per the advice and suggestion of either Surpanch or village elders/leader. They were given code numbers and sent for chemical analysis to all the four (4) different laboratories.

Tanks and streams and their water quality

A total of twenty two (22) water samples were collected and analysed. These samples were from the tanks and streams from this area. Procedure adopted was similar to that used for effluents. Samples were collected from Nakkavagu at five (5) different places covering a distance of nearly ten (10) km. Jillela vagu was sampled at two (2) different places, Isaka vagu at one (1) place, Gandigudem tank at one (1) place and Khazipally tank was sampled at the inlet and outlet. Remaining twelve (12) samples were collected from tanks or cheruvus.

Soil samples and their quality

After selection of the plots for soil collection in consultation and based on the suggestion of villagers, scientists from EPTRI have dug the pit about 100 cm length and 100 cm width and 50 cm depth. At that depth soil samples were collected, coded and were sent to two laboratories for analysis of soil quality. 28 samples from different places were collected and sent for analysis. The standard parameters were selected for evaluating the soil fertility and impact of pollutants if any. Soil samples collected include four from unirrigated plots and twenty four (24) from irrigated plots. Soil of Brahmin Kunta (un-polluted lake according to villagers) was also included.

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OBSERVATIONS AS PER THE TERMS OF REFERENCE QUOTED BY HON'BLE HIGH COURT

1. Whether the existing parameters determining the extent of pollution are sufficient or should be made more stringent ?

Ministry of Environment and Forest (MOEF) and Central Pollution Control Board (CPCB) have notified the standards for the influent and effluent characteristics of Common Effluent Treatment Plants (CETP) (Annexures 1.1 to 1.4). In addition to the treatment plant standards, they have also prescribed specific standards for effluents from various industry categories. Similarly General Standards have been notified which will be applicable for any industry type or any industry making a product or category of a product or an intermediate which may not be falling into any specific industry slot, for which standards already exists. For Industrial clusters or estates, the State Pollution Control Board (SPCB) is empowered to prescribe its own standards with the concurrence of CPCB. Some of the above have been modified at a later date based on the experiences of the State Pollution Control Boards in implementing their pollution control strategies. Over the years, technological advances and industry initiatives have also resulted in improving the discharge concentrations. As per prevailing law(s), the limits prescribed by MOEF/CPCB cannot be relaxed by State Pollution Control Board (SPCB), however they can make them more stringent based on the specific requirements or location of the industry or the overall discharge characteristics from combined waste treatment facility or standards for CETP member units. Based on the Joint Action Plan report submitted by CPCB and APPCB on 5/5/98, the Honourable Supreme Court vide order LA Nos. 2,9 & 11 in W.P. No.1056/90 dated 12/5/98 have specified the following four parameters for the influents received at the common effluent treatment plant, Patancheru:

pH	6.5 – 8.5
Total Dissolved Solids	15000 mg/l
Chemical Oxygen Demand	15000 mg/l
Suspended Solids	1000 mg/l

The Hon'ble Court has also stipulated that penal charges can be levied at a specified rate if COD/TDS exceed the limits so stipulated upto a maximum of 20000 mg/l. If the effluents received at the CETP, Patancheru, exceed 20000mg/l either for TDS or COD, the tanker should be rejected and returned.

APPCB in its status report submitted to Hon. Supreme Court in March 2001 recommended the reduction of influent TDS from 15000 mg/1 to 10000 mg/1. This was objected to by the industries.

Observations of Fact Finding Committee (FFC) on the present parameters fixed and need for additional parameters in the management of PETL/Common facility for effluent treatment

The functioning of a waste treatment system, of a common type such as CETP, Patancheru, can further be improved if the member industries adopt self-discipline and treat their waste properly to their limits before sending to CETP, Patancheru. [redacted]

The four parameters earlier stipulated by Hon'ble Supreme Court will give a broad picture on the efficiency of a treatment plant. However, they are not sufficient to evaluate the treatment efficiency in clear terms. In our opinion monitoring the influent and effluent for the parameters stated below will give a better picture on the efficiency of operations and some of the parameters will also throw light on the deficiencies and may give advance indication of corrective steps needed.

No.	Parameters	Purpose
1.	Total volatile solids	Distinguishes between fixed and volatile components
2.	Total Dissolved Volatile Solids Mixed Liquor Suspended Solids (MLSS)	Indicates biological synthesis
3.	Mixed Liquor Volatile Suspended Solids (MLVSS)	Indicates biological synthesis and the activity component of solids formed
4.	Sludge Volume Index	Settleable characteristics of sludge and its compactness gives idea about the performance of aeration and settleability

5.	Chemical parameters such as sulphides	Essential since they create toxicity (Esp. Sulfide) to biological systems
6.	Sulphate	Sulphate/sulphide have powerful deteriorating effect on concrete sewer pipelines
7.	Biological Examination of sludge for Protozoan etc.	Gives the Activity Profile of the biological sludge
8.	Heavy metals lead, chromium (Total and Hexavalent) Nickel, cadmium, zinc, arsenic, boron, selenium	These metallic components inhibit the biological systems (aeration, anaerobic digestion etc.)
9.	Pesticide residue	Those pesticides which are found

It is generally accepted in biological treatment processes higher salt concentrations reduce the efficiency of a treatment. The chemical parameters in the effluent of CETP, Patancheru, shows high levels of sulfates from 1200-1800mg/l. The suggested reduction of TDS from 15000 mg/l to 10,000 mg/l will help in reducing the sulfates levels in the effluent. SO_4 in waste water causes serious problem in sewer lines when present in concentrations above 1000 mg/l. Due to anaerobic conditions that prevail in sewer lines, where flows of low velocity SO_4 gets converted to H_2S which in turn causes serious odour problem and much more important aspect of concrete sewer line corrosion resulting in sewage leaks (Annexure 1.5). This may end up contaminating water supply lines (which generally operate on gravity flows) which can end up in epidemics. Such instances of epidemics are recorded at several places in the past. The submission of APPCB for reduction in influent TDS levels from 15,000 mg to 10,000 mg/l is a good suggestion and is worth consideration.

We do understand reducing the TDS level from 15,000 to 10,000 mg/l is not practicable according to industry. However, we are confident that by a little careful management in the segregation of HTDS and LTDS, it is possible to reduce the TDS as suggested by APPCB. In our opinion a lower TDS levels will benefit the industry and helps the sewerage authorities in maintaining the pipelines without any damage.

2. **What are the measures to be taken to ensure that Industries (members of PETL) comply with the standards prescribed under Environmental Laws, Rules, Regulations and Notifications issued thereunder ?**

MOEF, CPCB and APPCB have laid down standards for industrial effluent discharges, air emissions for several industry sectors.

In addition MOEF/CPCB prescribed waste water generation standards, load based standards mass based standard and equipment based standards. General standards were also prescribed and they are applicable to all those where specific standards were not prescribed under relevant environmental rules. Standards for influent and effluents of common effluent treatment plants were also notified.

The units or industries covered under the present writ petition, majority come under the category of Bulk Drugs, and a few in sectors such as steel, paper/cellulose, textile, dye/dye intermediates, leather, pesticides etc. Most of these units send their effluents, after pretreatment at their units, to CETP. The major units having more than 40 KLD have their secondary treatment plants and treated effluent is sent to CETP, Patancheru. The hazardous wastes regulation also stipulated the limits for storages handling and disposal practices. Relevant authorization is issued to the industries by APPCB.

Based on the Joint Action Plan, limits have been stipulated by the Hon'ble Supreme Court for the influents to CETP, Patancheru. They are :

pH	-	6.5 – 8.5
Total Dissolved Solids (TDS)	-	15000 mg/l
Chemical Oxygen Demand (COD)	-	15000 mg/l
Suspended Solids (SS)	-	1000 mg/l

It is seen that the industries follow the stipulations laid down by Hon'ble Supreme Court for influents on four parameters only. However, there are standards stipulated for several other parameters especially of heavy metals and arsenic, pesticides which need to be controlled because of their long-term ill-effects, health, soil and flora/fauna. As far as chemical oxygen demand is concerned, though no specific standard is prescribed for effluents discharged to sewers, a cautious note is recorded in the standards laid down to identify the chemicals or components, which contribute to COD and carry out a bioassay test to evaluate the toxic components in the industrial effluents. It may be advisable to introduce such a test for the effluents discharged by major industries which have their full scale secondary treatment units. This will help and enable them to take appropriate action in consultation with APPCB.

The industry should give priority to maximise the recovery of solvents. The major industries should control the discharge of their heavy metals (chromium, cadmium, lead, selenium, nickel and arsenic) and units discharging pesticides to limits prescribed for the effluents.

Pollution Control Database development and documentation is very essential at the industry unit level, CETP, Patancheru and APPCB. Design of formats may be undertaken by industry/APPCB.

3. To suggest measures for containing pollution and the period within which they are required to be achieved by the polluting industries ?

The Committee has visited 60 pollution potential industries and noted the following :

a. Some of the industries have only pretreatment facilities like collection tank and neutralization tank from where the pretreated effluents are lifted to CETP. Such units shall upgrade the pretreatment facility by also providing settling tank with sludge removal facility and sludge drying beds. A separate lined tank with storage capacity not exceeding seven days shall be provided for storage of pretreated effluents from where the effluents are to be sent to CETP. This upgradation will enable the member industries to handle the ETP sludge properly and also have effective control over the treated effluent characteristics. A time period of three months may be permitted for up gradation of the pretreatment facilities.

b. Industries having full fledged ETPs and discharging treated effluents in their land for gardening/irrigation purpose shall have a treated effluent storage tank of capacity of seven days to store effluents during rainy days. This will also enable APPCB to ensure continuous compliance with stipulated standards.

c. Enough care shall be taken to prevent contamination of rainwater and also accidental release of effluents into the RWH structures, The Industries shall also take steps to collect the contaminated rainwater or the first rainwater and send to CETP separately duly maintaining records.

d. All the industries shall provide raised platform with impervious flooring and spillage collection pit for storage of chemical containing drums. Similarly, the bulk storage tanks shall be provided with dyke walls with impervious flooring. A time period of three months be permitted for constructing this facility.

e. APPCB shall stipulate maximum fresh water consumption in the consent order as required under AP lands, water & tree act which will indirectly help in waste minimization and lead the industries to adopt cleaner technology options. APPCB may be permitted to impose penalties on industries using excess fresh water.

f. A separate Task Force of APPCB may be set up exclusively for Medak District to enforce environmental regulations and to ensure continuous compliance with the Hon'ble Court directions. Further the existing Regional Offices in Medak, Rangareddy District may be upgraded and strengthened.

g. It is desired that all effluent ground collection, storage, neutralization cum equalization tanks shall be constructed above the ground level to avoid

seepages, leakages and damages. APPCB be permitted to decide time frame required on case to case basis.

h. All the industries generating domestic effluents in their respective estates shall collect in septic tanks and then transport to CETP at Patancheru. This also enhance the sending to CETP along with microbial action.

i. A Monitoring Committee may be constituted with a technical expert, NGO's and PCB Officials to monitor the units for implementation of various directions issued by the Hon'ble Court. The Committee may Inspect the polluting industries at least once in a year and suggest follow-up action.

j. The generated residues such as still bottom residue, process residue shall be collected in HDPE drums and stored in their premises till such time the incinerator of TSDF is installed. The industries shall maintain separate record for the residue generated, if they do not already have an incinerator.

k. Most of the units are storing recovered solvents in drums. These solvents shall be sent to distillation units only for recovery. Under no circumstances these solvents are disposed off to traders.

l. Any hazardous waste or bye-products generated during its operation by an industry shall not be disposed off in any manner without the prior written permission of APPCB.

m. The Industries shall produce the consented quantity of products only. If there is any change in products, the units need to obtain revised CFE without increasing the pollution load.

n. It may be made mandatory for the revived units to have the membership of CETPs/TSDF to dispose off their effluents/solids. Under no circumstances the industries shall discharge/or on land application. Transfer of the pollution load from one unit to another unit be strictly forbidden.

o. In case of failure of equipments/reactors/pumps/lack of spares etc. meant for treatment of effluent and where there is no established storage facilities it is suggested that the units shall promptly inform PCB and take permission for sending the tankers to CETP, Patancheru, without exceeding 2% of the permitted load per annum. Proper records may be maintained for all these activities.

p. Zero Discharge Units (ZDU) may be subjected to validation once in two years by a competent team of technical experts along with APPCB and then be permitted for continued operation.

4. Nature and extent of damage caused to agricultural lands on account of discharge of effluents by Industries

Members of the Committee visited the villages with an objective to determine soil quality. For this purpose soil samples were collected on the advice and suggestion of the village Surpanch or other elders from 17 villages.

Members felt that since quality measurements of soil is very important, services of an expert on soil quality parameters were taken.

The results of analysis are given in Annexure 4.1.

After several sittings with the soil experts, the Committee arrived at the following important points.

Generally when crops are grown over the years, nutrients from soil decrease and they need to be replenished.

a) Thirty per cent (30%) of the samples have shown high chloride values.
b) Thirty per cent (30%) samples have high sodium (Na) content.

The committee is therefore of the opinion that these soils be analysed again and to get advice from experts from Agricultural Dept. to replenish the soils and to find out whether any alternate crops can be grown in these soils.

4.1 Soils from Dost-Osman's land:

As a special case, soil samples were collected by the Committee on 27.2.2004 to study the quality of soils from the lands owned by Mr. Dost Osman.

The results are given in Annexure 4.2.

The details of the soil samples

S-1: 100 meters away from Komatikunta – Soil sample from Mr. Dost-Osman's land.

S-2: Soil sample from Mr. Dost Osman's land adjacent to Komati kunta

S-3: Soil from catchment area of Komati kunta

After consulting the soil quality experts, the Committee opines that soil samples mentioned above were comparable to any other soils in the area whereas sodium (Na) content was high in S-3 sample.

Committee suggests that agricultural department experts be consulted to grow suitable crops in these lands.

5. Suggest guidelines regarding the quantum of compensation, if any, payable for the damage caused to agricultural lands and the proportion in which the said amount is to be borne by the polluting industries.

The committee visited the villages in which crop damage compensation was paid earlier. Soil samples and ground water samples were collected and the analysis results are furnished in Annexures 4.1 and 6.1.

For the period of 1984-1996, the share of compensation payable by the industries was determined considering capital cost, quantity of effluents and TDS load. For the period of 1996-1999, the share of compensation payable by the industries was determined considering quantity of effluents, TDS load and COD load.

Recommendations:

a. The share of compensation payable by the industries may be determined considering quantity of effluents, COD load and TDS load of the industry. A minimum amount may be fixed for each industry which will be based on the total compensation amount payable, as already being followed.

b. With the past experience it is noticed that the share of compensation payable by the industries is not getting collected from all the industries particularly from the closed and sick units. APPCB in consultation with CETP may levy and collect a suitable levy per tanker. The amount so collected and deposited in the Joint Account could be exclusively utilised for payment of compensation to the effected lands. APPCB should collect similar levy from non-member units located in the catchment area.

c. The payment of compensation to the affected farmers may be determined at the same rates, by following the procedure already adopted by the District Court and be paid upto the year 2002. This view has been taken by the Committee since the pollution caused in earlier times is still persistent in some areas. The rate of pollution to the Nakkavagu basin from CETP, Patancheru, is considerably reduced as observed by us.

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6. Study the adverse effect of pollution, caused by discharge of effluents by industries, on the health of inhabitants of the affected villages and suggest remedial measures required to be taken in this regard as also the proportion in which the cost thereof, if any, is to be borne by the polluting industries.

6.1 Chairman and members of the Fact Finding Committee visited the following villages and conducted Gram Sabhas in the presence of either Surpanch of the village or other elders. Officials from State Agriculture Department, Water Department, Mandal Revenue Officials, Village leaders, Surpanch and others were all informed of the visit well in advance. On the advice and the suggestions of the surpanch or other village elders, some borewells were identified. Water samples were collected from each borewell into 4 cans of one litre capacity. They were then given randomised code numbers and sent for 4 accredited and approved laboratories for analysis of specific parameters to know the ground water quality. At least one person from every village always accompanied the team while collecting water samples from borewells.

Quality of water in borewells

The villages and the number of borewells from which samples were collected are given below :

Village	No.of water samples (Borewells)
Arulla	1
Bachguda	2
Bollaram	5
Bythole	3
Chidrupa	2
Chitkul	1
Ganapathigudam	1
Ilapur	2
Inole	3
Ismailkhan pet	2
Kandi reddy gudam	3
Khazipalli	3
Kista reddy pet	2
Lakutaram	3
Palancheruvu	2
Peddakanjerla	4
Pocharam	2
Sultanpur	5
Yerdanoor	2

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A total of forty eight (48) water samples spread over 19 villages, were collected and sent for analysis. The water quality analysis results are given in Annexure 6.1.

Data collected by this Committee on the basis of the samples analysed can be utilised in arriving at the quantum of compensation payable to the affected ryots.

6.2 Fact Finding Committee also examined the results of 5 water samples, relating to Aggarwal estate. The details are given below.

Borewell samples/open well samples collected from Aggarwal Estate. Date of Collection 27.02.2004

GW –1. Borewell sample collected from Aggarwal Estate at about 20 ft distance from Isaka Vagu.

GW –2. Borewell sample collected from Aggarwal Estate 100 mts from Isaka Vagu.

GW –3. Open well sample collected from the fields of Aggarwal Estate 100 mts away from Nakka Vagu.

GW –4. Borewell sample collected from the paddy fields of Sri g. Yadaiah (Adjacent to Aggarwal Estate).

GW – 5. Water sample from Komatikunta Tank.

Three of them were borewells, one open well and one water sample from Komatikunta. The results are given in Annexure 6.2.

Particular reference is made to the samples collected from the lands and borewells belonging to Mr.Dost Osman and Mr.Aggarwal as these individuals appeared before the Committee and highlighted their grievances.

6.3 Chairman and members of the committee met the inhabitants of the effected villages and held discussions with them on their health status. They complained that some of them have developed skin rashes after handling the water for washing purposes (Dobhi).

In majority of the areas visited by the Committee, villagers complained that the medical facilities in the village are inadequate. Steps have to be taken to improve medical facilities in these areas.

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7. Suggest necessary steps including safety measures, if any, to be taken in the completion of 18 kms of pipe line for the upgraded sewage treatment plant at Amberpet.

CPCB submitted a comprehensive report on effluents management in Nakkavagu basin during March, 1998 to Hon'ble Supreme Court. The report indicated four options. As per CPCB report the option – 1, is final discharge after treatment to sewer, which provides maximum certainty compared to other three options for safe disposal. The proposed 18 km pipeline is envisaged in turn to carry the treated Industrial effluent from Patancheru CETP to K&S main, Balanagar which will carry finally to Amberpet Primary STP. EIA report of this pipeline proposal was considered by APPCB Technical Committee at its meeting held on 27th July 2001 and opined that in the circumstances existing disposal of treated effluent through a pipeline of 18 Km to K & S Main is the best possible option. EIA report has concluded that there will be a net positive impact. The Technical Committee has stated the discharge standards to sewers has to be met by CETP subject to the understanding that there will be full scale treatment plant at the end of the pipeline. If there is no terminal sewage treatment CETP should meet discharge standards to water resource for its effluents.

The pipeline project is being implemented by HMWS & SB at a cost of Rs.11.5 crores, which is shared by CETP/Govt. of Andhra Pradesh. This recommendation of the Technical Committee was submitted to Hon'ble Supreme Court.

HMWS & SB in their presentation on 12th January 2003 and subsequent communication of 12-02-2003 clarified the doubts expressed by FFC and Pattancheru residents.

The communication referred quotes :

"The treated effluent from the effluent pipeline will not be allowed to join the drinking water pipelines due to the following reasons :

a) The water pipelines are pressure mains with continuous flow of water.

b) Similarly, the effluent pipeline in Patancheru and Ramachandrapuram areas is also a pressure main and sufficient care is taken by way of providing Surge protective system so as to see that no vacuum is created in the pipeline.

c) Minimum distance is being maintained between the effluent pipeline and water pipelines.

d) The case of bursting of both water pipeline as well as effluent pipeline at the same time and same location is a rare coincidence which may

cause entry of effluent water into water pipeline. Even in such eventuality, all measures will be taken to scour the water pipelines effectively before attending the rectification of water pipeline work.

e) The possibility of getting leakages in the effluent pipeline is also a rare phenomenon, since best pipe material i.e., Ductile Iron Pipes are being used for the effluent pipeline and also the effluent pipeline is being tested for a field test pressure of 20 kg/sq. cm whereas the actual working pressure would be about 10.8 kg/sqcm only.

Further, I am to inform that the pipeline laying work could not be proceeded ahead as per the schedule due to temporary stoppage of trench excavation by the R&B Engineers at Patancheru near Police Station for a length of about 750 meters and also at Gangaram near temple for a stretch of about 360 meters on the context that the effluent pipeline has to be laid at the edge of the road boundary which is to be acquired by the R&B Department for converting the NH9 to 4 lane road and the road widening is being programmed for acquiring the required adjacent land shortly from the owners of the residential houses./shops. The land acquisition process for the said road widening at Patancheru and Gangaram areas is yet to be started by R&B Authorities. Pipeline laying work in the above two reaches will be taken up and completed as soon as clearance is given by the R&B Engineers, as it would be safe to lay the pipeline at the edge of road boundary as insisted by the R&B Engineers. However, R&B Engineers are being pursued for giving early clearance and the entire work is programmed to be completed and kept ready for commissioning by 30th April 2004."

There are certain uncertainities in the completion date of the pipeline and commissioning and the circumstances are given above.

A safe minimum distance of 7 ft (2.1 mtrs) is being maintained between effluent and water supply lines. Further, they have stated that local Gram Panchayat Authorities of Patancheru and Ramachandrapuram are yet to give their permission for a total distance of 1.12 km. For this reason, work of the pipeline in these sections is affected. HMWS & SB has written to Collector, Medak District, to prevail on the gram panchayats for issuing this permission. It is suggested that necessary directions be issued by Hon'ble High Court for completing the 18 Km pipeline within the stipulated time and also for the establishment of sewage treatment plant.

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8. Whether drinking water facilities provided to the affected villages is adequate, if not, action required to be taken and directions required to be issued in this regard.

Some villages get the drinking water through Comprehensive Protected Water Supply Scheme (CPWSS) and some others get their drinking water through an agreement with HMWS & SB. The Committee examined their issue and suggests that as there is an increase in the population, supply of drinking water may please be enhanced by about 10 to 15% depending on the availability of water and feasibility for distribution by the HMWS & SB.

The Report of the Committee constituted by the APPCB to examine various issues connected with the supply of drinking water in the pollution affected villages in Patancheru area in April 2003 holds good as far as drinking water problem in these villages is concerned.

9. Status of compliance by different industries with the directives of the Hon'ble Supreme Court and APPCB

9.1 The analysis of samples collected by this Committee from various industries are already indicated in the Annexure 9.1.

The results showed a number of irregularities committed by industry units.

1. TDS values in effluents in a few cases were as high as 26000 mg/L (18 out of 55 industries).
2. COD values in one effluent was as high as 30,500 mg/L.
3. SO_4 content was also high in a number of industrial effluents.

For want of time, it could not visit and collect effluent samples from other industries. CETP, Patancheru, charges penalty at times and also rejects a few tankers depending on their TDS concentration. The committee's analysis has also showed that there are a number of effluents with more than 15000 mg/L

9.2 Visit of FFC to Major and Medium Pollution Potential Units

The FFC has visited 60 major and medium pollution potential units (Annexure 9.2).

Based on the remarks appearing in Annexure 9.2 Column (9), the following recommendations have been made to improve the existing system.

10. Remedial measures to be taken for Improvement of the lakes and tanks

As per the long-term measures of Joint Action Plan, the State Government shall ensure commencement of remedial action on 3 cheruvus (tanks) namely Khazipally, Asanikunta and Krishna Reddypet lakes.

In the Order dated 27th July 1999, Hon'ble Supreme Court of India had been pleased to record the submission made on behalf of the Industries that they will be willing to co-operate in the remedial measures and would therefore make payments to bear the cost of remediation of the aforesaid cheruvus.

Fact Finding Committee sampled all the cheruvus (tanks) and vagus in the area and collected 22 samples. In all Nakka vagu is sampled at five (5) places, Jellela vagu at two (2) places and Isaka vagu in one place. Remaining are from various cheruvus. In addition to these, data collected by APPCB from time to time during 2002 and 2003 have also been taken in to account while preparing this report. The list of samples collected from cheruvus and streams is given below. It is observed by this Committee that Isnapur and Asani Kunta tanks were remediated in 2002. The Committee also noticed that the Isnapur tank is in good condition while Asani Kunta is polluted.

LIST OF TANKS AND VAGUS

Nakkavagu at bridge
Vagu at Venkat Ramana Chemicals
Asani kunta
Jellelavagu at two points
Cheruvu at SIRIS
Nakkavagu at bridge
Yerdanoor tank
Isnapur tank
Nakka vagu at fields (down of CETP outlet)
Nakka vagu at Bachguda (Pamulavagu)
Isaka vagu at culvert
Gandigudem tank
Khazipalll tank –inlet
Brahmin kunta
Khazipalli tank-outlet
Kadikunta
Damaracheruvu
Mannevarikunta
Nakkavagu
Lakadaram tank
Posamudram (Kista Reddy pet tank)

A total of twenty two (22) water samples from various Tanks and Vagus were collected and analysed for their quality. They are classified as unpolluted, polluted and highly polluted. Only four (4) of twenty two (22) are said to be unpolluted and the remaining are polluted.

The results of the analysis of cheruvus and streams are given in Annexure 10.1. As samples of water have been analysed by 4 laboratories and the results of which are consistent, the Committee makes the following suggestions :

A. Unpolluted Tanks

In this category, there are four cheruvus : (1) Brahmin Kunta (2) Edadanoor tank (3) Isnapur cheruvu and (4) Lakdaram tank.

Based on the parameters pH, TSS, TDS,COD, Cl and SO_4 and total hardness, FFC has concluded that the above 4 cheruvus are good and every effort should be made to preserve and protect them and prevent any industrial effluents to reach these tanks. They are meeting almost drinking water standards IS 10500 of 1993 and hence fit for agriculture and other related purposes.

B. Polluted

Committee observed that three (3) cheruvus will fall in the polluted category (<1500 mg/L TDS). These tanks need to be remediated as early as possible. They are : (1) Damara cheruvu (2) Gandigudam tank, and (3) Posamudram tank.

C. Highly polluted

The tanks and streams that fall in the highly polluted category are : (1) Khazipalli (2) Asani Kunta (3) Kudi Kunta (4) Nakka Vagu (5) Mannevari Kunta (6) Jellela Vagu (7) Isakavagu (8) Cheruvu at Siris (Gummadidala) and (9) Vagu near Venkataramana Chemicals.

Hon'ble Court may consider issuing appropriate orders.

11. **Additional measures, if any, required to be taken for effective monitoring by APPCB, regarding discharge of effluents by industries.**

a It is highly desirable that APPCB develops a data base containing information that would facilitate its functioning effectively.

The contents of data base may be defined by APPCB and contain information about the manufacturer of the product, raw materials, reactions, operations, products/bye products produced, effluents generated, solid waste, toxic

waste, gaseous waste, safety, operation details, process dynamics, pollution control equipment, productivity inspection formats, check-lists etc. and other similar information for effective monitoring by APPCB.

b APPCB may be asked to initiate outsource research projects to strengthen its performance from time to time. APPCB may develop standards for hazardous waste useful for effective monitoring of TSDF and for their own activities.

c As per the G.O. ban notification certain categories of industries namely bulk drugs/dye and dye intermediates/pesticides (technical) and highly water polluting industries are not permitted for establishment and expansion.

12 Additional measures, if any, required to be taken for effective functioning of the effluent treatment plant at Patancheru and the land fill at Dindigul.

12.1 Comments on working of PETL

The CETP, Patancheru, treats the wastes in admixture with sewage. During the period January 2000 – December 2003, about 106 members sent tankers to CETP. The monthly averages of the values clearly indicate that to a large extent, the TDS/COD/SS values of influent and outlet values are within the stipulated norms (Annexure 12.1). Our analysis indicates that 14 large scale industries (Annexure 12.2) contribute 65-71% of the total hydraulic load received at CETP, Patancheru. Data on heavy metals in the effluent during August 2003 to December 2003 are within norms except for iron on some occasions (Annexure 12.3). Detailed data sheets showing the tankers received COD/TDS concentrations from 35 major and 18 medium contributors for the period January 2003 to December 2003 are given in Annexures 12.4 (8 sheets) and 12.5 (4 sheets) which indicate that the influent values are generally within the stipulated norms. However, in some occasions, the concentration exceeded the limits and tankers accepted with penal charges. In all the four years, CETP rejected 357 tankers since they exceeded TDS/COD beyond 20,000 mg/l.

Perusal of effluent quality data of chemical parameters during January-December 2003 show that the effluent is within the norms stipulated for discharge to sewer lines. However, the concentration of sulphates which is beyond 1000 mg/l most of the time. In our opinion, this concentration will be corrosive to concrete pipelines (sewers – unprotected) (Annexure 12.6). Literature on this aspect is referred to (SO_4) (Annexure 1.5).

The analytical facilities available are not commensurate to the input of samples received every day at PETL. It is suggested that PETL may proportionately enhance/upgrade its facilities, standardisation of equipment and validation of data should be undertaken. Once in six months, 3% of samples identified by APPCB should be cross-checked.

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12.2 Treatment, storage and disposal facility (TSDF)

1 The TSDF i.e. M/S Hyderabad Waste Management Project, Dindigal, R.R district, was established with Australian aid for management and safe disposal of hazardous solid waste from industries.

2 The TSDF was commissioned during September 2001. The Fact Finding Committee visited the TSDF and held discussions with the officers at the site regarding the procedures being adopted for collection, analysis and disposal.

The present facility is designed on the general principles laid down for establishing such facility. As per information given they have taken all the precautions stipulated in the MOEF/CPCB/APPCB. Guidelines laid down by APPCB to prevent contamination of ground water prevention of over flow during heavy monsoon or cloud burst conditions.

They collect hazardous wastes from several districts and Hyderabad through their own transport system. Presently they are collecting wastes from 93 industries located in Medak district. The quantity received from April 2003 to December 2003 are given in Annexure 12.7. They received 12,596 during the above period.

Ground water quality around the area is being monitored by APPCB regularly by collecting samples from twelve (12) Borewells in the vicinity. TSDF at the time of its establishment collected nearly 25000T of solid waste from illegal dumps for which Govt. of AP, APPCB have paid the charges to HWMP on mutually agreed terms. At the request of the Committee, HWMP furnished comprehensive analysis data and fingerprinting data. We had perused the information and noted that most of the solid wastes received have appreciable concentration of heavy metals and this warrants attention.

Concentration of selected heavy metals data from 27 industries is given in Annexure 12.8. They show appreciable levels of total chromium, lead, cadmium, nickel. Similarly we observed certain lacunae in the data eg. several samples of activated carbon does not show any calorific value (Annexure 12.9). These types of data deficiencies may be corrected in future.

We feel there is a need to develop more detailed data profiles on the solid wastes received. Detailed data on the qualities of category wastes red quantities which need special treatment and procedures being followed and quantities converted needs to be maintained. Further if the TSDF authorities note any peculiarity in the wastes received it should be brought to the immediate and specific attention of the concerned officer of APPCB.

TSDF/Industry/APPCB should have a more closer interaction exchange of views/data since the hazardous wastes generation, their handling and safe disposal needs special efforts of all the concerned because of the long-term implication of such wastes even after decades of times.

Because of our international obligation and long range implications due to discharging Persistant Organic Pollutants (POP) and Absorbable Organic Halogens (AOX) in different chemical process operations, TSDF/industry/APPCB should plan out suitable steps in this regard.

Performance evaluation of the TSDF may be validated once in two years on the guidelihe set forth by APPCB in association with national laboratories/Institutes TSDF should furnish details like statement about the total quantity received, quantity sent per land fill, etc. The details of other wastes handled and the methodology adopted for special treatment should be provided to APPCB once in six months.

13 Extent to which the orders of the Supreme Court on various issues, have been implemented, and if not, action required to be issued to ensure compliance.

13.1 Implementation of Hon'ble Supreme Court Directions (Order dated:12.05.1998 Joint Action Plan).

The Hon'ble Supreme Court directed the CPCB and the APPCB to jointly submit a scheme of action for containing industrial pollution in the area. The joint action plan was approved and endorsed by the Hon'ble Supreme Court in its order LA Nos 2,9 &11 DT:12.05.1998. The Joint Action plan suggested immediate measures, medium term measures and long term measures with a view to minimise contamination of Isakavagu and Nakkavagu, to ensure satisfactory functioning of CETPs and to restore the affected areas to normal condition.

The Fact Finding Committee made surprise inspections of the Industries and gone through the records and following are the observations on the implementation of the Hon'ble Supreme Court orders.

DIRECTIONS:	COMPLIANCE
<u>Immediate measures :</u> (1st June to 1st October, 1998) 01 The State government should declare the ban notification dt.14.10.96 as permanent after its expiry in December 1998.	Implemented: The Government vide GO.MS.No.62 dt. 28.04.98 has extended the earlier temporary ban notification as permanent on establishment / expansion of certain highly polluting industries.

		APPCB has not granted any new CFE for highly polluting industries. However change of product mix is being permitted by the Board on the basis of no increase in pollution load. Board constituted committees to examine issue of Consent for Establishment or Consent for Operation to any industry in which the NGOs and representatives from different fields are members. After PCB approval the units obtain the environmental clearance (Annexure 13.1)
02	All member industries shall conform to the following pretreatment standards before transporting to the CETPs for further treatment without resorting to fresh water dilution pH . 6.5-8.5, COD- 15000 mg/lit TDS 15000 mg/lit SS- 1000 mg/lit This concentration shall be achieved by each industry after hydraulic load reduction of waste water by 20%. In no circumstances, shall the pH levels be less than 6.5, before transport to CETPs.	Implemented The member industries are segregating low and high TDS effluents and provided pre-treatment facilities to achieve CETP inlet standards. CETP is not accepting effluents exceeding the inlet standards. If the effluents concentrations exceed the limits laid down, they charge penalty upto a limit of 20000 for TDS/COD. Beyond this limit CETP refuses to accept the wastes. During 2001, 2002 & Sept 2003 CETP refused 316 tankers. During Oct to Dec. 2003, CETP refused to accept 41 tankers. The FFC visited certain highly water polluting industries and the observations are recorded separately at Annexure 9.2. It is evident from the fact that TSDF has so far received 12,596 tonnes of Hazardous Waste from Industries in Medak Dist., during April 2003 to December 2003, which includes the forced evaporation salt obtained from evaporation of High TDS effluents in the process of implementation of Hon'ble Supreme Court Orders.

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03	All member Industries shall Segregate their wastes into Inorganic and Organic. The non degradable waste Stream shall be stored on -or off –site in lined storage tanks of appropriate capacity and evaporated or solidified to reduce them in volume and for manageability. Due to lack of a common TSDF facility at present such compounds shall be stored in HDPE lined bulk -Sacks on raised platforms under shed and provided with leachate management systems.	Implemented The member Industries of CETP are segregating the effluents into HTDS and LTDS effluents to achieve the Inlet standards and evaporating high TDS effluents. The solid waste generated is stored securely and sent to TSDF. The low TDS effluents pretreated at the units etc. are sent to CETP for further treatment. 1. The committee visited Industries located in Medak/Sang Reddy. These industries are major and medium contributors of effluents PETL and solid wastes to TDSF. Product profile, CFE/CFO approvals pollution generation, observation etc are given in Annexure 9.2.
04	The CETP managements should have dedicated tankers, duly labelled in accordance with the Motor Vehicle Act (with regard to transportation of Hazardous waste) to collect pre-treated effluent and transport to the CETPs following the Manifest system for all the member industry discharges coming for treatment	Implemented The member industries are transporting effluents in dedicated tankers duly following six copy manifest system. The tankers are allowed to ply during day time only. It is noticed that some of the industries are not reporting about the tankers rejected returned by the CETP. The industries shall properly record about the details of tankers returned by CETP and the action taken to treat the same. PCB should also keep a watch on such tankers and develop an effective follow up.
05	Where the CETP receives effluent exceeding the above norms, penal action shall be taken.	Implemented CETP has so far imposed penalty of Rs. 10,50,603/- on defaulting industries. They levied penal charges on 44 tankers in 2001, 39 tankers in 2002, 27 tankers till Sept

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		03 and 12 tankers during Oct-Dec 2003(Total 122 tankers).
06	The CETP shall conform to sewer standards of discharge and any failure to do so shall lead to a penal charge on the CETP Management @ Rs.10/-per cu.m/day for a maximum of three consecutive days following which the SPCB shall take legal action against the management. The payments shall be made into joint account of the SPCB and the CETP Management for use in Environmental Enhancement Projects.	Implemented: APPCB is regularly monitoring CETP, Patancheru and so far an amount of Rs.8,99,600/- was levied as penalty on CETP. The penalty amount was deposited in the joint account of CETP & APPCB and the amount may be utilized for its designated purpose
07	All Member industries who discharge more than 40 KLD of effluent shall submit their plans and designs for additional secondary treatment to both SPCB and CPCB by the 1st August, 1998 and construct and commission the same before March, 1999.	Implemented Fourteen industries listed more than 40 KLD discharge and 7 industries have installed secondary treatment plants and ETPs are under operation. The remaining 7 industries who claimed their discharge per day is less than 40KLD have filed affidavits in Hon'ble Supreme court of India for seeking exemption on grounds that they discharge less than 40 KLD – Annexures 13.2.
08	The State Government in consultation with SPCB and CPCB shall prepare conservation and management plans for Kistareddypet, Asanikunta and Kazipally Cheruvus, which are most affected by Toxic industrial discharges. Mean while the State Government shall close all the industrial discharges into these cheruvus.	Not Implemented : Conservation and management plans for the above cheruvus were got prepared by EPTRI and JNTU. M/s Model Industrial association has formally initiated the programme. The Progressive Industrial Association, Bollaram, has taken up the remediation work, however, it is left incomplete. Even though several meetings were convened to implement this

		direction, the Industry financial commitment for this remediation of these two lakes is not forthcoming even though the programme is ready. The committee feels further delay in this regard is not warranted. Suitable directions need to be issued by the Hon'ble Court.
09	The HMWS & SB works must close all outlets of direct discharge of metals and toxic streams from industries upstream and down stream of CETPs in consultation with the SPCB. In case of CETP, Patancheru, the District Collector must ensure the same.	Implemented The industrial outlets are closed. However during rainy season the outlets are opened to prevent inundation in the factories.
10	The non-member (water polluting) industries in IDAs, Patancheru and Bollaram having no effluent treatment plant, shall become members of the Patancheru CETP within a month, under initiation to the SPCB and adhere to all norms herein given above. This is recommended because of the surplus capacity available with the CETP, Patancheru.	Implemented:
	No industry shall have membership in more than one CETP	The industries are sending effluents by tankers to the nearest CETP by road. It is observed that almost all member units of CETP, Patancheru are having only one member ship except M/s. Plant organics, Bollaram and M/s.Arandy Laboratories Ltd., Bollaram, which are sending effluents to Two CETPs i.e. Patancheru & JETL. Plant organics of M/s.Arandy Laboratories are located in Bollaram should be directed by PCB to send their effluents to

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		CETP, Patancheru. PCB should be directed to review their data base to decide whether any such dual membership is maintained by industries and decide on to which CETP their effluents should go.
	Medium term measures: (1st October 1998 to 1st April 1999) The State Government shall :	
01	Ensure the commissioning of secondary treatment systems in the large industries of Patancheru and Bollaram IDA's	Implemented Seven units have provided secondary treatment facilities. Out of these, one unit (Standard Organics) closed down. The remaining seven industries, which were listed earlier filed affidavits in Supreme Court for exclusion of their units from their list. Since that time additional industries have come into this category. List of seven additional industries (Annexure 13.3) whose discharge of more than 40 KLD is enclosed (as per CETP tankers receipt record for 2002/2003). Six of the seven units listed in Annexure 13.2 have secondary treatment plants. The Committee suggests issue of directions for provision of secondary treatment facilities for Aurobindo Pharma Unit VI A&B located in the same premises.
02	Ensure commencement of remedial action of three cheruvu's studied in the first phase. Select another set of contaminated water bodies and take remedial measures in a phased manner covering all the 15 lakes	Not implemented Remediation of Khazipally tank and Asanikunta is delayed and shall be taken up on top priority. Consequently water quality in the down stream tanks i.e., Kistareddypet and Gandigudem tanks would be improved.
03	Ensure initiation of plans for laying sewerage Systems, both upstream and downstream of The CETPs	Plans were initiated by CETP, Patancheru to carry sewage from BHEL, STP but the proposal was

	involving in the SPCB, the CETP Managements and the local authorities, having Supported the option -I of the CPCB (March 1998) report as long term solution.	dropped for various reasons. Presently sewage from BHEL is carried by tankers. M/s PETL informed the District Collector, Medak District, vide their letter of 17-1-2004 that they are willing to provide sewer line pipes for 12 km (approx.) distance and some infrastructure facilities at an estimated cost of Rs.64.7 lakhs.
04	Ensure that a cunnette system for transportation of treated effluents from CETP, Patancheru upto Manjira confluence is constructed and used by the CETP. The capital costs for this system shall be borne by the industry members of CETP and its O & M shall be responsibility of the CETP.	Implemented : The cost of cunnette system proposed was estimated to be Rs.10.0 cr which is costing half the cost of the permanent scheme i.e 18 km pipe line. Hence it was preferred to take up the permanent scheme. Presently the 18km pipeline work is in progress. 80 % of work is completed and the pipeline is expected to be completed by end of April 2004.
05	After the Bollaram CETP achieves sewer standards, it shall be permitted to discharge its treated effluents to the K-Main Line by tankers in consultation with the SPCB and HMWS & SB. The sludge from the CETP shall be transferred to the TSDF for safe disposal	Implemented The CETP Bollaram has been closed completely since April,2002 due to disposal problem and non-viability. This item is no longer applicable. May be dropped.
	<u>Long term measures:</u> <u>(1st April 1999 to December 2000)</u>	
01	The CETP Patancheru shall achieve: ph – 6.5 to 8.5, O & G – 10.0 mg/lit, BOD – 100.0 mg/lit, TDS – 3000 mg/lit and COD – 1000.0 mg/lit after treatment and for discharge into the cunnette system.	Implemented The proposal of cunnette system has been dropped as the 18km pipeline is being laid.
02	State Government and the industry shall ensure the commencement of work on the sewerage network and discharge linkages.	Implemented The CETP is presently transporting sewage tankers from BHEL STP.

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03	An Action Plan for cleaning of river Musl may be prepared by the National River Conservation Directorate under National River Action Plan	Being Implemented In phased manner. Action plan was prepared for up gradation of Amberpet, STP with a Project cost estimated as Rs.340 Cr, M/s.HMWS&SB In their presentation to the Committee on 12.01.2004 reported that the administrative approval for this project was received from GOI, MoEF, NRCD, New Delhi on 01.04.2003 and the approval for the detailed project reports is awaited. As per environmental standards sewer standards will be applicable if the full scale treatment plant is provided at the end of the pipeline. When the pipeline proposal is accepted an assurance was given to set up a treatment system. Now all the procedural issues are getting up completed. The committee feels that the authorities of Metro Board shall expedite the setting up the plant may be in a modular fashion, such that these facilities come into operation in 2 years time.

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IMPLEMENTATION OF HON'BLE SUPREME COURT OF INDIA DIRECTIONS (ORDER DT:06.02.2001)

	DIRECTION	COMPLIANCE
1.	Disbursement of compensation by District Judge	District Judge finalised rate of compensation payable and the amount is deposited in the Court.
2.	Joint Revised Action Plan for laying down 18 Km pipe line project was submitted vide Annexure.	Being Implemented Presently, the 18 km pipeline work is in progress. 80% of the work is completed and the pipeline is expected to be completed by the end of 2004.
3.	Status report the 15 Industries which are referred in Annexure-IV of status report have achieved the permissible level of discharge	Complied with.
4.	Annexure-I of the additional affidavit which have already achieved 20% hydraulic reduction or would be able to do so within the next three months	Complied with.
5.	Annexure-VI contains the list of industries which have closed/sick due to business reasons. The recommendations with reference to these industries are that this should industries not be permitted to be re-opened by the State Government at present location as all of them except one are covered under red/orange category of polluting industries.	Only four units are functioning now under the orders of the High Court.
6.	Annexure-VII contains the list of 18 Industries who despite the enforcement measures taken and notices issued remained as defaulting category. These are recommended and ordered for closure till such time they reach both the permissible discharge	On instructions from APPCB, these units are reopened and are functioning.

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	standards as also hydraulic reduction.	
7.	So far as the aforesaid 85 industries referred in Annexure-IV, the Board will submit a fresh report on the completion to the three months ending on 27.2.2001 regarding progress made by these industries.	Complied with.
8.	Waste minimization proposal to mandate environmental certification under ISO 14001 for the large/medium industries.	Polluting industries sought time to seek instructions and if necessary file a reply. The Hon'ble Supreme Court deferred the matter to be considered on the next date of hearing.'
9.	CETP conforming standards under Joint Action Plan before the discharge. The CPCB shall file specific reply pertaining to this issue by the next date of hearing as to what standard is being followed and what it proposes to follow. If any notification has been issued	The CPCB has constituted as core committee to look into aspects of standards. Report awaited.
10.	Keeping the above in view the Committee recommended the pipeline option-I should be pursued in the context of further treatment and dilution the Amberpet STP should be expanded and upgraded with secondary and tertiary treatment facilities to treat and dispose mainly organic and nutrient rich savage into Musi river.	The HMW SSB is executing the laying of 18 KM pipe and work is in progress. 80% of work is completed and expected to commission by end of April 2004. Action plan was prepared for up gradation of Amberpet STP with estimated cost of Rs. 340 Crores. It is reported by HWM SSB that administrative approval received for GOI, MOEF, NRCP, New Delhi. The Committee advised that the authorities of HMWS & SB should expedite setting up the plant.
11.	I.A.Nos 18 and 19 the applicant shall also implead within one week.	Complied with.

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IMPLEMENTATION OF HON'BLE HIGH COURT DIRECTIONS

DIRECTION	COMPLIANCE
1. Hon'ble High Court Order dated 19-9-2002 APPCB shall serve the notices on the impleaded respondents and file proof of the same on the registry. The APPCB and State Government should file the latest status reports with regard to the remediation of water bodies as well as abatement of pollution.	
2. Order Dated 21-10-2002 The Registry is directed to immediately issue notice to 169 industries. APPCB shall service notice on the concerned 169 industries and file proof.	Implemented. APPCB has served notices to all 169 industries and filed proof of service on 28-10-2002 to Registry and submitted its latest status report - October 2002.
3. Order dated 30-10-2002 APPCB shall serve copies of the latest status report to all the respondents within 3 days. WPMP No.22294/02 in W.P.No.3159/96 Smt. M. Bhaskara Lakshmi, Standing Council for High Court, is directed to take notice n WPMP and ascertain the fact from the District Judge, Medak and file counter affidavit.	Implemented. Accordingly, the latest status report was furnished to all the respondents.
4. Order dated 24-4-2003 In W.P.Nos.18074, 18088, 18163, 188808 and 23534 of 2002, the Court directed the District Collector, Medak, to constitute a Joint Inspection Team for inspecting the lands belonging to writ petitions.	Implemented. APPCB filed its status report in November 2002. The District Collector, Medak, had submitted the Joint Inspection Reports to Hon'ble High Court.
5. Hon'ble High Court Order dated 12-6-2003 Pursuant to the directions issued by this Court before the summer vacation, reports have been furnished before us. For filing objections by the Counsel appearing on behalf of the petitioners	Implemented. A note submitted to Hon'ble Court by APPCB on 17-6-2003.

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posted on 19-6-2003. The Pollution Control Board shall file its comments on the report submitted by the CETP.

6. Order dated 18-8-2003

In order to meet the exigencies arising out of the submissions made by the Counsel with regard to the two villages, the Court directed the respondents – industries to deposit an amount of Rs.16.0 lakhs only towards compensation with the District Judge. APPCB shall determine the share of compensation to be paid by each industry tentatively and intimate the industries.

Partially implemented.

The APPCB apportioned the compensation amount of Rs.16.00 lakhs among 152 units as was done earlier and issued notices to the respondent industries requesting to deposit the compensation amount fixed. So far, an amount of Rs.10,94,495/- was only deposited with District Judge as on today. The implementation is delayed due to non-payment of amount by sick units.

7. Order dated 25-9-2003

The Hon'ble High Court had constituted a Fact Finding Committee for the purpose of obtaining a status report enabling the Court to issue appropriate directions in the implementation of the order of the Hon'ble Supreme Court. The Court has also formulated the terms of reference for the Fact Finding Committee.

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Station: Hyderabad
Date : 10-03-2004

(Justice A. Gopal Rao)
Chairman, FFC Committee

(M. Parabrahmam)
Rep. of Min. of Environment & Forests, Govt. of India

(Dr. M. Haribabu)
Rep. of Indian Institute of Chemical Technology, Hyderabad

(Dr.S.Bapu Rao)
Rep. of National Institute of Nutrition, Hyderabad

Annexures

Annexure 1.1

EXTRACTS FROM ENVIRONMENTAL (PROTECTION) RULES, 1986

Central Pollution Control Board

Environmental Standards

32.0 GENERAL STANDARDS* FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS
Part - A : Effluents

S.No.	Parameter	Inland surface water	Public sewers
1	2	3	
		(a)	(b)
1.	Colour and odour	See 6 of Annexure-II	
2.	Suspended solids mg/l, max.	100	600
3.	Particle size of suspended solids	shall pass 850 micron IS Sieve	
4.	pH value	5.5 to 9.0	5.5 to 9.0
5.	Temperature	shall not exceed 5°C above the receiving water temperature	
6.	Oil and grease, mg/l max,	10	20
7.	Total residual chlorine, mg/l max	1.0	-
8.	Ammonical nitrogen (as N), mg/l, max.	50	50
9.	Total kjeldahl nitrogen (as N); mg/l, max. mg/l. max.	100	--
10.	Free ammonia (as NH_3), mg/l, max.	5.0	--
11.	Biochemical oxygen demand (3 days at 27°C), mg/l, max	30	350
12.	Chemical oxygen demand, mg/l, max.	250	--
13.	Arsenic (as As).	0.2	0.2
14.	Mercury (As Hg), mg/l, max.	0.01	0.01
15.	Lead (as Pb) mg/l, max	0.1	1.0
16.	Cadmium (as Cd) mg/l, max	2.0	1.0
17.	Hexavalent chromium (as Cr + 6), mg/l, max.	0.1	2.0
18.	Total chromium (as Cr) mg/l, max.	2.0	2.0
19.	Copper (as Cu) mg/l, max.	3.0	3.0
20.	Zinc (as Zn) mg/l, max.	5.0	15
21.	Selenium (as Se)	0.05	0.05
22.	Nickel (as Ni) mg/l, max.	3.0	3.0
23.	Cyanide (as CN) mg/l, max.	0.2	2.0
24.	Fluoride (as F) mg/l, max.	2.0	15
25.	Dissolved phosphates (as P), mg/l, max.	5.0	--
26.	Sulphide (as S) mg/l, max	2.0	--

27.	Phenolic compounds (as C_6H_5OH) mg/l, max.	1.0	5.0
28.	Radioactive materials : a)Alpha emitters micro curie mg/l., max b) Beta emitters micro curie mg/l	 10^{-7} 10^{-6}	 10^{-7} 10^{-6}
29.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
30.	Manganese	2 mg/l	2 mg/l
31.	Iron (as Fe)	3 mg/l	3 mg/l
32.	Vanadium (as V)	0.2 mg/l	0.2 mg/l
33.	Nitrate Nitrogen	10 mg/l	--

These standards shall be applicable for industries, operations or processes other than those industries, operations or process for which standards have been specified in Schedule of the Environment Protection Rules, 1989.

Part-C Load based standards

1. Oil Refinery Industry

Parameter	Quantum in Kg/1000 tonnes of crude processed
Oil & grease	10.00
Phenol	0.70
BOD	10.50
Suspended solids	14.00
Sulphide	0.35

2. Large Pulp & Paper, News Print/Rayon grade plants of capacity above 24,000 ton/annum

Parameter	Quantum
Total Organic Chloride (TOCl)	2 kg/tonne of product

PART-E Noise Standards

A. Noise limits for automobiles (from at 7.5 metre in dB(A) at the manufacturing stage)

a)	Motorcycle, scooters & three wheelers	80
b)	Passenger cars	82
c)	Passenger or commercial vehicles upto 4 tonne	85
d)	Passenger or commercial vehicles above 4 tonne and upto 12 tonne	89
e)	Passenger or commercial vehicles exceeding 12 tonne	91

B. Domestic appliances and construction equipments at the manufacturing stage to be achieved by 31st December, 1993.

a)	Window air conditioners of 1 -1.5 tonne	68
b)	Air coolers	60
c)	Refrigerators	46
d)	Diesel generator for domestic purposes	85-90
e)	Compactors (rollers), front loaders, concentrate mixers, cranes (movable), vibrators and saws	75

(contd.)

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The Environment (Protection) Rules, 1986

RELEVANT PARTS OF THE ANNEXURE REPRODUCED BELOW

(For the purposes of Parts – A, B and C)

The State Boards shall following guidelines in enforcing the standards specified under Schedule VI :

1. The waste waters and gases are to be treated with the best available technology (BAT) In order to achieve the prescribed standards.

2. The industries need to be encouraged for recycling and reuse of waste materials as far as practicable in order to minimize the discharge of wastes into the environments.

4. While permitting the discharge of effluent and emission into the environment, State Boards have to take into account the assimilative capacities of the receiving bodies, especially water bodies so that quality of the intended use of the receiving waters is not affected. Where such quality is likely to be effected, discharges should not be allowed into water bodies.

5. The Central and State Boards shall put emphasis on the implementation of cleaner technologies by the industries in order to increase fuel efficiency and reduce the generation of environmental pollutants.

6. All efforts should be made to remove colour and unpleasant odour as far as practicable.

9. All effluents discharge including from the industries such as cotton textile, composite wool mills, synthetic rubber, small pulp & paper, natural rubber, petro-chemicals, tanneries, point dyes, slaughter houses, food & fruit processing and diary industries into surface waters shall conform to the BOD limit specified above, namely, 30 mg/l. For discharge an effluent having a BOD more than 30 mg/l, the standards shall conform to those given, above for other receiving bodies, namely, sewers, coastal waters, and land for Irrigation.

12. In case of pesticides :

(a) The limits should be complied with at the end of the treatment plant before dilution.

(b) Bio-assay test should be carried out with the available species of fish in the receiving water, the COD limits to be specified in the consent conditions should be correlated with the BOD limits.

(c) In case metabolites and isomers of the pesticides in the given list are found in significant concentration, standards should be prescribed for these also in the same concentration as the individual pesticides.

(d) Industries are required to analyze pesticides in waste water by advanced analytical methods such as GLC/HPLC.

13. The chemical oxygen demands (COD) concentration in a treated effluent, if observed to be persistently greater than 250 mg/l before disposal to any receiving body (public sewer, land for irrigation, inland surface water and marine coastal areas), such industrial units are required to identify chemicals causing the same. In case these are found to be toxic as defined in the Schedule I of the Hazardous Rules 1989, the State Board in such cases shall direct the industries to install tertiary treatment stipulating time limit.

14. Standards specified in Part A of Schedule – VI for discharge of effluent into the public sewer shall be applicable only if such sewer leads to a secondary treatment including biological treatment system, otherwise the discharge into sewers shall be treated as discharge into inland surface waters.

1. Omitted by Rule 2(k) (v) of the Environment (Protection) Third Amendment Rules, 1993 vide G.S.R. 801(E), dated 31-12-1993.
2. Inserted by Rule 2(k) (ix), Ibid

[No.Q-15017/24/89-CPW]
MUKUL SANWAL, Jt.Secy.

ANNEXURE-II
(For the purpose of Parts-D)

The States Boards shall fallow the following guidelines enforcing the standards specified under Schedule-VI.

a) In case of cement plants, the total dust (from all sections) shall be within 400 mg/Nm3 and 250 mg/Nm3 for the plants upto 200 tpd and more than 200 tpd capacities respectively.

b) In respect of calcination process (e.g. aluminium plants), kilns and step grate bagasse?fired?boilers, particulate matter emissions shall be within 250 mg/Nm3.

c) In case of thermal power plants commissioned prior to 1?1?1982 and having generation capacity less than 62.5 MW, the particulate matter emission shall be within 350 mg/Nm3.

d) In case of Lime Kilns of capacity more than 5 tpd and 40 tpd, the particulate matter emission shall be within 500 mg/Nm3.

e) In case of horse shoe/pulsating grate and spreader stroker bagasse?fired?boilers, the particulate matter emission shall be within 500 (12% CO_2) and 800 (12% CO_2) mg/Nm3 respectively. In respect of these boilers, if more than one is attached to a single stack, the emission standard shall be fixed, based on added capacity of all the boilers connected with the stack.

f) In case of asbestos dust, the same shall not exceed 2 mg/Nm3.

g) In case of the urea plants commissioned after 1.1.1982, coke ovens and lead glass units, the particulate matter emission shall be within 50 mg/Nm3.

h) In case of small boilers of capacity less than 2 tonne/hr and between 2 to 5 tonnes/hr, the particulate matter emissions shall be within 1600 and 1200 mg/Nm3.

i) In case of integrated iron & steel plants, particulate matter emission upto 400 mg/Nm3 shall be allowed during oxygen lancing.

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i) In case of stone crushing units, the suspended particulate matter contribution value at a distance of 40 metre from a controlled, isolated as well as from a unit located in a cluster should be less than 600 micrograms/Nm3.

These units must also adopt the following pollution control measures:

1. dust containment cum suppression system for the equipment;
2. construction of wind breaking walls;
3. construction of the metalled roads within the premises;
4. regular cleaning and wetting of the ground within the premises;
5. growing of a green belt along the periphery.

6. In case of ceramic industry, from the other sources of pollution, such as basic raw material and processing operations, heat recovery dryers, mechanical finishing operation all possible prevention measures should be taken to control particulate matter emissions as far as practicable.

2. The total fluoride emissions in respect of glass and phosphatic fertilizers shall not exceed 5 mg/Nm3 and 25 mg/Nm3 respectively.

3. In case of copper, lead and zinc smelting, the off?gases may as far as possible be utilized for manufacturing sulphuric acid.

4. In case of cupolas (foundries) having capacity (melting rate) less than 3 tonne hour, the particulate matter emissions shall be within 450 mg/Nm3. In these cases it is essential that stack is constructed over the cupolas beyond the charging door and the emissions are directed through the stack, which should be at least six times the diameter of cupola. In respect of arc furnaces and induction furnaces. Provision has to be made collecting the fumes before discharging the emissions through the stack.

Source

[GSR 801 (E), EPA, 1986, dated Dec. 31, 1993]

(113)

Extract from the Environment (Protection) Rules, 1986

[1][SCHEDULE-VI]
(See rule 3A)

General Standards for discharge of environment pollutants Part-A : Effluents

S.No. 1	Parameter : 2	Standards 3	
		Inland surface Water (a)	Public Sewers (b)
1.	Colour and odour	See 6 of Annexure – I	--
2.	Suspended solids mg/1, Max.	100	600
3.	PH value	5.5 to 9.0	5.5 to 9.0
4.	Oil and grease mg/1 Max.	10	20
5.	Total residual chlorin mg/1 Max.	1.0	--
6.	Ammonical nitrogen (as N), mg/1 Max.	50	50
7.	Biochemical oxygen demand (5 days at 20°C), mg/1 max.	30	350
8.	Arsenic (as As), mg/1 max.	0.2	0.2
9.	Mercury (As Hg), mg/1 Max.	0.01	0.01
10.	Lead (as Pb) mg/1, Max.	0.1	1.0
11.	Cadmium (as Cd) mg/1, Max.	2.0	1.0
12.	Hexavalent chromium (as Cr + 6), mg/1, Max.	0.1	2.0
13.	Total chromium (as Cr) mg/1, Max	2.0	2.0
14.	Copper (as Cu) mg/1, Max.	3.0	3.0
15.	Zinc (as Zn) mg/1, Max.	5.0	15
16.	Selenium (as Sc.) mg/1, Max.	0.05	0.05
17.	Nickel (as Ni) mg/1, Max.	3.0	3.0
18.	Cyanide (as CN), mg/1 Max.	0.2	2.0
19.	Fluoride (as F) mg/1 Max.	2.0	15
20.	Phenolic compounds (as C_6H_5OH) mg/1 max	1.0	5.0
21.	Radioactive materials a) Alpha emitter micro curie/ml. b) Beta emitter micro curie/ml	10^{-7} 10^{-6}	10^{-7} 10^{-6}
22.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
23.	Manganese (as Mn)	2 mg/l	2 mg/l
24.	Iron (as Fe)	3 mg/l	3 mg/l
25.	Vanadium (as V)	0.2 mg/l	0.2 mg/l
26.	Nitrate Nitrogen	10 mg/l	--

1. Schedule VI inserted by Rule 2(d) of the Environment (Protection) Second Ammendment Rules, 1993 notified vide G.S.R.422(E) dated 19-05-1993, published n the Gazette No.174 dated 19-05-1993.

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Annexure 1.2

Extracts from Environmental Protection Rules, 1986

Common Effluent Treatment Plants: Effluents

a. Primary Treatment	(Inlet effluent quality for CETP)	(Concentration in mg/l)
	pH	5.5-9.0
	Temperature °C	45
	Oil & Grease	20
	Phenolic compounds (as C6H5OH)	5
	Ammonical Nitrogen (as N)	50
	Cynide (as CN)	2
	Chromium hexavalent (as Cr+6)	2
	Chromium (total) (as Cr)	2
	Copper (as Cu)	3
	Lead (as Pb)	1
	Nickel (as Ni)	3
	Zinc (as Zn)	15
	Arsenic (as As)	0.2
	Mercury (as Hg)	0.01
	Cadmium (as Cd)	1
	Selenium (as Se)	0.05
	Fluoride (as Fl)	15
	Boron (as B)	2
	Radioactive Materials	
	Alpha emitters, He/mL	10-
	Beta emitters, He/mL	10

Note: 1. These standards apply to the small scale industries, i.e. total discharge upto 25KL/Day.

2. For each CETP and its constituent units, the State Board will prescribe standards as per the local needs and conditions; these can be more stringent than than those prescribed above. However, in case of clusters of units, the State Board with the concurrence of CPCB in writing, may prescribe suitable limits.

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Annexure 1.3

EXTRACTS FROM ENVIRONMENTAL (PROTECTION) RULES, 1986
Central Pollution Control Board (CPCB)
Effluent Standards

6. Treated Effluent Quality of Common Effluent Treatment Plant (Concentration in mg/l except pH & Temperature)

	Into inland surface waters
pH	5.5 – 9.0
BOD_5 20°C	30
Oil & grease	10
Temperature	Shall not exceed 40°C in any section of The stream within 15 metres downstream from the effluent outlet.
Suspended solids	100
Dissolved solids (inorganic)	2100
Total residual chlorine	1.0
Ammonical nitrogen (as N)	50
Total Kjeldahl nitrogen (as N)	100
Chemical Oxygen Demand	250
Arsenic (as As)	0.2
Mercury (as Hg)	0.01
Lead (as Pb)	0.1
Cadmium (as Cd)	1.0
Total chromium (as Cr)	2.0
Copper (as Cu)	3.0
Zinc (as Zn)	5.0
Selenium (as Se)	0.05
Nickel (as Ni)	3.0
Boron (as B)	2.0
Percent sodium	---
Cynide (as CN)	0.2
Chloride (as Cl)	1000
Fluoride (as F)	2.0
Sulphate (as SO_4)	1000
Sulphide (as S)	2.8
Pesticides	Absent
Phenolic compounds (as C_6H_5OH)	1.0

Note: *BOD may be made stringent upto 30 mg/l if the recipient fresh water body is a source for drinking water supply. BOD shall be upto 350 mg/l for the chilling plant effluent for applying on land provided. The land is designed and operated as a secondary treatment system with suitable monitoring facilities. The drainage water from the land after secondary treatment has to satisfy a limit of 30 mg/l of BOD and 10 mg/l of nitrate expressed as "N". The net addition to the groundwater quality should not be more than 3 mg/l of BOD and 3 mg/l of nitrate expressed as "N". This limit for applying on land is allowed subject to the availability of adequate land for discharge under the control of the industry, BOD value is relaxable upto 350 mg/l, provided the waste water is discharged into a town sewer leading to secondary treatment of the sewage.

Suspended solids limit is upto 450 mg/l, provided the waste water is discharged into town sewer leading to secondary treatment of the sewage.

Annexure 1.4

EXTRACTS FROM ENVIRONMENTAL (PROTECTION) RULES, 1986

Central Pollution Control Board

Environmental Standards

50.0 PHARMACEUTICAL INDUSTRY (Bulk Drugs)

	Parameter	Concentration not to exceed limit of pH)
Compulsory	pH	6.5 – 8.5
	Oil & grease	10
	BOD (3 days at 27° C)	100
	Total suspended solids	100
	Bioassay test	90% survival after 96 years (as described in Note 1).
Additional	Mercury	0.01
	Arsenic	0.2
	Chromium (Hexavalent)	0.1
	Lead	0.1
	Cyanide	0.1
	Phenolics (C_6H_5OH)	1.0
	Sulfides (as S)	2.0
	Phosphate (as P)	5.0

Note:

1. The limit of BOD at 27°C for 3 days will be 30 mg/l if effluent is discharged directly to water body.
2. The additional parameters are applicable to bulk drug manufacturing units depending upon the product.
3. No limit for COD is prescribed, but it should be monitored. If the COD of the treated effluent greater than 250 mg/l, such industrial units are required to identify chemicals causing the same. In case these are found to be toxic, as defined in the Hazardous Chemicals Rules, 1989 (Schedule I), the State Board shall direct the Industries to install tertiary treatment system within the stipulated time limit. Otherwise, COD may not be stipulated. This may be done on a case-to-case basis.

Source: EPACT
[GSR 176(E) : A

Annexure 1.5

EXTRACTS FROM THE BOOK "CHEMISTRY FOR ENVIRONMENTAL ENGINEERING" BY CLAIR N. SAWYER, PERRY L. McCARTY AND GENE F. PARKIN, 4th EDITION, PUBLISHED BY TATA McGRAW HILL.

CHAPTER 28 (SULFATE)

28.1 General Considerations :

The sulfate ion is one of the major anions occurring in natural waters. It is of importance in public water supplies because of its cathartic effect upon humans when t is present in excessive amounts. For this reason, the recommended upper limit is 250 mg/l in waters intended for human consumption. Sulfates are important in both public and industrial water supplies because of the tendency of waters containing appreciable amounts to form hard scales in boilers and heat exchangers.

Sulfates are of considerable concern because they are indirectly responsible for two serious problems often associated with the handling and treatment of waste waters. These are odor and sewer-corrosion problems resulting from the reduction of sulfates to hydrogen sulfide under anaerobic conditions, as shown in the following equations :

$$SO_4^{2-} + \text{organic matter} \xrightarrow[\text{Bacteria}]{\text{Anaerobic}} S^{2-} + H_2O + CO_2 \quad \text{(Fig.28-1)}$$

$$S^{2-} + H^+ \rightleftharpoons HS^- \quad \text{(Fig.28-2)}$$

$$HS^- + H^+ \rightleftharpoons H_2S \quad \text{(Fig.28-3)}$$

A knowledge of the sulfur cycle, as represented in Fig.28-1, is essential to an understanding of the transformations that occur.

Odor Problems

In the absence of dissolved oxygen and nitrates, sulfates serve as a source of oxygen (or more correctly as an electron acceptor) for biochemical oxidations produced by anaerobic bacteria. Under anaerobic conditions, the sulfate ion is reduced to sulfide ion, which establishes an equilibrium with hydrogen ion to form hydrogen sulfide in accordance with its primary ionization constant $K_{A1} = 9.1 \times 10^{-8}$. The relationships existing between H_2S, HS^- and S^{2-} at various pH levels in a 10^{-3} molar solution are shown in Fig.28-2. At pH values of 8 and above, most of the reduced sulfur exists in solution as HS^- and S^{2-} ions, and the amount of free H_2S is so small that its partial pressure is insignificant, and odor problems do not occur. At pH levels below 8, the equilibrium shifts rapidly toward the formation of un-ionized H_2S and is about 80 per cent complete at pH 7. Under such conditions, the partial pressure of hydrogen sulfide becomes great enough to cause serious odor problems

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whenever sulfate roduction yields a significant amount of sulfide ion. Concentrations in air above 20 ppm should be avolded because of toxicity.

Corrosion of Sewers

In many areas of the United States – particularly in the Southern part of the country where domestic wastewater temperatures are high, detention times in the sewers are long, and sulfate concentrations are appreciable – "crown" corrosion of concrete sewers can be an important problem. The difficulty is always associated with reduction of sulfates to hydrogen sulfide, and the hydrogen sulfide is often blamed for the corrosion. Actually, H_2S. or hydrosulfuric acid as its aqueous solutions are called is a weaker than carbonic acid and has little effect on good concrete. Nevertheless, "crown" corrosion of gravity-type sewers does occur, and hydrogen sulfide is indirectly responsible.

Gravity-type sewers provide an unusual environment for biological changes in the sulfur compounds present in wastewater. Sewers are really part of a treatment system, for biological changes are constantly occurring during transportation. These changes require oxygen, and if sufficient amounts are not supplied through natural reaeration from air in the sewer, reduction of sulfates occurs, and sulfide is formed. At the usual pH level of domestic waste waters, most of the sulfide is converted to hydrogen sulfide and some of it escapes into the atmosphere above the wastewater. Here it does no damage if the sewer is well ventilated and the walls and crown are dry. In poorly ventilated sewers, however, moisture collects on the walls and crown. Hydrogen sulfide dissolves in this water in accordance with its partial pressure in the sewer atmosphere. As such it does no harm.

Bacteria capable of oxidizing hydrogen sulfide to sulfuric acid are ubiquitous in nature and are always present in domestic wastewater. It is natural that some of these organics should infect the walls and crown of sewers at times of high flows or in some other manner. Because of the aerobic conditions normally prevailing in sewers above the wastewater, these bacterial oxidize the hydrogen sulfide to sulfuric acid.

$$H_2S + 2O_2 \xrightarrow{\text{bacteria}} H_2SO_4$$

And the latter, being a strong acid, attacks the concrete. Bacteria of the genus Thiobacillus are capable of sulfide oxidation to sulfuric acid at pH as low as 2, and are thought to be responsible for this problem. Sulfuric acid formation from sulfide is particularly serious in the crown, where drainage is at a minimum. Figure 28-3 summarizes the important aspects of odor and corrosion problems insewer systems.

Other Concerns

High sulfate concentrations as well as low pH conditions can result in streams that are fed by drainage from abandoned coal mines and other exploited mineral-bearing deposits. The sulfide minerals present are oxidized through a combination of bacterial and chemical action to produce sulfuric acid.

Annuxure 4.:

Analysis of Soil Samples (mg/l except pH and conductivity)

Name	Code No	pH	Conductivity	CEC	Organic matter	Cl	N	P	Exchange of K	Na
Before tank, right side of road, Kistareddypet(V)	1	7	460	11.3	0.116	-	0.033	58	0.17	0.8
After tank, right side of road, Kistareddypet	2	7.1	128	11.2	0.13	-	0.03	56.8	0.27	0.3
Before tank, right side of road, Vadakunta	3	7.2	151.5	13.6	0.17	-	0.028	112	0.32	0.5
Far away of the road (reference sample), Vadakunta	4	7.4	197.3	12.7	0.03	-	0.063	114	0.27	0.42
Left side of the Durga Temple, Sultanpur	5	7	136.3	12.7	0.08	-	0.038	88	0.47	0.41
Right side of the Durga Temple, Sultanpur	6	7.4	891	21	0.04	-	0.018	64	0.43	0.46
Field related to Mr.Dayanand, Sy.No. 380	7	7.3	371	19.5	0.09	-	0.02	48	0.21	1.2
Field related to Mr.Chakali Papayya	8	7.6	715	31	0.16	-	0.02	46.8	0.37	2.3
Field under Gandigudem tank	9	7	1746	20.3	0.14	-	0.033	44	0.05	1.3
Under Brahimlnikunta	10	6.8	52.5	2.67	0.06	-	0.014	36	0.05	0.12
Khazipalli tank-outlet	11	7	38.8	7.34	0.08	-	0.046	38.8	0.24	0.1
Field related to Mr.Akbar, Sy.No307, Khazipally	12	7	85.2	17.98	0.093	-	0.043	30.4	0.26	0.18
Un-irrigated land, Pedda Kanjerla	13	7.1	80.3	12.8	0.067	-	0.028	40.3	0.16	0.18
Irrigated land, Inole	14	7.2	246	10.8	0.146	-	0.036	44.1	0.65	0.63
Irrigated land, Pedda Kanjerla	15	7.1	87.1	10.5	0.163	-	0.033	48	0.17	0.37
Un-irrigated land, Pedda Kanjerla	16	7	53.4	7.8	0.082	-	0.028	32.1	0.3	0.08
Un-irrigated open land, (Agarwal Lands)-300M from Nakkavagu	17	7.1	106.3	30.2	0.092	-	0.023	38	0.24	0.93
Un-irrigated open land, (Agarwal Lands)-100M from Nakkavagu	18	7.1	343	17.2	0.07	-	0.034	28.8	0.19	0.22

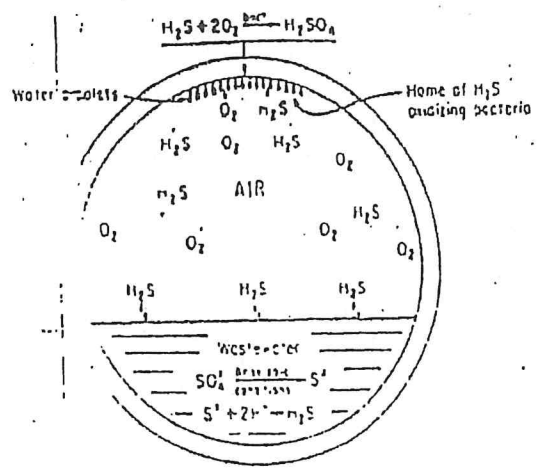

FIGURE 26-3
Formation of hydrogen sulfide in sewers and "crown" corrosion resulting from oxidation of hydrogen sulfide to sulfuric acid

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$$2FeS_2(\text{pyrite}) + 7O_2 + 2H_2O \xrightarrow{\text{bacteria}} 2Fe(II) + 4SO_4^{2-} + 4H^+ \quad (28\text{-}5)$$

Not only does the sulfate content increase in streams to which mine drainage discharges, but the lowered pH and high iron content produce added harm to water quality. For these reasons, care is exercise today to replace the cover or to seal mines to prevent the introduction of oxygen and water that lead to the above reaction.

Combustion of fossil fuels leads to formation of gaseous oxides of sulfur, which hydrolyze when dissolved in rainwater to form sulfuric acid. The resulting "acid rain" is of concern as discussed in Sec. 16-3.

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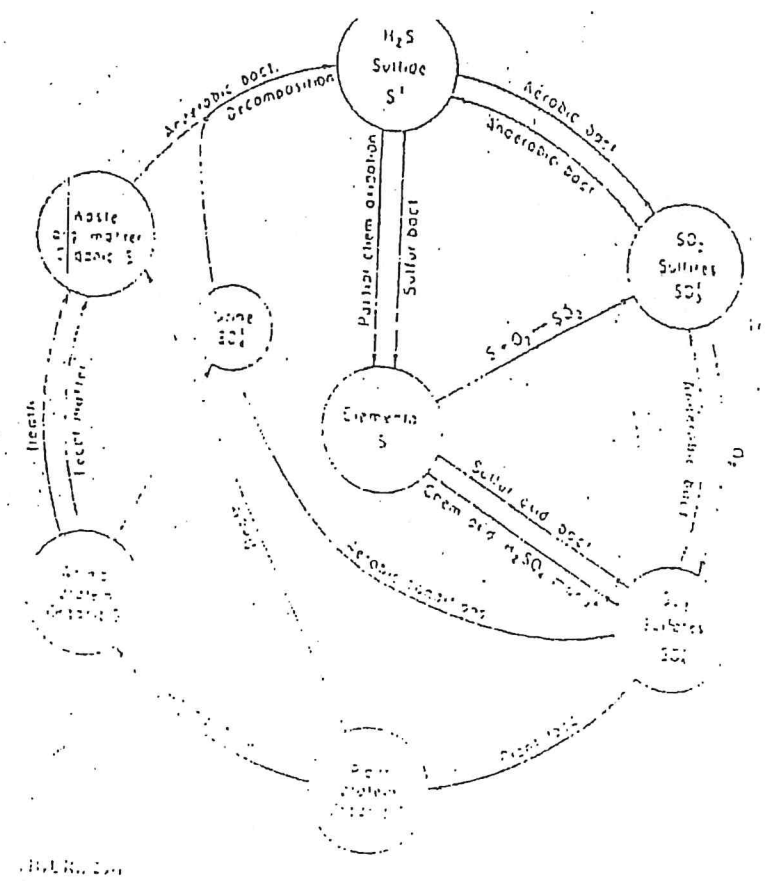

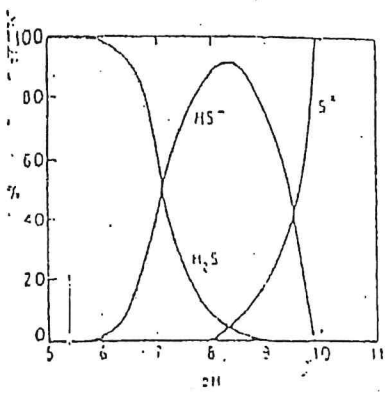

FIGURE 28-2
Effect of pH on hydrogen sulfide–sulfide equilibrium $[10^{-1}$ molar solution, 32 mg $H_2S/l]$.

Analysis of Soil Samples (contd.2)										
Name	Code No	pH	Conductivity	CEC	Organic matter	Cl	N	P	Exchange of K	Na
Field related to Mr.Garrale Satyanarayana Reddy, Near Nakkavagu, Lakdaharam	19	7.2	157	32.2	0.06	-	0.034	34.6	0.28	0.92
Field related to Mr.Gollla Mallaiah, s/o Laxmayya, Sy.No.30, Bythole	20	7.3	57.9	32.5	0.05	-	0.026	44.3	0.53	1.58
Field related to Mr.Vadla Balamani, s/o Sathayya, Sy.No.11, Bythole	21	7	62.4	12	0.143	-	0.031	64	0.34	0.84
Field related to Mr.Mugulugari Venkat Reddy, s/o Hanumantha Reddy, Sy.No.474, Chidrupa	22	7.16	--	56	0.024	-	0.018	64.8	0.43	1.6
Field related to Mr.Godela Narsa Goud, s/o Anjayya Goud, Sy.No. 345, Aretla	23	7.27	202	36.3	0.044	-	0.023	88	0.43	1.24
Field related to Mr.Papi Srinivasa Reddy, ~200m from Nakkavagu, Ismailkhanpet	24	7.1	370	34.9	0.021	-	0.018	42	0.54	0.78
Field related to Mangali Sathayya, s/o Venkaiah, Sy.no 253, Erdnoor, Near to HFL & Alkabeer	25	7.11	112	39.7	0.024	-	0.018	36.4	0.44	1.2
Soil sample from the fields of Sri .P.Malla Reddy, Sy.No 212, Chitkul	26	7.1	256	11.2	0.046	-	0.021	38.4	0.43	0.96
Soil sample from the fields of Mr .Kurma Pedda Narasimhulu, Sy.No 107,Ilapur	27A	6.7	1,172	52	0.084	-	0.044	28.8	0.28	3.8
Soil sample from the field of Mr.Patnam Chittalah, Sy.No14,15&17, Ilapur (V)	28A	7.1	87.4	35.5	0.064	-	0.024	28.1	0.64	1.5

Analysis of Soil Samples (contd.3)

Name	Code No	Ca	Mg	Ca+Mg	Fe	MO	Zn	Pb	As	Cd	Cu
Before tank, right side of road, Kistareddypet(V)	1	-	-	9.3	-	-	24.6	4.8	-	BDL	34
After tank, right side of road, Kistareddypet	2	-	-	10.2	-	-	23.3	5.63	-	BDL	18.6
Before tank, right side of road, Vadakunta	3	-	-	12.3	-	-	38.4	8.4	-	BDL	16.8
Faraway of the road (reference sample), Vadakunta	4	-	-	11.5	-	-	22.8	6.6	-	BDL	22.1
Left side of the Durga Temple, SUltanpur	5	-	-	11.3	-	-	24.3	4.8	-	BDL	14.3
Right side of the Durga Temple, Sultanpur	6	-	-	19.6	-	-	18.3	6.3	-	BDL	18
Field related to Mr.Dayanand, Sy.No. 380	7	-	-	17.8	-	-	17	BDL	-	BDL	22
Field related to Mr.Chakali Papayya	8	-	-	28.2	-	-	14.8	BDL	-	BDL	28.3
Field under Gandigudem tank	9	-	-	18.8	-	-	17.8	12.4	-	BDL	14.6
Under Brahiminikunta	10	-	-	2.5	-	-	16.8	11.1	-	BDL	18.8
Khazipalli tank-outlet	11	-	-	7	-	-	26.1	9.8	-	BDL	16.3
Field related to Mr.Akbar, Sy.No307, Khazipally	12	-	-	17.5	-	-	44.3	14	-	BDL	12
Un-irrigated land, Pedda Kanjerla	13	-	-	12.5	-	-	27.4	8.8	-	BDL	22.3
Irrigated land, Inole	14	-	-	9.5	-	-	28.6	12.3	-	BDL	14
Irrigated land, Pedda Kanjerla	15	-	-	10	-	-	25.4	16	-	BDL	16.8
Un-irrigated land, Pedda Kanjerla	16	-	-	7.4	-	-	26.1	4.5	-	BDL	18
Un-irrigated open land, (Agarwal Lands)-300M from Nakkavagu	17	-	-	29	-	-	32	6.6	-	BDL	22.3
Un-irrigated open land, (Agarwal Lands)-100M from Nakkavagu	18	-	-	16.8	-	-	35	8.8	-	BDL	11

Analysis of Soil Samples (contd.4)

Name	Code No	Ca	Mg	Ca+Mg	Fe	MO	Zn	Pb	As	Cd	Cu
Field related to Mr.Garrale Satyanarayana Reddy, Near Nakkavagu, Lakdaharam	19	-	-	31	-	-	26	12	-	BDL	21.5
Field related to Mr.Gollla Maliaiah, s/o Laxmayya, Sy.No.30, Bythole	20	-	-	30.4	-	-	26.4	6.3	-	BDL	14.3
Field related to Mr.Vadla Balamani, s/o Sathayya, Sy.No.11, Bythole	21	-	-	10.8	-	-	17.8	6.8	-	BDL	18.3
Field related to Mr.Mugulugani Venkat Reddy, s/o Hanumantha Reddy, Sy.No474, Chidrupa	22	-	-	54	-	-	38.4	9.4	-	BDL	14.8
Field related to Mr.Godela Narsa Goud, s/o Anjayya Goud, Sy.No. 345, Aretla	23	-	-	34.6	-	-	22.6	8.3	-	BDL	16.4
Field related to Mr.Papi Srinivasa Reddy, ~200m from Nakkavagu, Ismailkhanpet	24	-	-	33.6	-	-	21.3	7.4	-	BDL	11
Field related to Mangali Sathayya, s/o Venkaiah, Sy.No 253, Erdnoor, Near to HFL & Alkabeer	25	-	-	38	-	-	14	14	-	BDL	12.8
Soil sample from the field of Sri .P.Malla Reddy, Sy.No 212, Chitkul	26	-	-	9.8	-	-	22.1	8.9	-	BDL	16.3
Soil sample from the field of Mr .Kurma Pedda Narasimhulu, Sy.No.107,Ilapur	27A	-	-	24	-	-	22.4	8	-	BDL	18
Soil sample from the field of Mr.Patnam Chittaiah, Sy.No14,15&17, Ilapur (V)	28A	-	-	20.6	-	-	20.6	7.8	-	BDL	7.8

Annexure-4.2

TEST RESULT OF SOIL SAMPLES FROM Sri DOST-OSMAN'S LAND

S.No.	TEST PARAMETER(s)	UNIT	TEST METHOD	RESULT		
				S-1	S-2	S-3
1.	pH	µmhos/cm	SOP-201	6.9 29.1	7.8 30.5	7.7 29.6
2.	Conductivity	meq/100G	SOP-202	57	93.7	76.4
3.	Cation Exchangeable capacity	%	SOP-208	7.80	11.3	19.7
4.	Total Nitrogen as N	mg/kg	SOP-217	0.022	0.022	0.027
5.	Phosphorous as P	mg/kg	SOP-214	0.225	0.915	3.86
6.	Organic matter	meq/100G	SOP-209	0.708	0.791	0.992
7.	Exchangeable Potassium as K	meq/100G	SOP-205	0.191	0.296	0.643
8.	Exchangeable Sodium as Na	meq/100G	SOP-204	0.207	0.578	2.89
9.	Exchangeable Calcium as Ca	meq/100G	SOP-206	5.6	8.6	11.6
10.	Exchangeable Magnesium as Mg	mg/kg	SOP-206	1.80	1.80	4.61
11.	Chloride as Cl	mg/kg	SOP-210	2,205	980	1,225
12.	Iron as Fe	mg/kg	SOP-220	8,680	4,350	17,730
13.	Molybdenum as Mo	mg/kg	SOP-220	BDL	BDL	BDL
14.	Zinc as Zn	mg/kg	SOP-220	9.79	5.48	18.2
15.	Lead as Pb	mg/kg	SOP-220	BDL	BDL	BDL
16.	Arsenic as As	µg/kg	SOP-220	BDL	BDL	BDL
17.	Boron as B	mg/kg	In-house	BDL	BDL	BDL
18.	Total Chromium as Cr	mg/kg	SOP-220	BDL	BDL	BDL
19.	Manganese as Mn	mg/kg	SOP-220	112	106	636

Opinion & Interpretation: NA BDL-Below Detectable Limit

S-1: Soil – 100 meter away from Komatikunta Tank

S-2: Dost-Osman's land adjacent to Kunta

S-3: Soil from catchment area of Kunta

Conclusion:

1. S1 and S2 are fairly good except for chloride content and pH (S2) Na, CEC, conductivity and other parameters.

2. S-3 is bad and considered SODIC: chloride and iron are also high.

Annexure 6.1

ANALYSES OF BOREWELL WATER SAMPLES

Name	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-
BOLARAM KOLAN BALREDDY'S House	105	7.1	3.0	1540.0	<10.0	485.0	380.0	464.0	-
OPP.PANCHAYAT OFFICE BOLARAM	131	6.64	3.0	2384.0	<10.0	970.0	148.0	464.0	-
Near Swamy's Home BOLARAM	152	6.59	1.0	3390.0	14.0	1698.0	170.0	440.0	-
ADJ.PROTECTED WATER SUPPLY BOLARAM	183	6.65	14.0	2348.0	110.0	970.0	255.0	440.0	-
BALWANTH REDDY'S HOUSE NEAR PANCHAVATI BOLARAM	116	6.8	4.0	4950.0	190.0	268.0	230.0	318.0	-
POCHARAM (Near Pentaiah's Home)	288	7.3	2.0	1645.0	0.0	412.0	290.0	350.0	-
POCHARAM (Near Hanuman Temple)	227	7.4	3.0	883.0	12.0	204.0	130.0	322.0	-
GANAPATHIGUDEM	276	7.2	2.0	2320.0	0.0	611.0	490.0	394.0	-
BACHGUDA (Near J.Somaiah's Home)	242	7.4	3.0	1290.0	0.0	221.0	380.0	288.0	-
BACHGUDA Near Dasraths Home	219	7.3	4.0	1100.0	0.0	194.0	170.0	288.0	-
KRPET (Near Harijan Chandraiah House)	351	6.9	2.0	1990.0	7.0	776.0	220.0	307.0	-
KRPET (open well of K.Padmaiah)	338	7.4	1.0	2158.0	7.0	922.0	240.0	168.0	-
SULTANPUR (Near M.P.P.School)	333	7.1	2.0	3040.0	7.0	873.0	310.0	370.0	-
SULTANPUR (Bore motoriled)	354	6.9	2.0	2070.0	29.0	650.0	200.0	345.0	-
SULTANPUR (Near Surpanch's Home)	306	7.4	100.0	1840.0	3.0	437.0	220.0	302.0	-
SULTANPUR (Near Smt.Veeramani's Home)	397	6.9	5.0	1350.0	5.0	315.0	200.0	365.0	-
SULTANPUR (In-Chakali Papaiah's fields)	343	7.1	2.0	1800.0	11.0	650.0	270.0	302.0	-
KAZIPALLI (Near Pochamma Temple)	323	7.8	<5.0	1100.0	6.0	201.0	212.0	440.0	-
KAZIPALLI (Near Yusuf's House)	356	7.0	<5.0	1568.0	12.0	388.0	437.0	160.0	-
KHAZIPALLI (Near Gollagudam Surpanch's Home)	330	7.4	<5.0	850.0	60.0	150.0	50.0	372.0	-
KHAZIPALLI (Near Gandhi Statue)	368	7.3	<5.0	870.0	50.0	116.0	137.0	378.0	-
INOLE (from Hanumanth Reddy field)	346	7.2	46.0	3080.0	37.0	1042.0	875.0	250.0	-
INOLE (from Hanumanth reddy's fields)	335	7.8	40.0	1620.0	30.0	407.0	300.0	260.0	-
INOLE (Near Gangala Pochaiah's Home)	393	7.7	<5.0	998.0	4.0	184.0	42.0	480.0	-
PEDDA KANJARLA (Harijan Basthi)	478	7.3	10.0	1580.0	22.0	440.0	137.0	450.0	-

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ANALYSES OF BOREWELL WATER SAMPLES (contd.2)

Name	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-
PEDDA KANJARLA (Near Macharla Yadi Reddy's House)	415	7.3	<5.0	2370.0	<10.0	446.0	200.0	660.0	-
PEDDA KANJARLA (Harijan Basthi)	477	7.3	<5.0	1980.0	<10.0	543.0	312.0	232.0	-
PEDDA KANJARLA (Jonnada Beerappa's House)	420	7.6	<5.0	2850.0	35.0	970.0	700.0	480.0	-
PANTANCHERU (Near AP Civil Supplies)	492	7.4	<5.0	1670.0	16.0	407.0	425.0	340.0	-
PANTANCHERU (Bore at Elec. Pole.No.6)	434	7.4	<5.0	1880.0	14.0	728.0	170.0	310.0	-
LAKADARAM (Gurrala SathYanarayan Reddy's field)	472	7.5	10.0	2290.0	24.0	631.0	440.0	400.0	-
LAKADARAM (Reddy gari Veera Bhadra Reddy's farms)	463	7.2	<5.0	2230.0	25.0	592.0	440.0	440.0	-
LAKADARAM (Road side farm of GSN Reddy)	433	7.1	<5.0	2120.0	26.0	495.0	575.0	360.0	-
BYTHOLE (Near Durga Temple)	481	6.9	14.0	1800.0	12.0	467.0	300.0	360.0	-
BYTHOLE (Near Lambadi hut)	414	7.6	<5.0	520.0	3.0	89.0	32.0	196.0	-
BYTHOLE (D.Mallaiah's Borewell)	438	7.0	<5.0	3148.0	6.0	1018.0	425.0	560.0	-
KANDI REDDY GUDEM (In survey. No:194)	474	7.1	48.0	3020.0	11.0	1091.0	390.0	560.0	-
KANDI REDDY GUDEM (Near Terpalli Narayana Reddy's House)	480	7.58	22.0	1680.0	18.0	466.0	225.0	180.0	-
CHIDRUPA (Mogulagari Venkat Reddy's House)	495	7.7	<5	1570	15	394	387	324	-
CHIDRUPA (Near School)	403	7.8	<5	508	12	50	36	320	-
ARUTLA (Near Ganga Raj Mallaiah's House)	448	7.4	<5	2298	20	540	248	600	-
IKPET ONE (Near Pathi Beeraiah's House)	461	7.4	<5	1490	9	390	78	372	-
EDADANOOR (Mangali Sattaiah's House)	432	7.8	<5	768	4	110	41	400	-
EDADANOOR (Near Panchayat Office)	407	7.6	<5	812	8	126	60	400	-
AILAPUR (Kurma Narsaiah's House)	426	7.2	<5	766	8	220	74	200	-
AILAPUR (Patam Chittaiah)	494	7.7	<5	1890	4	871	270	120	-
ISMAIL KHAN PET ONE (Srinivas Reddy's fields)	516	7.6	<5	2230	13	720	400	196	-
CHITKUL (P.Chinna Reddy's field)	503	7.6	<5	2760	42	1110	425	372	-

ANALYSES OF BOREWELL WATER SAMPLES (contd.3)

Name	Code No	Total Hardness	Ca	Mg	Na	K	Conductivity	As	Cr	Pb
BOLARAM KOLAN BALREDDY'S House	105	1000.0	160.0	145.0	123.0	38.0	-	-	-	-
OPP.PANCHAYAT OFFICE BOLARAM	131	2000.0	440.0	218.7	109.0	17.0	-	-	-	-
Near Swamy's House BOLARAM	152	2300.0	620.0	182.2	224.0	21.0	-	-	-	-
ADJ.PROTECTED WATER SUPPLY BOLARAM	163	1400.0	400.0	97.2	201.0	42.0	-	-	-	-
BALWANTH REDDY'S HOUSE NEAR PANCHAVATI BOLARAM	116	3200.0	800.0	583.0	385.0	27.5	-	-	-	-
POCHARAM (Near Pentaiah's House)	288	630.0	98.0	93.5	305.0	30.0	-	-	-	-
POCHARAM (Near Hanuman Temple)	227	340.0	69.0	40.33	120.0	3.0	-	-	-	-
GANAPATHIGUDEM	276	1000.0	128.0	165.0	300.0	33.0	-	-	-	-
BACHGUDA (Near J.Somaiah's House)	242	680.0	112.0	97.2	146.0	4.0	-	-	-	-
BACHGUDA Near Dasrath's House	219	528.0	92.8	71.9	116.0	3.0	-	-	-	-
KRPET (Near Harijan Chandraiah's House)	351	1080.0	272.0	97.2	220.0	7.0	-	-	-	-
KRPET (open well of K.Padmaiah)	338	960.0	200.0	111.78	375.0	6.0	-	-	-	-
SULTANPUR (Near M.P.P.School)	333	880.0	200.0	92	415.0	145.0	-	-	-	-
SULTANPUR (Bore well)	354	680.0	160.0	68.04	331.0	16.0	-	-	-	-
SULTANPUR (Near Surpanch's House)	306	500.0	116.0	51.0	273.0	160.0	-	-	-	-
SULTANPUR (Near Smt.Veeramani's House)	397	790.0	126.0	115.0	148.0	7.0	-	-	-	-
SULTANPUR (In-Chakali Papaiah's fields)	343	900.0	168.0	116.6	234.0	3.0	-	-	-	-
KAZIPALLI (Near Pochamma Temple)	323	425.0	75.2	57.6	279.0	20.0	-	-	-	-
KAZIPALLI (Near Yusuf's House)	356	700.0	140	85.0	276.0	4.6	-	-	-	-
KHAZIPALLI (Near Gollagudam Surpanch's House)	330	290.0	58.0	35.0	152.0	0.5	-	-	-	-
KHAZIPALLI (Near Gandhi Statue)	358	290.0	87.0	17.5	166.0	1.3	-	-	-	-
INOLE (from Hanumanth Reddy's field)	346	1340.0	328.0	126.0	400.0	35.0	-	-	-	-
INOLE (from Hanumanth Reddy's field)	335	330.0	64.0	41.0	344.0	87.0	-	-	-	-
INOLE (Near Gangala Pochalah's House)	393	240.0	55.0	25.0	161.0	3.7	-	-	-	-
PEDDA KANJARLA (Harijan Basthi)	478	700.0	180.0	78.0	135.0	26.0	-	-	-	-

ANALYSES OF BOREWELL WATER SAMPLES (contd.4).

Name	Code No	Total Hardness	Ca	Mg	Na	K	Conductivity	As	Cr	Pb
PEDDA KANJARLA (Near Macharla Yadi Reddy's House)	415	510.0	112.0	56.0	221.0	450.0				
PEDDA KANJARLA (Harijan Basthi)	477	800.0	216.0	63.0	172.0	24.0	-	-	-	-
PEDDA KANJARLA (Jonnada Beerappa's)	420	1800.0	288.0	262.0	425.0	7.4				
PANTANCHERU (Near AP civil Supplies)	492	1200.0	288.0	116.0	90.0	3.75				
PANTANCHERU (Bore at Elec. Pole.no.6)	434	1600.0	296.0	209.0	77.0	3.75	-	-	-	-
LAKADARAM (Gurrala Sathyanarayan Reddy's fields)	472	1150.0	232.0	138.0	249.0	6.0	-	-	-	-
LAKADARAM (Reddy gari Veera Bhadra Reddy's farms)	463	1070.0	184.0	148.0	330.0	6.4	-	-	-	-
LAKADARAM (Road side farm of GSN Reddy)	433	1010.0	166.0	144.0	330.0	6.0	-	-	-	-
BYTHOLE (Near Durga Temple)	481	970.0	230.0	96.0	195.0	26.0	-	-	-	-
BYTHOLE (Near Lambadi Hut)	414	388.0	92.0	38.4	56.0	1.0	-	-	-	-
BYTHOLE (D.Mallaiah's Borewell)	438	1360.0	280.0	160.0	435.0	77.0	-	-	-	-
KANDI REDDY GUDEM (In Survey. No:194)	474	1380.0	300.0	153.0	400.0	77.0	-	-	-	-
KANDI REDDY GUDEM (Near Terpalli Narayana Reddy's House)	480	650.0	126.0	81.0	157.0	22.5	-	-	-	-
CHIDRUPA ONE (Mogulagari Venkat Reddy's)	495	750	166	81	240	4.5	-	-	-	-
CHIDRUPA (Near School)	403	268	45	38	88	2.6	-	-	-	-
ARUTLA (Near Ganga Raj Mallaiah's House)	448	620	130	72	290	387	-	-	-	-
ISMAIL KHAN PET (Near Pathi Beeraiah's House)	461	700	116	100	162	6	-	-	-	-
YERADANOOR (Mangali Sattaiah's house)	432	284	56	35	157	2.5	-	-	-	-
YERDANOOR (Near Panchayat Office)	407	375	66	52	124	2.5	-	-	-	-
ILAPUR (Kurma Narsaiah's house)	426	364	48.8	58.8	121	2.5	-	-	-	-
ILAPUR (Patam Chittaiah's house)	494	900	200	87.2	349	3.75	-	-	-	-
ISMAIL KHAN PET (Srinivas Reddy's field)	516	800	160	87.2	240	6.25	-	-	-	-
CHITKUL (P.Chinna Reddy's field)	503	1200	240	146.8	435	10.5	-	-	-	-

ANALYSES OF BOREWELL WATER SAMPLES (contd.5)

Name	Code No	Ni	Cu	Cd	NO_3	F	Fe	OH	EC
BOLARAM KOLAN BALREDDY'S House	105	-	-	-	-	-	-	-	-
OPP.PANCHAYAT OFFICE BOLARAM	131	-	-	-	-	-	-	-	-
Near Swamy's House BOLARAM	152	-	-	-	-	-	-	-	-
ADJ.PROTECTED WATER SUPPLY BOLARAM	183	-	-	-	-	-	-	-	-
BALWANTH REDDY'S HOUSE NEAR PANCHAVATI BOLARAM	116	-	-	-	0.92	4.13	-	-	-
POCHARAM (Near Pentaiah's House)	288	-	-	-	0.196	0.73	-	-	-
POCHARAM (Near Hanuman Temple)	227	-	-	-	4.41	0.91	-	-	-
GANAPATHIGUDEM	276	-	-	-	2.05	0.78	-	-	-
BACHUGUDA (Near J.Somaiah's House)	242	-	-	-	5.6	0.85	-	-	-
BACHUGUDA Near Dasrath's House	219	-	-	-	14.42	1 14	-	-	-
KISTAREDDYPET (Near Harijan Chandraiah House)	351	-	-	-	0.812	0.69	-	-	-
KISTAREDDYPET (open well of K.Padmaiah)	338	-	-	-	79.5	0.84	-	-	-
SULTANPUR (Near M.P.P.School)	333	-	-	-	16.92	0.96	-	-	-
SULTANPUR (Bore well)	354	-	-	-	63.4	0.42	-	-	-
SULTANPUR (Near Surpanch's House)	306	-	-	-	16.54	0.48	-	-	-
SULTANPUR (Near Smt.Veeramani's House)	397	-	-	-	1.96	1.18	-	-	-
SULTANPUR (In-Chakali Papaiah field)	343	-	-	-	-	1.56	-	-	-
KAZIPALLI (Near Pochamma Temple)	323	-	-	-	-	0.71	-	-	-
KAZIPALLI (Near Yusuf's House)	356	-	-	-	-	1.73	-	-	-
KHAZIPALLI (Near Gollagudam Surpanch's House)	330	-	-	-	-	1.97	-	-	-
KHAZIPALLI (Near Gandhi Statue)	368	-	-	-	-	1.77	-	-	-
INOLE (from Hanumanth Reddy field)	346	-	-	-	-	***	-	-	-
INOLE (from Hanumanth Reddy's field)	335	-	-	-	-	3.04	-	-	-
INOLE (Near Gangala Pochaiah's House)	393	-	-	-	-	1.05	-	-	-
PEDDA KANJARLA (Harijan Basthi)	478	-	-	-	-				

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ANALYSES OF BOREWELL WATER SAMPLES (contd.6)

Name	Code No	Ni	Cu	Cd	NO_3	F	Fe	OH	EC
PEDDA KANJARLA (Near Macharla Yadi Reddy's House)	415				-	1.19	-	-	-
PEDDA KANJARLA (Harijan Basthi)	477	-	-	-	-	1.42	-	-	-
PEDDA KANJARLA (Jonnada Beerappa's)	420				-	1.49	-	-	-
PANTANCHERU (Near AP civil Supplies)	492				-	1.63	-	-	-
PANTANCHERU (Bore at Elec. Pole.No.6)	434	-	-	-	-	1.06	-	-	-
LAKADARAM (Gurrala Sathanarayan Reddy's fields)	472	-	-	-	-	1.34	-	-	-
LAKADARAM (Reddy gari VeeraBhadra Reddy's forms)	463	-	-	-	-	1.37	-	-	-
LAKADARAM (Road side farm of GSN Reddy)	433	-	-	-	-	1.83	-	-	-
BYTHOLE (Near Durga Temple)	481	-	-	-	-	1.96	-	-	-
BYTHOLE (Near Lambadi Hut)	414	-	-	-	-	1.79	-	-	-
BYTHOLE (D.Mallaiah's Borewell)	438	-	-	-	-	1.93	-	-	-
KANDI REDDY GUDEM (In Survey. No:194)	474	-	-	-	-	1.94	-	-	-
KANDI REDDY GUDEM (Near Terpalli Narayana Reddy's house)	480	-	-	-	-	0.84	-	-	-
CHIDRUPA (Mogulagari Venkat Reddy's)	495	-	-	-	5	1.35	-	-	-
CHIDRUPA (Near School)	403	-	-	-	4.2	1.63	-	-	-
ARUTLA (Near Ganga Raj Mallaiah's House)	448	-	-	-	44	0.91	-	-	-
ISMAIL KHAN PET ONE (Near Pathi Beeraiah's house)	461	-	-	-	18.6	-	-	-	-
YERDANOOR (Mangali Sattaiah's house)	432	-	-	-	3.6	-	-	-	-
YERDANOOR (Near Panchayat Office)	407	-	-	-	4	-	-	-	-
ILAPUR (Kurma Narsaiah's house)	426	-	-	-	2.1	1.79	-	-	-
ILAPUR (Patam Chittaiah)	494	-	-	-	4.4	0.69	-	-	-
ISMAIL KHANPET (Srinivas Reddy's field)	516	-	-	-	6.4	1.06	-	-	-
CHITKUL (P.Chinna Reddy's field)	503	-	-	-	5.5	1.4	-	-	-

Annexure 6.2

Analysis of borewell water samples In Aggarwal Estate

Sl. No	Test parameter(s)	Unit	Test method	Samples				
				GW-1	GW-2	GW-3	GW-4	GW-5
1.	pH Temperature	- ° C	4500-H.B	7.3 26.7	7.4 27.0	7.5 27.0	7.3 27.1	9.0 26.8
2.	Total dissolved solids	mg/L	2540-C	2,330	1,630	2,000	1,800	380
3.	Total suspended solids	mg/L	2540-D	<10	<10	<10	<10	<10
4.	Total hardness as $CaCO_3$	mg/L	2320-C	851	680	778	897	119
5.	Calcium as Ca	mg/L	2320-B	134	113	144	186	20.6
6.	Magnesium as Mg	mg/L	2320-B	125	96.4	101	105	16.3
7.	Sodium as Na	mg/L	3500. Na-B	399	279	359	229	87.8
8.	Potassium as K	mg/L	4500.K-B	1.84	1.33	1.84	1.33	12.6
9.	Sulfates as SO_4	mg/L	4500. SO_4 -2.E	796	514	559	583	19.9
10.	Chlorides as Cl	mg/L	2320 Cl B	561	341	512	439	115
11.	Carbonate as $CaCO_3$	mg/L	2320 B	Nil	Nil	Nil	Nil	36.8
12.	Bi-carbonates as $CaCO_3$	mg/L	2320 B	485	423	411	344	79.8
13.	Chemical Oxygen Demand	mg/L	5220-D	14	10	15	12	52
14.	Arsenic as As	µg/L	3030 /3114.C	BDL	BDL	BDL	BDL	BDL
15.	Chromium as Cr	mg/L	3030 /3114.B	BDL	BDL	BDL	BDL	BDL
16.	Lead as Pb	mg/L	3030 /3111.B	BDL	BDL	BDL	BDL	BDL
17.	Nickel as Ni	mg/L	3030 /3111.B	BDL	BDL	BDL	BDL	BDL
18.	Copper as Cu	mg/L	3030 3111.B	BDL	BDL	BDL	BDL	BDL
19.	Cadmium as Cd	mg/L	3030 /3111.B	BDL	BDL	BDL	BDL	BDL

Opinion & Interpretation : NA BDL: Below Detectable Limit

GW1 : Borewell in Aggarwal Estate
20 meters from Isakavagu

GW2 : Borewell in Aggarwal Estate
100 meters from Isakavagu

GW3 : Open well
100 meters away from Nakavagu

GW4 : Borewell adjascent to Aggarwal Estate

GW5 : Komatikunta

Conclusions:

1 G-1 and G-3 are contaminated
2 G-2 and G-4 are like many borewells in that area
3 G-5 appears to be very good.

Annexure 9.1

ANALYSES OF INDUSTRIAL EFFLUENTS (mg/l except pH)

Industries	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-	Total Hardness	Ca	Mg
ALPEX INTERNATIONAL (P) LTD.	22	6.45	75	12125	460	4753	850.0	240	Nil	5200	1040	632
APMET ENGG LTD.	179	7.9	228.0	8400.0	6780.0	2425.0	[illegible]	460.0	-	2200.0	[illegible]	[illegible]
AUROBINDO HOLDING TANK	163	7.4	690.0	25460.0	7730.0	9894.0	450.0	3172.0	-	1000.0	240.0	97.2
AUROBINDO UNIT-I (effluent)	176	8.0	2820	18020	7940	3056	3400	5250	Nil	1500	320	170
AUROBINDO UNIT-II	181	9.01	690.0	19960.0	14020.0	8536.0	925.0	3100.0	-	500.0	64.0	82.6
AUROBINDO UNIT 5	47	7.9	1892	11508	4140	5000	1800.0	2600	Nil	700	160	7
AUROBINDO UNIT VII	72	5.52	361	9434	3860	4414	2600	-	Nil	4840	1000	56
ARUOBINDO UNIT VIII (effluents)	70	7.04	690	6630	11080	2522	1500	260	Nil	560	120	6
ARUOBINDO NINE	253	6.48	510.0	2640.0		849.0	190.0	400.0	-	900.0	200.0	97.2
ARUOINDO PHARMA (before loading to PETL)	90	7.9	1035	9920	4085	4400	1500.0	2400	Nil	940	160	131.2
ARANDY LABS LTD.	104	7.61	40.0	9300.0	8730.0	4171.0	1225.0	1342.0	-	300.0	80.0	24.3
AVON ORGANICS -I (final effluent)	18	6.95	202	8318	4950	2377	800.0	1800	Nil	2800	560	340.2
AVON ORGANICS -II (on land)	49	6.11	2220	17980	1174	3395	950.0	3520	Nil	6320	1280	758
CIREX PHARMACEUTICALS LTD	159	7.56	333	5147	13610	825	850	1450	Nil	600	120	72.9
DR CURIE LABS LTD	155	1.47	27.0	26280.0	6800.0	15035.0	80.0	Nil	-	1500.0	480.0	170.0
DECCAN LEATHERS I (effluents)	120	4.9	290	8710	3470	1407	3250	Nil	Nil	940	240	82.6
DECCAN LEATHERS (inlet to ETP)	147	4.2	181	8739	3080	1698	2950	Nil	Nil	920	200	102

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ANALYSES OF INDUSTRIAL EFFLUENTS (contd.2)

Industries	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-	Total Hardness	Ca	Mg
DECCAN LEATHERS (solar evaporator pond)	111	7.50	207	1340	80	228	250	300	Nil	200	40	24.3
EVEREST ORGANICS LTD (effluents)	27	7.3	273	19700	30500	8730	1050.0	5000	Nil	780	200	68
EVEREST ORGANICS LEFT IN TO COMPOUND	97	7.12	22	5658	220	1261	1250	160	Nil	600	136	63.2
GLOCHEM INDUSTRIES LTD-I	101	6.94	34.0	4400.0	660.0	2425.0	250.0	318.0	-	1840.0	400.0	204.0
GLOCHEM INDUSTRIES LTD. (storage tank)	110	too oily to analyse										
HETERO DRUGS LTD	12	7.01	214	6310	10720	2000	6	2000	Nil	1200	240	145.8
HITESH CHEMICALS & PHARMACEUTICALS LTD (effluents)	148	6.0	8950.0	41000.0	43700.0	1455.0	290.0	170.0	-	740.0	100.0	119.0
HYDERABAD CHEMICALS LTD (storage tank)	81	6.1	1,51,370	3,355	1,980	317	289	1,010	10,520	8,563	1,440	**
HYGRO CHEMICALS (effluents)	171	6.55	740.0	6500.0	20300.0	3686.0	350.0	610.0	-	3500.0	1176.0	136.1
INVENTA CHEMICALS	200	7.64	23.0	4680.0	930.0	825.0	1300.0	488.0	-	800.0	172.0	89.9
KEKULE CHEMICALS LTD	265	7.5	78.0	11960.0	7290.0	5820.0	1775.0	730.0	-	800.0	200.0	72.9
KEMERA LABS (effluents storage tank for forced evaporation)	45	4.3	8600	510000	219000	133375	35000.0	-	-	-	-	37000
MARUTHI TEXT PRINT & PROCESSERS LTD	296	10.83	140.0	4220.0	790.0	1334.0	975.0	-	-	3300.0	640.0	413.1
MATRIX LABS (PASHAMAILARAM)	98	7.05	128	2416	920	1067	149	540	Nil	900	220	85
MATRIX LABS UNIT-I	40	7.14	240	12650	3550	5190	2100	1200	Nil	640	140	70.2
MERWIN DRUGS LTD (effluents)	172	7.20	687	10713	9240	4123	1200	900	Nil	2140	400	277
NESTER PHARMACEUTICAL LTD-I	130	4.74	37	41075	78400	23765	850	Nil	Nil	1500	320	170

ANALYSES OF INDUSTRIAL EFFLUENTS (contd.3)

Name	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-	Total Hardness	Ca	Mg
NESTER PHARMACEUTICALS LTD-II	182	8.50	21640	38	2710	12610	136	500	Nil	11000	3840	534.6
NEULAND LABORATORIES	4	5.44	64	19280	12550	8000	1900	Nil	Nil	3200	800	291.6
NEULAND LABORATORIES (effluents)	85	7.8	1432	19526	15410	280	2900.0	3750	Nil	460	88	58.3
NICHOLAS PARIMAL BULK DRUGS-I (after primary qualifier)	64	8.08	208	17190	45700	5335	600	2800	Nil	400	80	48.6
NICHOLAS PARIMAL BULK DRUGS - II (after effluent treatment)	88	7.91	1190	15500	7380	6645	1650.0	2260	Nil	300	80	24
NITHYA LABS LTD	32	7.36	1300	22900	92800	7760	1100	1960	Nil	460	96	53.5
PLANT ORGANICS LTD.	167	8.76	821.0	11380.0	14640.0	3880.0	275.0	1780.0	-	1000.0	240.0	97.2
PETL TREATED EFFLUENTS	36	7.7	464	9698	1735	3550	1300	1200	Nil	920	160	126.4
PRABHAVA ORGANICS	169	6.44	187.0	12300.0	150.0	7275.0	110.0	366.0	-	3200.0	1040.0	145.8
QUINN (I) LTD	89	7.11	24	2600	280	1067	54	760	Nil	900	200	97.2
RALCHEM LTD (treated effluents)	65	7.04	135	12985	1950	4850	2,550	500	Nil	400	100	36.4
RALCHEM (effluents)	39	7.09	550	13490	1980	4850	2650	620	Nil	680	140	80.2
REDDY'S UNIT-I	175	7.13	732.0	10100.0	2450.0	4559.0	650.0	1830.0	-	1250.0	140.0	218.0
REDDY'S UNIT-II	157	7.99	695.0	8500.0	4380.0	4268.0	—	2684.0	-	650.0	160.0	60.75
REDDY'S UNIT-III	103	6.33	473.0	12850.0	8200.0	5723.0	100.0	732.0	-	3200.0	580.0	425.2
RELIANCE CELLULOSE LTD (High TDS)	136	4.88	500	6860	6630	2425	200	-	Nil	560	120	63
SIRIS CROP SCIENCES LTD (Stored effluents)	212	8.61	475	8,034	-	-	-	-	-	-	-	-
*SIRIS CROP SCIENCES LTD.	258	7.69	480.0	15580.0	4720.0	—	—	—	-	—	—	—
SMS PHARMACEUTICALS LTD	246	2.69	88.0	25740.0	37200.0	11155.0	925.0	Nil	-	10800.0	4000.0	607.5

ANALYSES OF INDUSTRIAL EFFLUENTS (contd.4)

Name	Code No	pH	TSS	TDS	COD	Cl	SO_4^-	HCO_3^-	CO_3^-	Total Hardness	Ca	Mg
SMS II (Rain water sump)	291	7.02	110.0	8620.0	2750.0	3201.0	1375.0	400.0	-	2300.0	72.9	970.0
*VIRCHOW CHEMICALS LTD	19	6.9	63	24857	9930	6830	1400	1650	Nil	11000	3512	539.5
*VENKATARAMANA CHEMICALS LTD	37	6.8	149	19051	3345	8000	3800	500	Nil	2600	680	218.7
TRITON LABORATORIES LTD. (GRANULES)	87	4.5	338	11342	12820	2000	850.0	Nil	Nil	2100	400	267.3
S S ORGANICS LTD	5	8.75	400	7680	35200	2910	1015	1000	Nil	600	120	72.9
SARACA LABORATORIES LTD	78	7.85	66	5214	6675	1115	250	700	Nil	800	200	72.9
*ALKALI METALS LTD	180	7.71	1827	2,510	-	-	-	-	-	-	-	-
YAGMAG LABS PVT LTD	158	7.12	417.0	15200.0	14870.0	2183.0	395.0	122.0	-	1650.0	320.0	206.0
*LAKSHMI DRUGS	207	7.3	90	840	460	19.7	136	270	Nil	320	320	33.9
*APEX DRUGS & INTERMEDIATES LTD	202	8.42	3952	12,740	-	-	-	-	-	-	-	-
*AUROBINDO IV	236	7.7	860	14,210	3,260	4,675	959	1,884	Nil	1,155	233	139
*MATRIX VII	221	8.05	162.0	3200.0	1280.0	388.0	91.0	2750.0	-	700.0	176.0	6302.0
SAIBABA CELLULOSE LTD	476	6.5	340.0	2680.0	680	437.0	1180	110.0	-	1100.0	230.0	127
TASLIM ENTERPRISES-I (DRUMS WASH)	439	---	---	---	---	---	---	---	---	---	---	---
TASLIM ENTERPRISES-II (FROM STORAGE TANK)	473	12.2	70.0	11500.0	6930.0	1600.0	2400.0	2900.0	-	65.0	8.0	10.9

Annexure 9.2

LIST OF INDUSTRIES INSPECTED BY FACT FINDING COMMITTEE AND DATA PREPARED BASED ON QUESTIONNAIRE IN W.P NO.19651/2002

Sl. No	Name and Location of Industry	Type of Industry CFE/CFO	Treatment Facilities	Effluent Segregation Details	CETP Details		Hazardous Waste Details	Observation/Remarks
					Contractual Load Per Annum	Actual Tankers sent to CETP Per Annum	Solid Waste actual sent to TSDF during 2003 (Tonnes)	
1	2	3	4	5	6	7	8	9
	M/s.Aurobindo Pharma Ltd. Unit I, Borapaila (Sri Chakra Remedies)	Bulk drugs *CFE 17-9-03 CFO 30-1-02 *CFE obtained for change of product mix under no increase in pollution load.	Equalization tank, neutralization tank, primary clarifier, aeration tank, secondary clarifier, sludge drying beds, forced evaporation reactors (2 x 5 KL)	High TDS 5.6 KLD Low TDS 42 KLD	–	1313	378.22	During the visit of the FFC, t was observed that low TDS effluents are treated in secondary ETP and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. *The forced evaporation system installed is not adequate to meet requirement. Hence the Unit shall install additional forced evaporators consistent with loads.*
	M/s. Aurobindo Pharma Ltd. –Unit-II, Bollaram, Medak Dist.	Bulk drugs CFE:12-7-93 CFO:6-12-03	Collection sump, Oil and grease chamber, Equalization, Primary Clarifier, Aeration Tanks – 2 Nos. Sludge thickener and sludge drying beds, forced evaporation reactors (3 x 4 KL)	High TDS -- 50 KLD Low TDS -- 170 KLD	–	5871	724.46	During the visit of the FFC, it was observed that low TDS effluents are treated in secondary ETP and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. It was observed that the record of TDS values during July 2003 and November 2003 are not matching with PETL values. *The forced evaporation system installed is not adequate to meet requirement. Hence the Unit shall install additional forced evaporators consistent with loads.*

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1	2	3	4	5	6	7	8	9
3.	M/s. Aurobindo Pharma Ltd., (Unit-IV), Pashamylaram, Medak Dist.	Bulk drugs CFE: 24-2-92 CFO: 4-2-93 Rejected CFO for not in operation.	High TDS – Forced evaporation system. Low TDS – Primary Treatment: Collection sump, Oil & Grease Chamber, Equalization cum Neutralization tank – 2 Nos., Flash Mixer, Primary clarifier. Secondary Treatment: Pre aeration tank, Aeration tank – I, Secondary clarifier, Aeration tank – II with pure oxygen injection system, Final clarifier, Holding tank, sludge thickner, Sludge decanter. Tertiary Treatment: Pressure sand filters, Bag filters, Cartridge filters, RO Plant – 250 KL/d.	High TDS –58 KLD Low TDS –16 KLD	--	–	9.53	The Unit is not in operation since 2 years. Data not available.
4.	M/s. Aurobindo Pharma Ltd. (Unit-V), IDA, Pashamailaram Medak Dist.	Bulk drugs *CFE:16-8-2003 CFO:20-11-2003 *Valid upto 30-6-2004	Collection tanks, primary clarifier, aeration tanks, secondary clarifier, sludge drying beds, reverse osmasis plant, triple effect evaporator, multiple effect evaporator reactors, incinerator	High TDS 26 KLD Low TDS 103 KLD	–	4921	2262.395	During the visit of the FFC, it was observed that low TDS effluents are treated in secondary ETP and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. *It was observed that the Reverse Osmosis Plant was not working as spare parts need to be imported.*
5	M/s. Aurobindo Pharma Ltd., Unit-VI A & VI B Chitkul, Medak Dist.	Bulk drugs & formulations CFE: 19-12-1994 CFO:22-07-2003	Effluent collection and neutratination tanks, psycromatic evaporator, triple effect evaporation	High TDS 27 KLD Low TDS 31 KLD	–	1544	65.435	During the visit of the FFC, it was observed that low TDS effluents are treated and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. *The industry generates more than 40 KLD discharge. Hence the industry shall install secondary ETP.*

1	2	3	4	5	6	7	8	9
6	M/s. Aurobindo Pharma Ltd., Unit-VII, Gaddapotharam (Ranit Pharma Unit I)	Bulk drugs CFE: CFO: 7-1-04	Effluent collection and neutratination tanks, forced evaporator	High TDS 11.1 KLD	–	--	405.335	During the visit of the FFC, it was observed that the high TDS effluents are evaporated in forced evaporation system and found to be in order.
7	M/s. Aurobindo Pharma Ltd., Unit-VIII, Gaddapotharam (Shreeshma Bulk Drugs Ltd.)	Bulk drugs CFE: 6-5-2003 CFO: 2-9-2003	Effluent collection and neutratination tanks, aeration tank, storage tank, forced evaporator 2 x 4 KL	High TDS 1 KLD Low TDS 2.3 KLD	–	--	258.065	During the visit of the FFC, it was observed that low TDS effluents are treated and sen to CETP. The high TDS effluents are evaporated in forced evaporation systen and found to be in order.
8.	M/s. Aurobindo Pharma Ltd., Unit-IX Gundala Machanoor (Vamsi Organics Ltd.)	Bulk drugs CFE: 26-9-2003 CFO:1-10-2002	Effluent collection and neutratination tanks, forced evaporator 2 x 7 KL	High TDS 4.4 KLD Low TDS 6.8 KLD	–	581	456.31	During the visit of the FFC, it was observe that low TDS effluents are treated and sen to CETP. The high TDS effluents are evaporated in forced evaporation system. It was observed that the Industry is no maintaining the records of force evaporation system. The Unit has also ser effluent tankers of 90, 67, 71 numbe respectively to PETL which is in excess permitted load. After probing into the matt in detail, it was found that during that perio the forced evaporation system was n working. The unit needs to inform the PC and take permission for excess tanke whenever the FE system is not in operation
9	M/s. Apex Drugs Intermediates, Gaddapotharam, Medak Dist.	Bulk drugs CFU: 12-1-90 CFO:	Collection tanks, forced evaporation system	High TDS 10.3 KLD Low TDS 17.0 KLD	1080	1026	88.355	During the visit of the FFC, it was observe that low TDS effluents are treated and ser to CETP. The high TDS effluents ar evaporated in forced evaporation syster The FES and low TDS collection tanks ar inadequate and inconsistent with load: Hence the industry shall install additiona collection tank and FES with condens facility.
10.	M/s. Asian Paints India Ltd., Patancheru , Medak Dist.	Resins, Paints & exterior emulsions CFE:-1-8-2000 CFO:3-10-2002	Collection tank, primary clarifier, aeration tank, secondary clarifier, sludge drying beds, sand filter and activated carbon column, reverse osmasis plant.	Low TDS 11 KLD	-	-	-	During the visit of the FFC, it was mentione that RO rejects which are high concentrated are used for gardenir purposes. Hence the industry shall insta and evaporate RO rejects in force evaporation system.

1	2	3	4	5	6	7	8	9
11.	M/s. Arandy Laboratories Ltd. IDA, Bollaram, Medak Dist.	Bulk drugs CFE: 26-7-85 CFO: 25-6-2003	Inorganic Effluent Collection Tank Inorganic Neutralisation Tank Gypsum Settling Tank – I Gypsum Settling Tank – II Solar Evaporation Tanks Forced evaporators 2 x 4 KL Organic Collection Ponds Organic Neutralisation Tank Organic Collection Tanks Incinerator single drum pyrolyser is provided.	High TDS – 3 KLD Low TDS – 17.5 KLD	720	652	54.375	During the visit of the FFC, it was observed that low TDS effluents are treated and sent to CETP. The high TDS effluents are neutralised to get gypsum. *It was also observed that the incinerator plant was not in operation.*
12.	M/s. A.P. Met. Engg. Ltd Bollaram, Medak Dist.	Rectified spirit and IMFL bottling CFE: CFO:	Unlined lagoons --	Low TDS 10 KLD	-	-	-	During the visit of the FFC, it was observed that the distillery unit was issued with closure orders by APPCB as the industry was discharging untreated effluents into nearby vagu. The bottle wash water is sent to unlined lagoons.
13	M/s. Avon Organics, Sadasivpet, Medak Dist.	Inter-mediates of drug/ Pestisides. CFE: 5-8-2003 CFO:27-12-2003	Oil & Grease trap, equalization tank, Settling tank, anaerobic reactor, Bio tower – I, II&III aeration tank, secondary Clarifier, Aeration tank, sludge drying beds.	Low TDS – 23KLD	–	–	–	During the visit of the FFC, it was observed that *the untreated effluents are stored in unlined lagoons and part of effluents are used on land application. Hence the industry shall send the treated effluents of 23 KLD to PETL. Under no circumstances, the untreated effluents be applied on land.*
14	M/s. Cirex Pharmaceuticals Ltd Gundlamachanoor, Medak Dist	Bulk Drugs CFE: CFO: 31-3-2003	High TDS: Collection tank Neutralization-cum-equalization tank Forced evaporation 3 x 10 KL Low TDS : Collection tank , Neutralization cum equalization tank , Treated effluent collection tank	High TDS – 8 KLD Low TDS – 6 KLD	168	158	470.91	During the visit of the FFC, it was observed that low TDS effluents are treated and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. The solvent drums were stored for recovery.

1	2	3	4	5	6	7	8	9
15.	M/s. Dr. Reddy Labs (Unit-I) Bollaram, Medak Dist.	Bulk Drugs CFE: 25-11-2002 CFO: 15-4-2003	Treatment Units: Oil & Grease Trap Neutralisation Tank I & II- Inclined Plate Seperator Equilisation Tank Primary Settling Tank Aeration Tank – I Secondary Settling Tank Aeration Tank – II Tertiary Settling Tank Final Tank ETP Sludge Drying Beds Settling, Polishing and rejects tanks (3 Nos) Aeration tank – III Clarifier RO – Sludge Drying Beds Multi Grade Sand Filter Activated Carbon Filter RO- Membranes Unit, Canteen sump Incinerator Forced evaporators 5 x 15	High TDS 9 KLD Low TDS 31.7 KLD	2160	1811	1146.6	During the visit of the FFC, it was observed that low TDS effluents are treated in secondary ETP and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. The unit is functioning satisfactorily.
16	M/s. Dr. Reddy Labs (Unit-II) Bollaram, Medak Dist.	Bulk Drugs CFE: 6-6-2003 CFO: 27-9-2003	Equalisation tanks, Inclined Plate seperator, Buffer tank, Clarifloculator, Aeration tank, Secondary Clarifier Sludge drying beds Multiple effect evaporator	High TDS—13 KLD Low TDS—97 KLD Domestic—40 KLD (To CETP after Treatment)	5400	3640	3300.1	During the visit of the FFC, it was observed that low TDS effluents are treated in secondary ETP and sent to CETP. The high TDS effluents are evaporated in forced evaporation system. The unit is working satisfactorily.

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1	2	3	4	5	6	7	8	9
17	M/s. Dr. Reddy Labs (Unit-III) Bollaram, Medak Dist.	Bulk Drugs CFE: 9-1-2003 CFO: 23-6-2003	Holding Tanks neutralization tanks sludge drying beds Forced evaporated reactor.	Process and wash – 13.9 KLD. Domestic.– 15 KLD (To CETP after treatment in ETP)	2160	1117	167.0	During the visit of the FFC, it was observe that low TDS effluents are treated i seconday ETP and sent to CETP. The high TDS effluents are evaporated in force evaporation system. The unit is workin satisfactorily.
18	M/s. Divis Labs, Kazipally, Medak Dist.	Bulk drugs CFE: CFO: 6-8-2003	Collection tank, neutralization tank, forced evaporator	High 100 kls Low 300 kls	-	-	-	During the visit of the FFC, it was observed that the low TDS effluents are sent to JETL.
19	M/s. Deccan Leathers, Patancheru, Medak Dist.	Tannery CFE: CFO:30-4-1996	Equalization/ neutralization tank, Sludge drying beds.	Low TDS 41 KLD	2160	707	19.1	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. Disposal of untreatred effluents on neighbouring land was observed.
20	M/s. Dr.Curies Labs IDA , Bollaram, Medak Dist.	Bulk Drug Inter-mediates CFE: CFO: 19-10-2002	Collection tanks (PP/FRP Tanks) Neutralisation Tanks Centrifuge Collection Tank Condensate Collection tank Softner Water	High TDS 6.9 KLD Low TDS 12.7 KLD	1080	545	456.1	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL.
21	M/s. Everest Organics Ltd., Aroor, Medak Dist.	Bulk Drugs CFE: 10-10-94 CFO: Rejected CFE change applied but rejected.	Collection tanks, Neutralization tank. Holding tank, equalization tank, Neutralization tank. Clarifier, Sludge filters. Baffle type clarifier, Forced evaporation system.	High TDS –20 KLD (At full production) Low TDS: 35 KLD	1080	547	958.035	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *Visible disposal of effluents on land was observed.*

1	2	3	4	5	6	7	8	9
22	M/s. Glo Chem Industries Ltd. (Vipla Organics) IDA, Bollaram, Medak Dist.	Bulk Drug Intermediates CFE: CFO:	Two Collection Tanks with HDPE Lining Final Collection Tank	Low TDS – 1.935 KLD High TDS – 1.190 KLD	360	287	1.63	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. *It was also observed that the effluent collection tank was in bad condition due to collapse of one side wall and it was under repair.* The industry is *exceeding the limit of Low TDS/KLD (Column 5) permitted by APPCB.* The industry shall install forced evaporation system.
23	M/s. Hetero Drugs (P) Ltd. Bonthapally, Medak Dist.	Bulk Drugs CFE: 20-11-93 CFO:6-8-2003	Neutralisation Tanks Primary Clarifier Sludge drying beds	High TDS 31 KLD	926	-	368.26	During the visit of the FFC, it was observed that the neutralised effluents are sent to their group units viz., M/s.Kemira Laboratories, Bonthapally, for forced evaporation. *The records maintained by the industry are found in order.*
24	M/s. Hetero Labs Ltd. Kazipally, Medak Dist.	Bulk Drugs CFE:20-11-93 CFO:6-8-2003	Forced evaporation in MS Reactors Liquid incinerator Collection tanks and neutralisation tanks	High TDS 10.6 KLD High COD 1.4 KLD	-	-	-	During the visit of the FFC, it was observed that the neutralised effluents are sent to their group units viz., M/s.Kemira Laboratories, Bonthapally, for forced evaporation. *The liquid incinerator was under repair. The records maintained by the industry were found in order.*
25.	M/s. Hitesh Chemicals & Pharmaceuticals Ltd. Patancheru , Medak Dist.	Bulk Drugs CFO:25-6-2003	HDPE lined collection tank	Low TDS – 8.1 KLD	360	318	-	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL . It was observed that *effluent collection was in bad condition and sulphur produced in the process was stored in drying beds. The spillage of sulphur was observed.*
26	M/s. Hyderabad Chemicals Ltd Pashamylaram, Medak Dist.	Pesticide technical CFE:8-8-1995 CFO:6-8-2003 Upto 30-6-2005	Collection tanks Solar evaporation ponds Forced evaporation system		360	306	457.1	During the visit of the FFC, it was observed that the incinerator was under repair and waste stored in drums. The industry shall abandoned solar evaporation ponds before May 2004.
27	M/s. Hygro Chemicals Pvt. Ltd. Bollaram, Medak Dist.	Bulk Drugs CFE: 8-8-1995 CFO:6-8-2003	Forced Evaporation Reactors. Collection cum Neutralization Tanks.	High TDS – 2.3 KLD Low TDS – 3.36 KLD	360	241	239.54	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system
28	M/s. Inventa Chemicals (Deccan Drugs Ltd) Patancheru, Medak Dist.	Bulk Drugs CFE:18-8-1981 CFO:12-6-2003 Valid upto 31-3-2004	Collection tank (Lined with HDPE liner) , Effluent storage tank – 2 Neutralization, Effluent storage tanks.	Low TDS – 10.8 KLD High TDS – 3.2 KLD	720	283	26.33	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. *Proper care should be taken to line the bottom of the collection tank.*

1.	2	3	4	5	6	7	8	9
9	M/s. Indian Cheniphar Ltd. Pashamylaram, Medak Dist.	Bulk Drugs	Collection tank	Low TDS – 26 KLD	360	-	17.595	During the visit of the FFC, it was observed that the unit was not in operation.
0	M/s. Kekule Chemicals Pvt. Ltd Khazipally, Medak Dist	Bulk Drugs CFE:2-9-2002 CFO:26-3-2003	Collection Tank Neutralisation Tank Aeration Tank Settling Tank Forced evaporation system	High TDS -- 6 KLD Low TDS -- 31 KLD	360	584	558.815	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system.
1	M/s. Kemira Laboratores Ltd. Bonthapally, Medak District	Bulk drugs Inter-mediates CFE: 1-2-1992 CFO:10-3-2003	Collection tank, neutralization tank, forced evaporation reactors (5 Nos.)	High TDS Low TDS	-	-	-	During the visit of the FFC, the industry was operating high TDS effluents in series of reactors. The solid waste is sent to TSDF. *Inflammable organic solvents are stored in the premises.*
2	M/s. Medicorp Technologies (I) Ltd., Pashamailaram, Medak Dist	Bulk Drugs. CFE:10-4-2000 6-10-2003 CFO:18-12-2002	Forced evaporation system. Solvent traps, equalization and Neutralization tanks. UASB reactor, faculative lagoon, aeration tank , settling 1&2, Biox reactor, flash mixer cum flocculator, lamella separator, gravity filter, sand filter, activated charcoal filter.	Low TDS – 25 KLD High TDS – 50 KLD	--	652	26.85	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system
3	M/s. Maruthi Text Print & Processors, Pashamylaram, Medak Dist.	Printing & Dying CFE:23-5-1990 CFO:26-6-2003	Equalization tank , Settling tank, Aeration tank, Oxidation tank, Sludge drying beds, adsorption tower	60 KLD recycled	--	--	–	During the visit of the FFC, visible disposal of effluents was observed in *neighbour's land.* The industry claims that they are recycling all the waste water in the process. *The industry shall send treated effluents to PETL for further treatment. The industry is not sending ETP sludge to TSDF.*

2	3	4	5	6	7	8	9
M/s. Merven Drugs Ltd (Arch-Meng Drugs) Gundlamachanoor, Medak Dist.	Bulk Drugs CFE:21-3-1995 Change of product 1097 CFO:2-1-2004 Upto 30-7-2004	Low TDS: Raw effluent storage tank, neutralization/settling tank, treated effluent collection tank, and sludge drying beds. High TDS: (acid stage effluents-10KLD) : Collection tank / neutralization tank, incinerator High TDS(Chloride stage effluents-4KLD): neutralization tank, 2 Nos. of forced evaporation reactors (6 KL each)	Low TDS – 12 KLD High TDS – 10 KLD	-	453	691.3	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *It was observed that the effluent s conveyed through plastic pipes. Use of plastic pipes is not advisable for chemicals. Hence the industry shall lay permanent drain to convey the effluent.*
M/s. Neuland Labs Ltd. Pashamylaram, Medak Dist.	Bulk Drugs.	Neutralization tank, Aeration tank with liquid oxygen injection, tube settler, filter press, Collection tank, Forced evaporation system.	Low TDS – 110 KLD High TDS – 18 KLD	520	5153	866.72	During the visit of the FFC, the Committee observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The industry is not maintaining free board for collection tanks and all the effluents in the tanks were found mixed up.* There are complaints of odour from the industry.
M/s. Nitya Laboratories Ltd DA, Pashamailaram, Medak Dist.	Bulk Drugs. CFE:10/96 26-4-2000 CFO:	Oil & grease trap, Equalization / neutralization tank, Treated effluent storage tanks Forced evaporation system.	Low TDS – 13.4 KLD High TDS – 6 KLD	720	732	739.1	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The visible disposal of effluents are observed in neighbour's land.* Effluents collected were found mixed up.

1	2	3	4	5	6	7	8	9
37	M/s. Nicholas Parimal Bulk Drugs (M/s. Global Bulk Drugs & Chemicals) Digwal (V), Kohir (M) Medak Dist.	Bulk Drugs CFE:28-9-2002 CFO: 8-7-2003	Oil & Grease trap, Equalization cum neutralization tank, Primary clarifier, Anaerobic filters, Aeration tank, Secondary clarifier, Oxidation ditch, Final clarifier, Sludge drying beds, Multiple effect evaporator.	Low TDS – 125.35KLD High TDS – 60.15KLD	2520	2537	545.37	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The multiple effect evaporator was not in operation due to maintenance.*
38	M/s.Nicholas Parmal Bulk Drugs (Alpex International Pvt. Ltd.) Digwal (V), Kohir (M) Medak Dist.	Bulk Drugs CFE:28-9-2002 CFO:8-7-2003	Oil & Grease trap, Equalization cum neutralization tank, Primary clarifier, Anaerobic filters, Aeration tank, Secondary clarifier, Oxidation ditch, Final clarifier, Sludge drying beds, Multiple effect evaporator.	Low TDS – 26.39 KLD High TDS –40.14 KLD	-	-	-	-do-
9	M/s. Nestor Pharmaceuticals Ltd Patancheru, Medak Dist.	Bulk Drugs CFE: 3-8-1996 CFO: 8/97	Collection tanks, Solar evaporation ponds, Forced evaporation system	Low TDS 10 KLD High TDS 14.8 KLD		427	16.04	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The forced evaporation system installed is not adequate. The industry shall install additional forced evaporation system.*
	M/s. Neuland Labs Ltd Sonthapally, Medak Dist.	Bulk Drugs CFE: 4-2-1993 CFO: 22-7-1994	Forced Evaporation Reactor Neutralisation Tanks Equalization Tank Setling Tank Collection Tank	Low TDS 23.5 KLD		608	539.5	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The collection tanks are full and free board is not maintained. Huge quantities of solvent drums are stored for disposal.*

1	2	3	4	5	6	7	8	9
41	M/s. Plant Organics Ltd Bollaram, Medak Dist.	Bulk Drugs, Intermediates CFE:21-12-1984 CFO:23-10-2001	Collection tanks, Forced evaporation system	High TDS – 9 KLD. Low TDS – 5 KLD.			210.985	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *The industry is not maintaining records for forced evaporation with corresponding solid waste generation. The effluents generated are sent to two CETPs which is not permitted.*
42	M/s. Prabahava Organics, Bollaram, Medak Dist.	Bulk Drugs, Intermediates CFE: CFO: 6-10-2003	Forced Evaporation Reactors . Collection-cum-neutralization tank	HTDS – 5.5 KLD LTDS – 5 KLD	1080	678	411.61	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. The industry is not maintaining records for forced evaporation with corresponding solid waste generation. Visible disposal of effluents on land was observed.
43	M/s. Prasad Drugs Ltd Bollaram, Medak Dist.	Bulk Drugs CFE:13-11-1996 CFO:7-3-2003	Collection tank, Neutralization tank, Aeration tank, Sludge drying beds	Low TDS 13.1 KLD	1188	537	37.745	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. The industry was found replacing forced evaporation reactor.
44	M/s. Quinn India Ltd Patancheru , Medak Dist	Tanning Chemicals CFE: CFO:9-10-2003	Neutralization tank, 8 Nos. of collection tank & Sedimentation tanks, Solar evaporation ponds Aeration tank, settling tank, sand filters & treated effluent collection tank.	Low TDS- 8 KLD	360	172	127.25	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The industry is maintaining records and found to be in order.
45	M/s. Ralchem Ltd Patancheru , Medak Dist	Pesticides CFE: CFO:24-4-2001	Collection tank, Primary clarifier, Aeration tank, secondary clarifier, sludge drying beds, incinerator, multiple effect evaporator, forced evaporation system	Low TDS – 175 KLD High TDS – 30 KLD		4564	2560.4	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. The Unit is maintaining all records pertaining to ETP, solid waste generation. *The unit shall carry out pesticide analysis before sending to PETL. The villagers of Patancheru complain about odour nuisance from this industry. The industry shall take utmost measures to control odour nuisance.*

	2	3	4	5	6	7	8	9
46	M/s. Rajya Lakshmi Laboratories Pashamailaram, Medak Dist.	Bulk Drugs	Low TDS – Collection tank cum neutralization tank, Effluent storage tank High TDS – Forced evaporation system.	Low TDS – 10 KLD	-	-	-	During the visit of the FFC, it was observed that the unit was not in operation.
47	M/s. Roopa Industries Ltd Patancheru, Medak Dist.	Bulk Drugs CFE:26-12-1996	Collection tank, Neutralization tank, effluent storage tank Forced evaporation system	Low TDS – 6 KLD High TDS – 6.45 KLD	720	20	34.19	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. The Unit was not in operation.
48	M/s. Reliance Cellulose Ltd Patancheru, Medak Dist.	Cellulose CFE: CFO:27-8-2002	Holding tank, Aeration tank, Clarifier, Sludge drying beds Solar evaporation ponds	Low TDS 113 KLD High TDS 12 KLD	-	-	-	During the visit of the FFC, it was observed that the unit is retreating wash waters in ETP and applying on land. The black liquor effluents are stored in solar evaporation pond for evaporation. The solar evaporation ponds were found to be damaged and cracks on side walls was observed. The industry shall abandoned SEPs by installing forced evaporation/incineration of black liquor effluents. The wash water after treatment shall be sent to CETP, Patancheru.
49	M/s. Saraca Laboratories Ltd. Gaddapotharam, Medak Dist.	Bulk drugs CFE:26-12-1996 CFO:19-1-2004	Collection tank, neutralization tank, forced evaporation, incineration	High TDS 6 KLD Low TDS 9 KLD Incineation 3.0	720	571	1176.074	During the visit of the FFC, the Committee observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. The industry was installing a new incenerator. Incenerator records were not in order.
50	M/s. Siris India Ltd. Gummadidala , Medak Dist.	Pesticides CFE: CFO:21-10-2003	4.2 KLD High TDS effluents are forced evaporated in three 10 KL reactor, one 6 KL reactor and one 4 KL reactor 122 KLD. Low TDS effluents sending to PETL	High TDS- 42 KLD. Low TDS- 122 KLD	-	830	360.125	During the visit of the FFC, it was observed that the industry is not in regular production. The low TDS effluents are treated in secondary ETP and send to CETP, Patancheru. The industry has sent old stock of effluents to PETL.

1	2	3	4	5	6	7	8	9
51	M/s. S.S.Organics Ltd Aroor, Medak Dist.	Bulk Drugs CFE:15-10-1991 CFO:6-8-2003	High TDS – Collection/Neutralizatio n Tanks, Forced evaporation reactors (3 Nos.). Multiple effect evaporator . Low TDS – Effluent collection/ Neutralization tanks, Aeration Tank, Settling tank and treated effluent storage tank	Low TDS – 3.41KLD High TDS – 10.19KLD	-	558	352.665	During the visit of the FFC, the plant was under shut down.
52.	M/s. Sri Sai Baba Cellulose Ltd Patancheru , Medak Dist.	Cellulose Products. CFE:- CFO:4-12-2003	Screen Filters, Collection and equalization tank, Propeller Agitator, Parallel plate separator, sludge drying bed, aeration tank with 5HP floating aeration, secondary clarifier.	Low TDS 47 KLD 95.0 reuse	-	-	-	During the visit of the FFC, it was observed that the treated effluents are being disposed on neighbour's land. The black liquor is stored in solar evaporation ponds. The industry is in the process of abandoning the SEPs. The industry shall send treated effluents to CETP, Patancheru.
53	M/s. Sigachi Cholo Chemicals (P) Ltd Pashamailaram, Medak Dist.	Chemicals CFE: 23-5-2003 CFO: 31-3-2003	Collection tank: Neutralization tank: Settling tank: Final storage tank: Sand filter: Solar evaporation pond: Treated wastewater is reused as cooling tower make-up water.	Low TDS 12.5 KLD (Reused as make up water)	-	-	-	During the visit of the FFC, it was noticed that the treated water is reused for cooling tower make up water. The industry shall send the settled sludge from collection tank to TSDF. The industry was carrying out mock drills within the factory premises for safety.
54.	M/s.SMS Pharmaceuticals Khazipally	Bulk Drugs CFE: CFO:	Collection tanks, neutralization tank, Forced evaporation system, incinerator plant.	High TDS 60 KLD	-	-	1730.6	During the visit of FFC, it was observed that the industry treats all the effluents in forced evaporating system. The solid waste generated is sent to TSDF. The industry claims that their plant is zero discharge plant. This claim may be validated by the competent authority. A wall found between these two units was demolished to check the possibilities of pollution in a stream that flows under this wall. Coloured water was found in the stream.

1	2	3	4	5	6	7	8	9
55	M/s. Triton Laboratoires Ltd (M/s.Granules (I) Ltd.,) Bonthapally, Medak Dist.	Bulk Drugs CFE:2-5-1995 CFO:28-12-2001	Forced Evaporation Reactors Collection Tanks, Neutralisation Tanks, Sludge Drying Beds are provided.	Low TDS – 34 KLD High TDS – 30 KLD.	-	JETL	12239.45	During the visit of the FFC, it was observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. It was observed that free boards for collection tanks are not maintained and overflow of effluents noticed. The industry has stored huge quantities of solid waste within the premises.
56	M/s. Venkatarama Chemicals Ltd Patighanpur, Patancheru, Medak Dist.	Bulk Drugs CFE:- CFO:23-1-2003	Collection tank, Aeration tank	High TDS 1.5 KLD Low TDS 29.0 KLD	-	512	55.065	During the visit of the FFC, it was observed that the low TDS effluents after pretreatment sent to CETP. It was observed that alkali waste is sent to traders/industries. *The industry shall neutralize these effluents and evaporate it in forced evaporation system. Hence the industry shall install FES.*
57	M/s. Vorin Labs Ltd (M/s.Matrix Unit-I) Gaddapotharam, Medak Dist.	Bulk Drugs CFE:5-12-2003 CFO:23-12-2003	Low TDS effluents Collection tank. Inorganic Pretreatment effluent Collection tank. Equalisation / Neutralisation tanks Parallel Plate Seperator <u>Secondary Treatment:</u> Pretreated effluent Collection cum Equalisation tank Aeration tank Secondary clarifier Sludge drying bed Treated effluent Collection tank Forced evaporated reactors.	High TDS – 5 KLD Low TDS – 52 KLD	-	3325	919.3	During the visit of the FFC, it wase observed that the low TDS effluents are sent to PETL. The high TDS effluents are evaporated in forced evaporation system. *Visible disposal of untreated effluents into neighbour's land was observed.*
58	M/s. Venkar Chemicals Pvt. Ltd IDA, Pashamailaram, Medak Dist.	Bulk Drugs Inter-Mediates CFE:27-3-1995 CFE:17-12-1999 CPO:26-6-2003	Primary setting tank Neutralization Tank Final Collection Tank Forced evaporation system	Low TDS – 22.2 KLD High TDS – 6.5 KLD	360	392	92.1	During the visit of FFC, the Unit was not in operation. Acid tank storage spillages were observed.

1	2	3	4	5	6	7	8	9
59	M/s.Virchow Chemicals Pvt. Ltd., Gaddapotharam	Bulk Drug Inter-mediates	Collection tank, Neutralisation Tank, Final Collection Tank Gypsum storage and drying beds. Leachate Collection system, RO Plant Recycled back nto process after primary treatment	LTDS—55 KLD	360	153		During the visit of FFC, the visible disposal of effluents outside the factory premises was observed. The bore-well Water collected from the premises was found to be contaminated. *The Industry claims that the effluents generated are recycled back into the process. This claim needs to be validated by competent authority.*
60	M/s.Yag-Mag Labs (P) Ltd., Gaddapotharam, Medak Dist.	Inter-Mediates CTE:20-10-1989 CTO:20-01-2004 CFO:30-6-2002	Collection tank, neutralization tank	Low TDS 1.6 KLD	-	68	218.5	During the visit of FFC, it was observed that no low TDS effluents are pre-treated and sent to TSDF.

Annexure 10.1

ANALYSIS OF TANKS AND STREAMS (mg/l except pH)

Name	Code No	pH	TSS	TDS	COD	Cl	SO_4^{--}	HCO_3^-
NAKKA VAGU ISMAIL KHAN PET BRIDGE	84	7.76	13	1310	230	330	155	280
TANK NEAR VENKATARAMANA CHEMICALS-I	119	8.6	9	1260	98	160	300	400
ASANIKUNTA	142	7.25	10.0	4230.0	290.0	2183.0	260.0	610.0
WATER TANK AT SIRIS	224	7.38	16.0	800.0	27.0	218.0	37.0	100.0
JILLELAVAGU	235	7.0	228.0	9500.0	2890.0	1213.0	750.0	260.0
YERDANOOR TANK	245	8.69	12.0	400.0	63.0	117.0	7.0	168.0
JILLELAVAGU	252	6.92	48.0	8460.0	1280.0	2571.0	875.0	600.0
NAKKAVAGU AT BRIDGE	259	8.09	12.0	1500.0	160.0	592.0	185.0	260.0
ISNAPUR TANK	289	7.76	8.0	440.0	50.0	136.0	60.0	140.0
NAKKAVAGU AT FIELDS	300	7.4	33.0	2126.0	173.0	631.0	210.0	662.0
OUTLET KHAZIPALLI TANK	307	7.3	140.0	6660.0	1230.0	2546.0	900.0	420.0
INLET KHAZIPALLY TANK	308	7.0	180.0	8660.0	2140.0	3395.0	810.0	750.0
NAKKAVAGU AT BACHUGUDA	311	7.4	49.0	2688.0	322.0	669.0	280.0	670.0
GANDIGUDEM TANK	319	7.1	25.0	1300.0	88.0	427.0	270.0	158.0
MANNEVARI KUNTA	325	7.2	120.0	4930.0	625.0	2075.0	300.0	670.0
ISAKAVAGU AT CULVERT	358	7.3	12.0	1070.0	22.0	330.0	62.0	504.0
KADIKUNTA	366	6.9	68.0	3350.0	362.0	1455.0	375.0	440.0
DAMARA CHERUVU	360	7.6	140.0	980.0	32.0	383.0	29.0	100.0
POSAMUDRUM	373	7.0	89.0	1358.0	31.0	504.0	160.0	158.0
NAKKA VAGU	378	7.6	86.0	4830.0	363.0	1600.0	837.0	660.0
BRAHMIN KUNTA	398	7.4	38.0	92.0	12.0	11.0	5.0	50.0
LAKADARAM TANK	467	7.2	<5.0	260.0	6.0	26.0	3.0	132.0

ANALYSIS OF TANKS AND STREAMS (mg/l except pH) (contd.2)

Name	Code No	CO_3^-	Total Hardness	Ca	Mg	Na
NAKKA VAGU ISMAIL KHAN PET BRIDGE	84	Nil	400	89	48.6	315
TANK NEAR VENKATARAMANA CHEMICALS	119	Nil	360	100	26.7	208
ASANIKUNTA	142	-	1400.0	320.0	145.0	650.0
WATER TANK AT SIRIS	224	-	250.0	68.0	19.4	76.0
JILLELAVAGU	235	-	2900.0	780.0	230.8	725.0
YERDANOOR TANK	245	-	164.0	44.0	13.1	54.0
JILLELAVAGU	252	-	3300.0	744.0	349.0	630.0
NAKKAVAGU AT BRIDGE	259	-	570.0	106.4	73.9	237.0
ISNAPUR TANK	289	-	144.0	32.0	15.5	65.0
NAKKAVAGU AT FIELDS	300	-	460.0	100.0	51.0	419.0
OUTLET KHAZIPALLI TANK	307	-	1600.0	440.0	121.0	794.0
INLET KHAZIPALLY TANK	308	-	2500.0	620.0	226	1100.0
NAKKAVAGU AT BACHUGUDA	311	-	460.0	99.2	51.5	436.0
GANDIGUDEM TANK	319	-	430.0	110.0	37.66	183.0
MANNEVARI KUNTA	325	-	1220.0	320.0	102.0	800.0
ISAKAVAGU AT CULVERT	358	-	408.0	108.0	33.0	144.0
KADIKUNTA	366	-	1400.0	296.0	160.4	675.0
DAMARA CHERUVU	360	-	325.0	75.2	33.3	124.0
POSAMUDRUM	373	-	680.0	120.0	92.0	223.0
NAKKA VAGU	378	-	470.0	104.0	51.0	900.0
BRAHMIN KUNTA	398	-	40.0	8.0	4.86	14.0
LAKADARAM TANK	467	-	122.0	30.0	11.4	54.0

ANALYSIS OF TANKS AND STREAMS (mg/l except pH) (contd.3)

Name	Code No	Cd	NO_3	F	Fe	CH	EC
NAKKA VAGU ISMAIL KHAN PET BRIDGE	84	-	-	-	-	-	-
TANK NEAR VENKATARAMANA CHEMICALS-I	119	-	-	-	-	-	-
ASANIKUNTA	142	-	-	-	-	-	-
WATER TANK AT SIRIS	224	-	-	-	-	-	-
JILLELAVAGU	235	-	-	-	-	-	-
YERDANOOR TANK	245	-	-	-	-	-	-
JILLELAVAGU	252	-	-	-	-	-	-
NAKKAVAGU AT BRIDGE	259	-	-	-	-	-	-
ISNAPUR TANK	289	-	-	-	-	-	-
NAKKAVAGU AT FIELDS	300	-	12.0	---	-	-	-
OUTLET KHAZIPALLI TANK	307	-	-	---	-	-	-
INLET KHAZIPALLY TANK	308	-	-	---	-	-	-
NAKKAVAGU AT BACHUGUDA	311	-	13.9	---	-	-	-
GANDIGUDEM TANK	319	-	6.152	---	-	-	-
MANNEVARI KUNTA	325	-	-	---	-	-	-
ISAKAVAGU AT CULVERT	358	-	14.0	1.03	-	-	-
KADIKUNTA	366	-	-	---	-	-	-
DAMARA CHERUVU	360	-	-	1.27	-	-	-
POSAMUDRUM	373	-	4.9	0.93	-	-	-
NAKKA VAGU	378	-	-	---	-	-	-
BRAHMIN KUNTA	398	-	-	0.27	-	-	-
LAKADARAM TANK	467	-	-	0.41	-	-	-

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ANALYSIS OF TANKS AND STREAMS (mg/l except pH) (contd.4)

Name	Code No	K	Conductivity	As	Cr	Pb	Ni	Cu
NAKKA VAGU ISMAIL KHAN PET BRIDGE	84	2.7	-	-	-	-	-	-
TANK NEAR VENKATARAMANA CHEMICALS-I	119	8.4	-	-	-	-	-	-
ASANIKUNTA	142	145.0	-	-	-	-	-	-
WATER TANK AT SIRIS	224	32.0	-	-	-	-	-	-
JILLELAVAGU	235	825.0	-	-	-	-	-	-
YERDANOOR TANK	245	32.0	-	-	-	-	-	-
JILLELAVAGU	252	800.0	-	-	-	-	-	-
NAKKAVAGU AT BRIDGE	259	92.0	-	-	-	-	-	-
ISNAPUR TANK	289	43.0	-	-	-	-	-	-
NAKKAVAGU AT FIELDS	300	65.0	-	-	-	-	-	-
OUTLET KHAZIPALLI TANK	307	337.0	-	-	-	-	-	-
INLET KHAZIPALLY TANK	308	331.0	-	-	-	-	-	-
NAKKAVAGU AT BACHUGUDA	311	80.0	-	-	-	-	-	-
GANDIGUDEM TANK	319	60.0	-	-	-	-	-	-
MANNEVARI KUNTA	325	115.0	-	-	-	-	-	-
ISAKAVAGU AT CULVERT	358	17.0	-	-	-	-	-	-
KADIKUNTA	366	47.5	-	-	-	-	-	-
DAMARA CHERUVU	360	12.5	-	-	-	-	-	-
POSAMUDRUM	373	36.0	-	-	-	-	-	-
NAKKA VAGU	378	114.0	-	-	-	-	-	-
BRAHMIN KUNTA	398	1.3	-	-	-	-	-	-
LAKADARAM TANK	467	3.7	-	-	-	-	-	-

Annexure 12.1

CETP PERFORMANCE CHART – 2000 – 2003
(All values are monthly averages)

S.No		2000	2001	2002	2003
1.	Industrial waste tanker	5239	4818	5179	4986
2.	Sewage tankers	1160	1199	1258	1109
3.	Chemical Oxygen Demand (COD) (a) Inlet (b) Outlet	 7035 2227	 6441 2075	 5960 1450	 6233 1684
4.	Total Dissolved Salts (TDS) (a) Inlet (b) Outlet	 13404 10857	 12445 9955	 11118 8800	 11186 8915
5.	Biochemical Oxygen Demand (a) Inlet (b) Outlet	 2777 249	 2278 198	 2108 56	 2314 116
6.	Suspended Solids (a) Inlet (b) Outlet	 <1000 <600	 892 507	 <1000 <500	 889 289
7.	pH range	7.0 - 8.0	7.0 – 8.0	7.0 - 8.0	7.5 - 8.0

Annexure 12.2

NUMBER OF TANKERS SENT BY MAJOR INDUSTRIES TO CEPT, PATANCHERU, FOR TREATMENT

Industries	2003	2002	2001	2000
Aurobindo Pharma Ltd. Unit – I – Borapatla Unit – II – Bollaram Unit – V – Pashamylram Unit – VI – Chitkul	 1313 5871 4921 1544	 1714 4703 6077 1544	 503 3594 5159 -	 630 6240 7525 -
Dr. Reddy's Labs Unit – I – Bollaram Unit – II – Bollaram Unite – III – Bollaram	 1811 3640 1117	 1901 3332 1224	 3489 3309 1584	 1070 4953 1079
Global Bulk Drugs (Digwal) Global Drugs (Bonthapally)	2557 Shut down	2919 1285	1745 1146	2802 1344
NATCO Ltd., (MAH)	2310	4204	2424	1216
Neuland (P) Laboratories, Pashamylaram	5153	5221	5568	5279
Ralchem (Patancheru)	4564	4498	5337	4159
Siris Crop Sciences Ltd. Gummadidala	830	Shut down	1610	3938
Vorin Laboratories Ltd., (Matrix) Gaddapotharam	3325	2754	2512	4508
Total sent by the above industries	38956 (65%)	39832 (64%)	37980 (66%)	44675 (71%)
Total tankers Recd (CEPT, Patancheru)	59832	62148	57816	62868

Annexure 12.

CONCENTRATION OF SELECTED HEAVY METALS IN PETL INLET/OUTLET SAMPLES

(APPCB – DATA)

DATE	SAMPLE	Sodium	Potassium	Iron	Lead	Zinc	Chromium	Copper	Nickel	Arsenic	Manganese	Cadmium
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
AUGUST 2003												
01.08.03	INLET			4.820	< 0.5	0.904	3.760	0.683	0.439	0.248	1.800	0.004
	OUTLET			4.000	< 0.5	0.683	0.863	0.395	0.265	0.008	0.832	0.005
02.08.03	OUTLET			2.830	< 0.5	0.569	0.693	0.338	0.211	0.014	0.688	0.009
05.08.03	OUTLET			9.390	< 0.5	1.086	1.314	0.545	0.349	0.023	1.329	0.006
06.08.03	INLET			6.800	< 0.5	1.562	3.840	0.431	0.360	0.188	1.113	0.003
	OUTLET			3.710	< 0.5	0.830	1.000	0.486	0.338	0.018	0.830	0.003
07.08.03	OUTLET			4.145	< 0.5	0.690	0.836	0.425	0.276	0.008	1.064	0.005
11.08.03	OUTLET			3.842	< 0.5	0.880	1.120	0.515	0.283	0.013	1.120	0.004
12.08.03	OUTLET			4.200	< 0.5	0.880	1.001	0.613	0.249	0.014	1.136	0.003
13.08.03	INLET			6.760	< 0.5	1.167	2.890	0.853	0.377	0.223	1.052	0.003
	OUTLET			6.140	< 0.5	1.300	1.338	0.876	0.353	0.060	1.052	0.003
20.08.03	OUTLET			4.630	< 0.5	0.843	0.782	0.431	0.258	0.024	1.130	0.006
21.08.03	OUTLET			6.220	< 0.5	1.010	0.863	0.338	0.338	0.008	1.300	0.004
22.08.03	INLET			9.400	< 0.5	1.834	3.640	0.948	0.643	0.193	1.640	0.005
	OUTLET			4.810	< 0.5	1.110	1.124	0.614	0.366	0.011	0.780	0.003
25.08.03	INLET			8.800	< 0.5	1.920	2.980	0.883	0.558	0.184	1.883	0.005
	OUTLET			4.600	< 0.5	0.569	0.683	0.879	0.440	0.012	0.980	0.005
26.08.03	OUTLET			4.000	< 0.5	0.843	0.843	0.554	0.268	0.014	0.880	0.005
27.08.03	OUTLET			4.180	< 0.5	0.694	0.860	0.643	0.246	0.008	0.843	0.005
SEPTEMBER 2003												
04.09.03	OUTLET			3.130	< 0.5	2.180	0.400	1.719	0.540	0.013	2.890	< 0.0
05.09.03	OUTLET			2.880	< 0.5	0.480	0.430	0.310	0.260	0.043	0.660	< 0.0
06.09.03	OUTLET			2.190	< 0.5	0.410	0.420	0.201	0.230	0.080	0.560	< 0.0
08.09.03	OUTLET			3.840	< 0.5	0.520	0.600	0.311	0.230	0.080	0.670	< 0.0
09.09.03	OUTLET			3.600	< 0.5	0.470	0.540	0.290	0.220	0.025	0.640	< 0.01
10.09.03	OUTLET			3.420	< 0.5	0.460	0.520	0.284	0.230	0.060	0.600	< 0.01
18.09.03	OUTLET			3.880	< 0.5	0.550	0.530	0.311	0.243	0.060	0.550	< 0.01
19.09.03	OUTLET			3.430	< 0.5	0.480	0.520	0.296	0.241	0.056	0.680	< 0.01
29.09.03	OUTLET			3.880	< 0.5	0.940	0.440	1.230	0.550	0.080	1.240	< 0.01
30.09.03	OUTLET	1904	356			0.760	0.984	0.834		0.018		

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DATE	SAMPLE	Sodium	Potassium	Iron	Lead	Zinc	Chromium	Copper	Nickel	Arsenic	Manganese	Cadmium
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
OCTOBER 2003												
1.10.03	OUTLET	1760	350			1.100	1.200	0.620		0.060		
8.10.03	OUTLET	1824	354			0.880	0.760	0.500		0.011		
9.10.03	OUTLET	2096	352			0.880	0.560	0.550		0.014		
0.10.03	OUTLET	2048	360			1.300	0.860	0.640		0.018		
3.10.03	OUTLET	2004	352			1.100	0.740	0.550		0.018		
4.10.03	OUTLET	1684	340			0.840	1.100	0.640		0.014		
5.10.03	OUTLET	2104	364			0.940	0.680	0.430		0.008		
OVEMBER 2003												
3.11.03	OUTLET				0.036		0.328					BDL
4.11.03	OUTLET				0.033		0.348					BDL
5.11.03	OUTLET				0.032		0.446					BDL
.11.03	OUTLET				0.036		0.646					BDL
.11.03	OUTLET				0.021		0.338					BDL
.11.03	OUTLET				0.033		0.248					BDL
.11.03	OUTLET				0.180		0.243					BDL
.11.03	OUTLET				0.240		0.336					BDL
.11.03	OUTLET				0.16		0.683					BDL
.11.03	OUTLET				0.110		0.940					0.006
CEMBER 2003												
12.03	OUTLET	1940	460		BDL	1.48	1.874			0.058		0.008
12.03	OUTLET	2200	370		1.14	1.9	1.68			0.056		0.005
12.03	OUTLET	1860	480		BDL	2.4	0.94			0.048		BDL
12.03	OUTLET	1740	360		0.12	1.64	1.88			BDL		0.005
12.03	OUTLET	1930	430		0.084	0.084	2.14			BDL		0.01
12.03	OUTLET	2100	430		BDL	2.64	2.64			0.044		0.008
12.03	OUTLET	1400	440		0.014	2.88	0.59			0.056		0.008
12.03	OUTLET	1350	370		BDL	2.64	1.04			0.056		0.006
12.03	OUTLET	1600	390		BDL	2.1	1.3			0.14		BDL
2.03	OUTLET	1220	348		0.53	2.66	2.44			0.054		0.014
2.03	OUTLET	1570	381		0.48	1.48	2.2			0.016		0.009
2.03	OUTLET	1640	394		0.34	2.46	0.78			BDL		0.003

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Annexure 12.4

TDS/COD LOADS AND TANKERS RECEIVED AT CEPT, PATANCHERU DURING 2003 (MONTH WISE) FROM MAJOR CONTRIBUTORS (CEPT, Patancheru Data)

S.No.	Name of the Industry	Jan-03 No. of Tankers	Jan-03 Monthly Avg. COD mg/L	Jan-03 Monthly Avg. TDS mg/l	Feb-03 No. of Tankers	Feb-03 Monthly Avg. COD mg/L	Feb-03 Monthly Avg. TDS mg/l	Mar-03 No. of Tankers	Mar-03 Monthly Avg. COD mg/L	Mar-03 Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
1	APEX DRUGS & INTER LTD	48	13906	11137	53	13176	11404	67	12392	11858
2	ARANDY LABS LTD.	50	10923	9877	54	12657	11404	55	10186	9261
3	AUROBINDO-1 (SRICHAKRA)	126	9309	8436	142	7442	8695	136	3966	6346
4	AUROBINDO PHARMA (BCL)	477	5597	13944	313	5660	13765	526	7219	13478
5	AUROBINDO PHARMA (IV)	58	7648	7652	6	7333	6593	Nil	Nil	Nil
6	AUROBINDO PHARMA (V)	427	4701	13841	389	5017	13855	460	6684	13188
7	AUROBINDO (CHITKUL(VI))	122	8709	4334	172	9651	4662	184	8781	5326
8	AUROBINDO PHRMA (UNIT-IX) (RANIT)	78	10684	7634	71	8685	7270	97	7935	8926
9	DECCAN LEATHERS	22	2867	5314	36	2926	5393	35	3082	5397
10	Dr.REDDY's LABS (I)	147	4925	8668	158	4254	8552	185	4441	10526
11	Dr REDDY's LABS (II)	285	5328	8997	192	3177	8732	171	2917	8843
12	Dr.REDDY'S LABS (III)	98	8781	9923	89	8764	9848	99	8916	10251
13	DR. CURIES LABS	24	7500	13148	19	9200	14109	53	7129	12671
14	EVEREST ORGANICS	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
15	HYDERABAD CHEMCALS	25	4655	8970	20	2940	8208	16	3653	10538
16	KEKULE CHEMICALS LTD	56	14189	12859	10	9400	9572	0	0	0
17	MATRIX LABS (UNIT-I) (VORIN)	305	8380	10705	271	5707	9797	340	5287	10243
18	MEDICORP TECHNOLOGIES	17	7120	10455	17	7900	10009	34	4968	5775

Annexure 12.4 (contd.2)

No.	Name of the Industry	Jan-03			Feb-03			Mar-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
	2	3	4	5	6	7	8	9	10	11
9	MERVEN DRUGS LTD.	40	8914	4913	29	6943	5415	34	8543	6194
0	NATCO PHARMA LTD	259	3302	11137	248	2248	12201	240	2093	12094
1	NEULAND LABS LTD (BON)	60	11493	11202	56	12178	11707	59	11460	12303
2	NEULAND LABS LTD (PSM.)	426	9806	10652	390	10500	10727	430	10664	11874
3	NICHOLAS PIRAMAL (GLOBAL BULK)	211	8471	6024	181	5321	5355	213	5877	6216
4	NITYA LABS LTD	38	4760	1997	12	8700	2476	76	7374	2849
5	PLANT ORGANICS	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	PRABHAVA ORGANICS	25	10911	10609	34	3562	8850	51	3529	10117
7	PRASAD DRUGS	54	3800	10164	44	4213	10799	53	4269	11702
8	RALCHEM LTD	374	3905	10650	324	1704	10787	363	1712	11747
9	SARACA LABS LTD	39	5000	7132	57	5735	6048	50	7736	4866
0	SENOR ORGANICS LTD	30	8971	8084	19	11271	8665	18	9388	9565
1	SIRIS INDIA LIMITED	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	SS ORGANICS LTD	72	11916	9494	56	12133	9885	64	9860	10202
3	SYMED LABS LTD	28	12125	8382	24	11240	7351	20	11740	9407
4	VENKAR CHEMICALS LTD	42	6950	9951	16	7050	10041	42	6867	9203
5	VENKATARAMA CHEMICALS	28	3036	10043	25	3311	12114	43	3200	13205

Annexure 12.4 (contd..3)

TDS/COD LOADS AND TANKERS RECEIVED AT CEPT, PATANCHERU DURING 2003 (MONTH WISE) FROM MAJOR CONTRIBUTORS (CEPT, Patancheru Data)

No.	Name of the Industry	Apr-03			May-03			Jun-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
1	APEX DRUGS & INTER LTD	58	11287	11799	78	11828	11709	112	10782	11358
2	ARANDY LABS	54	10452	9713	54	13276	10872	50	8186	8062
3	AUROBINDO -1 (SRICHAKRA)	48	5887	6095	108	5890	8662	161	5592	11808
4	AUROBINDO PHARMA (BOL)	370	6641	13792	371	6404	13923	705	7853	12619
5	AUROBINDO PHARMA (IV)	Nil	Nil	Nil	20	8480	12682	32	14022	11805
6	AUROBINDO PHARMA (V)	394	4729	13793	416	4800	13738	412	5574	12720
7	AUROBINDO (CHITKUL(VI))	152	10033	6034	134	11633	6212	126	9848	5849
8	AUROBINDO PHRM (UNIT-IX) (RANIT)	99	9489	8635	67	8423	6259	71	8069	7096
9	DECCAN LEATHERS	63	3408	5420	70	4237	6216	67	3694	6281
10	Dr REDDY's LABS (I)	162	5449	10550	102	4650	9888	151	4405	9767
11	Dr REDDY's LABS (II)	242	3585	9086	301	5555	8272	266	6926	8233
12	Dr REDDY'S LABS (III)	95	8033	10150	98	7703	9471	91	7340	8680
13	DR. CURIES LAB	41	5754	12089	47	7363	11084	52	8746	11819
14	EVEREST ORGANICS	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
15	HYDERABAD CHEMICALS	20	4640	11230	26	4262	9371	20	2270	9206
16	KEKULE CHEMICALS LTD	8	8657	12497	64	7048	11287	45	4496	11754
17	MATRIX LABS (UNIT-I) (VORIN)	256	5359	10981	225	5338	10341	348	5793	10795
18	MEDICORP TECHNOLOGIES	57	2416	3654	29	5859	7608	29	4626	6431

Annexure 12.4 (contd. 4)

S.No.	Name of the Industry	Apr-03			May-03			Jun-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
19	MERVEN DRUGS LTD	34	7400	5775	42	8488	6322	62	7768	8692
20	NATCO PHARMA LTD	288	2672	12862	174	1961	11827	116	1948	12610
21	NEULAND LABS LTD (BDN)	58	10726	11357	36	9820	11126	10	8940	9698
22	NEULAND LABS LTD (PSM.)	440	11600	13158	427	13084	13161	461	11506	11173
23	NICHOLAS PIRAMAL (GLOBAL BULK)	189	4007	3942	257	5200	8180	156	5900	7090
24	NITYA LABS LTD	76	9277	3101	28	11367	3020	24	11161	3131
25	PLANT ORGANICS	Nil	Nil	Nil	Nil	Nil	Nil	30	10323	11330
26	PRABHAVA ORGANICS	51	3464	11256	61	4322	10942	68	4786	11265
27	PRASAD DRUGS	33	5505	9550	17	4957	9986	32	5560	8905
28	RALCHEM LTD	353	2028	10100	297	1920	8022	418	3661	11359
29	SARACA LABS LTD	10	8540	4497	37	8222	5340	37	5888	7340
30	SENOR ORGANICS LTD	18	11600	9129	16	13167	8966	25	13133	8693
31	SIRIS INDIA LIMITED	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
32	SS ORGANICS LTD	22	9100	10262	38	9221	8812	58	10521	9778
33	SYMED LABS LTD	18	11823	8716	20	11956	8385	24	11571	5300
34	VENKAR CHEMICALS LTD	24	6486	8258	30	7140	7174	22	6675	8507
35	VENKATARAMA CHEMICALS	57	2812	11383	49	3660	12426	55	2628	11818

Annexure 12.4 (contd.5)

Name of the Industry	Jul-03			Aug-03			Sep-03		
	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
2	3	4	5	6	7	8	9	10	11
APEX DRUGS & INTER LTD	125	11232	12517	99	11053	12428	102	10306	13536
ARANDY LABS	55	6480	9293	35	9500	11795	56	12056	11110
AUROBINDO -1 (SRICHAKRA)	59	5743	12382	133	6735	13175	118	8726	12477
AUROBINDO PHARMA (BOL)	676	9259	12509	499	8907	11669	437	5573	13236
AUROBINDO PHARMA (IV)	4	13800	11215	Nil	Nil	Nil	Nil	Nil	Nil
AUROBINDO PHARMA (V)	493	5677	13132	451	6967	12962	424	4946	13657
AUROBINDO CHITKUL (VI)	130	10677	5319	136	9341	4957	909	3166	2132
AUROBINDO PHARM (UNIT IX) (RANIT)	17	13237	6129	19	11720	4000	15	10569	9733
DECCAN LEATHERS	100	3156	5647	61	2277	4636	84	3233	5530
Dr REDDY's LABS (I)	147	5160	8768	162	4575	9874	171	5717	10835
Dr REDDY's LABS (II)	349	6642	8100	379	6778	8336	380	7386	10223
Dr REDDY'S LABS (III)	135	9898	10762	177	11735	10701	80	10846	11635
DR CURIES LBAS	57	9907	12830	51	7936	13002	50	7015	13240
EVEREST ORGANICS	87	12046	12667	81	12961	12189	58	12352	10860
HYDERABAD CHEMICALS	26	5365	10696	25	4080	10108	53	3977	8289
JEKULE CHEMICALS LTD	108	7277	11940	46	8112	11784	57	10125	13414
MATRIX LABS (UNIT-I) (VORIN)	304	5368	11970	318	5793	11768	260	5700	12720
MEDICORP TECHNOLOGY	38	2826	4789	38	2546	3582	98	2511	4931

Annexure 12.4 (contd.6)

S.No.	Name of the Industry	Jul-03			Aug-03			Sep-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
19	MERVEN DRUGS LTD	75	4900	5214	16	7114	5813	28	7830	6545
20	NATCO PHARMA LTD	132	1707	12961	136	1753	12854	172	2180	12485
21	NEULAND LABS LTD (BON)	53	8693	8845	53	8460	8961	55	9324	10711
22	NEULAND LABS LTD (PSM.)	417	11503	11942	384	13206	12286	478	12946	11447
23	NICHOLAS PIRAMAL (GLOBAL BULK)	216	5845	8254	208	6122	8002	212	5813	7667
24	NITYA LABS LTD	50	9578	2951	66	9510	2786	72	8033	2967
25	PLANT ORGANICS	60	11506	10887	60	12558	10714	60	12550	10475
26	PRABHAVA ORGANCS	92	3361	10748	78	2967	11168	62	2473	9163
27	PRASAD DRUGS	38	6472	10189	39	4592	8978	55	3920	100079
28	RALCHEM LTD	399	3431	11461	308	3392	12063	352	3365	11789
29	SARACA LABS LTD	52	5850	4516	69	7600	6366	52	10333	4350
30	SENOR ORGANICS LTD	27	10000	8824	20	7553	7371	18	7850	16887
31	SIRIS INDIA LIMITED	Nil	Nil	Nil	460	2877	9965	246	4905	11152
32	SS ORGANICS LTD	40	9060	9218	56	10557	10305	50	11952	10503
33	SYMED LABS LTD	28	11029	5763	29	11325	7973	28	8230	7428
34	VENKAR CHEMICALS LTD	64	6552	9569	28	7022	12018	44	4777	13390
35	VENKATARAMA CHEMICALS	55	3782	12701	4	4000	14095	39	3666	13355

Annexure 12.4 (contd.7)

S.No.	Name of the Industry	Oct-03			Nov-03			Dec-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
1	APEX DRUGS & INTER LTD	105	10546	13042	93	11744	12280	86	11761	11993
2	ARANDY LABS LTD	56	11335	10284	86	8653	9517	77	11548	11039
3	AUROBINDO -1 (SRICHAKRA)	76	8793	11910	87	10193	11723	119	11845	12123
4	AUROBINDO PHARMA (BOL)	557	5240	13243	473	6783	13840	467	4810	14094
5	AUROBINDO PHARMA (IV)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	AUROBINDO PHARMA (V)	387	5055	12236	308	5980	10611	360	3947	11354
7	AUROBINDO (CHITKUL (VI)	126	2774	2245	163	5393	4535	Nil	Nil	Nil
8	AUROBNDO PHARMA (UNIT IX) (RANIT)	18	10422	4298	17	10383	4979	17	10575	2813
9	DECCAN LEATHERS	61	2880	5018	62	3157	6368	46	3040	5832
10	DR REDDY's LABS (I)	157	5052	9182	151	5192	10120	118	5079	10574
11	DR REDDY's LABS (II)	391	6916	9841	321	6793	8579	363	7182	9130
12	DR REDDY'S LABS (III)	62	7503	10278	56	9186	10007	37	8555	10270
13	DR.CURIES LABS	43	8616	12638	58	5513	11914	53	5883	12698
14	EVEREST ORGANICS	73	4800	10335	8	9228	13358	3	12333	14178
15	HYDERABAD CHEMCALS	32	8014	11043	30	3918	11225	13	7073	10757
16	KEKULE CHEMICALS LTD	70	8844	12568	66	8250	11790	54	5574	10473
17	MATRIX LABS (UNIT-I) (VORIN)	253	5922	10959	200	5874	10642	225	6374	11620
18	MEDICORP TECHNOLOGIES	107	3080	4749	100	2940	4579	39	3328	4292

Annexure 12.4 (Contd.8)

S.No.	Name of the Industry	Oct-03			Nov-03			Dec-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	2	3	4	5	6	7	8	9	10	11
19	MERVEN DRUGS LTD	31	8692	4680	26	11938	4793	36	12814	4622
20	NATCO PHARMA LTD	167	2280	11926	191	3646	11794	187	2644	12534
21	NEULAND LABS LTD (BON)	57	11455	12346	54	12555	12762	57	12307	12430
22	NEULAND LABS LTD (PSM)	509	10522	12395	412	11886	11258	379	11858	10790
23	NICHOLAS PIRAMAL (GLOBAL BULK)	240	3974	6944	221	5520	7588	253	6490	7811
24	NITYA LABS LTD	98	8066	4416	108	10758	4787	84	6896	7336
25	PLANT ORGANICS	38	12238	9846	18	14466	11998	30	14040	10334
26	PRABHAVA ORGANICS	51	2348	7506	62	2686	9375	63	3897	7607
27	PRASAD DRUGS LTD	55	3903	9682	55	6226	10849	62	7077	10728
28	RALCHEM LTD	436	2796	11310	431	2934	10864	509	1748	10391
29	SARACA LABS LTD	60	6825	3493	65	7730	3169	43	9782	3597
30	SENOR ORGANICS LTD	18	9014	8618	20	8426	8044	20	10533	9070
31	SIRIS INDIA LIMITED	110	5133	11576	14	4400	12212	Nil	Nil	Nil
32	SS ORGANICS LTD	32	12125	8492	32	11200	5712	38	10337	7790
33	SYED LABS LTD	23	10554	8170	23	10121	5795	22	8638	7177
34	VENKAR CHEMICALS LTD	34	4571	12012	16	13100	8343	30	9556	9000
35	VENKATARAMA CHEMICALS	42	2800	12978	61	3030	12440	54	4055	12207

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Annexure 12

ANALYSES OF TDS/COD LOADS AND TANKERS RECEIVED BY CEPT, PATANCHERU, DURING 2003 (MONTH WISE) FROM MEDIUM CONTRIBUTORS

S.No.	Name of the Industry	Jan-03			Feb-03			Mar-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	AUROBINDO PHRMA (UNIT-VIII) (RANIT)	29	9833	6873	28	11169	7385	30	10064	79
2	BIOLOGICAL E LIMITED	19	4293	8416	16	2937	10054	13	4317	98
3	BIOTECH PHARMA LTD	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
4	CIREX PHARMACEUTICALS	16	5357	2834	15	4800	3312	14	4829	38
5	GLOCHEM INDUSTRIES LTD	25	6792	6917	22	5200	5911	29	3972	50
6	HARIKA DRUGS LTD	13	4785	10027	12	5883	10640	13	6508	106
7	HITESH CHEMICALS LTD	23	12227	7392	23	11817	8612	28	10150	79
8	HY-GRO CHEMICALS LTD	19	6347	4131	20	6760	3733	20	9250	52
9	INDIAN CHEMPHAR LTD	22	6563	8036	2	8200	10680	26	5511	42
10	INVENTAA CHE. LTD (DECCAN DRG)	29	1675	3239	24	1417	3772	36	1153	39
11	LEE PHARMA LTD	34	9684	4532	15	13466	5587	8	12475	51
12	PORUS DRUGS LTD	7	2371	4006	7	445	3477	7	1349	42
13	PRUDENTIAL PHARMA LTD	5	7240	6347	3	9066	10812	1	6600	146
14	QUINN INDIA LTD	16	600	2688	13	596	2948	11	553	33
15	QUINN INTERNATIONAL LIMITED	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
16	SYNTHOCHEM LTD	14	6685	10112	16	6700	8441	16	6057	87
17	VASUDHA PHARMA LTD	22	6336	8066	22	8218	10564	30	6960	123
18	VEER CHEMIE LTD	12	1006	1728	9	3982	2357	10	4884	31

Annexure 12.5 (contd.2)

ANALYSIS OF TDS/COD LOADS AND TANKERS RECEIVED BY CEPT, PATANCHERU DURING 2003 (MONTH WISE) FROM MEDIUM CONTRIBUTORS

S.No.	Name of the Industry	Apr-03			May-03			Jun-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	AUROBINDO PHRMA (UNIT-VIII) (RANIT)	26	6165	7192	27	6817	6886	15	5885	5758
2	BIOLOGICAL E LIMITED	11	3956	3258	28	4664	3825	25	3905	4789
3	BIOTECH PHARMA LTD	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4	CIREX PHARMACEUTICALS	11	11928	3918	14	12975	3727	10	12666	2129
5	GLOCHEM INDUSTRIES LTD	28	3836	4837	22	3873	5724	17	4176	5278
6	HARIKA DRUGS LTD	13	5892	10429	14	4186	10392	14	6400	10433
7	HITESH CHEMICALS LTD	25	8025	4756	28	8243	4342	28	11207	6098
8	HY-GRO CHEMICALS LTD	19	10136	5939	23	4700	4106	26	2685	2331
9	INDIAN CHEMPHAR LTD	12	7493	5947	Nil	Nil	Nil	1	6400	1980
10	INVENTAA CHE. LTD (DECCAN DRG)	10	777	2420	23	1637	3875	24	1249	3590
11	LEE PHARMA LTD	21	9776	3756	15	8814	3886	9	7400	3370
12	PORUS DRUGS LTD	7	2486	4305	7	1263	4070	7	777	2196
13	PRUDENTIAL PHARMA LTD	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
14	QUINN INDIA LTD	12	510	2967	16	797	3692	14	768	3638
15	QUINN INTERNATIONAL LIMITED	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
16	SYNTHOCHEM LTD	20	7129	9467	9	3650	6795	17	5666	7969
17	VASUDHA PHARMA LTD	20	7129	10342	16	7525	9143	18	5877	9879
18	VEER CHEMIE LTD	10	5548	1703	10	6012	1873	8	7245	2949

Annexure 12.5 (contd.2)

ANALYSIS OF TDS/COD LOADS AND TANKERS RECEIVED BY CEPT, PATANCHERU DURING 2003 (MONTH WISE) FROM MEDIUM CONTRIBUTORS

S.No.	Name of the Industry	Apr-03			May-03			Jun-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	AUROBINDO PHRMA (UNIT-VIII) (RANIT)	28	6165	7192	27	6817	6886	15	5985	5758
2	BIOLOGICAL E LIMITED	11	3956	3258	28	4664	3825	25	3905	4789
3	BIOTECH PHARMA LTD.	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4	CIREX PHARMACEUTICALS	11	11928	3918	14	12975	3727	10	12665	2129
5	GLOCHEM INDUSTRIES LTD	28	3836	4837	22	3873	5724	17	4176	5278
6	HARIKA DRUGS LTD	13	5892	10429	14	4186	10392	14	6400	10433
7	HITESH CHEMICALS LTD	25	8025	4756	28	8243	4342	28	11207	6098
8	HY-GRO CHEMICALS LTD	19	10136	5939	23	4700	4106	26	2665	2331
9	INDIAN CHEMPHAR LTD	12	7493	5947	Nil	Nil	Nil	1	6400	1960
10	INVENTAA CHE. LTD (DECCAN DRG)	10	777	2420	23	1837	3875	24	1249	3590
11	LEE PHARMA LTD	21	9776	3756	15	8814	3888	9	7400	3370
12	PORUS DRUGS LTD	7	2486	4305	7	1263	4070	7	777	2196
13	PRUDENTIAL PHARMA LTD	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
14	QUINN INDIA LTD	12	510	2967	16	797	3692	14	768	3639
15	QUINN INTERNATIONAL LIMITED	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
16	SYNTHOCHEM LTD	20	7129	9467	9	3650	6795	17	5666	7969
17	VASUDHA PHARMA LTD	20	7129	10342	16	7525	9143	18	5877	9879
18	VEER CHEMIE LTD	10	5548	1703	10	6012	1873	8	7245	2949

Annexure 12.5 (contd.3)

ANALYSIS OF TDS/COD LOADS AND TANKERS RECEIVED BY CEPT, PATANCHERU, DURING 2003 (MONTH WISE) FROM MEDIUM CONTRIBUTORS

S.No.	Name of the Industry	Jul-03			Aug-03			Sep-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	AUROBINDO PHRMA (UNIT-VIII) (RANIT)	12	6133	5961	15	6347	8824	13	9538	4693
2	BIOLOGICAL E LIMITED	35	2750	4562	18	3400	4697	38	3848	4886
3	BIOTECH PHARMA LTD	8	5875	12234	28	7635	10884	26	6292	11300
4	CIREX PHARMACEUTICALS	13	9154	1705	11	3109	1290	14	3145	3391
5	GLOCHEM INDUSTRIES LTD	20	2440	4005	24	5500	5926	27	9738	11939
6	HARIKA DRUGS LTD	14	8429	11763	14	6700	11772	13	7446	10405
7	HITESH CHEMICALS LTD	28	11385	6758	30	11161	6347	28	6600	4162
8	HY-GRO CHEMICALS LTD.	11	3400	2319	19	2255	2894	32	2641	2685
9	INDIAN CHEMPHAR LTD	94	11283	12169	60	9915	12481	0	0	0
10	INVENTAA CHE. LTD (DECCAN DRG)	14	1177	2671	32	932	3393	36	843	2497
11	LEE PHARMA LTD	20	10254	6248	19	12061	5505	18	8646	5748
12	PORUS DRUGS LTD	7	531	1046	7	394	1615	7	5645	1363
13	PRUDENTIAL PHARMA LTD	4	5250	4924	Nil	Nil	Nil	7	11200	13105
14	QUINN INDIA LTD	17	647	2943	18	788	2176	13	573	2211
15	QUINN INTERNATIONAL LIMITED	Nil	Nil	Nil	Nil	14800	9340	Nil	Nil	Nil
16	SYNTHOCHEM LTD	7	6914	8425	3	7600	9307	2	4700	11590
17	VASUDHA PHARMA LTD	22	4436	9941	15	5480	9078	15	3360	9643
18	VEER CHEMIE LTD	10	6862	4109	10	5268	4217	11	3156	3296

Annexure 12.5 (contd.4)

ANALYSIS OF TDS/COD LOADS AND TANKERS RECEIVEDBY CEPT, PATANCHERU DURING 2003 (MONTH WISE) FROM MEDIUM CONTRIBUTORS

S.No.	Name of the Industry	Oct-03			Nov-03			Dec-03		
		No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l	No. of Tankers	Monthly Avg. COD mg/L	Monthly Avg. TDS mg/l
1	AUROBINDO PHRMA (UNIT-VIII) (RANIT)	12	6816	6393	12	6950	5866	12	6633	7655
2	BIOLOGICAL E LIMITED	55	3259	4108	47	4300	6650	33	3982	6179
3	BIOTECH PHARMA LTD.	26	7130	10939	30	5400	10611	23	8591	11876
4	CIREX PHARMACEUTICALS	14	5800	4592	15	4600	3764	11	3364	1866
5	GLOCHEM INDUSTRIES LTD	34	8766	9518	20	2020	4399	19	6737	7239
6	HARIKA DRUGS LTD	12	5760	8822	14	5900	10215	14	6300	10140
7	HITESH CHEMICALS LTD	28	6866	4211	28	6768	4390	21	10484	8056
8	HY-GRO CHEMICALS LTD	27	2233	3440	10	6960	4689	15	10757	6169
9	INDIAN CHEMPHAR LTD	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
10	INVENTA CHE. LTD (DECCAN DRG)	13	1105	3239	9	1584	1920	33	837	2019
11	LEE PHARMA LTD	19	9200	5816	19	10457	6734	19	9215	8561
12	PORUS DRUGS LTD	7	382	1090	6	393	805	8	565	720
13	PRUDENTIAL PHARMA LTD	8	4833	9247	12	5883	5777	27	9756	5227
14	QUINN INDIA LTD	16	554	2017	13	610	2281	13	437	2548
15	QUINN INTERNATIONAL LIMITED	Nil	Nil	Nil	2	8400	6960	4	13300	6335
16	SYNTHOCHEM LTD	1	3600	6750	8	6371	8971	2	8400	9490
17	VASUDHA PHARMA LTD	15	3253	9975	15	4960	9817	15	4585	9909
18	VEER CHEMIE LTD	10	4748	3117	11	1945	3413	10	1788	3322

ANALYSES OF SAMPLES OF CETP, PATANCHERU, COLLECTED BY APPCB & ANALYSED AT THEIR ZONAL LAB, APPCB, R.C.PURAM, MEDAK DISTRICT

Year 2003	Average	ANALYSIS (mg/l)								
		PH	TS	TDS	SS	COD	BOD	Cl	SO_4	TOC
January	Inlet	7.46	11272	10822	450	7234	2980	4836	--	--
	Outlet	7.46	9195.6	8974	221.60	1624	226	3513	--	--
February	Inlet	7.48	9666	9329	337	6250	3045	3970	2840	--
	Outlet	7.45	8142.5	7930	212.5	1585	222.50	2484.5	1253.31	--
March	Inlet	7.45	13729	13295	434	6668	2900	5335	1760	--
	Outlet	7.42	11217	11005	212	1514.75	225	4365	1290	--
April	Inlet	7.50	11252	10642	609	5402	2340	--	1800	--
	Outlet	7.50	11585	9017.6	250.4	1796	232	3540	1223.2	--
May	Inlet	7.50	10999	10301	698	7676	3325	--	--	--
	Outlet	7.47	9090	8802	288	1743.75	232.50	3327	1344.6	--
June	Inlet	7.43	12708	12216	491	6565	3100	5691	--	--
	Outlet	7.37	10687	10433.5	253.5	1411.5	205	4898.5	--	313.25
July	Inlet	7.38	11670	11223	448	7003	2700	4628	1600	480
	Outlet	7.47	9712.5	9366.5	346	1628.75	182.5	3300	1237.5	277.75
August	Inlet	7.53	10720	9860	860	8624	3280	4100	1214	--
	Outlet	7.52	8853.4	8384	469.4	1762	248	3618	1176	--
September	Inlet	7.45	12660	12113	548	7605	2695	4327	1543	--
	Outlet	7.46	9132.5	8680.25	452.25	1272.5	227	2999.25	1222.5	--
October	Inlet	7.53	12062	11527	535	7746	2608	4646	1692	--
	Outlet	7.52	8925	8755.2	328.8	1542.2	213.6	3460	1161	--
November	Inlet	7.53	--	11610	564	7710	3200	--	--	--
	Outlet	7.49	--	7822.5	320	1817.5	247.5	3285	1087.5	--
December	Inlet	7.52	--	12150	445	7070	3130	3935	1643	--
	Outlet	7.43	--	8737.5	293	2052.5	226	3570.5	1157.5	--

Annexure.12.7

INDUSTRIES COVERED UNDER WRIT PETITION

LIST OF INDUSTRIES SENDING HAZARDOUS SOLID WASTE TO TSDF

S.No.	Generators	Location	Received at TSDF April 2003 to December 2003 (Total) (in tonnes)
	APEX DRUGS AND INTERMEDIATES LTD.	Gaddapotharam	88.355
	ARANDY LABS LTD	Bollaram	11.360
	AUROBINDO PHARMA LTD. I (SR CHAKRA)	Borapatla	315.580
	AUROBINDO PHARMA LTD. II	Bollaram	195.175
	RANIT PHARMA LTD. III (VAMSI ORGANICS LTD.,)	Gundlamachanur	21.765
	AUROBNDO PHARMA LTD. IV	Pashamylaram	9.530
	AUROBINDO PHARMA LTD. V	Pashamylaram	990.460
	AUROBINDO PHARMA LTD. VI	Chitkul	51.645
	AUROBINDO PHARMA – VII (RANIT PHARMA LTD - I)	Gaddapotharam	273.670
0.	AUROBINDO PHARMA UNIT-VIII (RANIT PHARM)	Gaddapotharam	36.835
1.	AUROBINDO PHARMA VIII (RANIT PHARMA LTD.)	Gaddapotharam	48.080
2.	BIOLOGICAL EVANS LTD.-II	Patancheru	4.420
3.	BIOTECH PHARMA PVT LTD.	Gaddapotharam	35.515
4.	CIREX PHARMACEUTICALS (RETRO GROUP)	Gundlamachanur	166.585
5.	COREY ORGANICS LTD.	-	3.52
6.	DECCAN LEATHERS LTD.	Patancheru	19.115
7.	DR. CURIES LABS LTD	Bollaram	253.120
8.	DR REDDY LABORATORIES – I	Bollaram	189.840
9.	DR REDDY LABORATORIES-II	Bollaram	1281.205
0.	DR. REDDY LABORATORES – III	Bollaram	67.710
1.	ENPIAR PHARMA	Bollaram	33.356
2.	EVEREST ORGANICS	Sadasivpet	40,050
3.	FINE DRUGS & CHEMICALS LTD.	Gaddapotharam	234.190

Annexure 12.7 (contd.2)

S.No.	Generators.	Location	Received at TSDF April 2003 to December 2003 (Total) (in tonnes)
24.	FLEMING LABS LTD. I & III (FLEMMING GROUP)	Gummididala	145.850
25.	GAYATRI CHEMICALS LTD.	Patancheru	210.960
26.	GLOBAL BULK DRUG & FNE CHEMICALS LTD.	Digwal	35.610
27.	GLOBAL DRUGS LTD.	Bonthapally	0.000
28.	GLOCHEM INDUSTRIES LTD.	Bollaram	0.000
29.	HARIKA DRUGS PVT. LTD.	Gummadidala	2.580
30.	HETRO DRUGS LTD.	Bonthapally	61.845
31.	HEXAGON DRUG LABORATORIES LTD.	Bollaram	14.340
32.	HYDERABAD CHEMICALS PRODUCTS LTD.	Pashamylaram	135.275
33.	HY-GRO CHEMICALS PVT. LTD.	Bollaram	115.080
34.	INDIAN CHEMPHAR LTD.	Pashamylaram	4.580
35.	INVENTAA CHEM (DECCAN DRUGS)	Patancheru	0.000
36.	ISLAND-VEER CHEMICALS PVT. LTD.	Bollaram	65.130
37.	ITW SIGNODE (I) LTD.	Rudraram	7.070
38.	KEKULE CHEMICALS PVT. LTD.	Gaddapotharam	124.435
39.	KONAR ORGANICS LTD. UNIT IV	Jinaram	40.175
40.	KOTSUN CHEMICALS LTD.	Toopran	0.000
41.	LEE PHARMA PVT. LTD.	Gaddapotharam	7.650
42.	MATRIX LABORATORIES LTD. 2 (MATRIX LABORATORIES)	Gazipally	104.695
43.	MATRIX LABORATORIES UNIT – 7 (MEDICORP)	Pashamylaram	36.650
44.	MATRIX LABORATORIES UNIT-I (VORIN LABORATORIES)	Gaddapotharam	307.800
45.	MERVEN DRUG PRODUCTS LTD.	Gundlamachanur	400.775
46.	NESTOR PHARMACEUTCALS LTD.	Patancheru	16.040
47.	NEULAND LAB. LTD.	Pashamylaram	574.835
48.	NEULAND LABORATORIES LTD.	Bonthapally	152.585
49.	NEULIFE LABORATORIES LTD.	Gaddapotharam	0.735
50.	NOVOPAN NDUSTRIES LTD.	Patancheru	2.270
51.	PARSIN CHEMICALS LTD.	Bollaram	4.430
52.	PLANT ORGANICS LTD.	Bollaram	45.840
53.	PRABHAVA ORGANICS PVT LTD.	Bollaram	513.625
54.	PRAGATH ORGANICS LIMITED	Bollaram	6.025

Annexure 12.7 (contd.3)

S.No.	Generators	Location	Received at TSDF April 2003 to December 2003 (Total) (In tonnes)
	PRASAD DRUGS LTD.	Jinnaram	31.050
	PRUDENTAL PHARMACEUTCALS LTD.	Bollaram	3.100
	QUINN INDA LTD.	Patancheru	36.325
	RAKSHIT DRUGS PVTG LTD.	Gaddapotharam	76.385
	RALCHEM LTD.	Patancheru	458.590
	RANIT PHARMA LTD. III (VAMSI ORGANICS LTD.,)	Gundiamachanur	21.765
	RICHLINE PHARMA LTD.	Gundamachanur	0.000
	ROOPA INDUSTRIES LTD.	Patancheru	28.870
	S.S.ORGANICS	Sadasivpet	87.905
	SARACA LABORATORIES LTD.	Gaddapotharam	1547.700
	SENOR ORGANICS PVT LTD	Gaddapotharam	114.615
	SIRIS INDIA LTD.	Gummadidala	360.125
	SMS PHARMACEUTICALS LTD. UNIT I (SM)	Kazipally	1730.565
	SRI GAYATRI DRUGS PVT. LTD.	Bonthapally	189.750
	SYMED LABS LTD.	Jinnaram	22.360
	TEJASRI INTERMEDIATES PVT. LTD.	Patancheru	14.835
	VENKAR CHEMICALS PVT. LTD.	Pashamylaram	29.705
	VENKATARAMANA CHEMICALS LTD.	Patancheru	10.120
	VIRCHOW CHEMICALS PVT. LTD.	Gaddapotharam	38.630
	VYJAYANTHI DRUGS PVT LTD.	Jinnaram	88.030
	WARER LABORATORIES PVT. LTD.	Lakshmakkapally	4.125
	YAG-MAG LABS PVT LTD	Jinnaram	193.705
	Total		12,596.268

INDUSTRIES WHICH ARE NOT FUNCTIONING AT PRESENT

1. BHAVANI LEATHERS
2. CIPIOR ORGANICS
3. DEXO LABS
4. RAJYALAKSHMI LABS
5. STANDARD ORGANICS

C. INDUSTRIES SENDING EFFLUENTS TO CEPT, PATANCHERU AND INFORMATION ABOUT HAZARDOUS WASTES DISPOSAL NOT INDICATED

1. ALKALI METALS
2. AVRA LABS.
3. ERYTHRO PHARMA
4. HITESH CHEMICALS
5. HYDERABAD DRUGS AND INTERMEDIATES
6. JUPITER BIOSCIENCES
7. SRI SAIBABA CELLULOSE
8. SRI VENKATESHWARA MEDCHEM
9. SURANA TUBES
10. SUJANA METALS
11. VEER CHEMIE

D. INDUSTRIES HAVING THEIR OWN TSDF

1. SUVEN PHARMACEUTICALS

Annexure 12.8

SELECTED HEAVY METALS IN ETP SLUDGES SPENT CARBON, WASTE RESIDUE, INCINERATOR ASH
(AS REPORTED BY TSDF)
(mg/kg)

S.No.	Industry Name, Report No. & Date	Total Cr	Lead	Cadmium	Nickel	Total cyanide	Ash	Type of waste
1.	HYGRO CHEM. Bollaram Report No.C-0076 dated 29-03-2003	78.8	9.7	0.6	-	-	-	ETP Sludge
2.	MANTENNA DRUGS Report No.C-0102 dated 25-06-2003	166.3	10.9	0.3	-	-	-	Spent carbon
3.	MATRIX LABS Report No.C-0077 dated	85.4	37.1	0.4	-	-	-	ETP Sludge
4.	MEDICOMP TECH Report No.C-0070 dated 11-03-2003	7.0	12.3	0.3	-	-	-	Spent carbon
5.	RANITH PHARMA, Gundlamachamor Report No.C-0095 dated 17-05-2003	270.2	20.9	-	-	-	-	Sludge
6.	SARACA LABS, Gaddapotharam Report No.C-0069 dated 7-3-2003	14.0	25.0	3.2.	-	-	-	-
7.	SYLVAN AGRO IND. Report No.C-0079 dated 8-4-2003	445.0	23000	30.1	-	-	-	Waste
8.	ASIAN PAINTS Sample II Report No.C-0050 dated 24-2-2003	14.2	56.9	0.9	-	-	-	Not given
9.	DECCAN LEATHERS Report No.C-0035 dated 6-1-2003	990.4	394.3	4.9	-	-	-	Sludge
10.	DR. REDDYS LAB Report No.C-0025 dated 7-1-2003	122.6	43.8	8.0	-	-	-	-
11.	GLOCHEM LTD. Bollaram Report No.20340 dated 22-2-2002	99.4	38.4	11.4	28.6	-	-	Waste residue
12.	GLOBAL BULK DRUGS, Digwal.	1111.1	27.0	0.53		-	-	ETP sludge
13.	HYDERABAD AERONAUTICS LTD. Report No.E/24318 dated 12-7-2002	2016.6	9216.1	402.3	1140.5	-	-	Effluent sludge

Annexure 12.8 (contd.2)

S.No.	Industry Name, Report No. & Date	Total Cr	Lead	Cadmium	Nickel	Total cyanide	Ash	Type of waste
14.	HYDERABAD ELECTRO PLATING WOKRS, BALANAGAR Report No.25692 dated 8-10-2002	-	-	-	-	1138.6	-	Cyanide
15.	MARUTI TEX PRINTS, Pashamylaram. Report No.24492 dated 23-7-2002	142.9	19.4	-	-	-	-	ETP sludge
16.	MEDICORP TECH. Pashamylaram Report No.1578 dated 26/12/2001	424.4	57.8	1.64	3.4	-	-	ETP sludge
17.	NATCO PHARMA Report No.20145 dated 19-2-2002	107.4	244.1	0.8	813.2	-	-	-
18.	CETP, Patancheru Report No.20044 dated 23-2-2002	98.4	56.2	0.8	38.4	-	-	ETP sludge Total Sulphur 7.4%
19.	PAKO VET DRUGS Report No.1766 dated 23-2-2002	75.7	30.8	0.1	17.9	-	1812	Spent carbon
20.	PAKO VET DRUGS. Report No.1787 dated 23-2-2002	7.3	706.1	83.7	13.2	-	1200	Evaporation sludge
21.	QUINN INDIA, Patancheru Report No.C-4034 dated 11-1-2003	1.5	126.2	1.5	-	-	-	Sludge II
22.	QUINN INDIA, Patancheru Report No.C-4033 dated 11-1-2003	66265	47638.2	0.4	-	-	-	-
23.	RALCHEM, Patancheru Report No.C-0026 dated 7-1-2003	46.8	28.9	6.4	11.0	-	- (Pesticide present)	Incinerator ash
24.	SMS Kazipally Report No.21292 dated 25-3-2002	192.0	82.1	3.95	39.5	-	-	Wash water sludge
25.	SMS, Kazipally Report No.21290 dated 30-3-2002	302.9	24.0	0.26	213.8	-	-	DMSO salts
26.	SMS, Kazipally Report No.	28.03	81.25	1.0	26.08	-	-	Incinerator ash
27.	SIGACH LAB, Bonthapally Report No.C-103 dated 27-6-2003	1172	18.0	1.2	-	-	-	Sludge

Annexure 12.9

REPORTS ON SPENT CARBON OF FEW INDUSTRIES

S.No	Name of the Industry/Report No. and Date	Type of waste	Loss on ignition at 550° C	Calorific value	Remarks
1.	MATRIX LAB Repot No.C-0068 dated 27-02-2003	Spent carbon	60.7	NA	Benzene, Di-chloro benzene
2.	MEDICORP TECH LTD. Report No.C-0079 Dated 11-03-2003	Spent carbon	33.8	N.A.	
3.	SARACA LABS, Gaddapollaram Report No.C-0069 Dated 7-3-2003	Spent carbon	87.7.	NA	
4.	DIVI LABS Report No.C-0031 Dated 11-1-2003	Spent carbon	63.2	NA	

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Annexure 13.1

LIST OF UNITS OBTAINED CFE FOR CHANGE OF PRODUCT MIX UNDER NO INCREASE IN POLLUTION LOAD

1.	ALKALI METALS LTD. (NAGARJUNA DRUGS)	BONTHAPALLY
2.	AUROBINDO PHARMA – I (SRI CHAKRA)	GUNDLA MACHOOR
3.	AUROBINDO PHARMA – V	PASHAMYLARAM
4.	AUROBINDO PHARMA - IX	-do-
5.	BIOLOGICAL E LTD.	PATTANCHERU
6.	BHAGYANAGAR CHEMICALS	BOLLARAM
7.	BIOTECH PHARMA LTD.	GADDAPOTHARAM
8.	DR. REDDYS LABS – I	BOLLARAM
9.	DR. REDDYS LABS – II	BOLLARAM
10.	DR. REDDYS LABS – III	BOLLARAM
11.	GAYATRI CHEMICALS (P) LTD.	PATANCHERU
12.	GLO CHEM INDUSTRIES	BOLLARUM
13.	GRANULES INDA LTD	JEEDIMETLA
14.	HETERO DRUGS LTD.	BONTHAPALLY
15.	HETERO LABS.	GADDAPOTHARAM
16.	HEXAGOAN LABORATORIES LTD.	BOLLARAM
17.	HYYGROW CHEMICALS LTD.	BOLLARAM
18.	KEMERA LABS.	BONTHAPALLY
19.	KKS ORGANICS	PATANCHERU
20.	KONAR ORGANICS LTD.	KHAZIPALLY
21.	LEE PHARMA LTD.	KHAZIPALLY
22.	MAITRI LABORATORES (P) LTD.	GADDAPOTHARAM
23.	MEDEVA LABORATORIES LTD.	KHAZPALLY
24.	MEDICORP TECHNOLOGIES INDIA	PASHMYLARAM
25.	NARAHARI CHEMICALS (P) LTD.	TOOPRAN
26.	NEULIFE LABORATORIES LTD.	GADDAPOTHARAM
27.	NEO MEDI CHEM	BONTHAPALLY
28.	RAKSHIT DRUGS (P) LTD.	GADDAPOTHARAM
29.	RALCHEM	PATANCHERU
30.	RANIT PHARMA LTD. UNIT II	GADDAPOTHARAM
31.	RMS RESEARCH LABORATORIES LTD.	DOMADUGU
32.	ROOPA NDUSTRIES LTD.	PATANCHERU
33.	SARACA LABS LTD.	GADDAPOTHARAM
34.	SENOR ORGANICS	GADDAPOTHARAM
35.	SIGACHI LABORATORIES LTD.	BONTHAPALLY
36.	SREEKAR ORGANICS	BOLLARUM
37.	SRI CHAITANYA CHLORIDES (P) LTD.	PASHAMYLARAM
38.	SRI GAYATRI DRUGS (P) LTD	BONTHAPALLY
39.	SS ORGANICS	ARUR VILLAGE
40.	TEJASRI INTERMEDIATES	PASHAMYLARAM
41.	VENKATESHWARA MEDICON LABS	BOLLARAM
42.	VINAR ORGANICS LTD.	BONTHAPALLY
43.	VIRCHOW CHEMICALS	GADDAPOTHARAM
44.	VORIN LABORATORIES LTD.	GADDAPOTHARAM
45.	YAGMAG LABS LTD	GADDAPOTHARAM

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Annexure 13.2

LIST OF INDUSTRIES WHO ARE DISCHARGING MORE THAN 40 KLD EFFLUENTS SUBMTTED IN W.P.NO. 1056/90 IN HON'BLE SUPREME COURT

S.No.	Name of the Industry	Remarks
1.	DR. REDDY LABS LTD. (UNIT II) Bollaram, Medak District	Installed secondary ETP and treated effluents are sent to CETP, Patancheru
2.	NEULAND LABORATORIES LTD. Pashamallaram, Medak District	-do-
3.*	NEULAND LABORATORIES LTD., Bonthapally	Industry claimed that the effluent generation is less than 40 KLD. If it exceeds 40 KLD, the same will be transported to Unit II at Pashamallaram for treatment in secondary ETP.
4.	SIRIS INDIA LTD., Gummadidala, Medak Dstrict	Installed secondary ETP and treated effluents are sent to CETP, Patancheru
5.	ASIAN PAINTS LTD., Patancheru, Medak District	Installed secondary ETP and treated effluents are utilised within premises for gardening purposes
6.*	HICEL PHARMA LTD. Patancheru, Medak District	Industry claimed that the effluent generation is less than 40 KLD and generate around 35 KLD. At present, the unit is closed since 2 years.
7.*	HERREN DRUGS AND PHARMACEUTICALS LTD. Gaddapotharam, Medak District	Industry claimed that the effluent generation is less than 40 KLD
8.*	TRITON LABS LTD., Bonthapally, Medak District (Granules India Ltd.)	Industry claimed that they are members of M/s.JETL, Jeedmetla, Transport 60 KLD of effluents,
9.	VORIN LABORATORIES, Gaddapotharam, Medak District	Installed secondary ETP and treated effluents are sent to CETP, Patancheru
10.	AUROBINDO PHARMA (Unit II), Bollaram, Medak District	-do-
11.	AUROBINDO PHARMA (UNIT IV), Pashamylaram, Medak District	-do- This unit is closed since 2 years.
12.	STANDARD ORGANICS LTD. PATANCHERU, MEDAK DISTRICT	Installed secondary ETP and treated effluents are sent to CETP, Patancheru. The unit is closed since 2 years.
13.*	HETERO DRUGS, Bonthapally, Medak District	Industry claimed that effluent generation is less than 40 KLD and hence there is no need to construct a secondary ETP
14.*	EVEREST ORGANICS, Sadasivapet, Medak District	Industry claimed that effluent generation is less than 40 KLD and hence there is no need to construct secondary ETP.

These Industries have filed affidavits in Hon'ble Supreme Court in 2001 seeking exemption for establishing a separate ETP in their industrial units, as they claim the effluent generated by them is less than 40 KLD.

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Annexure 13.3

LIST OF INDUSTRIES WHO ARE DISCHARGING MORE THAN 40 KLD AT PRESENT AND INSTALLED SECONDARY ETP

S.No	Organization	Remarks
1.	AUROBINDO PHARMA LTD. UNIT I (Formerly Sri Chakra Remedis), Borpatla	Secondary ETP equalization primary clarifier, Aeration tank, Secondary clarifier, Forced evaporation have been installed. Treated effluents are sent to CETP
2.	RALCHEM LTD. (Formerly Voltas Ltd.), Patancheru	-do-
3.	NICHOLAS PARIMAL Digwal (V), Kohlr (M), Medak District	-do-
4.	NATCO PHARMA LTD.	-do-
5.	AUROBINDO PHARMA LTD. (Unit-V) IDA Pashamailaram	-do-
6.	AUROBINDO PHARMA LTD. (Unit VIA & B) Chitkul, Medak District Sterile Bulk Drugs (VI A) & Formulations (VI B)	No secondary ETP. They have separate consents for VIA & VIB. Both units put together the quantity is exceeding 40 KLD.
7.	DR. REDDYS LABS LTD. Unit I	Secondary ETP, equilization, primary settling tank, aeration I, secondary settling tank, aeration II, final settling tank, RO plant have been established.

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ANNEXURE-XXV

A. P. POLLUTION CONTROL BOARD
Regional Office- I: Sangareddy

L. Vishveswar Goud, M.E.,
Environmental Engineer

5-1-28, Shantinagar,
Sangareddy – 502 001,
Medak District.
Phone: 08455– 276795

Lr N0: WP 19661/02/PCB/RO-I: SRD/05- 993 Dt. 26-11-2005

To
The Member Secretary,
A.P. Pollution Control Board,
Sanathnagar, Hyderabad

Kind Attn.: Sri Subba Rao, EE – Legal

Sir,

Sub: W. P. No. 19661/02 – Payment particulars by the industries towards compensation for crop damages in Gundlamachnoor and Pulpanoor villages of Hatnoor (M), Medak District – Updated information - Report Submitted – Reg.

Ref: T.O. Lr. No. W.P. 19661/PCB/RO-I:SRD/04-752 Dt. 27-08-2004.

It is to submit that vide reference cited the Regional Office, Sangareddy-I furnished a report to the Board pertaining to industry wise payment particulars towards contribution for crop damage compensation of Rs. 16,00,000/- for the period 1984-1998 as per the Hon'ble High Court Order dated 18-08-2003 in W.P. No. 19661/02, for Gundlamachnoor and Pulpanoor villages of Hatnoor (M), Medak District as on 26-08-04. Copy of the same is enclosed for kind information.

The Board officials again contacted the office of the District Sessions Judge, Medak District @ Sangareddy and updated the information. The status of Industry wise payment particulars towards contribution for crop damage compensation pertaining to Gundlamachnoor and Pulpanoor villages of Hatnoor (M), Medak District as on 21-11-05 is enclosed.

Submitted for kind information and necessary action.

Yours faithfully,

Sd/-
ENVIRONMENTAL ENGINEER

Encl: a/a

Copy submitted to the JCEE, APPCB, ZO, R. C. Puram for kind information.

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INDUSTRY WISE PAYMENT PARTICULARS TOWARDS CONTRIBUTION FOR CROP DAMAGE COMPENSASION IN OF RS. 16,00,000/- FOR THE PERIOD 1984-1998 AS PER THE HON'BLE HIGH COURT ORDER DATED 18-08-03 IN W.P. NO. 19661/02 (AS ON 21-11-05)

	Name of the Industry	Total Compensation fixed for the period	Amount paid	Balance if any	Remarks
1	2	3	4	5	6
1	M/s. Standard organics Ltd. Patancheru	189825		189825	Sick unit ✓
2	M/s. Deccan Drugs, Patancheru (Inventa Chemicals, Unit - III)	25060	25060	0	
3	M/s.Nova Resins, Patancheru(Presently M/s GVK Petro Chemicals Ltd)	14000	14000	0	
4	M/s. Reliable Papers, Patancheru	14000	14000	0	
5	M/s. Salbaba Cellulose, Patancheru	22860	22860	0	
6	M/s. Quinn India Ltd.Patancheru	14000	14000	0	
7	M/s. Surana Strips	14225		14225	Industry not in opeation
8	M/s. Voltas Ltd (Prese ntly M/s Ralchem Ltd)	80800	80800	0	
9	M/s. Reliance Cellulose, Patancheru	110225		110225	
10	M/s. Asrani Tubes Ltd.Patancheru	12000	12000	0	
11	M/s. Novapan Industries Ltd.Patancheru	14000	14000	0	
12	M/s. Hicel Pharma Ltd.Pati Ghanpur.	31675		31675	Sick unit (Presently taken over by M/s. Smilax Laboratories Ltd.)
13	M/s. Venkataramana ChemicalsLtd.Kardanoor.	14000	14000	0	
14	M/s. Charminar Papers, Patancheru	14000		14000	Sick unit
15	M/s. Ambuja Petrochemicals, Patancheru	34440	34440	0	
16	M/s. Deccan Leathers, Patancheru	32580	32580	0	
17	M/s. Gromor Chemicals, Patancheru	14000	14000	0	
18	M/s. Ion Exchange, Patancheru	14000	14000	0	
19	M/s. Dexo Labs, Patancheru	47550		47550	Sick industry
20	M/s. Bhagyanagar Oil Refineries, Patancheru	14000	14000	0	
21	M/s. NSL (Presently M/s Pennar Steels Ltd), Patancheru	32260	32260	0	
22	M/s. R.K. Industrial Chemicals, Patancheru	12000		12000	
23	M/s. Asian Paints India Ltd, Patancheru.	14000	14000	0	
24	M/s. Hitesh Chemicals, Patancheru	14000	14000	0	
25	M/s. Agarwal Rubber, Patancheru	14000	14000	0	
26	M/s. Sahney Paris Rhone, Patancheru.	12000	12000	0	SICK
27	M/s. Aurobindo Pharma (Unit IV, Pashamailaram)	22985	22985	0	
28	M/s. Neuland Labs, Pashamailaram.	67520	67520	0	
29	M/s. ITW Signode, Rudraram.	14225	14225	0	
30	M/s. Harika Drugs, Gummadidala	14000	14000	0	
31	M/s. Richline Pharma, Gundlamachanoor.	14000		14000	Industry not in opeation
32	M/s. Prabhava Organics, Bollarum.	18975	18975	0	
33	M/s. Taurus Chemicals	12000	12000	0	
34	M/s. Southern Agro Synthesis Ltd., Bollaram	32980		32980	
35	M/s. A.P. Met Engg.	562060	562060	0	
36	M/s. Dr. Reddy Labs Unit - I	24435	24435	0	

	M/s. Dr. Reddy Labs Unit - II	51940	51940	0	
38	M/s.Dr. Reddy Labs Unit-III	12000	12000	0	
39	M/s. Arandy Labs Ltd.	15265	15265	0	
40	M/s. Amaravathi Chemicals	12000	12000	0	
41	M/s. Prasad Drugs Ltd. (SAI LIFE Scien.)	12000	12000	0	
42	M/s. SPS Pharma	12000	12000	0	
43	M/s. Hi-Tech Pharma	12000	12000	0	
44	M/s. Plant Organics	21030	21030	0	
45	M/s. C' Well Drugs Ltd, Bidar, Karnataka. SRD-I	12000		12000	OUT OF STATE
46	M/s. Medchal Chem , RR div	14000	14000	0	
47	M/s. Divis Labs Ltd., Gaddapotharam	12000	12000	0	
48	M/s. Gulabchand Silk Mills, Shapur, RR-I	12000		12000	
49	M/s. Hyderabad Drug Intermediate, Pashamailaram (Presently M/s Jaysinth Drugs Ltd)	14000	14000	0	
50	M/s. Kalpana Chemicals , RR-I	14000		14000	
51	M/s. Primax Organics, Pashamailaram	12000		12000	Sick industry (Presently taken over by M/s. Synthokem Labs, Unit - III)
52	M/s. Polyelectrolyte (I) Ltd.,Patancheru (Presently M/s. SNF (I) Ltd.,	14000	14000	0	
53	M/s. Premier Tubes Ltd, Patancheru	14000		14000	SICK
54	M/s. S.S. Organics Ltd, Aroor.	15555	15555	0	
55	M/s. Vorin Laboratories Ltd, Gaddapotharam. Matrix Unit-I	33960	33960	0	
56	M/s. Medicorp Technologies, Balanagar.	14000	14000	0	
57	M/s. Mervin Drug Products, Gundlamachanoor. Arch Pharma	14710	14710	0	
58	M/s. Coromandel Pharmaceuticals, Patancheru (Presently M/s BE Ltd, Unit-II)	12000	12000	0	
59	M/s. Agni Synthetics Ltd, Gummadidala. SRD-II	12000		12000	SICK
60	M/s. Siris India Ltd, Gummadidala.	31575	31575	0	
61	M/s. Bhavani Leather Wet Blue ICS Ltd, Patancheru.	14000		14000	Industry not in operation (Sick)
62	M/s. Natco Laboratories Ltd.	16350	16350	0	
63	M/s. Triton Laboratories Ltd, Bonthapalli (M/s. Granules India Ltd.)	16325	16325	0	
64	M/s. Paks Trade Centre, Gaddapotharam. SRD-II	16685		16685	
65	M/s. Neuland Labs Ltd, Bonthapalli	19130	19130	0	
66	M/s. Sudershan Drugs & Intermediates, Kanukunta. SRD-II	14000		14000	SICK
67	M/s. Hetero Drugs (P) Ltd, Bonthapalli.	18625	18625	0	
68	M/s. Neulife Laboratories, Gaddapotharam	14000	14000	0	
69	M/s. Yenkay Drugs (P) Ltd. Gaddapoth.	14000		14000	SICK
70	M/s. Konar Laboratories (P) Ltd., Kazipally	14000		14000	
71	M/s. Aurobindo Pharma Ltd. Bollaram Unit II	33460	33460	0	
72	M/s. Everest Organics Ltd, Aroor.	19055	19055	0	
73	M/s. Gayatri Chemicals Ltd, Patancheru.	12000	12000	0	
74	M/s. Global Drugs (P) Ltd, Bonthapalli (VIRchow DRUGS) SRD-II	17100		17100	
75	M/s. Herren Drugs Ltd, Gaddapotharam. Matrix Unit-II	14855	14855	0	
76	M/s. Maruti Texprints, Pashamailaram.	12000	12000	0	
77	M/s. Mytri Organics, Kothur	14000	14000	0	
78	M/s. Proven Chemicals, Gaddapotharam.	14000	14000	0	SICK

79	M/s. Satwik Drugs Ltd, Bidar, Karnataka State. SRO-I	12000		12000	
80	M/s. Saraca Laboratories Ltd, Gaddapotharam.	14000	14000	0	
81	M/s. SMS Pharmaceuticals, Gaddapotharam.	17520	17520	0	
82	M/s. Almemo Chemicals, Kukatpalli.	14000	14000	0	
83	M/s .Apex drugs & intr .(P.ltd)	2000	2000	0	
84	M/s .Aurobindo pharma (chitkul)	2000	2000	0	
85	M/s Aurobindo pharma (unit-V)	5575	5575	0	
86	M/s Biological E ltd	2000	2000	0	
87	M/s Biotech pharma ltd, Gaddapotharam	2000	2000	0	
88	M/s Cheminor drugs ltd, DRL, Nalgonda	2000	2000	0	
89	M/s Cipior Organics ltd, Patancheruvu	2000		2000	Sick industry
90	M/s Cirex Pharmaceuticals ltd	2000	2000	0	
91	M/s Glochem Industries Ltd	2000	2000	0	
92	M/s Hyd Connectronics Ltd, Patancheru	2000		2000	Sick industry
93	M/s Indian chemphar Ltd, Pashamylaram	2000	2000	0	
94	M/s Invinex Labs Ltd, Bachupally	2000	2000	0	
95	M/s Kiran Biscuits & Foods Ltd, Jeedimetla	2000	2000	0	
96	M/s Kotsun Chemicals Ltd, Pothuravam, SRO-II	2000		2000	
97	M/s Parsin Chemicals Ltd	2000	2000	0	
98	M/s Pennar Steels Ltd, Isnapur	2000	2000	0	
99	M/s Pragathi Organics Ltd	2000	2000	0	
100	M/s Roopa Industries Ltd	2000	2000	0	
101	M/s Sri chakra RemediesLtd Aurobindo I	2000	2000	0	
102	M/s Suven Pharma Ltd, Jeedimetla	2000	2000	0	
103	M/s Vamsi Organics Ltd, Aurobindo IX	2000	2000	0	
104	M/s Vasudha Pharma ltd, Jeedimetla	2000	2000	0	
105	M/s Yag mag labs ltd	2000	2000	0	
	TOTAL	2409395	1759130	650265	

Sick :- (17)

ANNEXURE - XXVI

Items No.15 and 16

THE HON'BLE THE CHIEF JUSTICE HIMA KOHLI

AND

THE HON'BLE SRI JUSTICE A. ABHISHEK REDDY

W.P.Nos.4118 & 4143 of 2021

COMMON ORDER: (Per the Hon'ble the Chief Justice Hima Kohli)

1. The present petitions have been filed by the petitioners praying *inter alia* for declaring the action of the respondent No.2/Telangana State Pollution Control Board in demanding contribution to the corpus fund created by it, in terms of the orders dated 24.10.2017 passed by the National Green Tribunal, Southern Bench, Chennai in a batch of matters, as illegal and arbitrary.

2. At the outset, we have requested learned counsel for the petitioners to address this court on the maintainability of the present petitions when, even as per the impugned order dated 01.02.2021 passed by the respondent No.2/Telangana State Pollution Control Board, payment in the corpus fund is being called upon to be made by the concerned industries in terms of the order of the National Green Tribunal, Southern Bench, Chennai. In our opinion, if the petitioners are aggrieved by the aforesaid action of the respondent No.2/ Telangana State Pollution Control Board, its remedy lies before the National Green Tribunal. Instead, the petitioners are calling upon this court to interpret the order of the National Green Tribunal one way or the other, which is not permissible.

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3. We decline to entertain the present petitions. The same are accordingly closed along with the pending applications, if any. It is for the petitioners to approach the National Green Tribunal for clarification of its order dated 24.10.2017 and/or to seek appropriate orders to the effect that they are not under any obligation to contribute to the corpus fund as directed to be created by the National Green Tribunal in terms of the order dated 24.10.2017.

HIMA KOHLI, CJ

A. ABHISHEK REDDY, J

26.03.2021
LUR/pln

(192)

ANNEXURE-XXVII

THE HON'BLE THE CHIEF JUSTICE SATISH CHANDRA SHARMA

AND

THE HON'BLE SRI JUSTICE A.RAJASHEKER REDDY

I.A.No.2 of 2021 In/And W.P.No.6105 of 2021

COMMON ORDER: *(Per the Hon'ble the Chief Justice Satish Chandra Sharma)*

In the High Court of Telangana, physical hearing has resumed. However, at the insistence of learned counsel appearing for the petitioner-company, the matter was heard with the consent of the parties through video conferencing and after hearing the learned counsel for the parties, the matter is being disposed of at motion hearing stage itself.

The petitioner before this court, a company registered under the Companies Act, 2013, has filed the present writ petition being aggrieved by the show cause notice dated 28.09.2020 as well as the order dated 01.02.2021 issued by the Telangana State Pollution Control Board.

The facts of the case reveal that the National Green Tribunal, Southern Zone Bench, Chennai, vide judgment dated 24.10.2017 in Application No.90 of 2013 and batch, issued directions for payment of corpus fund of 1% of the annual turnover for expansion of industries and 0.5% of the annual turnover by the industries for restoration of the entire affected area and creation of Corpus Fund in the name of "Patancheru and Bollaram Environment Relief Fund". The petitioner-company was one of the respondents before the National Green Tribunal and after hearing the petitioner-company, the judgment was delivered by the Tribunal. In compliance of the judgment delivered by the National Green Tribunal, the petitioner-company

made contributions in the year 2018-19 by paying a sum of Rs.4,22,00,000/-. The undisputed facts of the case also reveal that the petitioner-company is supplying drinking water to various villages keeping in view the various orders passed by this High Court from time to time.

Ms. Meenakshi Arora, learned Senior Advocate appearing for the petitioner-company, has vehemently argued before this court that the unit of the petitioner-company is not situated in Patancheru and Bollaram Industrial Areas and therefore, the judgment of the National Green Tribunal does not cover the unit of the petitioner-company.

A similar controversy arose in respect of M/s. Chromo Laboratories India Limited and M/s. Suven Pharmaceuticals Limited, having their units at Sangareddy District, Telangana. M/s. Chromo Laboratories India Limited and M/s. Suven Pharmaceuticals Limited were also issued show cause notices and orders were passed on 01.02.2021 directing them to contribute towards Corpus Fund and the companies, stating that they are having units in Sangareddy District and the judgment is not applicable to them, came up before this court by filing writ petitions i.e., W.P.Nos.4118 and 4143 of 2021. A Division Bench of this court has passed an order dated 26.03.2021 in W.P.Nos.4118 and 4143 of 2021, which is reproduced as under:-

> *"1. The present petitions have been filed by the petitioners praying inter alia for declaring the action of the respondent No.2/Telangana State Pollution Control Board in demanding contribution to the corpus fund created by it, in terms of the orders dated 24.10.2017 passed by the National Green Tribunal, Southern Bench, Chennai in a batch of matters, as illegal and arbitrary.*

2. At the outset, we have requested learned counsel for the petitioners to address this court on the maintainability of the present petitions when, even as per the impugned order dated 01.02.2021 passed by the respondent No.2/Telangana State Pollution Control Board, payment in the corpus fund is being called upon to be made by the concerned industries in terms of the order of the National Green Tribunal, Southern Bench, Chennai. In our opinion, if the petitioners are aggrieved by the aforesaid action of the respondent No.2/ Telangana State Pollution Control Board, its remedy lies before the National Green Tribunal. Instead, the petitioners are calling upon this court to interpret the order of the National Green Tribunal one way or the other, which is not permissible.

3. We decline to entertain the present petitions. The same are accordingly closed along with the pending applications, if any. It is for the petitioners to approach the National Green Tribunal for clarification of its order dated 24.10.2017 and/or to seek appropriate orders to the effect that they are not under any obligation to contribute to the corpus fund as directed to be created by the National Green Tribunal in terms of the order dated 24.10.2017."

In the considered opinion of this court, as the impugned orders have been passed by the Telangana State Pollution Control Board in respect of payment of Corpus Fund in terms of the order of the National Green Tribunal and in case the petitioners are aggrieved, the remedy lies before the National Green Tribunal and admission has been declined in identical case by this court.

We also decline to entertain the present petition. The same stands disposed of with liberty to the petitioner-company to approach the National Green Tribunal for clarification of the order dated 24.10.2017 and to seek appropriate orders to the effect that it is not under any obligation to contribute to the Corpus Fund, as directed to be created by the National Green Tribunal in terms of the order dated 24.10.2017. The interim order dated 26.04.2021 stands vacated. Resultantly, I.A.No.2 of 2021 is allowed.

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The miscellaneous applications pending in this writ petition, if any, shall stand closed.

SATISH CHANDRA SHARMA, CJ

A.RAJASHEKER REDDY, J

12.11.2021
JSU