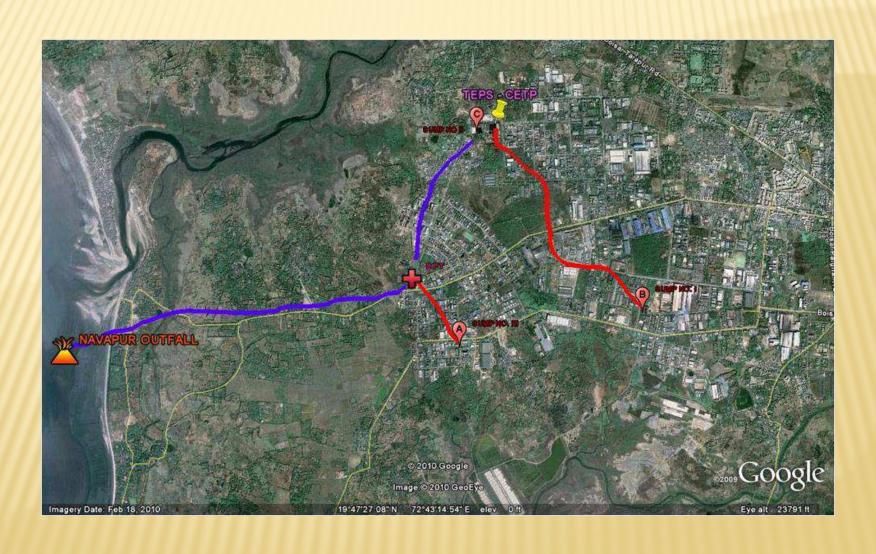
Maharashtra Pollution Control Board

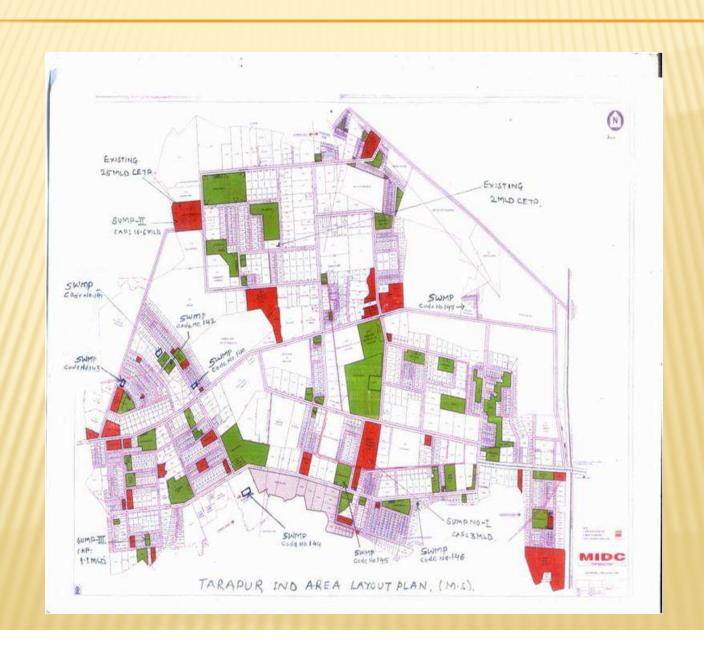
Compliance Report
CEPI Action Plan- Tarapur

Sep 30^{th,} 2015

LOCATION OF MIDC TARAPUR



MIDC TARAPUR LAYOUT





GENERAL INFORMATION OF MIDC

Year of Establishment :- 1972.

Area of MIDC :- 1028 Hectares.

Water Consumption :- About 85 MLD

Effluent Generation :- About 43 MLD

Number of Industries :- 1083 Nos.



COMPRESSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI)

- CPCB has declared in December 2009 various total 88 critically polluting stretches in India. MIDC Tarapur, Tal Palghar Dist. Palghar is one of them at it was ranked 36.
- > The CEPI index of MIDC Tarapur was calculated based on prevailing environmental base line like water, air, land. The CEPI index of water, air & land was projected as 51.25, 60.75 and 56.0 respectively. The cumulative CEPI index of MIDC Tarapur was shown as 72.01.
- Considering gravity of environmental degradation and associated pollution problems, CPCB declared ban on setting up of new industrial units and expansion of existing industrial units.
- Thereafter, M.P.C. Board has taken initiative by preparing action plan including short term and long term measures so as to cope up pollution problems and minimize CEPI index.

Cont...



- The action plan was prepared indicating various short & long term measures along with responsibilities fixed on specific stake holders.
- MIDC, a infrastructure providing organization was quoted with major role to improve existing infrastructure. Also, MPCB being a law enforcement authority was quoted with the specific role of co-ordination among various stake holders like MIDC, CETP, Industries Associations and local Government.
- The action plan prepared by M.P.C. Board was submitted to Central Government / CPCB with a request to vacate ban on setting up of new industrial units and expansion of existing industrial units. Considering, the proposed short & long term measures proposed by Board office, CPCB decided to lift the moratorium on 26/10/2010.



COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI)

Water Environment: Water CEPI = 56

| A1 | A2 | Α | B1 | B2 | В3 | В | C1 | C2 | C3 | С | D |
|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|------|
| 3.0 | 5.0 | 15.0 | 8.0 | 0.0 | 3.0 | 11.0 | 3.0 | 5.0 | 0.0 | 15.0 | 15.0 |

Air Environment: Air CEPI = 60.75

| A1 | A2 | A | B1 | B2 | B3 | В | C1 | C2 | C3 | С | D |
|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|------|------|
| 5.75 | 5.0 | 28.75 | 2.0 | 3.0 | 3.0 | 8.0 | 3.0 | 3.0 | 5.0 | 14.0 | 10.0 |

Land Environment: Land CEPI = 51.25

| | A1 | A2 | A | B1 | B2 | В3 | В | C1 | C2 | C3 | С | D |
|----------|-----|-----|------|------|-----|-----|-------|-----|-----|-----|-----|------|
| Existing | 3.0 | 5.0 | 15.0 | 7.75 | 3.0 | 3.0 | 13.75 | 5.0 | 1.5 | 0.0 | 7.5 | 15.0 |

The cumulative CEPI index of MIDC Tarapur was shown as 72.01 (CPCB- 2009).



INDUSTRIAL STATISTIC - MIDC TARAPUR

| Scale / Category | Red | Orange | Green | Total |
|---------------------|-----|--------|-------|-------|
| LSI | 50 | 03 | 26 | 79 |
| MSI | 28 | 05 | 24 | 57 |
| SSI | 394 | 53 | 500 | 947 |
| Total | 472 | 61 | 500 | 1083 |



INFORMATION ABOUT CETP

Existing CETP Capacity :- 25 MLD

Proposed CETP :- 50 MLD

Compliance of Existing CETP: Presently not meeting the consented
 standards.

Status of proposed CETP: Environment Department have accorded
 environmental clearance. Construction work is
 started, about 50 % Civil work is completed.

>

SHORT TERM ACTION POINTS



(UPTO 1 YEAR, INCLUDING CONTINUOUS ACTIVITIES)

| Sr. No. | Action point | Compliance |
|---------|--|---|
| 1. | Expansion of TEPS-CETP from | Deffered due to local villager's opposition. |
| | existing 25 MLD to 37 MLD | •Proposed 50 MLD CETP to which Env. Clearance is granted and |
| | (Expansion -12MLD) | work is started. Expected to be completed before March-2016 as |
| ////// | /////////////////////////////////////// | assured by TEPS-CETP. |
| 2 | Upgradation of existing 25 MLD | •CETP has upgraded aeration system with aspirator technology. |
| | CETP. | Revamping of machineries is going on. |
| | ///////////////////////////////////// | •Solar pit has provided and it was covered in monsoon by tarpaulin |
| 3. | Arresting leakage of drainage | •AMC is granted by MIDC. |
| | pipe line | The leakages in pipe line are arrested. |
| | (<i>((()))</i> | •Any incidental choke up in collection systems are removed from time to time. |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Manholes and chambers are attended immediately though AMC. |
| | | Though the leakages are arrested the effluent carrying line from |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Hotel Contesa to TEPS CETP, the chambers are overflowing |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | frequently near Hotel Contesa and near M/s Omega Colour s D- |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 21/2/3 MIDC Tarapur. MIDC has proposed to provide one sump |
| | ,,,,,,,,,,,,,,,,,,,, | near Hotel Contensa so as to avoid discharge of effluent into local |
| | 666666666666 | nalla due to overflow of chamber s in this area. |
| | | •Sump No II and other drain is till some times overflowing. |
| 4 | Connection Sump III to CETP | •Work is completed |

SHORT TERM ACTION POINTS (UPTO 1 YEAR, INCLUDING CONTINUOUS ACTIVITIES

| 5 | recovery plant to | Improve the | *Due to various measures taken by the industries solvent recovery improved. And following industries has taken messurs 1. M/s. Arti Drugs Ltd, Plot No. N-198, MIDC, Tarapur, Tal. Palghar. This industry has developed new technology for the recovery of ammonium sulphate 2000 MT / month by unit operation like evaporation, crystallization. Earlier the same was treated in their ETP. 2. M/s Camlin Fine Chemicals. Ltd., Plot No. D, MIDC Tarapur has segregated of high COD stream. 3. M/s. Arti Industries Ltd., , Plot No E-50, has installed zero discharge plant such as incineration high COD. 4. M/s Lupin Limited Plt No. T-142 MIDC, Tarapur has provided Anaerobic Digestor for segregated effluents. |
|---|-------------------------|-------------|--|
| 6 | Survey of stack monitor | ing | •Coal fired boiler Stack monitoring work is completed. |

SHORT TERM ACTION POINTS (UPTO 1 YEAR, INCLUDING CONTINUOUS ACTIVITIES

| 6. | Illegal dumping of hazardous waste | Board has informed CHWTSDF to increase the frequency of collecting of HW and its transportation. In recent time only one incidence of illegal HW disposal was reported. |
|----|--|--|
| 7. | Massive Tree Plantation (One lacs Trees) | MIDC is carrying out massive tree plantation program on empty/ reserved plots, and on boundary of MIDC. 4500 nos of trees has been distributed by MIDC to TIMA, MIDC has directed TEPS-CETP to plant 10000 nos of trees during monsoon period. |

| S. No. | Action point | Compliance |
|--------|---|---|
| 1. | Expansion of TEPS CETP from existing 25 MLD to 50 MLD | •MIDC has allotted plot admeasuring 85000 M ² . |
| | | • Letter of intention (LOI) for 50 MLD additional CETP has been awarded to M/s Ramky Enviro Engineers Itd.,vide TEPS letter dated 19/06/2012. Environment Clearance approved by GoM. Construction Work is started |

| 2. | If outlet treated quality is not achieved, advanced technologies such as MBR/RO are to be enforced | |
|----|--|---|
| 3. | Replacement of RCC drainage by HDPE within MIDC area. | MIDC has Replaced 38 km internal pipe line by HDPE remaining 6 km pipeline is yet to be replaced. |

| 4. | | •Augmentation of sump No.1 is completed by constructing additional sump. Also augmentation of pumping at Sump No.1 and 2 is completed. |
|----|--|--|
| 5. | Extension of pipeline inside Navapur sea | NIO has completed pre and post monsoon study. Work allotted to M/s. SMC-IVRCL-VUB (Joint Venture) on 26.5.2015 (Tender cost- Rs 113.81 Crores). Work completion period is 36 months as per tender. But said work will be completed within 2 years as per MIDC officials. 7.1 km pipeline from existing disposal point at Navapur sea is to be laid down. |

| 6. | treated water by | •5 nos of industries has started and recycling 50 % of their treated effluent i.e 1604.5 CMD • 7 No.of Textile industries has provided zero discharge system and recycling about 2434 CMD |
|----|--|--|
| 7. | Pursuing matter with Mahanagar Gas limited/ GAIL to make available CNG to MIDC Tarapur | connection are given to 2 major industries (M/s. JSW & M/s. Tata |

| 8. | Proposal of |
|----|--------------------|
| | installation of |
| | continuous |
| | Ambient Air |
| | Quality monitoring |
| | under CPCB |
| | scheme |

•M/s JSW Steel Ltd has installed three Nos of CAAQMS monitoring stations. One is at the terrace of SRO MPCB office Tarapur, 2nd is residential colony near railway bridge and third at JSW power Plant.



Action Taken Against Industries:-

Board has undertaken special survey in sep-2013.

On the basis of Survey:- Closure directions issued - 59

Proposed directions issued- 23

Inspite of above board has taken action, abstract of same (1/4/2014) to 31/03/2015) is as below:

Closure directions issued : 08 - Nos.

Interim directions issued : 32 - Nos.

No. of industries BG Forfeited : 63 - Nos.

BG Forfeiture amount : Rs. 1,79,25,000/-



- Action against CETP: MPC Board have initiated action against TEPS-CETP, Tarapur vide various directions dated 4/4/2012, 15/12/2012, 19/1/2013, 19/10/2013, 1/8/2015, 9/9/2015 & 23/9/2015. Extensive surveys have been conducted by the Board office so as to identify defaulters and initiate necessary legal action against them. The action taken report against industries, CETP, MIDC is being regularly submitted to Hon'ble High Court, Bombay in the matter of PIL No. 17/2013. It has been directed CETP to restrict generation of effluent to 25 MLD, to divert all direct discharges/bypasses to CETP for further treatment and appropriate disposal, to take effective steps so as to achieve the consented standards, etc.
- Action against MIDC: MPCB has also issued various directions on 17/4/2014 & 23/9/2015 to the Chief Engineer, MIDC, Tarapur regarding direct disposal of effluents from the Members of TEPS-CETP, repairs of pipelines to avoid leakages, to ensure restricted water supply so that generation of effluent shall not exceed 25 MLD i.e. capacity of CETP, to prevent entry of unauthorized tankers by appointing Security Personnel at the entry of Gates, to explore the possibility of installation of C.C. TV Cameras, to prepare concrete proposal for providing / repairing appropriate storm water drainage system & road network along with time bound programme and curtailing to 25% water supply to industries in MIDC Tarapur.

IMPROVEMENTS

- solvent recovery system installed by industries = 29 Nos.
 (other units are sending their spent solvent to solvent distillation plant for recovery)
- Reuse and recycle of treated water by the textile industries: 17 Nos.
- Reuse and recycle of treated water by the chemical & other industries: 4 Nos.
- * Multi Effective Evaporator provided = 5 Nos. (JSW Steel, Lupin Ltd, Nipur Chemicals, Jakharia Fabrics, First Winner Textile)
- Waste Pickle Recovery : 1 No. (Indrox Global)
- Caustic Recovery Plant : 2 Nos. (Mudra Textile, Bombay Rayon)
- **Recovery of Ammonium Sulphate : 2 Nos (Arti Drugs N-198 and Nupur Chemical)**
- * Recovery of phenol from effluent: 1 No (M/s. IVP Ltd, Plot No: D-19)
- **Recovery of ferrous sulphate from effluent:** 1 No. (M/s. Nipur Chemicals, Plot No. D-17)
- * Recovery of nitric acid from Nitrous gases and Sodium bisulphite solution from SO2 gases: 1 No. (M/s. Nipur Chemicals, Plot No. D-17)
- * Advanced Air Pollution Control Equipments: M/s Tata steel Ltd., Plot No. A- 6 MIDC, Tarapur has provided Fume less pickling to avoid Air pollution.
- **ESP Intalled units= 2 Nos. (M/s JSW & M/s Bombay Rayon)**

$\label{eq:Aggregate CEPI} \mbox{Aggregate CEPI} = \mbox{i}_m + \{(100 - \mbox{i}_m) \mbox{ X } (\mbox{i}_2/100 \mbox{) X } (\mbox{i}_3/100 \mbox{)}\}$ Where \mbox{i}_m - maximum sub index and \mbox{i}_2 and \mbox{i}_3 are sub indices for other media.

| Parameters | CPCB CEPI-2009 | CEPI -2011 | CEPI- 2013 | MPCB CEPI-2015 | Remarks |
|----------------|-------------------|------------|---------------|-------------------|---|
| Water | 56 | 63 | 63 | 43 | There is no buffer zone in between residential & industrial area. |
| Air | 60.75 | 79.75 | 58 | 54.5 | 2) MIDC has completed the work replacement of 36 km of RCC effluent carrying pipeline and remaining 6 km pipeline is yet to be |
| Land | 51.25 | 43 | 48 | 48 | replaced. , 3) The work of laying of pipeline by GAILfor CNG gas supply to the industries is completed. But actual |
| Aggregate CEPI | 72.01 | 85.24 | 73.3 | 63.89 | supply to their first customer is commissioned from 23.9.2015. 4) New 50 MLD capacity CETP work yet to be completed. 5) As per suggestion of NIO, laying of pipeline of 7.1 km from existing final dispoal point to deep into the sea is (actual work at site) yet to be started. |

| 3 。 家 。 | उपस्थित मुद्दे | जबाबदार संस्था | कालावधी | सद्य:स्थिती |
|------------------|----------------|-------------------|---------|--|
| ę | _ | सीईटीपी व | | सद्य:स्थितीत पावसामुळे काम बंद आहे. (दि.०३.०७.२०१५ रोजी प्रकल्पाची जशी स्थिती होती तशीच स्थिती आज सुध्दा आहे.) |

| 3 । व्रा | 3. | जबाबदार संस्था | कालावधी | सद्य:स्थिती |
|------------------------|---|-------------------|---------|--|
| 3 | 25 एमएलडीच्या सीईटीपीमध्ये सुधारणा करणे | | 15 दिवस | पुर्णपणे सुधारणा करण्यात आलेली नाही. (२५ एमएलडी सामायिक सांडपाणी प्रक्रिया यंत्रणेची देखभाल व दुरुस्तीच्या कामात हवी तशी प्रगती झालेली नाही. प्रायमरी क्लॅरिफायर्स दुरुस्त करुन कार्यन्वित करण्यात आले. दोन सेकंडरी क्लॅरिफायर्स पैकी सद्य:स्थितीत एकच कार्यान्वित आहे. दुसरा सेकंडरी क्लॅरिफायर्स आज देखील बंद स्थितीत आहे.) परिणामी प्रक्रियाकृत सांडपाण्याची गुणवत्ता संमतीपत्रात नमुद केलेल्या मानकांच्या विहित मर्यादेत नाही. |

| 3 | उपस्थित मुद्दे | जबाबदार संस्था | कालावधी | सद्य:स्थिती |
|-----|---|-------------------|---------|--|
| क्र | | VIV 411 | | |
| 3 | ड्रेनेज पाईप लाईनची गळती थांबविणे, तसेच चेंबर ओव्हरफलो होणे, इ. समस्या | | | सद्य:स्थितीत ओव्हरफ्लोचे प्रमाण कमी झाले आहे. परंतु ड्रेनेज पाईपलाईन मधुन गळती, चेंबर चोक अप होणे, इ. घटना अधुनमधून होत असल्याने, जल प्रदुषणाची समस्या कमी झालेली नाही. |

| 3 京 | उपस्थित मुद्दे | जबाबदार संस्था | कालावधी | सद्य:स्थिती |
|--------|---|-------------------|---------|--|
| 8 | तारापूर औदयोगित क्षेत्रात स्टॉर्म वॉटर ड्रेन बांधणे, | | 1 वर्ष | कामास सुरुवात केलेली नाही. |
| Ģ | तारापूर औदयोगित क्षेत्रात उर्वरित 20 कि.मी.आरसीसी पाईप लाईन बदलुन एचडीपीईची टाकणे | | 2 वर्ष | टप्प्याटप्प्याने कार्यवाही करण्यात येईल असे म.औ.वि.महामंडळाने मौखिक कळविले आहे. |

| | | 40 | - (~ | |
|---|---|--|--|---|
| £ | समुद्र विज्ञान संस्थेने निर्देशित केल्याप्रमाणे, 7.1 कि.मी. पाईपलाईन खोल समुद्रात टाकणे. | मंडळ | पर्यावरणीय अनुमती नुसार दिलेला कालावधी | वर्ष २०१८ पर्यंत सदरचे काम पूर्ण करणे प्रस्तावित आहे. (मे.एसएमसी - आयव्हीआरसीएल-व्हीयुी (जेव्ही) या कंपनीस समुद्र विज्ञान संस्थेने निर्देशित केल्याप्रमाणे, 7.1 कि.मी. पाईपलाईन खोल समुद्रात टाकण्याचे काम वर्क ऑर्डर क्र. टीसी/ आयएफएमएस/ बी- ५६३१८/२०१५, दि.२६.०५.२०१५ अन्वये देण्यात आलेले आहे.सच:स्थितीत कंत्राटदाराने समुद्रात टाकण्यासाठी आवश्यक असणाऱ्या विशिष्ट प्रकारच्या पाईपच्या प्रोक्रयुरमेंटचे काम चालु आहे. |
| b | ताराप्र औदयोगिक क्षेत्र सीईपीआयच्या कक्षेत येत असल्याने पुढील तीन महिन्याच्या कालावधीत मोठया व मध्यम स्वरुपाच्या कारखान्यांनी कोळसा एवजी सीएनजी गॅसचा वापर करणे. सदरबाबत मे.गेल इंडिया, मे.टिमा व मोठया व मध्यम उदयोगाने याबाबत महिनेवारी अहवाल सादर करणे | लि. मे.टीमा, मोठया व मध्यम स्वरुपाचे कारखाने | | प्रत्यक्ष गॅसचा पुरवठा नुकताच दि.२३.०९.२०१५ रोजी पासुन मे.गेल इंडिया लि. तर्फ तारापुर औद्योगिक क्षेत्रात सुरु करण्यात आला. प्रथमत: गॅसचा पुरवठा मे.जेएसडब्ल्यु लि. या कंपनीस करण्यात आला आहे. याबाबत उर्वरित उद्योगांकडे पाठपुरावा करण्यात येत आहे. दिनांक 3/7/2015 रोजीच्या बैठकीचे इतिवृत्त टिमा या संस्थेस पुढील कार्यवाहीस्तव दिनांक 14/7/2015 रोजी पाठविण्यात आलेले आहे. तसेच मोठया स्वरुपाच्या २७ व मध्यम स्वरुपाच्या ०९ उद्योगांना कोळसा ऐवजी सीएनजी गॅसचा वापर करण्यासाठी दि.११.०९.२०१५ रोजी हवा (प्रदूषण प्रतिबंध व नियंत्रण) कायदा, १९८१ च्या कलम ३१ अन्वये निर्देश बजावण्यात आले आहेत. |

| | બાવવાલન અફવાલ. | | | | | |
|------------|--|---|---------|---|--|--|
| अ. क्र. | उपस्थित मुद्दे | जबाबदार संस्था | कालावधी | सद्य:स्थिती | | |
| C | कालावधीत सर्वच | मे.गेल इंडिया लि. मे.टीमा, लघु स्वरुपाचे कारखाने | | याबाबत सर्व लघु उद्योगांकडे पाठपुरावा करण्यात येत आहे. <u>दिनांक</u> 3/7/2015 रोजीच्या बैठकीचे इतिवृत्त टिमा या संस्थेस पुढील कार्यवाहीस्तव दिनांक 14/7/2015 रोजी पाठविण्यात आलेले आहे. तसेच लघु स्वरुपाच्या २१ उद्योगांना कोळसा ऐवजी सीएनजी गॅसचा वापर करण्यासाठी दि.११.०९.२०१५ रोजी हवा (प्रदूषण प्रतिबंध व नियंत्रण) कायदा, १९८१ च्या कलम ३१ अन्वये निर्देश बजावण्यात आले आहेत. | | |
| ९ | स्वयंचलित हवा गुणवता तपासणी केंद्र सीपीसीबीच्या प्रणालीनुसार उभारणे | म.प्र.नि. मंडळ | 6 महिने | पाठपुरावा करण्यात येईल. | | |
| १० | अतिरिक्तं औद्योगिक सांडपाणी निर्मिती | म.प्र.नि. मंडळ, म.औ.वि. महामंडळ, टीईपीएस - सीईटीपी व टीमा | 3 महिने | म.औ.वि.महामंडळास औद्योगिक पाणी पुरवठा २५ टक्के इतका कमी करण्याबाबत पत्र क्र. एमपीसीबी/ आरओटी/ पीडी/ २०६७, दि.२३.०९.२०१५ रोजी निर्देश बजावण्यात आले आहे. तसेच सीईटीपीमये येणाऱ्या औद्योगिक सांडपाण्याचे प्रमाण २५ टक्क्याने कमी करण्याबाबत सुचित केले आहे. अन्यथा अशा उद्योगांची सीईटीपीचे सदस्यत्व रद्द करण्यात यावे. तसेच इलेक्ट्रॉनिक स्वरुपाचे डाटा लॉगर सहीत फ्लोमीटर लावण्याबाबत निर्देश देण्यात आले आहेत. उपरोक्त सर्व निर्देश पत्र क्र. एमपीसीबी/ आरओटी/ पीडी/२०६८, दि.२३.०९.२०१५ अन्वये सीईटीपीस बजावण्यात आले आहे. | | |

| 11 | तारापूर औदयोगिक क्षेत्रात ज्या उद्योगांनी म.प्र.नि मंडळाचे समंतीपत्र घेतले नाही परंतु उत्पादन चालू आहे अशा उद्योगांचे सर्वेक्षण करणे व त्यावर कारवाई करणे. | म.प्र.नि. मंडळ | 3 महिने | क्षेत्र अधिकाऱ्यांच्या भेटीदरम्यान आढळून येणाऱ्या अशाप्रकारच्या उद्योगांवर कारवाई करण्यात येईल. |
|----|--|-----------------|---------|--|
| 12 | तारापूर औदयोगिक क्षेत्रात जे उद्योग पोटभाडा पध्दतीने (Sub-letting) उद्योग चालवत आहे, अशा कारखान्यांचे सर्वेक्षण करणे व त्यावर कारवाई करणे. अशा प्रकारच्या पोटभाडा पध्दतीबाबत (Sub-letting), म.औ.वि.महामंडळाने म.प्र.नि मंडळास कळविणे. | व म.औ.वि.महा | 6 महिने | याबाबतचा अहवाल म.औ.वि.महामंडळाकडून प्राप्त होताच कार्यवाही करण्यात येईल. |
| 13 | म.प्र.नि मंडळामार्फत भरारी पथक स्थापन करुन, तारापूर औद्योगिक क्षेत्राचे सर्वेक्षण करणे व दोषी कारखान्यांवर कारवाई करणे. | म.प्र.िन. मंडळ | 3 महिने | विशेष पथकामार्फत माहे जुलै मध्ये एकूण मोठया २२ उद्योगांचे सर्वेक्षण करण्यात आले असून याबाबत अंतिरम निर्देश बजावण्यात आले आहे. (५०० घनमी पेक्षा जास्त औद्योगिक सांडपाणी निर्माण करणाऱ्या २२ उद्योगांना त्यांचे सांडपाण्याचे प्रमाण कमी करणे व इलेक्ट्रॉनिक स्वरुपाचे डाटा लॉगर सहीत फ्लोमीटर लावण्याबाबत निर्देश देण्यात आले आहेत.) |

Thanks