Before the Hon'ble National Green Tribunal
Principal Bench, New Delhi

In the matter of :-

in OA No. 06/2012

(with report dated 05.02.2020)

Manoj Mishra

Applicant (s)

versus

Govt. of NCT of Delhi & Ors.

Respondent (s)

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Place: - New Delhi
Date: - 03.07.2020

03.07.20

(Sharat Kumar)
Superintending Engineer
DSIIDC

DELHI STATE INDUSTRIAL & INFRASTRUCTURE DEVELOPMENT CORP. LTD.

ACTION PLAN ON THE ALTERNATE TECHNOLOGIES FOR MANAGEMENT OF WASTE WATER IN DRAINS

1.BACKGROUND

Hon'ble NGT on dated 05.03.2020 in the matter of "**Manoj Mishra vs UOI and ORS.(OA No 06/20212)**" had issued following direction:

"The IDMC may prepare and execute an action plan on the subject of 'Alternate Technologies for Management of Waste Water Drains' after appropriate techno-economic evaluation in the light of the reports of CPCB."

2.MAINTENANCE OF STORM WATER DRAINS IN INDUSTRIAL AREAS

Management of Storm water drainage system within NCT of DELHI is being looked after by a number of Civic Bodies and Departments. DSIIDC is not maintaining any natural drain. However, DSIIDC is looking after maintenance of storm water drains in 24 industrial areas. Storm water drains in other industrial areas are being maintained by respective DMCs and other agencies.

After the enactment of DIDOM Act, 2010 the responsibility of maintenance of storm water drains of following 24 industrial areas has been assigned to DSIIDC:

I. DSIIDC Sheds Nangloi
II. FFC at Jhilmil Industrial Area
III. Flatted Factories for Leather Goods, Wazirpur industrial area
IV. FFC at Rani Jhansi Road
V. FFC,Okhla Industrial Area
VI. Functional Industrial Estate for Electronics,A-Block, Okhla Industrial Area
VII. Functional Industrial Estate for Electronics, S- Block, Okhla Industrial Area
VIII. Patparganj Industrial Area
IX. Badli Industrial Area
X. Okhla Industrial Estate PH-III
XI. Bawana Industrial Area
XII. Narela Industrial Area
XIII. Rajasthan Udyog Nagar Industrial Area
XIV. GT Karnal Road Industrial Area

XV. Lawrence Road Industrial Area

XVI. Wazirpur Industrial Area

XVII. Udyog Nagar Industrial Area Ph-I

XVIII. Naraina Industrial Area(Ph-I & Ph-II)

XIX. DLF Industrial Area, Moti Nagar

XX. Najafgarh Road Industrial Area

XXI. Jhilmil Industrial Area

XXII. Kirti Nagar Industrial Area

XXIII. Mangolpuri Industrial Area(Phase-I & Phase-II)

XXIV. Mayapuri Industrial Area(Phase-I & Phase –II)

The sewerage system/conveyance system in all the industrial areas are being maintained by DJB except the industrial areas namely Patparganj ,Bawana and Narela.

3.TREATMENT OF WASTE WATER/EFFLUENT GENERATED BY INDUSTRIES IN INDUSTRIAL AREAS

DSIIDC has constructed 13 CETP namely Wazirpur, GTK Rd, Lawrence Rd, SMA, Badli, Mangolpori, Nangloi, Mayapuri, Naraina, Okhla Industrial Area, Jhilmil, Narela and Bawana which cater to 17 industrial areas.

13 CETPs receives the waste water/effluent through this Sewerage system/conveyance system. About 50-60 mld of effluent is being received by these CETPs against the installed capacity of 212.3 mld which indicates the fact that they have extra capacity to treat the waste water flowing into drains. However, these CETPs to be upgraded depending upon the quality and quantity of waste water.

4. SOURCES OF WASTE WATER IN STORM WATER DRAINS IN INDUSTRIAL AREAS

Though industries and other establishments in the industrial area should discharge waste water/effluent in sewerage system/conveyance system, some industries and establishments are discharging it in the storm water drains which ultimately reaches Yamuna river without any treatment.

In the Industrial areas, waste water in storm water drains is discharged mainly from following sources;

a) Industries

b) JJ Clusters

c) Food outlets operating on the streets/roads and open land

5.EFFORTS OF DSIIDC FOR PREVENTION OF DISCHARGE OF WASTE WATER INTO STORM WATER DRAINS

DSIIDC and DPCC have surveyed jointly the Industries of the various industrial areas in order to verify the connectivity of individual industries to the conveyance system of CETPs and also to identify industries discharging waste water in storm water drains. Notices were issued to all defaulting industries besides levy of Environmental Compensation.

Further, Executive Engineers/Estate Managers are constantly monitoring and conducting field visits on regular basis so as to prevent the discharge of waste water into storm water drains by industries and the notices are being served to all defaulting industries and Environmental compensation is also being levied.

Due to efforts made by DSIIDC, almost all the industries have been connected to the sewerage system/conveyance system barring few industries. Action on such industries is taken as and when Estate managers/Executive Engineers identifies them.

6.ALTERNATIVE TREATMENT TECHNOLOGIES FOR WASTEWATER TREATMENT IN DRAINS SUGGESTED BY CPCB

CPCB suggested the following treatment methods for treatment of waste water in drains:

a) In-Situ treatment methods such as constructed wetland system, phytoremediation, Eco Bio Block system, microbial bio remediation are most favorable methods for alternative biological treatment technology of drains.
b) Ex-Situ treatment methods includes constructed wetland, waste stabilization pond, aerated lagoon and oxidation pond.

The drains having less width, In-Situ treatment methods are generally not feasible. Ex-Situ model may be best suitable for providing sufficient hydraulic retention time for such cases where width of the drain is less.

7.TREATMENT OF WASTE WATER IN DRAINS IN INDUSTRIAL AREAS

None of the industrial area under the jurisdiction of DSIIDC has the width of drains more than 3 meters. Hence, possibility of implementation of in-situ treatment suggested by CPCB is very remote. Only Ex -Situ treatment of waste water of storm water drains is possible.

Further, DSIIDC has signed an MoU with National Environmental Engineering Research Institute (NEERI), Nagpur in July,2019 for dealing with Environmental related matters including waste water treatment of industrial areas and under this MoU, DSIIDC has assigned them the work of up gradation of 13 CETPs in Nov,2019 and to formulate an action plan for the treatment of waste water generated in 17 industrial areas being served by these CETPs.

Besides other options for treatment of waste water of industrial areas, NEERI has also been requested to look into the feasibility of diversion of waste water of storm water drains of industrial areas to existing underutilized CETPs for treatment and accordingly, CETPs may have to be upgraded for all the waste water generated by Industrial area thus leaving no scope for discharge of untreated waste water from industrial areas. NEERI has been requested to consider and see the feasibility of incorporation of Ex-Situ Treatment methods while going for up-gradation of CETPs.

Besides this, NEERI is devising an action plan for treatment of waste water generated in 11 industrial areas where CETP is not available.

As per the timelines mentioned in the work order given to NEERI, time of completion is 27 months but NEERI is requested to complete the work at the earliest. However, due to Covid19, work was held up since mid of March, 2020 and now it has been started again.

8. ACTION PLAN AND TIMELINES FOR TRAPPING THE DRAINS AND UPGRADATION OF CETPs

For Upgradation of CETPs and trapping up drains discharge and for their treatment in CETPs, NEERI is conducting the whole study in following 4 parts.

i. Module 1: Status of 17 Industrial Areas connected to CETPs
   - Type of Industries
   - Wastewater connectivity status
   - Other Drains
   - Flow Volume
   - Waste Water characteristics (Diurnal/Daily Variation)

ii. Module 2: Existing CETPs
   - Overall Performance Evaluation
   - Unit – Wise Treatment Adequacy
   - Upgradation requirement after treatability studies

   a) CETP-wise Detailed Evaluation, Treatability Study, Upgradation assessment, Basic Process Design.
   b) Detailed Engineering Design/Drawing, Estimates for agreed upgradation.

iii. Module 3: Integrated Planning for treated Water Utilization (based on Secondary Data + Limited Primary study)
   - Horticulture in different regions
   - Reservoir/Water body Creation
   - Discharge to River Yamuna

iv. Module 4: Integrated Planning for sludge utilization (based on Secondary Data + Limited Primary study)

- Characterization (Fresh & Stored)
- Leaching Potential/ Toxicity
- Utilization- Brick/ Tile/Block Manufacturing Unit in Delhi
- Disposal at SLF (TSDF) in Delhi

Action plan and timelines for 17 industrial areas are as under:

a) NEERI will submit an interim report on the status of 17 Industrial areas connecting to CETPs along with overall performance evaluation of existing CETPs which will also contain the details of waste water flowing into Storm Water drain by **30th September, 2020.**

b) After the receipt of interim report by NEERI, discussions will be made with different stake holders i.e MCD. DJB, DPCC, PWD, DDA etc for trapping the waste water of drains falling under their jurisdiction and will be requested to connect the storm water drain to CETP within **4 to 6 months**. Simultaneously, DSIIDC shall connect the storm water drain of the industrial areas which comes under its purview within **4 to 6 months** to the CETPs.

c) Subsequently, NEERI shall submit the report for upgradation of CETPs within **8 to 10 months** after ensuring total flow connectivity of respective industrial areas. Simultaneously, detailed engineering designs/drawings as per agreed upgradation requirement shall also be submitted by NEERI.

d) After getting the detailed engineering design/drawings, necessary action shall be taken for upgradation of CETPs for the treatment of waste water.

Further, the report on 11 industrial areas shall be submitted by NEERI by December 2020 for the management of waste water in the industrial area. Accordingly, necessary action shall be taken as per the recommendation of NEERI.

MUKESH GUPTA
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DSIIDC