MAHARASHTRA POLLUTION CONTROL BOARD

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Kalpataru Point, 2nd , 3rd & 4th floor, Opp. Cineplanet, Near Sion Circle, Sion (E), Mumbai - 400 022,

Amendment in Work Order

BO/RO(HQ)/HSMD/CHWTSDF/B-1-203

Date 66/05/2014

To,

M/s. National Environmental Engineering Research Institute (NEERI) Mumbai Zonal Laboratory, 89-B, Dr. Annie Besant Road, Near Worli Flyover, Worli, Mumbai -400018

Sub:- Work Order for carrying out performance Audit of CHWTSDF Facility M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad

Ref:- 1) Your revised Quotation received on 03/05/2014.

2) Work order issued by MPC Board vide no: BO/RO(HQ)/HSMD/CHWTSDF/B-1000 dated: 11/03/2014

With reference to the above, the MPC Board has agreed the quotation submitted by you for Carrying out performance Audit of CHWTSDF Facility - M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad.

You shall carry out performance audit of CHWTSDF Facility - M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad having Secured Land fill , Land After Treatment Facility and Hazardous Waste Incinerator subject to the following Terms & Conditions:-

A. Scope of Work for carrying out performance audit report:

- To evaluate CHWTSDF facility with regard to their operational aspects to the meet environmental laws and regulations and guidelines stipulated by Central Pollution Control Board New Delhi for " Performance Evaluation and monitoring of the Common Hazardous Waste Treatment Storage and Disposal facilities including common Hazardous Waste Incinerators (Hazardous Waste Management Series: HAZWAMS /-----/2009-2010).
- To Review of data available on industries generating hazardous waste available with MPCB/Operator of CHWTDSF Facility.

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- To identify concerned industries based on available information on process and raw materials used, major products manufactured and types of quantities of Hazardous Waste generated (based on available information) as per Hazardous Waste (MH&TM) Rules, 2008.
- Review of systems and practices in each unit for usage , storage, treatment and disposal of hazardous waste.
- Data collection through questionnaires based on the above points followed by field visits for data verification (at least 1% available data to be verified). About 5 % of each sector industries shall be covered.
- To carry out Field Visits to CHWSTDF for review of:
 - a) Capacity of the plant and systems
 - b) Hazardous Waste Type
 - c) Hazardous Waste Storage, handling, recycling, treatment and disposal
 - d) Vehicles used for transport.
 - e) Volume of waste received and recycled per day.
 - f) Compliance conditions stipulated in consent granted by MPC Board.
- To carry out Random waste characterization by collecting samples from the waste received to ascertain the veracity of information.
- To carry out Study of groundwater quality in test wells/bore wells in TSDF premises, in the
 pathways and at receptor ends preferably at nearby human settlement/village a maximum of 10
 location will be covered.
- 9. To carry out monitoring of Surface soil samples inside and around the facility , about 5 samples each.
- 10. To comment on Health of liner of capped and active cell through self or by using external agency.
- 11. To carryout Examination of the stability and slope and monitoring of primary and secondary leachates from SLFs at CHWSTDF facility.
- 12. To carryout monitoring of VOC measurements at capped & active cells and at TSDF premises.
- You shall collect homogenized samples from active duping sites , 5 samples shall be taken in two seasons.
- You shall verify the path way of the waste to be treated and disposed, as per Hazardous Waste (MH&TM) Rules, 2008.
- 15. You shall carryout verification of adequacy of existing CHWSTDF facility, in respect of total quantity of Hazardous waste being generated as compared to quantity being treated at existing CHWTDSF facility (To cross check / verify the actual waste receipt of CHWTDSF facility against total quantity of hazardous waste being generated by Member industries of CHWTDSF operators).

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- You shall carryout study in respect of working efficiencies of Manifest system (Tracking of movement of Hazardous Waste).
- 17. You shall carry out assessment of calorific value of 10 samples of wastes for incineration for verification.
- You shall carryout study in respect of checking management of leachates and performance of HW incinerator.
- To carry out Quantification of Hazardous waste can be determined through the studies / field visits.
- To carryout study on pricing pattern for different streams of hazardous wastes for treatment and disposal.
- 21. To Submit Final report on performance Audit of CHWTSDF Facility M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad with findings and recommendations for improvement of CHWTSDF facility to RO(HQ)/I/c. HSMD MPC Board, Mumbai covering following aspects:-
 - · Sample collection and analysis.
 - · Receptor and pathway
 - Water quality data
 - Test well quality
 - · Surface soil sample inside and out side the facility and nearby villages.
 - VOCs measurement for active and capped cell.
- 22. To offer recommendations/ suggestions on improvement of performance of CHWTSDF Operators on following aspects:
 - a. Waste identification
 - b. Waste improvement and manifest system.
 - c. Process being used for treatment, storage and disposal
 - d. Emission norms
 - e. Personnel working in CHWTSDF facilities.
 - f. Sustainable pricing/charging policy.
- 23. In case the work not found satisfactory, M.P.C.B. has every right to cancel the work order

B. In Puts from MPCB:

- Coordination for fixing field Visits MPC Board will depute one or two persons for overall participation in the process.
- 2. Sharing past data about CHWTSDF Facility.
- 3. Any other assistance for purpose of fulfilling objectives of the study.

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C. Payment terms:

You will be paid Rs. 11.5 Lakhs /- + Service tax applicable for carrying out performance audit of CHWTSDF facility - M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad , after submission of your report on "performance Audit of CHWTSDF Facility M/s. Mumbai Waste Management Ltd, Plot no: P-32, MIDC Taloja Tal: Panvel Dist: Raigad to MPC Board.

D. <u>Duration of the work order</u>:

The work order will be valid for 3 month (three month) from date of issue of this work order.

(Rajeev Kuman Mital, IAS)

Copy to: 1) Chief Accounts Officer, MPC Board, Mumbai . He is requested to release to payment as per terms of conditions work order to M/s. National Environmental Engineering Research Institute (NEERI), worli Mumbai.

2. The Regional Officer, (HQ), MPC Board Mumbai.