

OFFICE OF THE YAMUNA POLLUTION MONITORING COMMITTEE
APPOINTED BY HON'BLE NGT
ROOM NO. 58, INDIA INTERNATIONAL CENTRE
40, MAX MUELLER MARG, LODHI ESTATE
NEW DELHI – 110003

No. YPMC/2019/287

Date: 16.8.19

Learned Registrar General,
Hon'ble National Green Tribunal,
Faridkot House, Copernicus Marg,
DELHI:

Subject: Setting up of H-CNG plant by Indian Oil Corporation at Rajghat Depot 1 related to M.A. No. 163/2019.

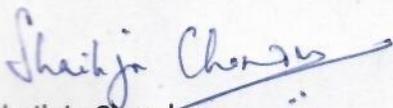
Sir,

The Hon'ble National Green Tribunal (Principal Branch) had issued an order in MA no. 163/2019 on 12.8.19 relating to a proposal to setup a demonstration unit of 4 TPD HCNG at DTC Rajghat Depot 1. The Hon'ble Tribunal had asked the applicant to first approach the Monitoring Committee and directed that after the report of the Committee is received, the application would be taken up for consideration on 23.8.19.

The report of the MC is attached after holding 2 meetings with all stake holders. This may kindly be placed before the Tribunal for further orders.

Encl: as above.

Yours faithfully


Shailaja Chandra,
Member,
Monitoring Committee for Yamuna

Sd/-
B.S. Sajwan,
Member,
Monitoring Committee for Yamuna

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Sub: Minutes of the meeting held with IOC on 13.8.19 regarding setting up of H-CNG plant.

This relates to a matter in MA No. 163/2019 in which Hon'ble NGT on 12.7.19 had directed that the applicant organisation (Indian Oil Corporation Ltd) may first approach the Yamuna Monitoring Committee and the matter would be taken up by NGT on receiving the report from this Committee.

The MC held a meeting on 6.8.19 in which the background of the case was discussed. The MC had taken into account of the views of all stakeholders after listening to the overall concept explained by Indian Oil Corporation (IOC) representative. This was followed by seeking advice of the DDA which have control over the land and had given temporary allotment of land to Delhi Transport Corporation. DTC in turn had given a portion of land to IOC for conducting trials on a hydrogen based fuel for running buses. The background note regarding what exactly is proposed to be taken up is attached at annexure A. Hon'ble Supreme Court had directed the IOC to conduct the trial for using H-CNG fuel in buses in Delhi. Thereafter based on IOC's request the Principal Committee constituted by the NGT recommended the proposal for approval of NGT for setting up demonstration unit of 4 TPD H-CNG at DTC Depot at Raj Ghat. The DPCC has given consent to establish the demonstration plant.

The following aspects are important:

The project has already commenced construction activities for a unit which consist of 4 chambers of measuring a total of 1000 sq mtrs of land out of 7 acres available with DTC at this depot.

The project comprises of:

1. A control room which would be of pucca structure but the roof would be a tin sheet.
2. The H-CNG plant would occupy 18 meter X 7 meter space.
3. The H-CNG storage and compression would occupy a space of 40 meters X 7 meters.
4. The Dispenser would occupy a space of 3 meters X 3 meters.

The representative of IOC stated that these are temporary structures and the IOC undertakes to have them removed in 8 months after installation of the pilot plant which will be completed in November 2019. Based on the results of the trial they will decide about moving to another location to undertake the activities on a wider scale. It is also confirmed that the IOC has taken approval of the Petroleum and Safety Explosives Organisation (PESO) as required under law.

Normally MC would have declined supporting the grant of permission for any construction activity on the floodplain. However, considering that the land already stands allotted to DTC and only a portion of the land so allotted is proposed to be used for setting up the pilot plant and further considering that it is intended to test the suitability of H-CNG as fuel, the MC is of the opinion that the larger public interest warrants recommending setting up the pilot plant at the site. It is confirmed both by the IOC and the DPCC that the plant will not generate any liquid effluent and therefore there is no possibility of any pollution being caused to the river Yamuna or its floodplains.

MC, therefore, recommends that the project subject to the following conditions:

1. **The IOC shall not construct any permanent structure at the site in question.**
2. **All the structures created at the site shall be dismantled and the site restored to its original state after the pilot trial is over,**
3. **No alteration of the floodplain features will be carried out while undertaking the trial,**
4. **No liquid waste or hazardous waste shall be released on the floodplain.**

Apart from the IOC's request certain aspects emerged while MC went into background of the case and these are discussed below.

DTC

DTC had been given temporary space for establishing a Depot at Rajghat during the Commonwealth Games (2010) for maintenance and operation of low floor buses. DTC has been operating the depot which involves undertaking large scale washing of buses which leads to discharge of waste water into an open area on the floodplain. On enquiry the DTC representative informed that they are also doing repairs and maintenance of buses at the depot. The DTC did not inform the MC that they were operating without consent to operate until this was brought out by DPCC. The DTC representative also stated that they are using 20 KL of treated waste water taken from STPs for washing the buses and there was no bore-well installed there. DPCC informed that a bore-well exists which was found during the inspection MC had directed to be undertaken. DPCC also stated that hazardous substance like used engine oil and other oils/greases were being discharged and this was not brought to anyone's notice and had continued for the last 9 years. MC noted that such effluent being discharged on a regular basis is bound to go into river water. It is not environmentally safe or advisable and since such activities are integral to the Depot's functioning, DTC should find some other alternative space. This area being on the flood plain is not conducive to maintaining a healthy flood plain.

DDA

On the last date of hearing dated 6.8.19 when MC had held a preliminary meeting, DDA had been represented by 2 officers namely Ms. Savita Bhandari, Advisor (Landscape) and Ms. Poonam Diwan, AC (LS). During the meeting they had been asked to indicate details of various government or other authorities that had been given temporary allocation on the flood plain and the steps taken by the DDA for reclaiming the spaces allotted on a temporary basis keeping in mind that the Expert Committee's report had the acceptance of NGT. The DDA officers had reported that they had undertaken a visit to the DTC depot and were aware that there was washing going on but had not initiated any action. Today (13.8.19) DDA was represented by Ms. Kamaljeet Kaur, Assistant Director (Planning). The officer did not have any knowledge about the last meeting with the result that the DDA team had brought no action plan / report and had no

idea about any move to vacate the flood plain space allotted "temporarily" to DTC and other authorities. DDA should furnish such a list to the MC within a fortnight.

DPCC

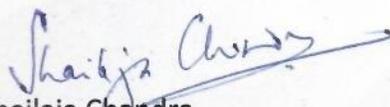
The DPCC had had an inspection conducted as was directed by MC. DPCC had issued a consent to establish order dated 5.9.16 which included activities like repair, maintenance, washing and servicing the CNG low floor buses. In the conditions specified it was stated that the agency shall comply with the Effluent Emission Standards and in particular the Hazardous Waste (Management and Trans Boundary Rules) 2016. The consent to establish order also specified adherence to the Battery and Handling Rules 2001. However the DTC started working without getting consent to operate. It is surprising that DPCC did not take any action up to 2017 and only then issued a Show Cause Notice for closure under section 31A of the Air (Prevention and Control of Pollution) Act 1981 and under section 33 A of the Water (Prevention and Control of Pollution) Act 1974. However no further action was taken after issue of the show cause notices when DTC took no heed of the notice and continued to operate in violation. There are several provisions e.g. effecting the closure of any borewell, to disconnect power supply; disconnect water supply; deposit environmental damage compensation as per policy of the DPCC. It was only after the issue was raised by the MC in the meeting taken on 6.8.19 that the DPCC has issued closure order on 13.8.19 -on the date of the meeting.

In addition DPCC has issued an order dated 13.8.19 that the DTC will deposit environmental compensation to the tune of Rs. 1,11,50,000 within 10 days.

DPCC should have taken immediate action against DTC right from 2010 to 2017 for operating without consent. Even after the matter came to notice 2017 only a Show Cause Notice was issued and nothing was done till the matter came before MC in the last date of hearing. DPCC has been unable to get the fine deposited by any government agency and therefore this remains a paper order judging from the previous track record of what has happened to DPCC orders.

NGT is requested to take note of the fact that DPCC has not performed its duty as specified. Further, DTC should be directed to pay the fine amount to DPCC otherwise it should invite action against the Transport Department of GNCTD and the DTC.

On the IOC proposal MC has supported it in the opening portion of these minutes.


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Indian Oil's H-CNG technology

IndianOil R&D had developed a patented compact reforming process which converts neat CNG to Hydrogen-CNG mixture in-situ wherein hydrogen percentage can be controlled at the desired proportion. Studies conducted at ARAI, Pune on a heavy duty TATA BS IV engine using CNG and 18% H-CNG (V/V) blends indicate substantial reduction in CO and HC emissions (meeting BS VI values) while NOx emissions are at par for both fuels. Further it was also stated that, a fuel economy benefit of 4%-5% can also be attained. H-CNG can be used in existing CNG internal combustion engines without significant modifications in the engine design.

Hon'ble Supreme Court through amicus curie in MC Mehta Vs. Union of India & ORS. case took note of the above findings and directed MoPNG & IndianOil to conduct trial using 18% H-CNG fuel on a bus fleet in Delhi. Accordingly, Delhi State Transport Dept. allotted DTC's Rajghat Depot 1. Based on IndianOil's request the Principal Committee constituted by Hon'ble National Green Tribunal (NGT) has recommended the project. Subsequently DPCC has issued consent to establish the demo plant for producing HCNG at Rajghat Depot-1. Accordingly, IndianOil R&D in association with Indraprastha Gas Ltd (IGL) is in the process of setting up a 4 TPD demonstration unit for production of HCNG. 50 BS IV compliant CNG buses will be refueled with this H-CNG fuel to undertake trials. Petroleum Explosives Safety Organisation (PESO), Nagpur considering the safety aspects has also given the consent to establish the HCNG plant and associated infrastructure. MoRTH while issuing the clearance for trials has advised iCAT (International Centre for Automotive Testing) Manesar to monitor the trials

This plant is only a demonstration unit for conducting the trial for a period of eight months and the allotted space of ~ 1060 m² is less than 2 % of the total depot area (~14 acres). The HCNG plant is likely to be installed by 15th Nov 2019 and trials will be completed latest by July 2020. Further this plant is a 'zero liquid effluent discharge' plant thus ensuring no effluent discharge to the Yamuna plain. Post trials this skid mounted plant can be removed as no permanent construction is being undertaken.

The project is of National importance aimed at improving the ambient air quality through use of HCNG fuel in CNG buses.