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F.No.B-29016/TSDf (69-18)/19/WM-II Div./

July 29, 2019

To

M/s Kerala Enviro Infrastructure Ltd.,
Common TSDf Project, Inside Fact-CD
Campus, Ambalmedu,
Kochi-682 303

SHOW-CAUSE NOTICE DIRECTION UNDER SECTION 5 OF THE ENVIRONMENT (PROTECTION) ACT, 1986, IN THE CASE OF M/s KERALA ENVIRO INFRASTRUCTURE LTD., KOCHI

WHEREAS, the Central Government has notified the Hazardous Waste (Management and Handling) Rules, 1989, and amendments, thereof under the Environment (Protection) Act, 1986, for proper management and handling of hazardous wastes and these Rules are amended recently as Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (herein referred to as HOWM Rules);

WHEREAS, as per Rule 6 of the HOWM Rules, the operator of a disposal facility shall obtain authorisation for handling, collection, storage, packaging, transportation, treatment, processing, pre-processing, offering for sale, transfer or disposal of hazardous and other wastes;

WHEREAS, as per Rule 16(2) of the HOWM Rules, the operator of the common facility or occupier of a captive facility, shall design and set up the Treatment, Storage and Disposal Facility as per technical guidelines issued by the CPCB in this regard from time to time and shall obtain approval from the State Pollution Control Board for design and layout in the regard from time to time; and

WHEREAS, as per Rule 16 (4) of the HWM Rules, the operator of a common facility or occupier of a captive facility shall be responsible for safe and environmentally sound operation of the facility and its closure and post closure phase, as per guidelines or standard operating procedures issued by the CPCB from time to time; and

WHEREAS, M/s Kerala Enviro Infrastructure Ltd., (herein after referred as the operator) is engaged in operation of the common hazardous waste treatment, storage and disposal facility at Common TSDf Project, Inside Fact-CD Campus, Ambalmedu, Kochi-682 303 (herein after referred as the facility); and

WHEREAS, a meeting was convened with the operators of TSDf on 3rd October, 2017 at CPCB, Delhi, to discuss the issues pertaining to management of leachate generated from Secured Landfill (SLF) and stabilization of hazardous waste the following decision were taken on the same:

- a. For Stabilization of hazardous waste for secured landfilling-
 - (i) Installation of mechanized cover system having arrangement of waste conveyor system, mixing unit with mechanized mixing arrangement, suction duct/hood, scrubber system and stack., Or
 - (ii) Stabilization in pit by mixing with excavator/backhoe loader having hood over the pit with adequate suction arrangement (to arrest dust/fumes) followed by scrubber and stack.
- b. For management of leachate generated from secured landfill the following options were decided:

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- i. **Solar Evaporation pond:** May be used provided suitable sized pond be installed considering Evaporation loss Vs. Leachate generation. Further, such pond shall have double liner system with leachate pumping system arrangement and adequate sized standby pond /tank in case of failure of the liner system, if any; or
- ii. **Multiple Effect Evaporator (MEE):** May be used for treatment of leachate. The condensate water to be managed as per the conditions stipulated in the Consent to Operate issued by the concerned SPCB/PCC under the Water (Prevention and Control of Pollution) Act, 1974. The residue of MEE may be disposed into secured landfill after proper encapsulation; or
- iii. **Spray Dryer of common hazardous waste incinerator:** May be used in quenching of flue gases from secondary chamber of the incinerator as leachate has high TDS which will be helpful in exchanging heat. However, leachate shall be treated prior to its use to achieve concentration of COD < 250 mg/l; or
- iv. **Effluent treatment plant (ETP):** May be treated in ETP having advance oxidation technology or adopting other suitable technology (since leachate has high COD and TDS) so as to manage as per the conditions stipulated in the Consent to Operate issued by the concerned SPCB/PCC under the Water (Prevention and Control of Pollution) Act, 1974.

The above decisions were communicated to the operators of the TSDFs (having common secured landfill) vide letter no. B-29016(SC)/1/17/WM-II/13642 dated 13/11/2017 for compliance;

Whereas, in view of no response from the operators of the TSDFs (having common secured landfill) on the status of commissioning of the above facilities, CPCB issued directions dated 13/06/2018 under Section 5 of the Environment (Protection) Act, 1986, to the operators of the facilities for commissioning any of the following system by the 15th October, 2018:

- a) for stabilization of hazardous waste:
 - i. Mechanized cover system having arrangement of waste conveyor system, mixing unit with mechanized mixing arrangement, suction duct/hood, scrubber system and stack; or
 - ii. Stabilization in pit by mixing with excavator/backhoe loader having hood over the pit with adequate suction arrangement followed by scrubber and stack.
- b) for management of leachate generated from secured landfill:
 - i. Solar Evaporation pond of suitable size considering Evaporation loss Vs. Leachate generation with double liner system, leachate pumping system and standby pond/tank; or
 - ii. Multiple Effect Evaporator (MEE) and the residue of MEE to be dispose into secured landfill after proper encapsulation and the condensate water to be managed as per the conditions stipulated in the Consent to Operate issued by the concerned SPCB/PCC under the Water (Prevention and Control of Pollution) Act, 1974; or
 - iii. Adequate treatment facility for treating leachate so as to achieve concentration of COD < 250 mg/l prior to its use in spray Dryer of common hazardous waste incinerator for quenching of flue gases from secondary chamber of the incinerator; or
 - iv. Effluent Treatment Plant (ETP) having advance oxidation technology or adopting other suitable technology and manage as per the conditions stipulated in the Consent to Operate issued by the concerned SPCB/PCC under the Water (Prevention and Control of Pollution) Act, 1974.
- c) In case of violation of the above directions, environmental compensation will be levied on the operator for each day of violations based on pollution index.

WHEREAS, the facility was inspected by officials of CPCB Regional Directorate, Bangaluru on 28/11/2018 to verify the compliance of the said directions and observed the following:

1. The operator is stabilizing the waste in a pit using backhoe and provided two suction hoods followed by scrubber, ID fan and stack of height 10 m. However, during the visits it was observed that sufficient suction was not available in one of the suction hood.

2. Leachate from the leachate collection sump is pumped to the surface leachate collection tank, by a submersible pump, and then pumped to the leachate feed tank in MEE plant for feeding to the MEE of 2 stages followed by centrifuge to remove solids. The solid is disposed to landfill. The condensate is used for gardening and cleaning. MEE plant for treating in MEE. COD of condensate water is 41 mg/L which is within the norms.

WHEREAS, the above observations reveal that the operator not complied with the aforesaid direction issued by CPCB under Section 5 of the Environment (Protection) Act, 1986, vide dated 13/06/2018, thereby continued to cause damage to environment;

WHEREAS, the Hon'ble National Green Tribunal (NGT), Principal Bench, in the matter of OA No. 593/2017 (WP (Civil) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.) directed CPCB that "The CPCB may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs. CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the CPCB within three months".

WHEREAS, CPCB has developed the "Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund" on the basis of Pollution Index (PI), in compliance to the orders of the Hon'ble National Green Tribunal, in the matter of O.A. No. 593 of 2017;

WHEREAS, TSDF falls under the red category and the same methodology is being used for calculating environmental compensation for TSDF in case of non-compliance;

WHEREAS, based on the aforesaid "Methodology for Assessment of Environmental Compensation and Action Plan to Utilize the Fund", the Environmental Compensation is calculated as Rs. 30,000/-per day of non-compliance (with effect from date of compliance i.e. 15th October, 2018 to the date of inspection i.e. 28/11/2018 (i.e. for 44 days));

WHEREAS, the Central Government vide Notifications No. S.O. 157(E) of February 27, 1996 and S.O. 730 (E) dated July 10, 2002, has delegated the powers under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board (herein referred to as CPCB), to issue directions to any industry or any local or any other authority for the violation of the standards and rules, notified under the Environment (Protection) Act, 1986 and amendments thereof;

NOW THEREFORE, in exercise of the powers vested under the Section 5 of the Environment (Protection) Act, 1986, show cause directions are hereby issued to explain by 09/08/2019 that, why environmental compensation of Rs. 13,20,000/- (with effect from date of compliance i.e. 15th October, 2018 to the date of inspection i.e. 28/11/2018 (i.e. for 44 days); shall not be imposed for causing damage to environment by not complying with above action points;

In the event of failure to comply with the above directions within the stipulated timeframe, appropriate action would be initiated against your facility in accordance with the provisions of the Environment (Protection) Act, 1986 and amendments thereof, without any further notice.



(S.P. Singh Parihar)
Chairman

Copy to:

1. The Joint Secretary, HSM Division,
Ministry of Environment, Forests & Climate
Change, Indira Paryavaran Bhawan, Jor Bagh
Road, New Delhi -110 003.
2. The Member Secretary
Kerala Pollution Control Board
Pattom Palace, P.O.
Thiruvananthapuram - 695 004
3. The Regional Director
Central Pollution Control Board
1st & 2nd Floors, Nisarga Bhavan
A-Block, Thimmaiah Main Road
7thD Cross, Shivanagar, Opp.
Pushpanjali Theatre, Bengaluru -560 010
4. PS to MS, CPCB, Delhi.
5. ✓ I/c IT Division, CPCB, Delhi


(Prashant Gargava)
Member Secretary