Reqdt. Post With Ack Due

Order No.467/APPCB/UH-II/ITF/TPTY/2018

Date: 27.12.2018

DIRECTIONS

Sub: APPCB – TF - HO - Tirumala Tirupati Devasthanams, Tirumala, Chittoor District –
Not operating Sewage Treatment Plants properly and operating solid waste
management facilities without obtaining proper permission from the Board – Legal
Hearing held on 05.12.2018 - Directions - Issued - Reg.

Ref: 1. The officials of ZO, Kurnool and RO, Tirupati inspected TTD on 02.11.2018.
   2. Minutes of External Advisory Committee (Task Force) meeting held on
      05.12.2018.

WHEREAS you are operating Sewage Treatment Plant with capacity of 9.5 MLD (04 STPs with
capacity of 0.5, 3, 3, and 3 MLD each) and solid waste management facilities at Tirumala by
Tirumala Tirupati Devasthanams, Tirumala, Chittoor District.

WHEREAS Tirumala is having a population of about 30,000 and floating population of pilgrims
of about 60,000 to 80,000 on every day. On an average 13 MLD of water is supplied for
consumption and generating 11 MLD of sewage. The sewage is being treated in 4 STPs
located at different locations in Tirumala. The total capacity of the STPs is 9.5 MLD (04 STPs
with capacity of 0.5, 3, 3, and 3 MLD each) against 11 MLD of sewage generation. The TTD has
not obtained CFE / CFO order of the Board as required under Sec.25/28 of Water Act, 1974 and
amendments thereon.

WHEREAS the TTD is operating Bio-compost Yard, which is maintained by M/s.Bright Waste
Technologies, Bangalore since 2017. The capacity of the plant is around 50 Tons/day. The
facility has not obtained authorization as required under Rule No.15 (Y) of SWM Rules, 2016
from the Board. The TTD is also operating dump yard housing 2 no. of landfill facilities covered
with Geomembrane along with leachate collection tanks. The TTD has not obtained
authorization from the Board as required under Rule No.15 (Y) of SWM Rules, 2016.

WHEREAS TTD is generating Plastic waste of quantity about 3.62 TPD in the form of Pet
bottles – 0.67 TPD, Plastic wrapper paper & cover – 1.0 TPD, Chappals – 0.93 TPD, Glass
bottles – 0.33 TPD & Cardboards – 0.7 TPD.

WHEREAS vide reference 3rd cited, The JCEE, ZO, Kurnool inspected the facilities along with
EE, RO, Tirupati on 02.11.2018 and furnished report as follows:

General Remarks on STPs:

1. The STPs are operated by M/s. GNOSI Tech, Bangalore. Either M/s.GNOSI Tech,
   Bangalore or TTD, Tirumala obtained consent order from the Board.
2. The TTD authorities have not provided water meters to assess the actual quantities of
   sewage received and the treated water.
3. There are no proper records maintained in connection with the chemicals used for
   treatment like Lime, Poly aluminum chloride (PAC), Poly electrolytes.
4. As per the Analysis report of Regional office, Tirupati, it is evident that proper treatment
   is not being done to treat the sewage, as some of the parameters viz. Suspended
   solids(SS), COD and BOD are exceeding the prescribed standards.
5. There are no proper laboratory facilities in the premises for carrying out day to day
   analysis.
6. There are no proper technically qualified personnel for maintaining the STPs.
7. Sometimes, especially during rainy seasons, the sewage is being bypassed without any
   treatment to the valley of Tirumala Hills.
Solid Waste Management:

At present, 90 Tons/day of solid waste is being generated at Tirumala with a composition of organic waste 94% (84.6 Tons/day) and inorganic waste 6% (5.4 Tons/day). Previously, the TTD authorities were used to transport and dump entire garbage at Kakulamanu Tippa at Tirumala. Approximate quantity of solid waste accumulated at Kakulamanu Tippa was around 40,000 Metric tons.

About 30 Tons out of 90 Tons is treated as wet waste (Food Waste & Decoration materials) at Bio-compost Yard. The dump yard is having an area of 23,245 Sq.mtrs. and housing 2 no. of land fills with a capacity of 3,294 Sq.mtrs. x 2.3 mtrs height and 2244 Sq.mtrs x 2.56 mtrs. height covered with geo membrane. The facility has also provided 3 nos. of leachate tanks with measurements of 3 mtr x 5 mtr, 5 mtr x 5 mtr and 6 mtr x 6 mtr.

The huge piles of the wet waste are exposed to rains and this would lead to formation of leachate, unnecessary release of waste gases and foul odour. Leachate is observed from the walls of the building on which stacking is done. Because of improper dumping, breeding of flies, rodents and birds are observed. Good housekeeping has to be maintained. The area meant for secured land fill is being improperly maintained. No records are being maintained.

Status of Plastic waste management at Tirumala:

1. TTD authorities have informed that waste pet bottles, chappals, cardboard are being collected, segregated at source and disposed for recycling. Left over plastic waste is segregated at disposal facility located at Kakulakonda in Tirumala.
2. The agency is making chips from the waste plastic bottles, chappals & Cardboards and are being sold out to third party.
3. TTD has banned the usage of plastic carry bags in any form at Tirumala since November, 2018.

WHEREAS legal hearing was conducted before the External Advisory Committee (Task Force) of A.P. Pollution Control Board in its meeting held on 05.12.2018. The representative of TTD, Tirumala has attended the legal hearing. The Committee noted that the TTD is supplying 13 MLD of water to the house holds / Guest Houses / Quarters / Chooltries and generating 11 MLD of sewage which is being treated in 4 STPs located at different locations in Tirumala. The total capacity of the STPs is 9.5 MLD (04 STPs with capacity of 0.5, 3, 3, and 3 MLD each) against 11 MLD of sewage generation. The committee also reviewed solid waste management systems provided by TTD. It was noted that about 90 tons/day is being generated with a composition of organic waste 94% and inorganic waste 6%. Previously, TTD authorities was use to dump entire waste at Kakulamanu Tippa at Tirumala. The accumulated solid waste at Kakulamanu tippa is around 40,000 MTs. Now, 30 tons out of 90 tons is treated as wet waste at bio-compost yard which is maintained by M/s.Bright Waste Technologies, Bangalore since 2017. It was noted that compost yard is being operated without obtaining MSW authorization from the Board. 60 TPD of dry waste is being dumped at existing dump yard in an area of 23,245 Sq.mtrs. and housing 2 no. of land filling covered with Geo Membrane. The facility has also provided 3 nos. of leachate tanks, but without treatment facility. The committee observed that the TTD has banned the usage of plastic carry bags in any form at Tirumala since November, 2018. Previously, TTD was generating plastic waste of quantity 3.62 TPD of plastic waste (Pet bottles - 0.67 TPD, Plastic wrapper, Paper & cover - 1.0 TPD, Chappals - 1.0 TPD, Glass bottles - 0.33 TPD and Card Boards - 0.7 TPD). The plastic waste is segregated and disposed to and outside agency for recycling.

The EE, RO, Tirupati has informed that the TTD is not operating STPs properly, not provided water meters to assess the quantity of sewage received and treated. There is no proper laboratory facilities for carrying out analysis. No skilled operators available for operation of STPs. It was also informed that the sewage is being bypassed without any treatment into the valley of hills, especially during the rainy season. With regard to the solid waste management, the EE, RO, Tirupati informed that the TTD authorities shall furnish an action plan for clearing of accumulated solid waste at Kakulamanu Tippa. The operators of compost yard is not maintaining the records pertaining to waste received and waste treated. It was informed that the wet waste is also being dumped at existing dump yard without processing and treatment. No treatment systems are provided for leachate. The EE, RO, Tirupati has informed that the TTD authorities have not obtained CFE / CFO order of the Board as required under water & air acts for the operation of STPs and MSW authorization for operation of compost yard / landfill facility.
After detailed review, the Committee after detailed discussions, recommended to issue certain directions. The Board is hereby issue following directions under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987:

1. The TTD authorities shall immediately apply for CFE / CFO order of the Board as required under Sec.25/26 of Water Act & 21/22 of Air Act for the operation of sewage treatment plant.
2. The TTD authorities shall obtain MSW authorization for operation of compost yard and land fill facility as required under Rule No.15 (Y) of SWM Rules, 2016.
3. The TTD authorities shall provide flow meters with totalizers at inlet and outlet of STPs to assess the quantity of sewage received and treated and to ensure the quality of the treated sewage.
4. The TTD authorities shall create one Environmental Cell to look after waste management facilities at Tirumala and provide skilled operators for operation of STPs.
5. The TTD authorities shall immediately furnish an action plan for clearing of 40,000 Tons of accumulated solid waste existing at Kakulamanu Tippa through Bio-mining process and disposed off scientifically.
6. The TTD authorities shall provide treatment system for leachate collected from Compost yard and Municipal dump yard at Kakulamanu Tippa.
7. The TTD authorities shall provide documentation evidence of providing Geo Membrane System for land fill facility.
8. The TTD authorities shall maintain records of sewage generation, sewage treated, chemical usage in treatment system by the sewage managing organization of the TTD.
9. The TTD authorities shall explore the possibility of sending MSW and Plastic waste to Cement Plants for co-incineration purpose. An action plan shall be submitted within one month in this regard.

You are hereby directed to note that, should you misuse this order and violate any one of the conditions mentioned above and operating the unit beyond the period specified as above, your unit will be closed under Sec.33(A) of Water (Prevention and Control of Pollution) Amendment Act, 1988, and under Section 31(A) of Air (Prevention & Control of Pollution) Amendment Act, 1987, in the interest of Public Health and Environment and you will be also liable for prosecution in the Court of Judicial Magistrate First Class under Sec.41(2) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.37(1) of Air (Prevention and Control of Pollution) Amendment Act, 1987, the punishment for which includes imprisonment for a term which shall not be less than one year six months and which may be extended to six years and with fine.

This Order comes into effect from today i.e., 27.12.2018.

Sd/-
MEMBER SECRETARY

To
Executive Officer,
Tirumala Tirupati Devasthanams,
TTD Administrative Building,
K.T. Road,
Tirupati - 517 501,
Andhra Pradesh, India.

Copy to:
1. The Joint Chief Environmental Engineer, Zonal Office, Kurnool for information and necessary action.
2. The Environmental Engineer, Regional Office, Tirupati for information and necessary action. He is directed to verify the operation of STPs, Waste Management Facilities and carryout monitoring of leachate generated near compost yard & Municipal dump yard for the presence of heavy metals and submit detailed report along with analysis reports to the Board Office, Vijayawada for further review.

// T.C.F.B.O. //</ref>

JOINT CHIEF ENVIRONMENTAL ENGINEER
UH-II