



TAMILNADU POLLUTION CONTROL BOARD



From Thiru. A.V. Venkatachalam, I.F.S., Chairman, Tamil Nadu Pollution Control Board, No 76, Mount Salai, Guindy, Chennai-600 032.	
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Dated 28.08.2020.

Sir,

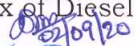
Sub: TNPCB – Retrofitting of emission control devices /equipment in DG sets with capacity of 125 KVA and above – clarification and doubts raised by the industries – draft reply – regarding.

Ref: 1. Notification No.TNPCB/Labs/DD (L)/0215/2019/ dated: 10.06.2020 on retrofitting of emission control devices/ equipments in DG sets or shifting to gas based DG sets.

This is with reference to the Notification No. TNPCB/Labs/DD(L)/02151/ 2019 dated 10.06.2020 to reduce emissions from Diesel Generators of capacity 125 KVA and above. The emission control device/equipment should have a minimum Particulate Matter capturing efficiency of minimum 70%, tested over ISO-8178 5 mode D2 cycle for equivalent KVA rating. The testing should be done by one of the 5 CPCB recognized labs as mentioned in the notification.

The particulate matter emission from DG sets needs to be reduced by 70% from existing emission level of the DG set and the emission control device/equipment should be tested for efficacy by one of the 5 CPCB recognized labs on equivalent KVA rating of the DG set. This has to be complied by all DG sets above 125 KVA in the state of Tamil Nadu irrespective of the make of the DG set, year of manufacture and installation, current emission levels of the DG set etc.

Further, the DG set user might decide to shift to gas based engines, as per their choice. The emission limits for Diesel and natural gas or Diesel and LPG driven engine (upto 800 KW) has been mentioned in the Entry no. 95 to the Schedule I of the Environmental (Protection) Rules, 1986 ("Rules"). These emission limits and other points mentioned in the Entry no. 95 to the Schedule I of the Environmental (Protection) Rules, 1986 ("Rules") are only applicable for DG sets upto 800 KW. There are multiple suppliers for gas DG sets or for DG sets that use a mix of Diesel and natural gas or Diesel and LPG.




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With reference to your letter the following clarification on the queries raised on Retrofitting of Emission Control Devices/Equipments in DG sets are given below:

- 1. As per the notification, all DG sets of 125 KVA rating and above need to be retrofitted with emission control equipment or shift to gas based engines. But as per the order by the Honorable NGT, OA 681/2018 dated 06.08.2019, this is applicable only for DG sets less than 800 KW. So is the TNPCCB direction also applicable on DG sets greater than 800 KW only?**

The order by the Honorable NGT mentions no range or limitation on to the KVA rating of the DG set that need to be retrofitted with an emission control equipment/device. As per the NGT order, DG sets of all ratings should be either retrofitted with an emission control equipment or shift to gas based engines. However, to implement the NGT directions in a phased manner, TNPCCB decided to first implement the policy for 125 KVA and above and later for other lower ratings. Therefore, the current TNPCCB directions are applicable on all DG sets of ratings 125 KVA and above.

- 2. Is the TNPCCB direction applicable only on DG sets which are CPCB I compliant ?**

The directions as per Notification No. TNPCCB/Labs/DD(L)/ 02151/ 2019 dated 10.06.2020 is applicable on all operational DG sets in the state of Tamil Nadu with rating equal to and greater than 125 KVA. Therefore, the directions are applicable on all installed DG sets in the state of Tamil Nadu and all DG sets that may be installed in the future with rating equal to or more than 125 KVA. The TNPCCB directions need to be complied with irrespective of the make of the DG set, year of manufacture of DG set, year of installation of DG set etc.

- 3. My DG set Original Equipment Manufacturer (OEM) claims that my DG set is already emitting at less than 70% of the emission standard of 75mg/Nm³ as prescribed by CPCB. Do I still need to reduce the emissions further by 70%?**

The directions as per Notification No. TNPCCB/Labs/DD(L)/02151/ 2019 dated 10.06.2020 state that the user of the DG set needs to reduce 70% of particulate matter emissions from their existing levels of emissions. As per the notification and NGT direction, the reduction can be achieved either by retrofitting the DG set with an emission control equipment or by shifting to gas-based engines. Therefore, for all DG sets



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greater than equal to 125 KVA, the emissions need to be reduced further by 70% from the existing particulate matter emission levels. This is irrespective of the year of manufacturing of the DG set, year of installation, make of the DG set, existing emission level of the DG set or any other parameter. In case the user decides to use retrofit emission control equipment, it should be tested from one of the 5 CPCB labs over ISO-8178 5 mode D2 cycle with an engine of equivalent KVA rating. This will help improve the ambient air quality in the state of Tamil Nadu.

4. There are no retrofit technology certified from one of the 5 CPCB labs for reducing emissions from DG sets.

The directions as per Notification No. TNPCB/Labs/DD(L)/02151/2019 dated 10.06.2020 state that the emission control equipment should be tested over an ISO-8178 5 mode D2 cycle for equivalent KVA rating. All the 5 labs, as mentioned in the NGT directions and the National Clean Air Programme, have the necessary capabilities to test emission control equipment as per ISO-8178 5 mode D2 cycle for equivalent KVA rating. ISO-8178 is a widely used and accepted methodology to test the efficacy of the retrofit devices and is extensively used across the world for testing efficacy of emission control technologies. Any independent technology provider or DG set OEM who can get their equipment/device tested over ISO-8178 5 mode D2 cycle for equivalent KVA rating is eligible for meeting the regulatory requirements as per the TNPCB directions.

5. No DG set OEM is providing the necessary retrofit emission control technology for meeting the regulatory criteria.

Multiple DG set OEMs and independent technology providers are available in the market with the necessary technology to meet the directions as per Notification No. TNPCB/Labs/DD(L)/02151/2019 dated 10.06.2020. In case the OEM is not providing the necessary technology, the same can be sourced from any independent technology supplier who has the tested technology/equipment from one of the 5 CPCB recognized lab over ISO-8178 5 mode D2 cycle for equivalent KVA rating. There are also multiple OEMs for gas based DG sets that may be considered as per the choice of the user.

6. As per the Notification No. TNPCB/Labs/DD(L)/02151/2019 dated 10.06.2020, the user has to comply to the directions within a period of 120 days from the issuance of the directions. Will the deadline for

meeting the notification requirement be extended by the Tamil Nadu Pollution Control Board?

The Tamil Nadu Pollution Control Board has not decided to extend the last date of implementation of the directions. The directions as per the Notification No. TNPCB/Labs/DD(L)/02151/2019 dated 10.06.2020 need to be complied within a period of 120 days from the issuance of the order, failing which action as warranted under the provisions of Environment (Protection) Act, 1986 and Air (Prevention and Control of Pollution) Act, 1981 shall be initiated.

Hence you are instructed to comply with the notification issued by TNPCB on reducing emissions from DG sets by either retrofitting DG sets or shifting to gas based DG sets, as per the choice of the user.

Sd/ A.V.Venkatachalam
Chairman.

V. Theadupuram
Deputy Director (Labs)

V.P.
11/9/2020

Copy to:

1. The District Environmental Engineer,
TNPCB, Ambattur
2. Copy To: File