

**Notification No.TNPCB/Labs/DD(L)/02151/2019 Dated:30.07.2024.**

**ORDER**

**Sub:** TNPCB - Retrofitting of Emission Control Devices/Equipment in DG sets with Capacity of 61 kW – less than 800 kW and 800 kW & above in the State of Tamil Nadu.

**Ref:** 1.CPCB notification on 'List of manufacturers certified for RECDs applicable to Diesel Genset Engines (Up to 800 kW) for different capacity ranges as of 09-04-2024'

2.CPCB Lr. No. EQ-11099/8/2021-AQM-HO-CPCB-HO-Part (5), dated: 22.03.2024.

3. MoEF&CC Notification- G.S.R. 804(E), dated: 03.11.2022.

4. Commission for Air Quality Management in National Capital Region and Adjoining Areas for NCR Directions No.76 dated:29.09.2023.

Whereas, the Government of Tamil Nadu, Environment & Forests Department in G.O.Ms.No.4, EC, dated 28.09.1983, had declared the entire area within the State of Tamil Nadu as "Air Pollution Control Area" for the purpose of Air (Prevention and Control of Pollution) Act, 1981.

Whereas, the Government of India, Ministry of Environment, Forest & Climate Change has launched the **National Clean Air Programme (NCAP)** for the prevention, control and abatement of air pollution level in the Country at urban and rural level. The Government of India recognizes major sources of air pollution such as vehicular emissions, DG sets/HFO, construction dust etc. As per the NCAP, Govt. of India, Diesel Generator sets are recognized as a major source of air pollution in Indian cities.

Whereas, in the State of Tamil Nadu, Chennai, Madurai, Trichy and Thoothukudi Cities have been identified as Non-attainment cities which do not meet the National Ambient Air Quality standards. City Action Plans for improving ambient air quality in the above said Non - Attainment cities viz **Chennai, Madurai, Trichy and Thoothukudi** have been prepared and implemented as per the directions dated:08-10-2018 of Hon'ble NGT (Principle Bench) in the matter titled as "*NCAP with multiple timelines to clean air in 102 cities to be released around August 15*" in O.A. 681 of 2018.

Whereas, there is a plan for national level target of **30%** reduction of **PM<sub>2.5</sub>** and **PM<sub>10</sub>** concentration in the ambient air under the NCAP, Govt. of India, wherein the Hon'ble NGT vide order dated 06/08/2019, has observed that the timeline to reduce the air pollution by 30%, needs to be reduced and the target of reduction needs to be increased, having regard to adverse effect on public health and in view of the constitutional mandate of the fundamental right to breathe clean air.

Whereas, it further states, that the air pollution caused by DG sets need to be a part of the action plans, which may, if necessary, require "retrofitting of **Emission Control Devices / Equipment** on generators already in use".

Whereas, the Board has issued circular no.TNPCB/Labs/DD(L)/02151/2019 dated 10.06.2020, mandating retrofit of DG sets having capacity of 125 kVA and above with emission control devices tested and type approved by any one of the CPCB recognized/approved laboratories.

Whereas, certified DG sets by CPCB approved laboratories of capacities of 125 kVA and above were non-available at that juncture and later list of manufacturers certified for Retrofit Emission Control Devices (RECDs) applicable to Diesel Genset Engines (Up to 800 kW) for different capacity ranges as of 09-04-2024 were posted on CPCB website dated 30.11.2023.

Whereas, now adequate number of type approved agencies are available for RECDs in DG sets issued vide **CPCB notification on 'List of manufacturers certified for RECDs applicable to Diesel Genset Engines (Up to 800 kW) for different capacity ranges as of 09-04-2024'**.

And whereas, CPCB has requested to consider taking measures to control ambient air pollution from DG sets emission in non-attainment cities vide **CPCB letter No. EQ-11099/8/2021-AQM-HO-CPCB-HO-Part (5), dated 22.03.2024**.

Now, therefore, with the above background, and in exercise of powers vested with the Board to give directions under **Section 17 (1)(j) read with section 31 (A) of Air (Prevention and Control of Pollution) Act, 1981 and the notification issued by the CPCB dated:22.03.2024 in F.No. EQ-11099/8/2021-AQM-HO-CPCB-HO-Part (5)**, all the industries and the establishments within the State of Tamil Nadu operating DG sets, are hereby directed to-

## **I. Capacity range of 61 kW – less than 800 kW**

a) Retrofit all operational DG sets **which are older than five years** from date of manufacturing and up to its useful life (i.e. 15 years from the date of manufacturing or 50,000 hrs of operation, whichever is earlier) of capacity **61 kW - less than 800 kW** with an **Emission Control Device/ Equipment** having a minimum specified **Particulate Matter** capturing efficiency of at least 70%. The Emission Control Device/Equipment must be tested over a 5-mode Constant Speed Cycle (D2 Steady-state discrete mode test cycle specified in ISO-8178-Part 4) for equivalent kVA rating (published on the CPCB website from time to time) by one of the four Central Pollution Control Board, Govt of India, recognized /approved laboratories as given below:

1. Automotive Research Association of India (ARAI), Pune (Maharashtra)
2. International Centre for Automotive Technology (ICAT), Manesar (Haryana)
3. Indian Institute of Petroleum (IIP), Dehradun (Uttarakhand);or
4. Vehicle Research Development Establishment (VRDE), Ahmednagar (Maharashtra)

(or)

b) Shifting to gas based generators by employing new gas based generators or use of Dual fuel system for in-use DG sets of less than 800 kW capacity up to its useful life as mentioned above

(or)

c) Shifting to gensets strictly meeting emission norms as per GSR 804(E) dated 03.11.2022.

## **II. Capacity range of 800 kW and above.**

To adopt any emission control mechanism, strictly subject to compliance of emission standards as notified **vide statutory Direction No:76 dated:29.09.2023 (issued by Commission for Air Quality Management in National Capital Region and Adjoining Areas)** for DG sets of 800 kW and above for **the entire state of Tamil Nadu.**

This above directions are to be complied within a period of **180 days** from the date of issuance of this order by all stake holders in the non-attainment cities viz Chennai U.A. (Urban Agglomeration), Madurai U.A, Trichy U.A & Thoothukudi and other places within one year from the date of issuance of this order.

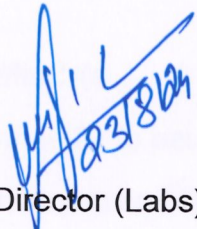
It is therefore, enjoined upon all the Industries and the establishments in the State of Tamil Nadu operating DG sets of 61 kW – less than 800 kW and 800 kW & above to comply with the above said directions in the stipulated time period, failing which action as warranted under the provisions of Environment (Protection) Act, 1986 and Air (Prevention and Control of Pollution) Act, 1981 shall be initiated.

”Manufacturers of Retrofit Emission Control Devices (RECD), in whose name the Type Approval certificate is issued, are required to submit quarterly reports through real-time monitoring of diesel generator (DG) sets. Failure to do so will result in non-compliance status.”

Issued with the approval of Competent Authority.

Sd/-Dr.Jayanthi.M,  
Chairperson

//Forwarded by Order//

  
Deputy Director (Labs)

*A. Chinn  
23/6/24*

To

To ACEE to issue the notification through OCMMS for Industries and Establishments

Copy to:

- 1 All the JCEEs, Tamil Nadu Pollution Control Board for kind information and necessary action
- ✓ 2 JCEE VI requested to display the notification in Board's website for public view
- 3 PA to the Chairperson
- ✓ 4 PS to the Member Secretary



Central Pollution Control Board

List of manufacturers certified for Retrofit Emission Control Devices (RECDs) applicable to Diesel Genset Engines (Up to 800 kW) for different capacity ranges as of 09.04.2024.

Sr. No.	Name of RECD manufacturers	Applicability for following Range of In-Use Diesel Genset Engines (kW)*	Certification Agency
1	M/s. PI Green Innovations Pvt. Ltd.	~ 204 - 298 kW	ARAI
		~ 319 - 569 kW	ARAI
		~ 300 - 799 kW	ARAI
2	M/s Platino Automotive Pvt. Ltd.	~ 228 - 250 kW	ARAI
		~ 256 - 438.2 kW	ICAT
3	M/s. Chakr Innovation Pvt. Ltd.	~ 228 kW	ARAI
		~ 294 - 448 kW	ICAT
		~ 61 - 113.3 kW	ICAT
		~ 75 - 114.7 kW	ICAT
		~ 500.3 - 765.8 kW	ICAT
		~ 499.3 - 663.6 kW	ICAT
4	M/s Automoto Genset Solutions LLP	~ 110.2 - 242.7 kW	ICAT
5	M/s Vasthi Instruments Pvt. Ltd.	~ 110.6 - 249.4 kW	ICAT
6	M/s Maxmoc Motor Works India Pvt. Ltd.	~ 109.8 - 248.6 kW	ICAT

\* During Type Approval testing, the RECD + Engines combination are tested for mechanical gross power in KW as per the System & Procedure Document. Corresponding KVA rating shall be checked and verified with data plates affixed on In-Use Engines as well as DG sets for the correctness.

**ARAI-** The Automotive Research Association of India, Pune, Maharashtra

**ICAT-** International Centre for Automotive Technology, Manesar, Haryana



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केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

SPEED POST / EMAIL

F.No.: EQ-11099/8/2021-AQM-HO-CPCB-HO-Part(5)

22.03.2024

To,  
The Member Secretary  
State Pollution Control Boards/ Committees  
(As per the list)

Sub.: Control of Emissions from in-use DG sets by installing Retrofitted Emission Control Device (RECD) or shifting to gas based generator- reg.

Sir,

Government of India has launched National Clean Air Programme (NCAP) in 2019 as a National level strategy to reduce air pollution levels across the country. NCAP is being implemented in 131 non-attainment cities with the aim for reduction of particulate matter concentration by 40% by the year 2025-26. As per NCAP document, overall contribution of DG Sets to the ambient air pollution in non-attainment cities is 7-18%.

NCAP document also outlines the States/UTs to ensure use of Retrofitted Emission Control Device (RECD) having a minimum specified PM capturing efficiency of at least 70%, type approved by one of the 5 CPCB recognized labs; or shifting to gas-based generators by employing new gas-based generators or retrofitting the existing DG sets for partial gas usage.

Further, for control of emissions from the DG sets in National Capital Region (NCR), the Commission for Air Quality Management (CAQM) has issued statutory direction No.76, dated 29.09.2023 (as amended) for regulating operation of DG sets across all sectors namely industrial, commercial, residential, offices etc. in the entire NCR, by adopting appropriate measures such as retrofitting Emission Control Devices (ECDs)/ dual fuel systems/shifting to gensets compliant to GSR 804(E) for DG sets, etc as stipulated therein. A copy of the said direction is attached for ready reference.

In view of the above, SPCB/PCCs may also consider taking such measures for control of ambient air pollution from DG sets emission in non -attainment cities such as:

1. Use of certified RECDs from approved manufacturers for in-use DG sets of 61 KW to 800 KW capacity, which are older than five years from date of manufacturing and upto its useful life (i.e. 15 years from the date of manufacturing or 50,000 hours of operation, whichever is earlier) or use of Dual fuel system for in-use DG sets of less than 800 KW capacity upto its useful life as mentioned above or shifting to gensets meeting emission norms as per GSR 804(E) dated 3.11.22.
2. Adopt any suitable Air Pollution Control Device (APCD), strictly subject to compliance of emission standards notified vide GSR 489 (E) dated 09.07.2002 for DG sets of more than 800 KW.

Yours faithfully,

(Bharat Kumar Sharma)  
Member Secretary

Encl.: As above

550

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in





## List

1. The Member Secretary Andhra Pradesh State Pollution Control Board D. No.33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalmvari Street, Kasturibaipet, Vijayavada-520010	2. The Member Secretary Chhattisgarh Environment Conservation Board Paryavas Bhawan, Block Sector-19 Naya Raipur, Chhattisgarh- 492099
3. The Member Secretary Assam State Pollution Control Board Bamunimaidan, Guwahati, Assam-781021	4. The Member Secretary Bihar State Pollution Control Board Parivesh Bhawan, Plot No.N-B/2, Patliputra Industrial Area, Patna-800023
5. The Member Secretary Gujarat State Pollution Control Board Sector 10-A, Gandhi Nagar – 382043, Gujarat	6. The Member Secretary Haryana State Pollution Control Board C-11, Sector 6, Panchkula, Haryana-134109
7. The Member Secretary H. P. State Pollution Control Board Paryavaran Bhawan, Phase III, New Shimla – 171009 Himachal Pradesh	8. The Member Secretary J&K State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu (J&K)
9. The Member Secretary Jharkhand State Pollution Control Board T.A Building, HEC Campus, P.O. Dhurwa Ranchi, Jharkhand – 834004	10. The Member Secretary Karnataka State Pollution Control Board Parisara Bhawan, 4 <sup>th</sup> & 5 <sup>th</sup> floors Church Street, Bangalore – 560 001, Karnataka
11. The Member Secretary Maharashtra State Pollution Control Board Kalpataru Point, 3 <sup>rd</sup> & 4 <sup>th</sup> floors Sion Matunga Scheme Road No. 6 Opp. Cine Planet, Sion Circle, Sion (E), Mumbai-400 022, Maharashtra	12. The Member Secretary M. P. State Pollution Control Board Paryavaran Parisar, E-5 Arera Colony Bhopal – 462016, Madhya Pradesh
13. The Member Secretary Meghalaya State Pollution Control Board Arden, Lumpyngngad, Shillong – 793014, Meghalaya	14. The Member Secretary Tamil Nadu State Pollution Control Board No. 76, Mount Salai, Guindy, Chennai – 600032, Tamil Nadu
15. The Member Secretary Nagaland State Pollution Control Board Signal Point, Dimapur, Nagaland – 797112	16. The Member Secretary Odisha State Pollution Control Board Paribesh Bhawan, A-118, Nilakanta Nagar, Unit –VIII, Bhubaneshwar – 751012, Odisha
17. The Member Secretary Punjab State Pollution Control Board Nabha Road, ITI Rd, Adarsh Nagar, Prem Nagar, Patiala – 147001, Punjab	18. The Member Secretary Rajasthan State Pollution Control Board A-4 Institutional Area, Jhalane Dungri Jaipur – 302004, Rajasthan
19. The Member Secretary Telangana State Pollution Control Board Paryavaran Bhawan A-3, Industrial Estate, Sanath Nagar, Hyderabad – 500 018, Telangana	20. The Member Secretary Chandigarh Pollution Control Committee Paryavaran Bhawan Madhya Marg, Sector - 19 B, Chandigarh – 160019.



21. The Member Secretary Uttarakhand Pollution Control Board 29/20, Nemi Road, Dehradun Uttarakhand- 248001	22. The Member Secretary Delhi Pollution Control Committee 4 <sup>th</sup> floor, ISBT Building, Kashmeri Gate, Delhi - 110006.
23. The Member Secretary West Bengal State Pollution Control Board Paribesh Bhavan Building, No.10-A Block -LA, Sector 3, Salt Lake City, Kolkata - 700 091, West Bengal	24. The Member Secretary Uttar Pradesh Pollution Control Board Building, No. TC-12V Vibhuti Khand, Gomti Nagar Lucknow-226 010

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सत्यमेव जयते

# भारत का राजपत्र

## The Gazette of India

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असाधारण  
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)  
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

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नई दिल्ली, बुध्स्पतिवार, नवम्बर 3, 2022/कार्तिक 12, 1944  
NEW DELHI, THURSDAY, NOVEMBER 3, 2022/KARTIKA 12, 1944

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 3 नवंबर, 2022

सा.का.नि. 804(अ).—पर्यावरण (संरक्षण) संशोधन नियम, 2022 अधिसूचना संख्यांक सा.का.नि. 138(अ), तारीख 18 फरवरी, 2022 द्वारा भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (i) में प्रकाशित किए गए थे, जिसमें सभी व्यक्तियों से, उस तारीख से, जिसको उक्त अधिसूचना में अन्तर्विष्ट राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिनों की अवधि के भीतर, आक्षेप और सुझाव आमंत्रित किए गए थे ;

और उक्त अधिसूचना में अन्तर्विष्ट राजपत्र की प्रतियां 18 फरवरी, 2022 को जनता को उपलब्ध करा दी गई थी ;

और उक्त अधिसूचना के उत्तर में सभी व्यक्तियों और पणधारियों से प्राप्त किए गए आक्षेपों और सुझावों पर सम्यक् रूप से विचार कर लिया गया है ;

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पर्यावरण (संरक्षण) नियम, 1986 में निम्नलिखित और संशोधन करती है, अर्थात् :-

1. संक्षिप्त नाम और प्रारंभ.—(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) तीसरा संशोधन नियम, 2022 है।

(2) ये 1 जुलाई, 2023 से प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 में,-

(क) क्रम सं. 88 में,-

(i) मद "क. उत्सर्जन मानक" और उससे संबंधित प्रविष्टियों के स्थान पर निम्नलिखित को रखा जाएगा, अर्थात्:-

"क. उत्सर्जन मानक:

800 किलो वॉट सकल मशीनीकृत विद्युत तक विद्युत उत्पादन सेट (जिसे इसमें इसके पश्चात् जेनसेट कहा गया है) अनुप्रयोगों के लिए प्रयुक्त नए इंजनों के लिए उत्सर्जन सीमाएं, अर्थात्:-

- (i) डीजल इंजन;
  - (ii) समर्पित वैकल्पिक ईंधनों पर आधारित इंजन;
  - (iii) गैसोलीन अथवा वैकल्पिक ईंधनों में से किसी एक पर संचालित वाई-फ्यूल पर आधारित इंजन;
  - (iv) डीजल तथा किसी वैकल्पिक ईंधन पर संचालित दोहरे ईंधन पर आधारित इंजन;
  - (v) गैसोलीन ईंधन, समर्पित वैकल्पिक ईंधनों तथा या तो गैसोलीन या वैकल्पिक ईंधनों में से किसी एक पर संचालित वाई-फ्यूल से चलने वाले सुवाह्य जेनरेटर सेट (19 केडब्ल्यू से कम और 800 सीसी विस्थापन तक के पीआई इंजन);
1. जेनसेट के लिए प्रयुक्त 800 किलोवाट तक नए इंजनों के लिए उत्सर्जन सीमाएं नीचे सारणी 1 और सारणी 2 में यथा विनिर्दिष्ट अनुसार उसमें अन्तर्विष्ट सामान्य शर्तों के अध्यक्षीन तारीख 1 जुलाई, 2023 से प्रभावी होगी, अर्थात्:-

#### सारणी 1

सभी सीआई इंजनों और पीआई इंजनों > 800 सीसी इंजन विस्थापन द्वारा 800 सकल यांत्रिक शक्ति तक के जेनसेट इंजनों के लिए उत्सर्जन सीमाएँ।

विद्युत श्रेणी, kw	NOx	HC*/**	NOx +HC*/**	CO	PM		धुआँ (प्रकाश अवशोषण गुणांक)	
					CI/PI	CI/PI	CI	PI
	g/kWh						m-1	
P ≤ 8	-	-	7.5	3.5	0.30	-	0.7	-
8 < P ≤ 19	-	-	4.7	3.5	0.30	-	0.7	-
19 < P ≤ 56	-	-	4.7	3.5	0.03	-	0.7	-
56 < P ≤ 560	0.40	0.19	-	3.5	0.02	-	0.7	-
560 < P ≤ 800	0.67	0.19	-	3.5	0.03	-	0.7	-

#### सारणी 2

पीआई इंजनों (800 सीसी तक के इंजन विस्थापन) द्वारा 19 किलोवाट शक्तियों तक के सुवाह्य जेनसेट के लिए उत्सर्जन सीमाएं

श्रेणी इंजन विस्थापन (सीसी)	CO	NOx +HC */**
	g/kWh	

99 तक	< 250	< 10
> 99 से अधिक और 225 तक	< 250	< 08
> 225 से अधिक और 800 तक	< 250	< 06

सारणी 1 और सारणी 2 में प्रयुक्त संक्षिप्तियां निम्नलिखित हैं:

- (i) NO<sub>x</sub> – नाइट्रोजन ऑक्साइड;
  - (ii) HC— हाइड्रोकार्बन;
  - (iii) CO – कार्बन मोनोऑक्साइड;
  - (iv) PM – विविक्त कण;
  - (v) CI- संपीडन दहन इंजन;
  - (vi) PI- धनात्मक दहन इंजन;
  - (vii) HC से डीजल और गैसोलोन हेतु टीएचसी अभिप्रेत है;
  - (viii) \*\*वैकल्पिक ईंधनों के लिए एचसी जनरेटर सेट हेतु प्रणाली और प्रक्रिया में यथापारिभाषित होगा।
2. स्थिर गति और परिवर्तनीय गति अनुप्रयोग हेतु परीक्षण चक्र जेनसेट हेतु प्रणाली एवं प्रक्रिया में यथावर्णित होगा।
  3. धुंआ, परीक्षण चक्र के पूरे प्रचालन भार बिंदुओं में निर्धारित सीमा के मान से अधिक नहीं होगा।
- टिप्पण :** (i) सभी सीआई इंजनों और पीआई इंजनों (800 सीसी से अधिक विस्थापन क्षमता वाले) के लिए परीक्षण, इंजन डॉयनमोमीटर पर किया जाएगा;
- (ii) पीआई इंजनों द्वारा संचालित पॉटबल जेनसेट (19 किलो वाट और 800 सीसी इंजन विस्थापन तक) के लिए परीक्षण प्रतिरोधात्मक भार बैंक पर किया जाएगा;
- (iii) उत्सर्जन सीमाएं स्थिर और परिवर्तनीय, दोनों गति वाले जेनसेटों पर लागू हैं और जेनसेट इंजनों को विद्युत ग्रिड से बिजली के स्थान में अन्य अनुप्रयोगों के लिए विद्युत शक्ति के उत्पादन और आपूर्ति हेतु विद्युत जनरेटर या अल्टरनेटर के प्रचालन के लिए प्रारंभिक रूप से उपयोग किया जाता है;
- (iv) सुवाह्य जेनसेट विद्युत जनरेटर और प्राइम मूवर इंजन को संयुक्त करके बनाया गया एक एकल उपकरण है। इस संयुक्त इंजन जनरेटर सेट को धरती पर रखे बिना-किसी व्यक्ति द्वारा हटाया, खींचा जा सकता है और उसे पावर हाउस या स्टेशन जैसी किसी संरचना में स्थायी रूप से नहीं बनाया जाता है तथा वह निम्नलिखित शर्तों को पूरा करता है-
- (क) पावर आउटपुट 19 किलोवाट तक और 800 सीसी इंजन विस्थापन तक है;
  - (ख) पीआई एयर कूल्ड इंजन द्वारा संचालित;
  - (ग) यह हैंड-कार्ट पर रखी गई इकाइयों पर होता है;
- (v) सकल विद्युत और सहन शक्ति की माप के लिए परीक्षण प्रक्रिया जेनसेट हेतु प्रणाली और प्रक्रिया अभिकथित प्रक्रिया के अनुसार होगी;

- (vi) दृश्य और गैसीय प्रदूषक तथा विविक्त कण के उत्सर्जन की माप हेतु प्रशासनिक और परीक्षण प्रक्रिया जेनसेट हेतु प्रणाली और प्रक्रिया अभिकथित प्रक्रिया के अनुसार होगी;
- (vii) सारणी 1 और सारणी 2 में दी गई उत्सर्जन सीमाएं प्राधिकृत प्रमाणन एजेंसियों द्वारा यथासंचालित प्रकार अनुमोदन परीक्षण तथा उत्पादन अनुरूपता परीक्षण के लिए लागू होंगी;
- (viii) उत्पादन अनुरूपता परीक्षण और चयन प्रक्रिया की बारम्बारता जेनसेट हेतु प्रणाली एवं प्रक्रिया अभिकथित प्रक्रिया के अनुसार होगी;
- (ix) इंजन टिकाऊपन अवधि तथा खराबी का कारक: खराबी का कारक केवल 19 किलोवाट से अधिक क्षमता की विद्युत श्रेणी वाले सभी सीआई और पीआई इंजनों पर लागू है;
- (क) इंजन विनिर्माता नीचे दी गई सारणी 3 में यथोल्लिखित जेनसेट हेतु प्रणाली और प्रक्रिया में अभिकथित किसी इंजन परीक्षण का चयन कर सकता है;

सारणी 3

श्रेणी (पावर बैंड)	उत्सर्जन निरंतरता अवधि (घंटे)	इंजन श्रेणी
>19 ≤ 56 kW (स्थिर गति वाले इंजन)	3000	पीआई और सीआई
>19 ≤ 56 kW (परिवर्तनीय गति वाले इंजन)	5000	पीआई और सीआई
> 56 kW (सभी इंजन)	8000	पीआई और सीआई

- (ख) खराबी के कारकों को निर्धारित करने हेतु किसी सेवा संचय अनुसूची का उपयोग करने के लिए एक विकल्प के रूप में, इंजन विनिर्माता नीचे दी गई सारणी 4 में उल्लिखित इंजन क्षमता के अनुसार एग्जॉस्ट आफ्टर-ट्रीटमेंट प्रणाली का प्रयोग करके इंजन प्रकारों के लिए दिए गए गुणात्मक ह्रास कारकों का उपयोग करेंगे।

सारणी 4

इंजन की श्रेणी	सी	एचसी	एनओएक्स	पीएम
सीआई	1.3	1.3	1.15	1.05
पीआई	1.3	1.3	1.15	-

- (ग) किसी समाप्त शोधन उपरांत प्रणाली का प्रयोग न करने वाले सीआई और पीआई इंजनों के लिए इंजन प्रकार अनुमोदित अनुप्रयोग में प्रत्येक प्रदूषक के लिए जेन सेट के लिए उत्सर्जन सीमाओं के अनुपालन के लिए प्रणाली और प्रक्रिया में यथा निर्धारित सहायक दस्तावेजों के साथ विनिर्माता द्वारा योज्य अवनति कारकों को विनिर्दिष्ट किया जाएगा।
- (घ) विनिर्माता किसी इंजन श्रेणी के लिए अपेक्षाकृत अल्प या दीर्घ उपयोगी जीवनकाल हेतु प्रकार अनुमोदन प्रमाणन का अनुरोध करेंगे और परीक्षण एजेंसी इंजन संचालन के संबंध में घंटों में, न कि वर्षों में, अल्प या दीर्घ उपयोगी जीवनकाल का अनुमोदन कर सकती है।
4. उत्सर्जनों में कमी लाने हेतु किन्हीं बाहरी उपस्करों और/या रि-एजेंट के उपयोग पर निर्भर करने वाले इंजन जेनसेट के लिए प्रणाली और प्रक्रिया में अधिकथित प्रक्रिया के अनुसार ऑनबोर्ड डायग्नोस्टिक्स के माध्यम से नाइट्रोजन ऑक्साइड नियंत्रण उपायों के सही प्रचालन को सुनिश्चित करेंगे।
5. मलेक्ट्रिक कैटेलेटिक रिडक्शन से सज्जित इंजनों के लिए परीक्षण चक्रों में अमोनिया का उत्सर्जन 56 किलोवाट से कम या उसके समान इंजन पावर श्रेणी हेतु 25 पीपीएम और 56 किलोवाट से अधिक इंजन पावर श्रेणी हेतु 10 पीपीएम के औसत मान से अधिक नहीं होगा।
6. विविक्त कण उत्सर्जनों में कमी लाने हेतु किन्हीं बाहरी उपस्करों और/या एग्जॉस्ट पर निर्भर करने वाले इंजन के लिए विविक्त कण नियंत्रण उपायों का सही प्रचालन सुनिश्चित करेंगे।



7. नाइट्रोजन ऑक्साइड उत्सर्जनों में कमी लाने हेतु, किन्हीं बाहरी उपस्करों और/ या एग्जॉस्ट पर निर्भर करने वाले पीआईई इंजन जेनसेट के लिए प्रणाली और प्रक्रिया में अधिकथित प्रक्रिया के अनुसार नाइट्रोजन आक्साइड नियंत्रण उपायों का सही प्रचालन सुनिश्चित करेंगे।
8. नाइट्रोजन ऑक्साइड में कमी लाने वाला रि-एजेंट जेनसेट के लिए प्रणाली और प्रक्रिया में अधिकथित प्रक्रिया के अनुसार अवधारित मानकों के अनुरूप होगा।
9. प्रकार अनुमोदन और उत्पादन की अनुरूपता के लिए ईंधनों के परीक्षण के विनिर्देश जेनसेट के लिए प्रणाली और प्रक्रिया में यथापरिभाषित होंगे और उत्सर्जन संबंधी मानकों के अनुपालन के परीक्षण या तो वाणिज्यिक रूप से उपलब्ध ईंधनों पर या प्रकार अनुमोदन परीक्षण एप्लीकेशन के दौरान विनिर्माता द्वारा घोषित ईंधन सदर्भ के अनुसार होंगे और वही उत्पादन अनुपालना परीक्षणों की अनुरूपता के दौरान पालन किए जाएंगे।
10. जेनसेट के लिए स्टैक की ऊंचाई केंद्रीय प्रदूषण नियंत्रण बोर्ड के मार्गदर्शक सिद्धांतों के अनुसार शासित होगी।
11. इलैक्ट्रॉनिक रूप से नियंत्रित सीआई इंजन और दोहरे ईंधन इंजन जेनसेट के लिए प्रणाली और प्रक्रिया में विनियमित क्षेत्र में नियंत्रित होंगे और सारणी 1 में विनिर्दिष्ट उत्सर्जनों के सीमा मान के दोगुने से अधिक नहीं होंगे।”;

(ii) मद “ग. साधारण शर्तें,” और उससे संबंधित प्रविष्टियों के स्थान पर निम्नलिखित प्रविष्टियां रखी जाएंगी, अर्थात् :-

#### “ग. साधारण शर्तें

1. लागू होना – ये शर्तें भारत में यथास्थिति, स्थिर या परिवर्तनशील गति पर संचालित, विनिर्मित, संयोजित या आयातित विद्युत उत्पादन एप्लीकेशनों और उत्पादों के लिए सभी नए इंजनों पर लागू होंगी :  
परंतु ये नियम निम्नलिखित को लागू नहीं होंगे :-  
(क) किसी भी ऐसे इंजन या उत्पाद को जिसका यथास्थिति, संयोजन या विनिर्माण या आयात भारत के बाहर निर्यात करने के प्रयोजन के लिए किया गया है, या;  
(ख) किसी भी ऐसे इंजन या उत्पाद को जो चार तक सीमित नमूने के प्रयोजन के लिए आशयित है और जिसे नमूना जांच पूरी होने के छह माह के भीतर वापिस निर्यात किया जाना है और जो भारत में विक्रय के लिए नहीं है।  
(ग) अनुसंधान और विकास परीक्षण हेतु कोई भी यथास्थिति, संयोजित या विनिर्मित या आयातित, इंजन या उत्पाद जिसे रद्दी कर दिया जाएगा या पुनःनिर्यातित किया जाएगा।
2. प्रमाणन की अपेक्षाएं – घरेलू विनिर्माता, आयातक या संयोजक 800 के डब्ल्यू तक के विद्युत उत्पादन हेतु इंजनों और इंजन विस्थापन >800 सीसी के इंजनों के 19 के डब्ल्यू तक के पोर्टेबल जेनरेटर सेटों और 800 सीसी तक के इंजन विस्थापन के अधिकृत प्रमाणन एजेंसी से प्रकार अनुमोदन प्राप्त करेगा और साथ ही उत्सर्जन सीमाओं के लिए अपने उत्पाद (उत्पादों) की उत्पादन अनुरूपता (सीओपी) परीक्षण जो अगले सीओपी वर्ष के लिए या उपर्युक्त विनिर्दिष्ट संशोधित मानदंडों के कार्यान्वयन की तारीख तक, जो भी पहले हो, के लिए वैध होगा, का अनुपालन करेगा।  
स्पष्टीकरण : उत्पादन अनुरूपता वर्ष पद के अंतर्गत केलेंडर वर्ष की 1 जुलाई से आगामी केलेंडर वर्ष की 30 जून तक की अवधि आती है।
3. उस इंजन या उत्पाद का विक्रय, आयात या उपयोग जो इन नियमों का अनुपालन नहीं कर रहे हैं ; कोई भी व्यक्ति विद्युत जनरेटिंग एप्लीकेशन के लिए ऐसे किसी इंजन का और जेनसेट का विक्रय, आयात या उपयोग नहीं करेगा जिसके पास साधारणशर्त 2 में निर्दिष्ट विधिमान्य किस्म अनुमोदन प्रमाणपत्र और उत्पादन अनुरूपता प्रमाण पत्र नहीं है।
4. अनुरूपता लेबलिंग की अपेक्षाएं जेनसेट के लिए प्रणाली और प्रक्रिया में यथा उल्लिखित होंगी।
5. नोडल अभिकरण.- केन्द्रीय प्रदूषण नियंत्रण बोर्ड, इन नियमों के कार्यान्वयन के लिए नोडल अभिकरण होगा।

- (क) इन नियमों के किसी विवाद या कठिनाई की दशा में, मामला नोडल अभिकरण को निर्दिष्ट किया जाएगा।
- (ख) नोडल अभिकरण इन नियमों के कार्यान्वयन के संबंध में उसे सलाह देने के लिए एक स्थायी समिति का गठन करेगा।
6. प्रमाणन के लिए प्राधिकृत अभिकरण.- निम्नलिखित संस्थाएं इंजनों या विद्युत जनरेटिंग एप्लिकेशनों के लिए किस्म अनुमोदन और उत्पादन की अनुरूपता के प्रमाण पत्र देने के लिए ऐसे परीक्षण करने के लिए, जो वे आवश्यक समझें, और ऐसे प्रमाणपत्र देने या उसके साक्षी होने के लिए प्राधिकृत हैं, अर्थात्:-
- (क) आटोमोटिव रिसर्च एसोसिएशन ऑफ इंडिया, पुणे (महाराष्ट्र);
- (ख) इंटरनेशनल सेंटर फॉर आटोमोटिव टेक्नोलॉजी, मानेमर (हरियाणा); और
- (ग) इंडियन इंस्टीट्यूट ऑफ पेट्रोलियम, देहरादून (उत्तराखंड)
7. अनुपालन और परीक्षण प्रक्रिया ;
- (1) सभी संबंधितों द्वारा केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा यथा प्रकाशित अनुपालन और परीक्षण प्रक्रिया का अनुमरण किया जाएगा।
- (2) प्रमाणन के लिए प्राधिकृत अभिकरण उत्सर्जन की वास्तविक परीक्षण और प्रमाणन ब्यौरे वार्षिक रूप से केन्द्रीय प्रदूषण नियंत्रण बोर्ड को भेजेगा।
8. इंजन घटक या भाग पहचान : उत्सर्जन क्रिया के लिए उत्तरदायी इंजन घटकों या भागों के सभी ब्यौरे अंग्रेजी भाषा में स्पष्टतः चिह्नित किए जाएंगे।
9. वैकल्पिक ईंधनों के लिए पद्धतियों की सुरक्षा संहिता जेन सेट के लिए प्रणाली और प्रक्रिया में यथापरिभाषित होगी।
10. वैकल्पिक ईंधनों के लिए ईंधन प्रणाली घटकों का प्रमाणन जेनसेट के लिए प्रणाली और प्रक्रिया में यथा परिभाषित होगा।
11. केन्द्रीय प्रदूषण नियंत्रण बोर्ड, वायु गुणवत्ता प्रबंधन आयोग, राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति, क्षेत्र की स्थानीय परिस्थितियों को ध्यान में रखते हुए और अधिक कठोर मानक जारी कर सकेंगे।
12. पूर्व मानकों के अनुसार जेनसेटों और जेनसेट इंजन विनिर्माताओं के लिए संक्रमणकालीन उपबंध निम्नानुसार यथा परिभाषित होंगे :-
- (क) पूर्व मानकों के अनुसार इंजन प्रणाली के विनिर्माण की अंतिम तारीख 30 जून, 2023 होगी। पीआईई इंजनों के लिए यह तारीख 31 जुलाई, 2023 होगी।
- (ख) पूर्व मानकों के अनुसार जेनसेटों के विनिर्माण की अंतिम तारीख 31 दिसंबर, 2023 होगी।
- (ग) पूर्व मानकों के अनुसार पीआईई जेनसेटों के विनिर्माण की अंतिम तारीख 31 अगस्त, 2023 होगी।”;
- (ख) क्रम संख्यांक 95 और उससे संबंधित प्रविष्टियों का लोप किया जाएगा;
- (ग) क्रमसंख्यांक 95क में, -
- (i) मद “क – उत्सर्जन सीमाएं” और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;
- (ii) मद “ग – साधारण शर्तें” और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;
- (घ) क्रमसंख्यांक 95ख में, -
- (i) मद “क – उत्सर्जन सीमाएं” और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;

(ii) मद "ग – साधारण शर्तें" और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;

(ड.) क्रमसंख्यांक 95ग में, -

(i) मद "क – उत्सर्जन सीमाएं" और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;

(ii) मद "ग – साधारण शर्तें" और उससे संबंधित प्रविष्टियों का लोप किया जाएगा ;

[फा.सं. क्यू-15017/05/2012-सीपीडब्ल्यू]

नरेश पाल गंगवार, अपर सचिव

टिप्पण : मूल नियम, भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उप-खंड (i) में का.आ. 844(अ), तारीख 19 नवम्बर, 1986 द्वारा प्रकाशित किए गए थे और अधिसूचना सं. सा.का.नि. 682(अ), तारीख 5 सितंबर, 2022 द्वारा अंतिम बार संशोधित किए गए।

## MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

### NOTIFICATION

New Delhi, the 3rd November, 2022

G.S.R. 804(E).—Whereas, the Environment (Protection) Amendment Rules, 2022 were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* notification number G.S.R. 138 (E), dated the 18<sup>th</sup> February, 2022 inviting objections and suggestions from all persons thereby within a period of sixty days from the date on which copies of the Official Gazette containing the said notification were made available to the public;

And Whereas, copies of the Official Gazette containing the said notification were made available to the public on the 18<sup>th</sup> February, 2022;

And Whereas, objections and suggestions received from all persons and stakeholders in response to the said notification have been duly considered;

Now therefore, in exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely: -

1. **Short title and commencement.**- (1) These rules may be called the Environment (Protection) Third Amendment Rules, 2022.

(2) They shall come into force from 1<sup>st</sup> July, 2023.

2. In the Environment (Protection) Rules, 1986, in the Schedule I,-

(a) in serial number 88-,

(i) item "A. Emission Standards" and entries relating thereto, the following shall be substituted, namely:-

"A. Emission Standards:

The emission limits for new engines used for power generating set (hereinafter referred to as Genset) applications up to 800 kW Gross Mechanical Power, namely:

(i) Diesel engines;

(ii) Engines based on dedicated alternate fuels;

(iii) Engines based on Bi-fuels run either on Gasoline or on any one of the alternate fuels;

(iv) Engines based on Dual Fuel run on Diesel and any of the alternate fuels;

(v) Portable Generator sets (PI engines below 19kW and up to 800 cc displacement) run on Gasoline fuel, dedicated alternate fuels and Bi-fuel run either on Gasoline or on any one of the alternate fuels;

1. The emission limits for new engines up to 800 kW used for Genset shall be effective from 1<sup>st</sup> July, 2023 as specified in the Table 1 and Table 2 below subject to the General Conditions contained therein, namely:

TABLE 1

Emission limits for Genset engines up to 800 kW Gross Mechanical Powered by All CI engines and PI engines > 800 cc engine displacement.

Power Category, kW	NOx	HC*/**	NOx +HC*/**	CO	PM		Smoke (light absorption coefficient)	
	CI/PI	CI/PI	CI/PI	CI/PI	CI	PI	CI	PI
	g/kWh						m-1	
P ≤ 8	-	-	7.5	3.5	0.30	-	0.7	-
8 < P ≤ 19	-	-	4.7	3.5	0.30	-	0.7	-
19 < P ≤ 56	-	-	4.7	3.5	0.03	-	0.7	-
56 < P ≤ 560	0.40	0.19	-	3.5	0.02	-	0.7	-
560 < P ≤ 800	0.67	0.19	-	3.5	0.03	-	0.7	-

TABLE 2

Emission limits for portable Genset up to 19 kW powered by PI engines (up to 800 cc engine displacement)

Category Engine Displacement (cc)	CO	NOx +HC */**
	g/kWh	
Up to 99	< 250	< 10
> 99 and up to 225	< 250	< 08
> 225 and upto 800	< 250	< 06

The abbreviations used in Table 1 and Table 2 are as follows:

- (i) NOx – Oxides of Nitrogen;
  - (ii) HC– Hydrocarbon;
  - (iii) CO – Carbon Monoxide;
  - (iv) PM – Particulate Matter;
  - (v) CI-Compression Ignition engines;
  - (vi) PI- Positive Ignition engines;
  - (vii) \* HC stands for THC for diesel and gasoline;
  - (viii) \*\* HC for alternate fuels shall be as defined in System and Procedure for Generator set.
2. Test cycle for constant speed and variable speed application shall be as described in System and Procedure for Genset.
  3. Smoke shall not exceed prescribed limit value throughout the operating load points of the test cycle.
- Note: (i) The test shall be done on engine dynamometer for all CI engines and PI engines (above 800 cc displacement);
- (ii) the test shall be done on resistive load bank for Portable Gensets (up to 19 kW and up to 800 cc engine displacement) powered by PI engines;
  - (iii) the emission limits are applicable to both constant speed and variable speed gensets and genset engines are used primarily to operate an electrical generator or alternator to produce and supply electric power for other applications in place of power from electric grid;

- (iv) portable genset combines an electrical generator and a prime mover engine to form a single piece of equipment. This combination engine-generator set can be moved, pulled and not attached to earth, by a person and not build permanently into a structure such as power house or station and satisfy the following conditions namely,-
- power output is up to 19 kW and up to 800 cc engine displacement;
  - power by PI air cooled engine;
  - it is on Hand-cart mounted units.
- (v) the test procedure for measurement of gross power and the tolerances shall be as per procedure laid down in System and Procedure for Genset;
- (vi) administrative and test procedure for measurement of emission of visible and gaseous pollutant and particulate matter shall be as per procedure laid down System and Procedure for Genset;
- (vii) Table 1 and Table 2 emission limits shall be applicable for Type Approval Test and Conformity of Production Test as carried out by authorised certifying agencies;
- (viii) Frequency of Conformity of Production test and selection procedure shall be as per procedure laid down in System and Procedure for Genset;
- (ix) engine Durability Period and Deterioration Factor: Deterioration factor is applicable to all CI and PI engines above 19 kW power category only;
- (a) engine manufacturer may choose for an engine test laid down in System and Procedure for Genset as mentioned in Table 3 given below:

TABLE 3

Category (Power Band)	Emission durability period (hours)	Engine Category
>19 ≤ 56 kW (constant speed Engines)	3000	PI and CI
>19 ≤ 56 kW (Variable speed Engines)	5000	PI and CI
> 56 kW (All engines)	8000	PI and CI

- (b) as an alternative to use a service accumulation schedule to determine deterioration factors, engine manufacturers shall use the assigned multiplicative deterioration factors for engine families using exhaust after-treatment system as per the Engine Capacity mentioned in Table 4 given below:

TABLE 4

Engine Category	CO	HC	Nox	PM
CI	1.3	1.3	1.15	1.05
PI	1.3	1.3	1.15	-

- (c) Additive Deterioration Factors shall be specified by manufacturer with the supportive document as specified System and Procedure for Genset for each pollutant in an engine family approval application for CI engines and PI engines not using any exhaust after-treatment system;
- (d) manufacturers shall request type approval certification for shorter or longer useful life for an engine family and the test agency can approve a shorter or longer useful life in hours of engine operations but not in years.
- Engines rely on the external devices and/ or reagent in order to reduce emissions, shall ensure the correct operation of NOx control measures through Onboard Diagnostics as per procedure laid down in System and Procedure for Genset.
  - Emission of ammonia over the test cycles for engines equipped with Selective Catalytic Reduction shall not exceed a mean value of 25 part per million (ppm) for engine power category less than or equal to 56 kW and 10 ppm for engine power category above 56 kW.
  - Engines rely on the use of any external devices and /or exhaust after treatment device to reduce particulate matter emissions, shall ensure the correct operation of particulate matter control measures.
  - PI engines rely on the use of any external devices and /or exhaust after treatment device to reduce NOx emissions, shall ensure the correct operation of NOx control measures, as per procedure laid down in System and Procedure for Genset.
  - The NOx reduction reagent shall conform to standards determined in System and Procedure for Genset.

9. Specifications of test fuels for Type approval and Conformity of Production tests shall be as defined in System and Procedure for Genset and one emission compliance tests shall be carried either on commercially available fuel or with reference fuel as declared by the manufacture during type approval test application and the same to be followed during Conformity of Production compliance tests.
10. Stack height for Genset shall be governed as per Central Pollution Control Board guidelines.
11. Electronically controlled compression Ignition engines and dual fuel engines shall be within the control area regulated in System and Procedure for Genset and shall not exceed more than two times the limit values of the emissions specified in Table 1.”;

(ii) item “C. General Conditions,” and the entries relating thereto the following shall be substituted, namely: -

**“C. General Conditions:**

1. Applicability.- These General Conditions shall apply to all new engines for power generation application and products manufactured, assembled or imported to India, operating at constant or variable speed as the case may be:  
 Provided that these rules, shall not apply to-
  - (a) engine or product, assembled or manufactured or imported, as the case may be, for the purpose of export outside India, or;
  - (b) engine or product intended for the purpose of sample limited to four in number and to be exported back within six months of completing the sample testing and not for sale in India.
  - (c) engine or product, assembled or manufactured or imported, as the case may be, for the purpose of research and development testing which shall be scraped or re-exported.
2. Requirement of certification.- Domestic manufacturer, importer or assembler of engines for power generation up to 800 kW and engine displacement > 800 cc and of portable Gensets up to 19 kW and engine displacement up to 800 cc, shall obtain Type Approval from authorised certifying agency and also comply with Conformity of Production test of their product(s) for the emission limits which shall be valid for the next Conformity of Production year or the date of implementation of the revised norms specified above, whichever is earlier.  
*Explanation.* – The term Conformity of Production year covers the period from 1<sup>st</sup> July of calendar year to 30<sup>th</sup> June of the following calendar year.
3. Sale, import or use of engine or product not complying with these rules.- No person shall sell, import or use an engine and genset for power generation application which is not having a valid Type Approval certificate and certificate of Conformity of Production referred to in General Condition 2.
4. Requirement of conformance labelling shall be as mentioned in System and Procedure for Genset.
5. Nodal Agency. – The Central Pollution Control Board shall be the nodal agency for implementation of these rules.
  - (a) In case of difficulty in implementation of these rules, the matter shall be referred to the nodal agency.
  - (b) shall constitute a Standing Committee to advise it related to the implementation of these rules.
6. Authorised agencies for certification. – (a) Automotive Research Association of India, Pune (Maharashtra); (b) International Centre for Automotive Technology, Manesar (Haryana); and (c) Indian Institute of Petroleum, Dehradun (Uttarakhand) are authorised to carry out or witness such tests as they may deem necessary, for giving certificates of Type Approval and Conformity of Production for engines and Gensets for power generation application: -
7. Compliance and testing procedure.-
  - (1) the Compliance and Testing Procedure, as published by the Central Pollution Control Board shall be followed by all concerned,
  - (2) the authorised agencies for certification shall submit the testing and certification details in respect of the emission to the Central Pollution Control Board annually.
8. Engine components or parts identification.- All the details of engine components or parts responsible for the emission performance shall be clearly marked in English language.
9. Safety code of practices for alternate fuels shall be as defined in System and Procedure for Genset.

10. Fuel system components certification for alternate fuels shall be as defined in System and Procedure for Genset.
  11. The Central Pollution Control Board, Commission for Air Quality Management, State Pollution Control Boards or Pollution Control Committee may issue more stringent norms taking account to local condition of the area.
  12. Transition provisions for Gensets and Genset engines manufactured as per earlier norms shall be as defined as follows:
    - (a) Last date of manufacturing of engine system as per earlier norms shall be 30<sup>th</sup> June 2023. For PI engines it shall be 31<sup>st</sup> July 2023.
    - (b) Last date of manufacturing of Gensets as per earlier norms shall be 31<sup>st</sup> December 2023.
    - (c) Last date of manufacturing of PI Gensets as per earlier norms shall be 31<sup>st</sup> August 2023.”;
- (b) serial number 95 and the entries relating thereto shall be omitted;
- (c) in serial number 95 A,-
- (i) item “A. Emission Limits” and the entries relating thereto shall be omitted;
  - (ii) item “C. General Conditions” and the entries relating thereto shall be omitted;
- (d) in serial number 95 B,-
- (i) item “A. Emission Limits” and the entries relating thereto shall be omitted;
  - (ii) item “C. General Conditions” and the entries relating thereto shall be omitted;
- (e) in serial number 95 C,-
- (i) item “A. Emission Limits” and the entries relating thereto shall be omitted;
  - (ii) item “C. General Conditions” and the entries relating thereto shall be omitted.

[F.No. Q-15017/05/2012-CPW]

NARESH PAL GANGWAR, Addl. Secy.

**Note:** The principle rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* number S.O. 844(E), dated the 19th November, 1986 and lastly amended, *vide* notification G.S.R. 682(E), dated the 5<sup>th</sup> September, 2022.





**COMMISSION FOR AIR QUALITY MANAGEMENT  
IN NATIONAL CAPITAL REGION AND ADJOINING AREAS**

17th Floor, Jawahar Vyapar Bhawan (STC Building)  
Tolstoy Marg, New Delhi-110001

F. No. A-11018/01/ 2021-CAQM//5322-15331 Dated: 29.09.2023

**Subject: Directions under Section 12 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 – Review of regulations for use of DG sets in NCR.**

WHEREAS, Ministry of Environment, Forest and Climate Change, Government of India, in exercise of the powers conferred under Section 3 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act 2021, has constituted the Commission for Air Quality Management in National Capital Region and Adjoining Areas (hereinafter referred to as the Commission);

WHEREAS, under Section 12 (1) of the Act, the Commission is vested with powers to take all such measures, issue directions, etc., as it deems necessary or expedient for the purpose of protecting and improving the quality of the air in the National Capital Region and Adjoining Areas;

WHEREAS, Section 12 (2) (ix) of the Act empowers the Commission to issue directions in writing to any person, officer, or any authority and such person, officer or authority shall be bound to comply with such directions;

WHEREAS, Section 12(2)(iv) of the Act empowers the Commission to lay down parameters for discharge of emissions from various sources whatsoever that have implications on the air quality in the region;

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WHEREAS, Section 12(2)(v) of the Act also empowers the Commission to impose restrictions and regulate operations or processes that have implications on air quality in the region;

WHEREAS, the Commission has repeatedly taken up the matter relating to air pollution with the State governments of Haryana, Rajasthan, Punjab, Uttar Pradesh and Government of NCT of Delhi and various organizations concerned of the Central and State Governments/ GNCTD and has issued various Directions, Advisories and Orders for effective implementation of measures for abating air pollution in NCR, from time to time;

WHEREAS, the Commission has observed and has been sensitizing all stakeholders that, amongst others, large-scale unregulated use of Diesel Generator (DG) sets is a major contributing factor for deterioration of air quality in the region;

WHEREAS, in wake of generally prevailing adverse air quality in NCR during the winter season, the Commission, through directions No. 54-57 dated 08.02.2022, followed by Direction No. 68 dated 14.09.2022 and its related orders called for regulated use of DG Sets in the NCR, particularly during the periods of restrictions under the GRAP, subject to adopting emission control measures /devices/ systems such as retrofitted Emission control devices (ECDs) and dual fuel mode (gas and diesel), amongst other means of emission control;

WHEREAS, large number of DG sets operating in the region, even during the periods other than restrictions under the GRAP, cause heavy air pollution and are a matter of concern and thus, with a view to regulating the use of DG Sets even for such periods, the Commission issued Direction No. 71 for expeditious conversion of DG Sets to dual fuel mode, in areas where gas infrastructure and supply is available;

WHEREAS, the Commission from time to time reviewed the progress and status in this matter, in line with various directions issued by it;

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WHEREAS, the Commission revisited / reviewed some provisions of the extant directions on the regulated use of DG sets and issued a revised Direction No. 73 dated 02.06.2023, to be applicable across all sectors in the NCR including Industrial, Commercial, Residential and Office establishments etc., as well as permitting more time to implement the schedule w.e.f. 01.10.2023.

WHEREAS, preparatory actions were initiated by various stakeholders towards emission control from DG sets through retro-fitted ECDs and / or dual fuel systems, a number of representations were still being made to the Commission, including deliberations / meetings with various stakeholders in this context, wherein the following were highlighted:

- i. Issues related to availability of certified RECDs and agencies for all capacity ranges and vintages of DG sets.
- ii. Issues related to availability / delays in PNG infrastructure and supply, purely for DG sets.
- iii. Techno-commercial issues, logistics and time involved for fitment of RECDs / conversion to dual fuel mode.
- iv. Issues related to availability of DG sets to the latest standards as in MoEFCC notification No. GSR 804(E) dated 03.11.2022 (CPCB-IV).
- v. No means for emission control in under 19 kW capacity range of DG sets (neither RECDs nor dual fuel mode are available / suited).
- vi. Issues related to use of DG sets for emergency services.

Owing to the above, a number of stakeholders broadly requested for the following:

- (a) Extension of the deadline of 30.09.2023, as laid down in Direction No. 73, by about 3 months.
- (b) Stipulating a condition of '**OR**' instead of '**AND**' towards fitment of RECDs and conversion to dual fuel system, for all categories of DG sets above 19kW capacity.
- (c) Permitting DG Sets of >800 kW capacity to be run uninterruptedly for the durations of power supply failure, subject to compliance of

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standards as in Direction No. 73 dated 02.06.2023, even during restrictions under GRAP.

- (d) Permitting such DG sets of < 125 kW capacity to be run for emergency services, even during the restrictions under the GRAP, where either certified ECDs are presently not available at all or where gas infrastructure and supply is also not available to enable running them in a dual fuel mode.

NOW, THEREFORE, in due consideration of the contentions and submissions made by various stakeholders, issues in ground level implementation, availability of RECDs / dual fuel systems / new gensets to CPCB -IV standards and various other techno-commercial considerations put forth by them, the Commission, pursuant to a comprehensive review and in supersession of all extant directions / orders / guidelines on the regulations for DG sets, now directs for adoption of the following Schedule for regulated operations of DG sets (only as a backup against regular power supply failures) across all sectors in NCR including Industrial, Commercial, Residential and Office establishments etc.:

<b>S. No.</b>	<b>Capacity Range of DG sets</b>	<b>System to be adopted for control of emissions</b>	<b>Regulations for use</b>
1.	Power generating sets of all capacities running on LPG/ Natural Gas/ Bio-gas/Propane/Butane	None	No restrictions (Even during periods under GRAP)
2.	Power generating sets of all capacities up to 800 kW to standards as per MoEFCC notification No. GSR 804(E) dated 03.11.2022	None	No restrictions. (Even during periods under GRAP)

*Handwritten signature*

3.	800 kW and above	Any emission control mechanism, strictly subject to compliance of emission standards as indicated below. *	No restrictions (Even during periods under GRAP)
4.	125 kW to less than 800 kW	Dual fuel mode <b>OR</b> Retro-fitted ECDs through certified vendors / agencies	No restrictions (Even during periods under GRAP)
5.	19 kW to less than 125 kW	Dual fuel mode	No restrictions (Even during periods under GRAP)  DG Sets not working in a dual fuel mode, only owing to non-availability of gas infrastructure and supply, shall be permitted only for emergency services as stipulated in this direction.
6.	Portable DG sets (below 19 kW)	Presently no specific means of emission control are available in this category / capacity range of DG sets.	No restrictions during the periods, other than restrictions under GRAP.  Not to be generally permitted during periods of restriction under GRAP. These shall, however, be permitted even during periods under GRAP only for emergency services as stipulated in this direction.

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**\*Standards for stack emissions for 800 kW and above capacity DG sets**

S.No	Parameter	Emission Standards
i.	PM (at 15% O <sub>2</sub> )	50 mg / Nm <sup>3</sup>
ii.	NO <sub>x</sub> (at 15% O <sub>2</sub> )	650 mg / Nm <sup>3</sup>
iii.	CO (at 15% O <sub>2</sub> )	100 mg / Nm <sup>3</sup>
iv.	Minimum DG Stack height	30 meters <b>OR</b> minimum 6 meters above the height of the building where DG set is installed, whichever is higher.  <b>For example</b> , if the building height where such DG set is installed is 20 meters, minimum stack height for DG set should be 30 meters from ground level;  While, if the building height itself is 27 meters, the minimum stack height for the DG set should be 33 meters from the ground level.

The regulated schedule for operation of DG sets issued vide Direction No. 73 dated 02.06.2023 comes to effect from 01.10.2023. The revised schedule as above further eases out the means of implementation and addresses practical difficulties and techno-commercial concerns of various stakeholders and thus the revised schedule for regulation of DG sets would be in force in the entire NCR w.e.f. 01.10.2023.

Notwithstanding the revised schedule as above, in the interest of not disrupting emergency services and permitting sufficient time for adopting the stipulated emission control mechanism in such existing DG Sets, the Commission, hereby, as a one-time exception, permits DG Sets for all capacity ranges (which have still not been equipped with emission control devices / systems as per the above noted schedule), to be run only for emergency services in the NCR as listed below, even under periods of restrictions under the GRAP, **only up to 31.12.2023** and strictly subject to adherence to the above noted schedule / measures for emission control thereafter:

- (i) Elevators / Escalators / Travelators etc. in various installations; Commercial entities / residential societies shall, however, ensure that operation of DG sets and supply

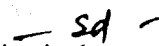
*and*

therefrom is purely limited to operation of elevators / escalators / travelators etc. and not for any other activities of commercial entities / residential societies.

- (ii) Medical Services (Hospital/Nursing Home/Health care facilities) including units involved in manufacturing of life saving medical equipment/devices, drugs and medicines.
- (iii) Railway Services / Railway Stations.
- (iv) Metro Rail Corporation & MRTS Services, including trains and stations.
- (v) Airports and Inter-State Bus Terminals (ISBTs).
- (vi) Sewage Treatment Plants.
- (vii) Water pumping Stations.
- (viii) Projects related to national security, defence & of national importance.
- (ix) Telecommunications and IT/ data services.

It is further reiterated that appropriate emission control mechanism shall be put in place on or before 31.12.2023, in respect of DG sets being used in above listed emergency services, to avoid action under the relevant provisions of laws / rules / regulations / directions etc., thereafter.

NCR State PCBs/ DPCC shall ensure compliance of above noted directions and regularly monitor the field level implementation.


  
(Arvind Nautiyal)  
Member- Secretary

To

1. The Chief Secretary, Government of NCT of Delhi
2. The Chief Secretary, Government of Haryana
3. The Chief Secretary, Government of Rajasthan
4. The Chief Secretary, Government of Uttar Pradesh

Copy to:

1. Chairman, DPCC
2. Chairman, HSPCB
3. Chairman, RSPCB
4. Chairman, UPPCB
5. Chairman, CPCB.
6. The Chairperson and all Members, CAQM.

  
(Arvind Nautiyal)  
Member- Secretary



राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्र  
वायु गुणवत्ता प्रबंधन आयोग  
Commission for Air Quality Management in  
National Capital Region and  
Adjoining Areas



F. No.11016/01/ 2022-CAQM.Vol-III

Dated: 22.02.2024

**Subject: Amendments to Direction No. 76 dated 29.09.2023- Regulated use of DG Sets-reg**

Pursuant to a comprehensive review and in supersession of all extant directions / orders / guidelines on the regulations for DG sets, Direction No. 76 dated 29.09.2023 was issued by the Commission under section 12 of the Commission for Air Quality Management in NCR & Adjoining Area, Act, 2021, directing for adoption of the Schedule for regulated operations of DG sets (only as a backup against regular power supply failures) across all sectors in NCR including Industrial, Commercial, Residential and Office establishments etc.

2. As certified Retrofitted Emission Control Devices (RECD) are now also available for 61 to 125 KW capacity range of DG sets, Sr. No 4 & 5 in said Direction No. 76 dated 29.09.2023 are hereby amended as under:

S. No.	DG set Capacity range as mentioned in Direction No. 76	DG Set Capacity range as amended now
4.	125 KW to less than 800 KW	<b>61 KW to less than 800 KW</b>
5.	19 KW to less than 125 KW	<b>19 KW to less than 61 KW</b>

3. All other stipulations under the Direction No 76 dated 29.09.2023 will remain unaltered.


  
( Arvind Nautiyal)

To,

1. The Chief Secretary, Government of NCT of Delhi
2. The Chief Secretary, Government of Haryana
3. The Chief Secretary, Government of Rajasthan
4. The Chief Secretary, Government of Uttar Pradesh

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1. Chairman, DPCC
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6. The Chairperson and all Members, CAQM

  
( Arvind Nautiyal)  
Member-Secretary