

## NOISE LIMIT FOR GENERATOR SETS RUN WITH DIESEL

*(Noise Limit for Generator Sets run with Diesel were notified by Environment (Protection) second Amendment Rules vide GSR 371(E), dated 17<sup>th</sup> May 2002 at serial no.94 and its amendments vide GSR No 520(E) dated 1<sup>st</sup> July 2003; GSR 448(E), dated 12<sup>th</sup> July 2004; GSR 315(E) dated 16<sup>th</sup> May 2005; GSR 464(E) dated 7<sup>th</sup> August 2006; GSR 566(E) dated 29<sup>th</sup> August 2007 and GSR 752(E) dated 24<sup>th</sup> October 2008; G.S.R. 215 (E), dated 15<sup>th</sup> March, 2011 under the Environment (Protection) Act, 1986)*

### **Noise Limit for Generator Sets run with Diesel**

**1. Noise limit for diesel generator sets (upto 1000 KVA) manufactured on or after the 1<sup>st</sup> January, 2005**

The maximum permissible sound pressure level for new diesel generator (DG) sets with rated capacity upto 1000 KVA, manufactured on or after the 1<sup>st</sup> January, 2005 shall be 75 dB(A) at 1 metre from the enclosure surface.

The diesel generator sets should be provided with integral acoustic enclosure at the manufacturing stage itself.

The implementation of noise limit for these diesel generator sets shall be regulated as given in paragraph 3 below.

**2. Noise limit for DG sets not covered by paragraph 1.**

Noise limits for diesel generator sets not covered by paragraph 1, shall be as follows:-

2.1 Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.

2.2 The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side ( if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/acoustic treatment. Under such circumstances the performance may be checked for noise reduction upto actual ambient noise level, preferably, in the night time). The measurement for Insertion Loss may be done at different points at 0.5 m from the acoustic enclosure/ room, then averaged.

2.3 The DG set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).

2.4 These limits shall be regulated by the State Pollution Control Boards and the State Pollution Control Committees.

2.5 Guidelines for the manufacturers/ users of Diesel Generator sets shall be as under:-

01. The manufacturer shall offer to the user a standard acoustic enclosure of 25 dB (A) insertion loss and also a suitable exhaust muffler with insertion loss of 25 dB(A).
02. The user shall make efforts to bring down the noise levels due to the DG set, outside his premises, within the ambient noise requirements by proper citing and control measures.
03. Installation of DG set must be strictly in compliance with the recommendations of the DG set manufacturer.
04. A proper routine and preventive maintenance procedure for the DG set should be set and followed in consultation with the DG set manufacturer which would help prevent noise levels of the DG set from deteriorating with use.

### **3.0 Limits of Noise for DG Sets (upto 1000 KVA) Manufactured on or after the 1<sup>st</sup> January, 2005**

#### **3.1 Applicability**

01. These rules apply to DG sets upto 1000 KVA rated output, manufactured or imported in India, on or after 1<sup>st</sup> January, 2005.
02. These rules shall not apply to –
  - a) DG sets manufactured or imported for the purpose of exports outside India; and
  - b) DG sets intended for the purpose of sample and not for sale in India.

#### **3.2 Requirement of Certification**

Every manufacturer or assembler or importer (hereinafter referred to as the "manufacturer") of DG set (hereinafter referred to as "product") to which these regulations apply must have valid certificates of Type Approval and also valid certificates of Conformity of Production for each year, for all the product models being manufactured or assembled or imported from 1<sup>st</sup> January, 2005 with the noise limit specified in paragraph 1.

#### **3.3 Sale, import or use of DG sets not complying with the rules prohibited**

No person shall sell, import or use of a product model, which is not having a valid Type Approval Certificate and Conformity of Production certificate.

### **3.4 Requirement of Conformance Labelling**

- i) The manufacturer of the 'product' must affix a conformance label on the product meeting the following requirements:
  - (a) The label shall be durable and legible,
  - (b) The label shall be affixed on a part necessary for normal operation of the 'product' and not normally requiring replacement during the 'product' life.
- ii) The conformance label must contain the following information:
  - (a) Name & address of the manufacturer (if the address is described in the owner's manual, it may not be included in the label),
  - (b) Statement "this product conforms to the Environment (Protection) Rules, 1986",
  - (c) Noise limit viz. 75 dB(A) at 1 m
  - (d) Type Approval certificate number
  - (e) Date of manufacture of the product

### **3.5 Nodal Agency**

- i) The Central Pollution Control Board shall be the nodal agency for implementation of these regulations.
- ii) In case of any dispute or difficulty in implementation of these regulations, the matter shall be referred to the nodal agency.
- iii) The nodal agency shall constitute a Committee to advise it on all matters; including the disputed matters, related to the implementation of these regulations.

### **3.6 Authorised agencies for certification**

The following agencies are authorized to carry out such tests as they deem necessary for giving certificates for Type Approval and Conformity of Production testings of DG sets and to give such certificates:

- i) Automotive Research Association of India, Pune;
- ii) Naval Science & Technology Laboratory, Visakhapatnam;
- iii) Fluid Control Research Institute, Palghat;

- iv) National Aerospace Laboratory, Bangalore;
- v) International Centre for Automotive Technology, Manesar, Haryana; and
- vi) National Test House (Northern Region), Ghaziabad, Uttar Pradesh.

### **3.7 Compliance and Testing Procedure**

The compliance and testing procedure shall be prepared and published by the Central Pollution Control Board, with the help of the certification agencies.

### **4.0 Exemption from the provisions of paragraph 1 and 3, for the products (diesel generator sets upto 30 KVA) purchased by the Ministry of Defence, Government of India.**

The products manufactured in or imported into India till 30<sup>th</sup> April, 2007 for the purpose of supplying to the Ministry of Defence, shall be exempted from the regulations given in paragraphs 1 to 3 above, subject to the following conditions, namely:-

- i) The manufacturer shall manufacture or import the products only after getting purchase order from the Ministry of Defence and shall maintain the record of receipts, production / import, dispatch, etc., for inspection by the Central Pollution Control Board.
- ii) The special dispensation for noise norms shall be only for the mobile Defence vehicles which, with the present design / configuration, cannot carry the gensets with acoustic enclosures.
- iii) Director, Ministry of Defence shall ensure and maintain the serial number of all gensets for the Army and he shall also direct the manufacturers of these gensets to emboss on the engine and the main body of the gensets, the words "**For the use of Army only**".
- iv) The genset serial number shall be specially assigned by the Ministry of Defence with the request for proposal and contract purchase order and this information shall be forwarded to the Central Pollution Control Board for inspection as and when required.
- v) Registers shall be maintained at the manufacturers premises and in the Ministry of Defence to ensure that the number of gensets manufactured under special dispensation are not misused.
- vi) The gensets procured under this dispensation shall be operated in the remote areas and not in the cities.

- vii) This shall be a one-time exemption during which the Army shall remodel its vehicles to contain the new gensets and also obtain the necessary Type Approval of the gensets.

**5.0 Exemption from the provisions of paragraph 1 and 3 for sixteen Diesel Generator sets of 45 KVA purchased by the Ministry of Defence, Government of India.**

The 45 KVA DG sets manufactured in India for the purpose of their use in Mobile Decontamination System for use by the Ministry of Defence shall be exempted from the regulations given in paragraph 1 to 3 above subject to the following conditions, namely:-

- i) The special dispensation for the noise norms shall be only for the DG sets to be used in Mobile Decontamination System (MDS) by Army which, with the present design/configuration cannot carry the gensets with acoustic enclosures.
- ii) The Director, Ministry of Defence, shall ensure and maintain the serial numbers for sixteen gensets and he shall also direct the manufacturers of these generator sets to emboss on the engine and main body of the gensets, the words "For the use of Army only in Mobile Decontamination System (MDS)"
- iii) A register shall be maintained at the manufacturers premises and in the Ministry of Defence to ensure that only sixteen numbers of 45 KVA gensets are manufactured under special dispensation and are not misused elsewhere.

**6.0 Transportation of Diesel Generator Sets (above 250 KVA)**

- i) Diesel Generator set shall be transported after fulfilling the requirement of certification specified in paragraph 3.2 as a complete unit with acoustic enclosure, or dismantled, with relevant genset number specified on acoustic enclosure and silencer for reassembling at the site of its operation.
- ii) Compliance with the noise norms shall be monitored after reassembling the DG set at the location of the installation by the concerned State Pollution Control Board or, as the case may be, the Union Territory Pollution Control Committee.