

संख्या. पी-63013/155/02/2024/मोड-1/सीसुबल/627-30

भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय: आधुनिकीकरण सैल)
(Email-comdtord@bsf.nic.in)
(Fax: 011-24367683)

ब्लाक संख्या . 10,
सीजीओ काम्पलैक्स,
लोधी रोड, नई दिल्ली-03
दिनांक 21 फरवरी 2025

सेवा में,

महानिदेशक:- आसाम राईफलस (through LOAR), केन्द्रीय ओद्योगिक सुरक्षा बल,
केन्द्रीय रिजर्व पुलिस बल, भारतीय तिब्बत बोर्डर पुलिस, सशस्त्र सीमा बल,
राष्ट्रीय सुरक्षा गार्ड एवं पुलिस अनुसन्धान एवं विकास ब्योरो

विषय: अनुमोदित गुणात्मक आवश्यकता /परीक्षण निर्देशों का प्रेषण

तकनीकी विशेषज्ञों के उप समूह द्वारा किए गये सूत्रीकरण एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित "Revised QRs & TDs of Diesel Generator Set (5, 7.5, 10, 20 & 30 KVA) - Part -I के गुणात्मक आवश्यकता/परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

संलग्न : उपरोक्तनुसार

आनन्द सिंह 21/2/25
(आनन्द सिंह तक्षक)
उप महानिरीक्षक (रसद)

प्रतिलिपि :-

1. तकनीकी निदेशक
The Technical Director
राष्ट्रीय सूचना-विज्ञान केन्द्र, नोर्थ ब्लाक,
गृह मंत्रालय, नई दिल्ली
NIC, North Block, MHA
New Delhi, (द्वारा ई-मेल)
(ई-मेल पता : mpsugandhi@nic.in) : आपसे अनुरोध है कि QRs & TDs of Diesel Generator Set (5, 7.5, 10, 20 & 30 KVA) - Part -I के पुनः सूत्रीकरण किये गये गुणात्मक आवश्यकता/परीक्षण निर्देशों जोकि गृह मंत्रालय की वैबसाईट (पुलिस आधुनिकीकरण संभाग) के गुणात्मक आवश्यकता पोर्टल में मशीनरी एवं उपकरण के साथ निगरानी उपकरण वर्ग के अर्न्तगत क्रमांक संख्या-68 पर पहले से अपलोड है के स्थान इस पत्र के साथ संलग्न संशोधित गुणात्मक आवश्यकता /परीक्षण निर्देशों को अपलोड करने का श्रम करें।
2. SO (IT), North Block, MHA
(Through E-mail)
(E-mail address: soit@nic.in) : कृपया उपरोक्तनुसार कार्यवाही करने का श्रम करें।
3. तकनीकी विंग, सीमा सुरक्षा बल : कृपया उक्त उपकरण के गुणात्मक आवश्यकता/परीक्षण निर्देशों को सीमा सुरक्षा बल की वैबसाईट पर अपलोड करने का श्रम करें।
4. Sh. Anoop Dhanvijay, Director- Buyer
Management (CPSEs & Central
Ministries), GOI. Ministry of
Commerce & Industry, Government
e-Marketplace. Jeevan Tara
Building,5-Parliament Street. New
Delhi-110001
E-mail: - anoop.dhanvijay@gem.gov.in
For info with request to upload the approved Revised QRs & TDs of "Revised QRs & TDs of Diesel Generator Set (5, 7.5,10, 20 & 30 KVA)- Part-I on GeM Portal. Copy of QRs & TDs is attached with this letter.
5. फाईल।

REVISED QUALITATIVE REQUIREMENTS AND TRIAL DIRECTIVES OF DIESEL GENERATOR SETS (I.E. 5, 7.5, 10, 20 & 30 KVA)

Part-I

| Sl.No. | Parameters | Specification | Trial Directives | Result expected/desired |
|--------|--|--|--|--|
| 1. | <p>a) Diesel Generator set complete with naturally aspirated Diesel Engine. Alternator and AMF /Manual Control Panel fitted/along with in Acoustic Enclosure, naturally Aspirated Diesel Engine and Alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate robust construction.</p> <p>Or</p> <p>b) Diesel Generator set complete with pressure charged (Turbo charged). Diesel Engine/Alternator and AMF/Manual Control Panel fitted along with acoustic Enclosure, Pressure charged (Turbo charge) Diesel Engine and Alternator shall be closely coupled or provided with flexible coupling and mounted on a base plate robust in construction.{User to decide as per requirement at the time of indent}</p> | | To be physically checked by the BOO | DG Set must have all requirement as mentioned in parameters. |
| 2. | Control Panel with IP rating | Digital with AMF (Auto Mains Failure) panel for protection, metering and operation. IP 53/IP 54/IP 55 | To be checked physically by BOO. Firm has to submit National accredited Lab certificate/any Indian Govt Lab certificate in respect of the same. | Must have auto mains failure panel. and required IP rating. |

Siddharth *On* *Start* *m* *W* *G* *at*

L

| | | | | |
|----|--|--|--|--|
| 3. | AMF Panel (Automatic Mains Failure) | As per IS 2147 the panel shall have IP-42 type protection. AMF panel normally consists of relays, contactors, timers for automatic operation on Mains failure as well as for manual operation. | Operation of AMF panel will check by BOO by manually switching off the mains power to check immediate and smooth transfer on DG set and vice versa. All these observations are to be made on full load which should not be less than 30 to 40% of DG set capacity. | <ul style="list-style-type: none"> Panel should be IP-42 Equipment's to test healthiness of DG set with test mode & with load on mains. Energy analyzer or load manager with selector switch/button to view readings of voltage, current, KW, KWH, p.f. frequency etc. Audio-visual alarm indication/annunciation facility. Engine/DG shutdown device(fault/abnormality) Battery charger, excitation control, voltage regulating equipment. Circuit Breaker. Auto/manual mode selector switch. |
| 4. | Nominal rated capacity (KVA) | 5, 7.5, 10, 20 & 30 KVA | To be physically checked by the BOO and NABL certificate also submitted by firm in respect of same. | DG set must be 5, 7.5, 10, 20 & 30 KVA. |
| 5. | No of phase (output capacity rating/phase) | 5 KVA & 7.5 KVA - Single phase 10, 20 & 30 KVA - 3 phase For example 3phase should generate 415 V AC electricity. | To be physically checked by the BOO | Nos of phase must be as per specification, also, there must be a current meter facility available for each phase. |










| | | | | |
|-----|----------------------------|--|---|--|
| 6. | Engine::Cooling | Air cooled/liquid cooled | To be physically checked by the BOO and OEM certificate also submitted by firm in respect of same DG set must be 4 stroke | DG set engine should be make in India certification. |
| 7. | Number of cylinder(Nos) | 5KVA & 7.5 KVA- 1 or 2 Cylinder 10, 20 & 30 KVA- Multi Cylinder (As per user requirement) | To be physically checked by the BOO | Single cylinder option already provided with low capacity DG set of 5 & 7.5 KVA. DG set of 10 KVA and above has option for Multi cylinder, where buyers has the option to choose single or multi cylinders as per requirement. |
| 8. | Rated RPM of Engine(RPM) | a) 1500 or b) 3000 {User to decide as per requirement at the time of indent} | To be physically checked by the BOO | RPM must be 1500 or 3000 |
| 9. | Salient features of engine | Turbo charged diesel engine/natural aspirated diesel injection fuel system is considered for DG set above 10 KVA and upto 10 KVA natural aspirated diesel engine (As per user requirement) | To be checked by BOO | Must have fulfill requirement |
| 10. | Type of Governor | Mechanical/electronic governor - Up to 20 KVA and Electronic governor - Above 20 KVA capacity | Firm has to provide certificate from NABL accredited lab . | Mechanical/electronic upto 20 KVA, Electronic above- 20 KVA. Electronic Governor is better than Mechanical Governor for smooth operation of engine and also more efficient in terms of fuel consumption. |

Satish Chandra Singh

Sanjay Singh

Sanjay Singh

| | | | | |
|-----|--|--|--|--|
| 19. | Battery & Battery charger system | Diesel Engines requires high initial starting current for cranking, the industrial lead acid 12 Volt batteries of 88/100/150 AH value are normally needed. For battery charging a static battery charger is recommended. Depending upon the capacity of DG set suitable current rating of charger is selected. Normally 3 attempt starting setting is preferred for engine starting with a sequence of 6 seconds ON and 5 seconds OFF cycle. | To be checked by the BOO. NABL accredited lab certificate has to be provided. | Maintenance free to IS 14257 for high cranking performance. |
| 20. | a) Acoustics enclosure (Sheet thickness) | 1.6 to 2 millimetre | To be check by BOO | Must fulfil requirement |
| | b) Thickness of foam | 25 to 40 millimetre | To be check by BOO | Must fulfil requirement |
| | c) Density of foam for sound insulation | 28 to 50 Kg/m ³ | To be check by BOO | Must fulfil requirement |
| 21. | Wiring | Supply, laying and termination of interconnecting power and control cable shall be done by the seller. The cable supplied shall be ISI marked heavy duty PVC insulated, armoured cable with PVC outer. | To be checked by BOO | Supplier firm has to ensure and got checked from BOO. |
| 22. | Installation & commissioning | With installation | To be checked by BOO, NABL certificate has to be submitted after commissioning. | Supplier firm has to produce the given result expected/ desired. |
| 23. | Operating temperature | > -20 to +55 C OR > -40 to +55 C (User to decide as per requirement at the time of indent) | Firm has to provide National accredited Lab certificate /any Indian Govt lab certificate in respect of the same. | Cold starting kit mandatory |

Sd/- *[Signature]* *[Signature]* *[Signature]*
[Signature] *[Signature]* *[Signature]*

| | | | | |
|-----|--|--|----------------------------------|---|
| 24. | Earthing | Construction of suitable earthing station and necessary connections shall be done by the seller. | To be checked by BOO | <ul style="list-style-type: none"> All the materials, labour required for construction of earthing station shall be supplied by the seller. The total number of earthing pits/station shall be 4 i.e. 2 for neutral and 2 for body earthing. Neutral earthing shall be done by copper plate and body earthing shall be done G.I pipe/copper plate. Consignee should identify the place for earthing station within 10 meters of Power Generator. (Preferably chemical earthing within 10 mtrs distance of Gen Set) |
| 25. | Warranty of complete Power Generator/DG set | 24 month | To be checked by BOO | 24 months from the date of installation. |
| 26. | Warranty for running hours | 5000 hrs | To be ensured by supplier | 5000 hrs must |
| 27. | Number of preventive maintenance visits offered in an year during warranty period. | At least 3 (three) | To be ensured by supplier | Ensure by supplier firm |
| 28. | Response time to attend the complaint during warranty | 1 day | To be ensured by supplier | Ensured by supplier firm |
| 29. | Time duration for repairing /replacement the defective during warranty | 3 days | To be ensured by supplier | Ensured by supplier firm |
| 30. | Testing | Certificate required as per CPCB norms from ARAI or authorised NABL accredited lab. | To be physically checked by BOO. | Certificate required as per CPCB norms from ARAI or CPCB authorised agency. |








Satisfied ✓

| Documents/certificate | Test report and certificate has to be provided to the buyer during bidding time on demand. | To be physically checked by | Supplier firm has to ensure supply of required documents/certificate. |
|---------------------------------------|--|----------------------------------|---|
| 31. User manual | Details of specification with guidelines have to be mentioned in the user manual | To be physically checked by BOO | Firm have to produce the given items before the BOO |
| 32. Operating manual/technical manual | Detailed operators instruction, technical literature, maintenance manual, inspection standards be provided with the requirement. | To be physically checked by BOO | Firm have to produce the given items before the BOO |
| 33. Specific tools | Required tools for servicing the Gen sets be provided by the supplier firm. | To be physically checked by BOO. | Firm have to produce the given items before the BOO |

Lt. Col. Navneet Garhwal
Assam Rifles, Shillong (Online)

Navneet
Hani Choudhury
AC/Ext CISE

S. D. S. Yadav
S. D. S. Yadav (Retd),
SSO (Bldgs), BPR & D

Sandeep Khirwar
Sandeep Khirwar, IPS
ADG, HQ, CRPF

Yogesh
Yogesh Kumar Gautam
DC(E), BSF

Satish Kumar
Satish Kumar
AC-NSG

Vikram Singh
Vikram Singh,
2-I/C (Prov) CRPF

Xaresh Kumar
Xaresh Kumar
DC(Engr) SSB

Brajesh Kumar Pandey
Brajesh Kumar Pandey
2-I/C, CRPF (Tech Officer)

Shahnawaz Khan
Shahnawaz Khan,
DIG(Prov), CRPF

Approved/Not Approved

S. D. S. Yadav
19/10/20
~~DIRECTOR GENERAL,
Border Security Force~~

Kamal Singh
Kamal Singh
Insp/Telecom, ITBP

Dinesh Yadav
Dinesh Yadav,
Insp/T, CRPF, (Tech Member)

Sonal V Misra
Sonal V Misra, IPS
IG (Prov), CRPF

संख्या पी 63013/214/01/2024/मोड-1/सी सु बल/627-30

भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय : आधुनिकीकरण सैल)
(Email – comdtord@bsf.nic.in)
(Fax – 011-24367683)

ब्लाक संख्या – 10
सी0जी0ओ0 कॉम्प्लैक्स
लोधी रोड, नई दिल्ली – 03
दिनांक 21/2/25

सेवा में,

महानिदेशक:- आसाम राईफलस (through LOAR), केन्द्रीय ओद्योगिक सुरक्षा बल,
केन्द्रीय रिजर्व पुलिस बल, भारतीय तिब्बत बोर्डर पुलिस, सशस्त्र सीमा बल,
राष्ट्रीय सुरक्षा गार्ड एवं पुलिस अनुसन्धान एवं विकास ब्योरो

विषय: – अनुमोदित गुणात्मक आवश्यकता/ परीक्षण निर्देशों का प्रेषण

तकनीकी विशेषज्ञों के उप समूह द्वारा किए गये पुनः सूत्रीकरण एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित “QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 2 & Part – 3 (retro fitment and dual fuel mode) revised earlier on 30.08.2024” के गुणात्मक आवश्यकता/ परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

संलग्न : यथोपरी

आनन्द सिंह
(आनन्द सिंह तक्षक) 21/2/25
उपमहानिरीक्षक (रसद)

प्रतिलिपि: –

- 1 तकनीकी निदेशक : आपसे अनुरोध है कि “QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 2 & Part – 3 (retro fitment and dual fuel mode) revised earlier on 30.08.2024” के पुनः सूत्रीकरण किये गये गुणात्मक आवश्यकता/ परीक्षण निर्देशों को गृह मंत्रालय की वैबसाईट (MHA website Division of MHA – Police Modernization Division – Qualitative Requirements – Qualitative Requirements of Machinery & Eqpt Items with Surveillance item) पर अपलोड करने का श्रम करें।
The Technical Director
राष्ट्रीय सूचना-विज्ञान केन्द्र, नार्थ
ब्लाक, गृह मंत्रालय, नई दिल्ली
NIC, North Block, MHA, New
Delhi
(mpsugandhi@nic.in)
- 2 SO (IT), North Block, MHA : कृपया उपरोक्तानुसार कार्यवाही करने का श्रम करें।
(soit@nic.in)
- 3 तकनीकी विंग, सीमा सुरक्षा बल : कृपया उक्त उपकरण के गुणात्मक आवश्यकता/ परीक्षण निर्देशों को सीमा सुरक्षा बल की वैबसाईट पर अपलोड करने का श्रम करें।
- 4 Sh. Samarth Sharma, : For info with request to upload the approved QRs & TDs of DG Set (5, 7.5, 10, 15, 20 & 30 KVA) Part – 2 & Part – 3 (retro fitment and dual fuel mode) revised earlier on 30.08.2024on GeM Portal. Copy of QRs & TDs is attached with this letter.
Director Nodal Officer for MHA
GeM, 3rd Floor, Jeevan Bharti
Building Canaught Lane, Janpath,
Canaught Place, New Delhi – 11
(directorcategory13@gem.gov.in)
- 5 फाईल

PART-IIQRS/SPECIFICATION FOR CONVERSION OF EXISTING CPCB-II COMPLIANT DG SET INTO DUAL FUEL MODE

DG sets from 25 KVA to 76 KVA Need to be converted to DUAL FUEL MODE for existing Gen Sets which are not compatible to CPCB-IV(only 30 KVA comes).

Scope and Supply Details :-

Supply, Installation, Testing & Commissioning of Dual Fuel kit.

| Sl.no. | Specifications of the item | Trial Directives |
|--------|---|--|
| 1. | Gas train (filter, ZPR, MVDLE)/ -Sequential gas injection system – Parts supplied In Sequential Gas Retro Kit - Gas Controller (ECM), Injector Rail, Changeover Switch, Wiring Harness , Solenoid valve , Gas Filter , MAP sensor , Exhaust Gas Temperature sensor , Knock Sensor , Engine Coolant Temp Sensor , Lambda Sensor , Rubber hoses sets as a complete Kit . | Necessary EU standards or equivalent standard certificates to be provided by OEM. To be checked physically by BOO |
| 2. | Filter-50 micron | -do- |
| 3. | 150 mbar zero pressure regulator / Sequential gas injection system | -do- |
| 4. | Electrically operated slow opening valve –or sequential gas injection system | -do- |
| 5. | Pressure regulator Inlet-2 Bar, Outlet-150m bar or Inlet pressure 500 mbar and Outlet pressure- 150 mbar (As per site requirement)// Sequential gas Injection system | -do- |
| 6. | Pressure gauge 0-500 mbar - .or Sequential gas injection system | To be checked by BOO |
| 7. | Air gas mixer with MAS /- Sequential gas injection system | Govt of India approved certificate is required. Warranty of the item for life time. |
| 8. | Manual adjustment Screw/- Sequential gas injection system | To be checked by BOO |
| 9. | Control panel with touch screen- | To be checked by BOO |
| 10. | PLC /ECM | To be checked by BOO |
| 11. | HMI/ - In Built sequential gas injection system | To be checked by BOO |
| 12. | MCB/Relay/Contractor etc. | To be checked by BOO |
| 13. | Sensors (Gas leakage sensor) | To be checked by BOO |
| 14. | Pressure sensor | Certificate required from OEM. |

VM BSR CRP
 AR BPRD ITBP
 NSI

| | | |
|-----|--|--|
| | <p>0-1 Bar, 0-4 Bar - Vibration sensor 0-2 IPS/Knock sensor- Temperature Sensors Wire Harness as per Engine Control</p> | <p>Certificate required from OEM.</p> |
| 15. | | To be checked by BOO |
| 16. | | To be checked by BOO |
| 17. | | To be checked by BOO |
| 18. | <p>Dual Fuel system comes with an automatic control panel consisting of PLC (Programmable logic Controller) and HMI (Human Machine Interface) . It controls the complete dual fuel kit with no manual intervention. It is a panel box which is mounted on the DG set itself and requires no extra space. It has proper safeties and all sensors are connected in the panel to ensure smooth transition between diesel and dual fuel.</p> | To be checked by BOO |
| 19. | <p>Power supply The system draws its power from the DG set alternator. It does not require any other additional power supply.</p> | To be checked by BOO |
| 20. | <p>Utilities required Requires a gas connection outlet at the top of the DG set. PNG connection at 500 MIBAR pressure will be provided by the user. A flange outlet of the PNG pipe will be required with the following specifications:- ½ or 1 inches flange outlet.- These outlets will be provided near to the DG set on the TOP of the canopy. In case of canopy DG set and in case of an open DG set , the user will provide at 1- 5 feet height from the ground. Floor preparation for installation & Commissioning Nothing is required except for the PNG pipeline outlet. (As per user requirement)</p> | To be checked by BOO |
| 21. | <p>Installation & Commissioning Installation may take a period of 2- 3 days for DG set. Firm will require a downtime of 10-12 hours for 1 DG set during which the DG set won't be allowed to operate. The commissioning would happen after the complete installation. During commissioning firm would run DG set on diesel mode for 1 hour on load. After that firm would optimize the parameters in their software and start the gas for the DG set to run on dual fuel mode. The total commissioning procedure takes 2-3 hours per DG set. Firm requires availability of diesel and load at the time of commissioning.</p> | <p>To be checked by BOO Necessary certificate of testing will have to be provided by the supplier/seller before installation. To be checked by BOO</p> |

AN / NSH


 BSA

 CRP

 AR BPR&D 17BP

| | | |
|-----|---|---|
| 22. | Space requirement for test equipments. | To be checked by BOO |
| | No additional space required. | To be checked by BOO |
| 23. | Civil requirement for test equipments | To be checked by BOO |
| | No civil requirement. Some welding may be required to be done on site for which we would require a welder to be brought from outside for the stand preparation for the gas train incase the DG's do not have the canopy. | To be checked by BOO |
| 24. | Critical spare parts | To be checked by BOO |
| | Pressure regulating valve, solenoid valve, zero pressure regulator, pressure sensors, PLC and HMI. Sequential gas Injection system – Parts supplied in Sequential Gas Retro Kit | Necessary EU standards or equivalent standard certificates to be provided by OEM. |
| | Gas Controller (ECM), Injector Rail, Changeover Switch, Wiring Harness , Solenoid valve , Gas Filter , MAP sensor , Exhaust Gas Temperature sensor , Knock Sensor ,Engine Coolant Temp Sensor , Lambda Sensor , Rubber hoses sets as a complete Kit . | |
| 25. | Safety features | To be checked by BOO |
| | System has inbuilt safeties for engine parameters. It maps the manifold pressure, the gas supply pressure, manifold temperature, exhaust gas temperature , engine vibrations. Incase any parameter goes beyond the specified limits then the system automatically stops the gas flow and the DG set shifts to 100 % diesel and there is no breakdown on the gen set. The panel with IP-56 also has additional safety fuses to ensure that the sensors remain protected. | To be checked by BOO |
| 26. | For retro-fitment emission control device, there is only 1 specification is as under :- | To be checked by BOO |
| | Further the dual fuel system is mandatory in all areas wherever gas pipeline infrastructure is available. While RECD is to be used only in places where there is no gas pipeline infrastructure or in remote areas. Majority all the metro cities fall under the pipeline infrastructure and hence dual fuel system should be fitted on the same whereas remote area DG sets where there is no pipeline laid by the city gas distribution company and incase they refuse to provide the gas, then only the RECD should be fitted. | To be checked by BOO |
| 27. | After sales/service – After sales service will be provided by the supplier firm for at least 24 months (i.e. warranty period) | To be checked by BOO |

| | | |
|-----|--|---|
| 28. | <p>User manual:- Firm will provide user manual/technical manual with details for proper care of retro fitment/RECD.</p> | To be checked by BOO |
| 29. | <p>AMC Firm has to provide AMC of dual fuel mode/RECD kit for at least 4000 hrs or 06 years after installation of RECD whichever is earlier.</p> | To be checked by BOO |
| 30. | <p>Testing :- Following testing agencies are currently approved by the Nodal Agency Central Pollution Control Board (CPCB) for purpose of type approval and subsequently conformity of production verification compliance process and may be revised from time to time.</p> <ul style="list-style-type: none"> a) Automotive Research Association of India (ARAI, Pune) b) International Centre for Automotive Testing (ICAT, Manesar) c) Indian Institute of Petroleum (IIP, Dehradun) d) Vehicle Research Development Establishment (VRDE, Ahmednagar) e) Any testing & certification agency having accreditation from NABL for the parameters referred in "System and procedure for Emission Compliance Testing of Retro-fit emission control devices (RECD) for Diesel Power Generating Set Engines up to Gross Mechanical Power 800 KW" (S & P) and also comply with other requirements of referred S & P. Such testing & certification agencies will provide details of NABL accreditation as well as self-certification of compliance to the requirements of referred S & P to CPCB. The testing & certification agencies shall be mentioned and published by CPCB on its website. | One OEM or importer shall submit application for Type approval to any one of the certification agencies for its families/models out of those approved by Central Pollution Control Board (CPCB) |
| 31. | <p>RECD shall accompanied by the following information :</p> <ul style="list-style-type: none"> a) Manufacturer's name and /or trademark. b) the make and identifying part number of the RECD as recorded in the information document issued in accordance with the model set out. c) The RECD family as defined in clause 4.1.2.2 including year of manufacture, for which the RECD is approved, including , where applicable, a marking to identify if the RECD is suitable for fitting to an engine & family that is equipped with an on-board diagnostic | To be checked physically by BOO |


 B.S.P
 CRF
 AR
 BPR&D
 17BP
 A

| | |
|--|--|
| | (OBD) system. |
| | d) The instruction manual for the retrofit installation. |
| | e) The end user service manual including maintenance instructions. |

Note :- Sl.No.26, 30 & 31 point specification is applicable only when Retro Emission Control Device (RECD) is fitted in existing DG set above 30 KVA capacity. Upto 30 KVA capacity RECD is not required as only conversion to Dual Fuel Mode is applicable.

PART-III

Gas agency and distributors work for installation, commissioning and supply of PNG/CNG/LPG gas connection for DG sets.

- 1) Providing connection from nearest distribution point (PNG/CNG)
- 2) Civil work like laying of pipe line.
- 3) Installation of Gas meter
- 4) Security deposit will be made by the buyer/user with gas agency which is refundable.

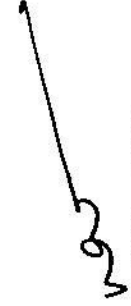

NSG



ITBP

End of part- III


CRPF



BSF


IG (Prov) CRPF


DIG (Prov) CRPF


2-I/C (Prov) CRPF


BPR & D


ADG (HQ) CRPF

Approved / NOT approved

20/3/18

Director General, BSF