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कार्यालयीन उद्देश्य के सभी पत्रादि "मुख्य विस्फोटक नियंत्रक" के पदनाम से भेजे जाए उनके व्यक्तिगत नाम से नहीं.

All communications intended for this Office should be addressed to the 'Chief Controller of Explosives' and NOT to him by name.



भारत सरकार

GOVERNMENT OF INDIA

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन

Petroleum and Explosives Safety Organisation

(पूर्व नाम - विस्फोटक विभाग)

(Formerly- Department of Explosives)

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Seminary Hills, Nagpur- 440006

संख्या /No. C.VIII(3) 125/Circular/Petroleum

दिनांक/Nagpur, dated 21/01/2025

C I R C U L A R

Subject: Installation of Solar panels over the roof of the sales room or over the Canopy of the LNG/CNG/CBG Retail Outlets/Petroleum service stations/ALDS: **Draft Guidelines** regarding

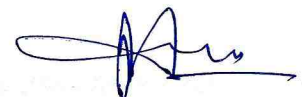
It has come to notice that Oil companies & CGD companies are proposing, for Installation of Solar panels over the Canopy of the CNG Dispensing station /Petroleum Outlets. The matter was referred to PESO committee. As per the committee recommendations and subsequent discussions, the following draft guidelines are proposed.

The Proposals for Installation of Solar panels over the Canopy & sales room of the LNG/CNG/CBG Retail Outlets/Petroleum service stations/ALDS outside the hazardous area shall be approved subject to conditions as under:

- a) The canopy shall not adversely affect the ventilation or access to the equipment. The Canopy heights installed at fuel forecourt shall have at least 300mm clearance from the maximum permitted height recommended by Central Motor Vehicle Rules for the vehicles to be fuelled. The Wind and seismic load for the canopy design shall be considered as per IS: 875 and IS:1893 respectively. The Canopy structure shall be properly earthed as per IS :3043.
- b) The solar power generation system shall can be either on-grid or off grid type. On-grid type solar power generation system shall be approved by the state electricity board and certificate to the effect that the system is safe and reliable for installation and operation shall be submitted for every service station wherein the system is proposed to be installed.
- c) In off-grid type solar power generation system, no sub-station, transformer or lightening arrestor in connection with the said system shall be installed. Battery bank shall be installed in the sales room or in dedicated room in non-hazardous area with adequate ventilation and maintaining adequate safety distances. Circuit breaker shall be installed in between Solar panels and the battery to isolate in case of emergency.

- d) Solar system shall be installed in non-hazardous area and no vent pipes of petroleum storage tanks shall be allowed to terminate atop such canopy.
- e) Vent pipe of the petroleum storage tanks, CNG/CBG cascades shall be minimum 4 metre away from such solar panels.
- f) The solar panel module, connectors, cables, cable glands, junction boxes, earthing, UPS / charge controllers, inverters, breakers, isolators, panels, earthing system, fuses and all other electric / non-electric infrastructure of the system shall be of reputed make, shall conform to BIS standards and shall have BIS certification mark on them.
- g) The structures over which the solar panels will be installed shall be suitably designed by certified, competent structural engineer keeping in view the structural & mechanical integrity and safety of the structure.
- h) Safety and stability certificate issued by a chartered structural engineer for each structure over which the solar panel is proposed to be installed shall be furnished with every application submitted for grant / amendment of the license for the respective service station.
- i) Adequate and dedicated earthing shall be provided for the solar system. All the electrical cabling / wiring shall be underground/ covered in conduit and through ingress protected weather proof enclosure / conduits with no exposure to earth / soil / atmosphere.
- j) Protective devices such as earth insulation resistance, residual current monitoring devices, over current protection devices, ground fault detection devices, surge protection devices, short circuit prevention devices, breakers, isolators, fuses, etc may be provided for safety and interlocked with the system such that in case of any fault they shall be capable of shutting down the entire system.
- k) Standard Operating Procedure for critical inspection, operation & maintenance, troubleshooting and safety shall be in place and strictly adhered at all the times.
- l) The relevant provisions of the Gas Cylinder Rules 2016, Petroleum Rules, 2002 and SMPV Rules 2016 including conditions of Licence shall be strictly complied at all the times.

It is requested to offer your comments on the above draft guidelines. The objections and suggestions may be communicated by 31/01/2025 on email explosives@explosives.gov.in and j.rout@explosives.gov.in with the subject, "Installation of Solar panels over the roof of the sales room or over the Canopy of the LNG/CNG/CBG Retail Outlets/Petroleum service stations/ALDS".



Chief Controller of Explosives

To

- (1) All Circle & Sub-circle offices of PESO.
- (2) All Oil Marketing Companies, CGD companies & other stakeholders (IOCL, BPCL, HPCL, RELIANCE, NARAYANA, MRPL, IGL, MGL, GGL)