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Rorstrom Industries Generator Installation Compliance Report



Perisher Quad Chair

February 2025



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DOCUMENT CONTROL						
Project No:		25001				
Document ID:		25001-REP-001				
REV No	Date	Revision Details	Author	-	-	
00	19/02/25	Original Report	C. Henriksen			

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1.0 Summary of Compliances

Connexion Engineering has been commissioned by Rorstrom Industries to provide a review of the generator installation at Perisher Quad Chair Snow Resort for compliant with relevant Australian and International Standards and Regulations.

Summary:

The diesel-powered Generator Set is a Hyundai 4DW91-29D. The diesel fuel storage system consists of a fully bunded 'belly tank' with a capacity of 80 litres located under the generator engine.

The fuel filling arrangement is located inside the enclosure to prevent fuel spills during refuelling of the unit and all components have adequate protection against mechanical damage and fuel leakage.

The Generator Set and the installation is therefore in compliance with AS/NZS 3010:2017.

The generator and the electrical panel will be installed by licenced electricians in accordance with AS/NZS 3000:2018.

The capacity of stored diesel in the fuel tank is 80 litres and qualifies as Minor Storage as defined in Section 2 of AS 1940:2017.

As per clause 2.2.5.1 the definition of Minor Storage on Open Land having an area greater than 2 ha:

(a) The storage shall be on land that is used, or intended to be used, for agricultural, horticultural, floricultural purposes, including golf courses and national parks.

Table 2.1 in the Standard lists the limit for Minor Storage of C1 Combustible Liquid on Open Land as 10,000 litres.

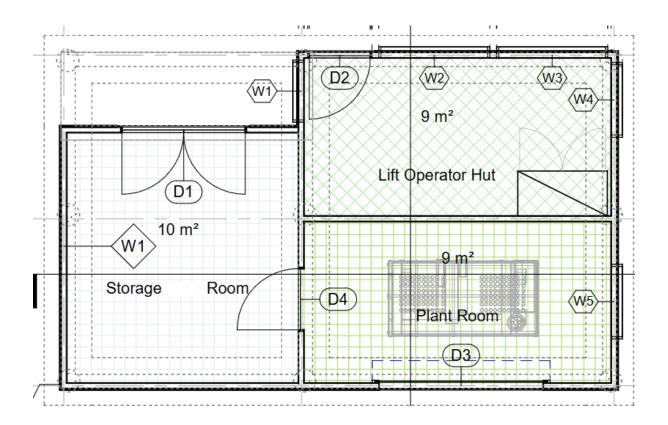
Quantities of flammable and combustible liquids that do not exceed those quantities listed in Table 2.1 are exempted from other sections of AS 1940:2017 including *Section 5.8 Bunds and Compounds* (AS 1940:2017, clause 2.1).

There is no static electricity generated as the whole area is earthed back to ground. Furthermore, the filling rate of the fuel tank from jerry cans does not exceed the flow velocity as per Table 6.2 in AS/NZS 1020:1995 to cause static electricity.

2.0 Generator Location

The genset is located inside the 9m² plant room in the Quad Lift Hut.

There is no storage of flammable or combustible liquids in the adjacent store room or anywhere else at the site. The only combustible liquid stored is inside the bunded 80 litre fuel tank on the genset.



The State Environmental Planning Policies (SEPP) Consolidation was consulted as part of this investigation.

It was found that the generator installation either satisfies the requirements of the SEPP or is not relevant.

The walls separating the generator room from the operators' room and the store room will be upgraded to have a 60/60/60 fire rating for compliance with AS 1940:2017 Table 2.1 *"At commercial buildings, factories, workshops, hospitals and warehouses – Outside the building".*

The selection of the door between the plant room and the storage room will be reviewed to ensure this also has a fire rating of at least 60/60/60.

The storage room will only be used for storage, and will not be used as a workshop or be occupied by any personnel for any other purpose than placing or retrieving products.

The electrical panel will be placed inside the operator's room.

There is no required separation distance for the electrical panel to the genset due to a hazardous area or other standards. The location of the panel in the adjacent room is considered to be safe and practical.

The Generator Set installation at Perisher is therefore compliant with relevant Australian Standards.

Report by:

Carsten Henriksen (BE Mechatronics (hons)) Authorised API 653 Tank Inspector Hazardous Areas Classification Qualified

3.0 Relevant Standards, Codes and Referenced Documents

3.1 Relevant Australian Standards

Reference	Description	
AS 1940:2017 The Storage and Handling of Flammable and Combustible Liquids		

3.2 Relevant Australian/New Zealand Standards

Reference	Description
AS/NZS 1020:1995	Control of Undesirable Static Electricity
AS/NZS 3000:2018	Electrical Installations – Wiring Rules
AS/NZS 3010:2017	Electrical Installations – Generator Sets