

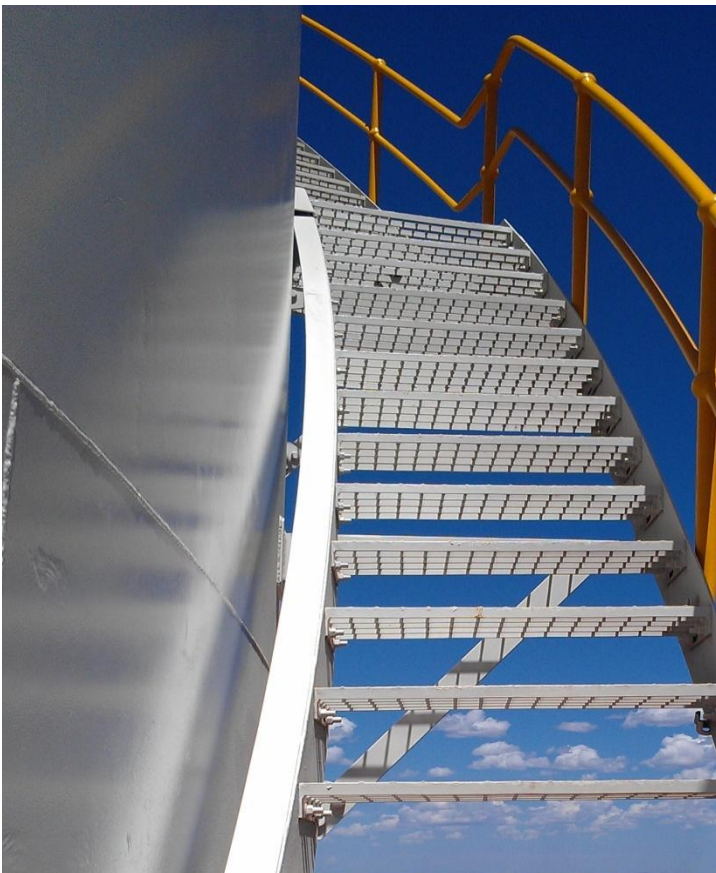
# SEPP Hazardous & Offensive Risk Screening

## Glendenning Road Data Centre

Prepared for: LCI Consultants

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**REVISIONS**

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A	15/10/2024	100% Draft SSDA	Junelle Llorente	Matthew Buttarelli
B	08/11/2024	Final SSDA Issue	Junelle Llorente	Matthew Buttarelli
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## Acronyms

**Table 1 Acronyms**

Acronym	Description
ACOR	ACOR Consultants Pty Ltd
ADG	Australian Dangerous Goods
ADG Code	Australian Code for the Transport of Dangerous Goods by Road & Rail
AS	Australian standard
AS/NZS	Australian/ New Zealand standard
DG	Dangerous Goods
n/a	Not applicable
SSD	State Significant Development
SSDA	State Significant Development Application
WHS	Workplace Health and Safety

## 1 Introduction

### 1.1 Purpose of Report

LCI Consultants (LCI) has engaged ACOR Consultants (ACOR) to undertake a State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021<sup>1</sup> – Potentially Hazardous and Offensive Development Risk Screening for the proposed Glendenning Road Data Centre (SSD-73761707) located at 2 Glendenning Road, Glendenning, NSW 2761.

### 1.2 The Site

The subject site is located at 2 Glendenning Road, Glendenning and is legally described as Lot 2 DP 1137162. It is zoned E4 General Industrial under the *Blacktown Local Environmental Plan 2015*.

The subject site comprises a total area of 10.44ha and exhibits a primary frontage to Glendenning Road at the western boundary for approximately 295m. A secondary frontage to Woodstock Avenue is located along the southern boundary, for a length of approximately 335m.

The subject site comprises three (3) existing warehouse buildings that undertake various operations, including storage and logistics and a transport vehicle centre. The buildings are positioned toward the Glendenning Road frontage and cover approximately one half of the subject site. The remainder of the subject site to the rear is vacant and contains a mix of grass, native vegetation and sporadic trees. A patch of mature native vegetation exists along the southern boundary, which is identified as outstanding biodiversity value. An established landscaping strip is located along the Glendenning Road frontage, providing some screening of the existing buildings.

Vehicle access is obtained via four (4) vehicle crossings off Glendenning Road, which provide separate access for the two (2) large tenants. Vehicle access is also provided off Woodstock Avenue for the southern tenant.

The subject site is traversed by overhead 132kV transmission lines and towers, managed by Endeavour Energy. A drainage reserve also exists directly north of the subject site, which is managed by Blacktown City Council.

The subject site is surrounded by industrial land to the north, west and south (refer to the site context in **Figure 2**). Directly adjoining the subject site to the east is the Nurragingy Reserve, which falls under the jurisdiction of the Western Parklands. The Eastern Creek is located within the reserve and runs along the eastern boundary of the subject site. The closest residential area is located approximately 400m to the west of the subject site on the opposite side of the Westlink M7 Motorway.

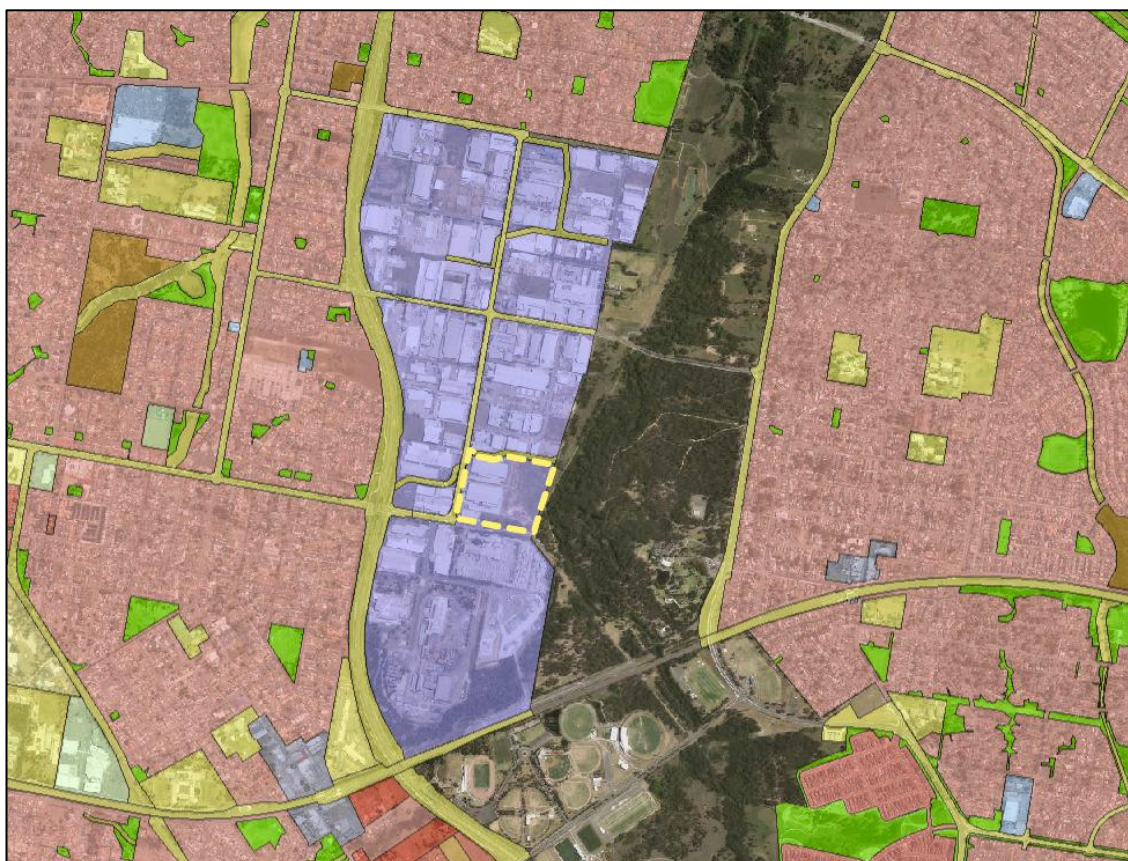
The subject site is depicted in **Figure 1** below.

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<sup>1</sup> Previously known as SEPP 33 – Hazardous and Offensive Development. SEPP 33 has been consolidated into this new policy (Chapter 3) as an administrative function with no policy changes made. All current circulars and guidelines relating to SEPP 33 remain applicable.



**Figure 1. Aerial Map of Subject Site (Source: NearMap, 2024)**



**Figure 2. Site Context and Zoning (Source: Blacktown Local Environmental Plan, 2024)**

### 1.3 Proposed Development

The proposal involves the staged construction and operation of a data centre development, comprising:

- Site preparation and establishment works including:
  - Bulk earthworks to create proposed site levels;
  - In-ground building services and utility work;
  - Clearance of trees and vegetation within the proposed development extent;
- Construction and operation of three data centre buildings, known as DC01, DC02 and DC03, comprising:
  - A total Gross Floor Area (GFA) of 50,233m<sup>2</sup> (DC01 – 19,985m<sup>2</sup>, DC02 – 10,263m<sup>2</sup> and DC03 – 19,985m<sup>2</sup>);
  - A maximum building height of 45.3m, including five storeys for each building;
  - Three internal substations;
  - A total IT capacity of approximately 193.6MW (DC01 – 79.2MW, DC02 – 35.2MW and DC03 – 79.2MW);
- Total diesel fuel storage of 2,338,430L within underground bulk fuel storage tanks, generator day tanks, return fuel tanks and diesel fire pump tanks;
- 97 back-up generators across the full development;
- External plant and equipment (including water tanks and pump rooms);
- Installation of evaporative cooling units;
- Three vehicle crossovers to Glendenning Road and internal access roads;
- Security fencing surrounding the development, including a controlled entry and exit point;
- 165 on-site car parking spaces (including 6 accessible parking spaces and 12 Electric Vehicle (EV) parking spaces);
- Landscaping across the subject site;
- Hours of operation being on a 24 hours per day, seven days per week basis.

The proposed works would be constructed in three stages, as follows:

- **Stage 1:** The first stage would include the construction of DC01, located at the rear of the subject site. The three existing site buildings would be demolished.
- **Stage 2:** The second stage would involve the construction of DC02.
- **Stage 3:** The construction of DC03.

The proposed data centre will include storage and handling of the following dangerous goods:

- Diesel (C1 Combustible Liquid); and
- Lithium-ion Batteries

As part of the proposed development, it has been identified that hazardous materials will be stored within the facility and consideration to determine whether the facility may be a 'Potential Hazardous Industry' as defined by the NSW *Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (2011)* is necessary.

Note: Under the Work Health and Safety Act and Regulation, dangerous goods are termed hazardous chemicals. Australian Standards still use the term 'dangerous goods' when referring to the definitions and classes as set out in the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

## 2 Objective

The objective is to carry out a SEPP Potentially Hazardous and Offensive risk screening assessment to determine if the proposed development would be classified as a potentially hazardous industry under the conditions of State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021 – Potentially Hazardous and Offensive Development.

The risk screening provides a broad estimate of possible off-site consequences arising from hazardous materials stored and handled on site. The risk screening will be based on the quantity of hazardous materials stored (Quantity screening) and the number of transport movements in and out of the site (Transport screening).

## 3 Scope

The scope is to conduct a risk screening, as per the guidelines of Applying SEPP 33 for the proposed DG storage located within the proposed Glendenning Road Data Centre, adhering to Applying SEPP 33 guidelines. This report has been prepared to support the State Significant Development Application (SSDA) for the data centre, specifically addressing the diesel storage tanks and lithium-ion battery rooms.

This document applies the methods in *Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (2011)* for comparison of the screening threshold and whether the hazardous materials stored on site exceed the threshold limits and therefore require a Preliminary Hazard Analysis (PHA).

## 4 Criteria

The review and assessment were carried out based on the criteria of the NSW *Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (2011)*.

## 5 Limitations

ACOR has assessed this application based on the information provided to us for the project in relation to the storage quantities, locations, design layout, etc. It is end user's responsibility to ensure that the installation meets the requirements and initiates the controls as required by the relevant legislation.

This project is limited to the proposed Dangerous Goods (DG) within the proposed data centre development only.

If the proposed development is determined to require a PHA, the preparation of a PHA is separate to this document and should be conducted in accordance with the *Hazardous Industry Planning Advisory Paper No.6 – Hazard Analysis (HIPAP No. 6)* and *Multi Level Risk Assessment* guidance document.

Note: The report and findings are not a substitute for full compliance with Australian Standards and Codes of Practice, the client shall ensure that they maintain their duty of care and consult the relevant legislation and guidelines.

Should the storage conditions or volumes change the contents and findings in the report shall be reviewed, and the risks associated with any change assessed and controlled.

## 6 Methodology

The methodology for the risk screening is to evaluate the proposed development and identify any exceedance in threshold limits as outlined in Applying SEPP 33.

The following steps were undertaken:

- 1 Review of all the hazardous materials proposed to be stored within the facility, their location and quantities.
- 2 Review of the average number of road movements for the hazardous materials to and from the facility.
- 3 Assessment of the quantities and movements identified and comparison to the threshold limits identified in Applying SEPP 33.
- 4 Summarising findings and determining whether a Preliminary Hazard Analysis is required.

## 7 Facility Information

### 7.1 Site Location and Surrounding Area

The location of the proposed facility is shown in Figure 3.



**Figure 3 Site Location**

The subject site is surrounded by industrial land to the north, west and south as shown in Figure 4. Directly adjoining the subject site to the east is the Nurragingy Reserve, which falls under the jurisdiction of the Western Parklands. Eastern Creek is located within the reserve and is located east of the subject site. The closest residential area is located approximately 400m to the west of the subject site on the opposite side of the Westlink M7 Motorway.



**Figure 4 Surrounding Area<sup>2</sup>**

The subject site comprises three (3) existing warehouse buildings that undertake various operations, including storage and logistics and a transport vehicle centre. The buildings are positioned toward the Glendenning Road frontage and cover approximately one half of the subject site. The remainder of the subject site to the rear is vacant and contains a mix of grass, native vegetation and sporadic trees. A patch of mature native vegetation exists along the southern boundary, which is identified as outstanding biodiversity value. An established landscaping strip is located along the Glendenning Road frontage, providing some screening of the existing buildings.

## 7.2 Site Layout

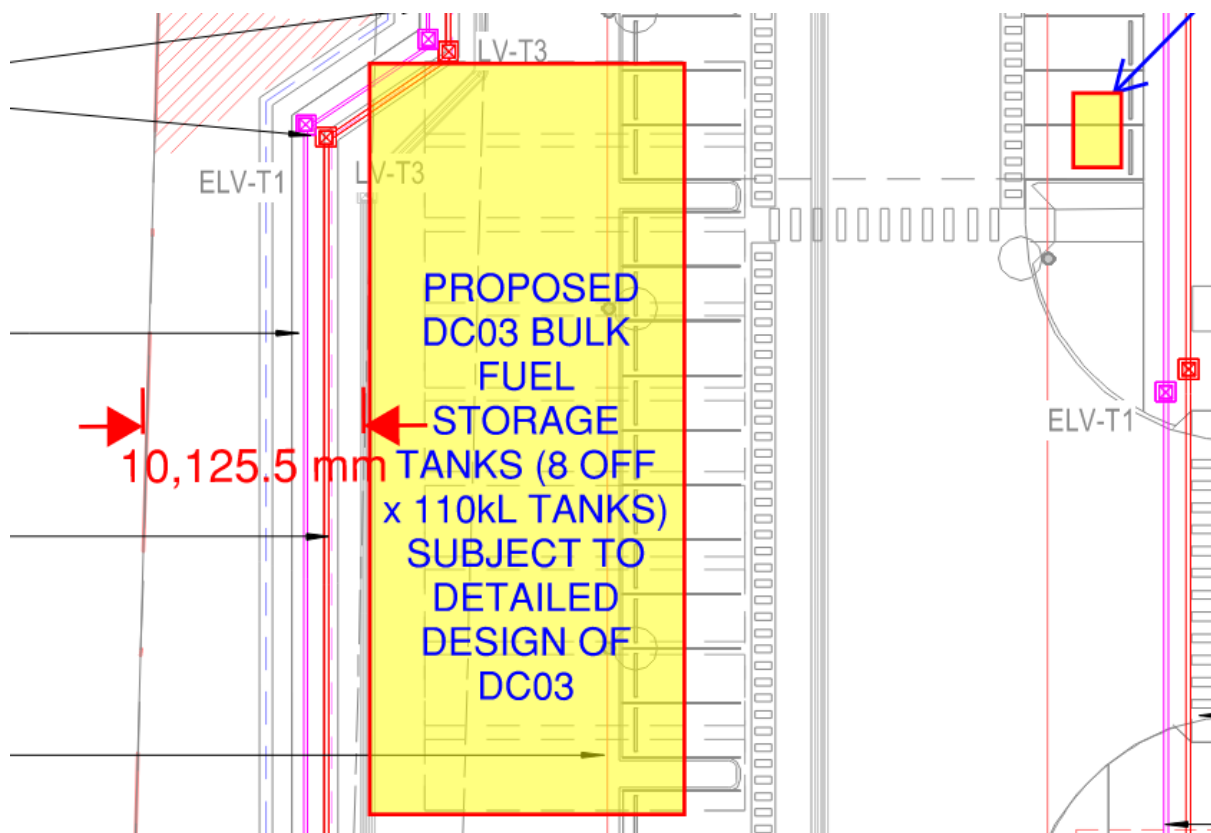
The entire site plan for the proposed Glendenning Data Centre is shown in Appendix A. The building layout for DC01 is shown in Appendix B, which will be constructed as Stage 1, with DC02 and DC03 following a similar configuration for their given building envelopes.

The separation distances from the proposed dangerous goods storage to the site boundary are summarised in and are shown in Table 2 and shown in Figure 5.

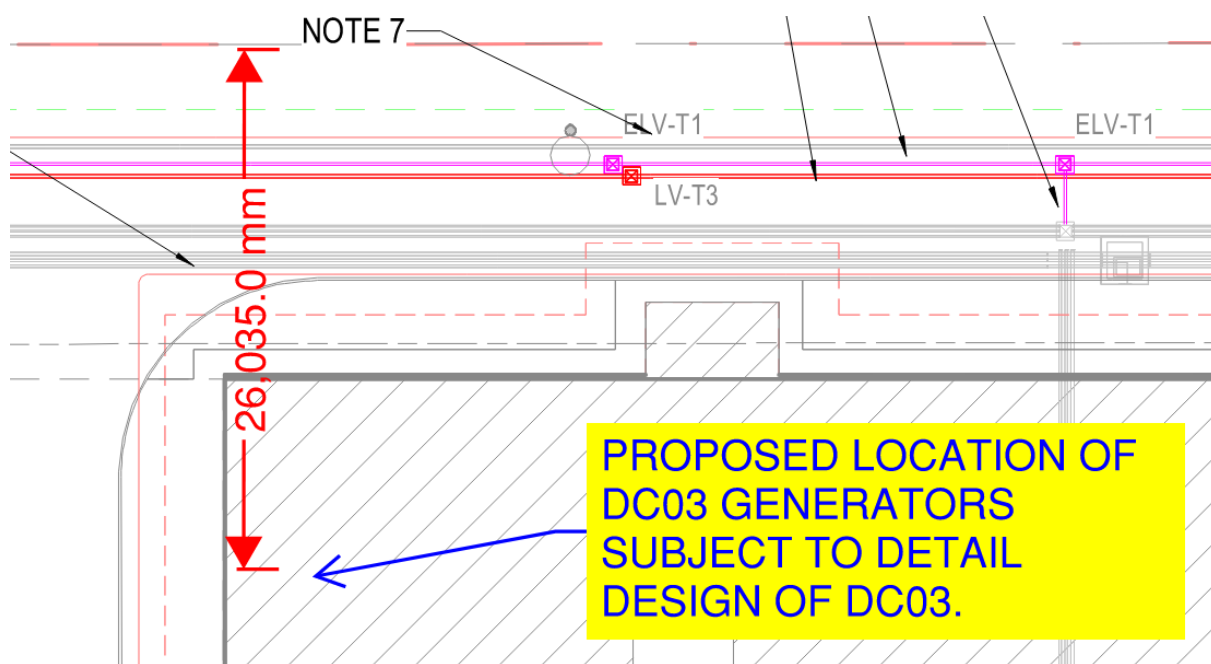
**Table 2 Proposed Dangerous Goods Separation Distances from Property Boundary**

Proposed DG Storage	Distance
Underground tanks	~10m
Day tanks (from generator enclosure)	~26m
Battery room	~34m

<sup>2</sup> Image courtesy of Google Maps © 2024



**Figure 5 Separation distance of the Diesel Underground Bulk Storage Tank to the Property Boundary**



**Figure 6 Separation distance of the Day Tank (i.e. Generator Enclosure) to the Property Boundary**

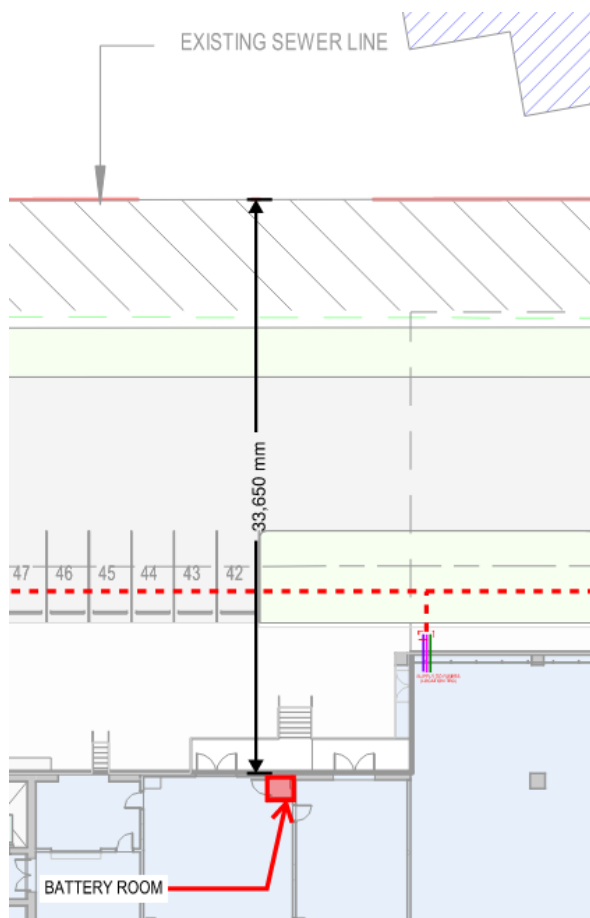


Figure 7 Separation distance of the Battery Room to the Property Boundary

## 8 Risk Screening

### 8.1 Proposed Storage

ACOR understands that the proposed storage of dangerous goods within Glendenning Road Data Centre includes the following:

Table 3 Summary of Proposed Dangerous Goods Storage

Storage Area	Storage Type	Chemical	Class/ Division	Quantity	Unit Capacity	Total Capacity
DC01	Bulk storage tank (Underground)	Diesel	C1	8	110,000 L	880,000 L
	Generator Day Tank			39	990 L	38,610 L
	Return Fuel Break Tank			1	10,000 L	10,000 L

Storage Area	Storage Type	Chemical	Class/ Division	Quantity	Unit Capacity	Total Capacity
	Battery Pallet	Lithium-ion	Non-DG	8	500 kg	4000 kg
DC02	Bulk storage tank (Underground)	Diesel	C1	5	90,000 L	450,000 L
	Generator Day Tank			19	990 L	18,810 L
	Return Fuel Break Tank			1	10,000 L	10,000 L
	Battery Pallets	Lithium-ion	Non-DG	8	500 kg	4000 kg
DC03	Bulk storage tank (Underground)	Diesel	C1	8	110,000 L	880,000 L
	Generator Day Tank			39	990 L	38,610 L
	Return Fuel Break Tank			1	10,000 L	10,000 L
	Battery Pallets	Lithium-ion	Non-DG	8	500 kg	4000 kg
Facility	Fire Pump Tank	Diesel	C1	2	1,200 L	2,400 L
<b>Total Diesel Quantity</b>						2,338,430 L
<b>Total Lithium-ion Battery Quantity</b>						12,000 kg

Additionally, the following proposed battery systems will be installed by the client/ operator within server racks.

**Table 4 List of Lithium-ion Battery Storage in Server Racks (undertaken by the Client/ Operator)**

Battery Type	Power Shelves per Rack	Rating (kW)	Output Voltage (V)	Total Battery Capacity
WMW Samsung	2	2.131	49	4.262
WMW Panasonic	2	2.9	50.4	5.8
RP Panasonic	2	2.7	12	5.4
RP Flextronic	2	2.72	50.4	5.44
RP Lite-on	2	2.557	49	5.114

The lithium-ion batteries noted in Table 3 and Table 4 are not considered as dangerous goods since they are in-use. They remain connected to a circuit, charging continuously to be ready for deployment.

Separate to the batteries that are connected to the circuit and in use, the facilities store new and spent batteries for the server systems within two rooms within each building. Since both new and spent batteries are not in use, they are both considered dangerous goods storage.

**Table 5 List of Spent and New Lithium-ion Storage**

Storage Area	Storage Area Reference	Chemical	Class/ Division	Package size and type <sup>3</sup>	Maximum Quantity (kg) <sup>4</sup>
DC01	New Batteries Store	Lithium-ion	Class 9 (UN3480)	10 kg per battery	4,000
DC02	New Batteries Store			10 kg per battery	4,000
DC03	New Batteries Store			10 kg per battery	4,000
Facility (DC01, DC02 & DC03)	Spent Battery Stores			10 kg per battery	4,990
<b>Total Lithium-ion Battery Quantity</b>					16,990 kg

From the information provided by the tenant and LCI by email on 12/11/2025, the entire facility shall store 4,990 kg or less of spent batteries with the maximum 4,990 kg able to be stored in any one of the data centres or spread across the three.

The spent batteries are to be disposed of as soon as reasonably practical to ensure the 4,990 kg capacity is not breached. Therefore, the Environmental Protection License (EPL) threshold is not expected to be exceeded for the lithium-ion waste storage.

ACOR understands that no other hazardous materials are stored within the proposed storage area.

## 8.2 Proposed Road Movements

It is understood that the frequency of expected deliveries for diesel and lithium-ion will be as follows:

- Batteries delivered initially with no future expected deliveries within 10 years.
- Diesel delivered monthly as required.

It is understood that the peak maximum delivery frequency will occur monthly. This equates to approximately 12 deliveries per year.

## 8.3 Screening Assessment

Figure 8 as shown below (extracted as Table 1 from the SEPP 33 Application Guidelines), indicates that combustible liquids category C1 (diesel) and class 9 dangerous goods are excluded from the risk screening requirements.

<sup>3</sup> Information based on battery storage provided by LCI and the Tenant on 12/11/2025.

<sup>4</sup> A maximum quantity has been nominated by the Tenant and confirmed by LCI on based on 12/11/2025.

**Table 1: Screening Method to be Used**

<b>Class</b>	<b>Method to Use/Minimum Quantity</b>
1.1	Use graph at Figure 5 if greater than 100 kg
1.2-1.3	Table 3
2.1 — pressurised (excluding LPG)	Figure 6 graph if greater than 100 kg
2.1 — liquefied (pressure) (excluding LPG)	Figure 7 graph if greater than 500 kg
LPG (above ground)	table 3
LPG (underground)	table 3
2.3	table 3
3PGI	Figure 8 graph if greater than 2 tonne
3PGII	Figure 9 graph if greater than 5 tonne
3PGIII	Figure 9 graph if greater than 5 tonne
4	table 3
5	table 3
6	table 3
7	table 3
8	table 3

**Figure 8 Extract from SEPP Guideline**

In order to determine whether the proposed development is a potentially hazardous development, the risk screening method described in the SEPP 33 Hazardous and Offensive Development Application Guidelines was applied to the proposed development.

The risk screening is based on the potential for, and consequences of, an explosion, fire, or release of toxic substances. It takes the following factors into account:

- The properties of the substances being handled or stored;
- The conditions of storage or use;
- The quantity involved;
- The location in respect to the site boundary; and
- The surrounding land use.

## 9 Conclusion

As part of the State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021 – Potentially Hazardous and Offensive Development risk screening process for a potentially hazardous industry, the hazardous materials identified for storage are required to be assessed to determine if quantities stored or circumstances of storage require a further Preliminary Hazard Analysis (PHA).

There are no dangerous goods on the site that are included in the threshold values as described in *Applying SEPP 33*. The proposed development is not a potentially hazardous industry, as described by *Applying SEPP 33* and does not require a Preliminary Hazard Analysis to be conducted.

## Appendix A - Overall Site Layout

## Appendix B - Building Layout