Riskcon engineering

State Environmental Planning Policy (Resilience and Hazards)

Lot E, 200 Aldington Road, Kemps Creek

Stockland Fife Kemps Creek Pty Ltd
Document No. RCE-25370_SFKC_SEPP-RH_Final_8Oct25_Rev(0)
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Lot E, 200 Aldington Road, Kemps Creek

Stockland Fife Kemps Creek Pty Ltd

Prepared by

Riskcon Engineering Pty Ltd
37 Pogson Drive
Cherrybrook NSW 2126
www.riskcon-eng.com
ABN 74 626 753 820

Quality Management

Rev	Date	Remarks	Prepared By	Reviewed By
A	11th August 2025	Draft issue for comment	Zia Bohm	Renton Parker
B	1st October 2025	Draft issued for comment – site layout updated		
C	8th October 2025	Draft C issued – minor edits		
0	8th October 2025	Final issued		

Executive Summary

Background

Stockland Fife Kemps Creek Pty Ltd (Fife) is developing two (2) warehouses at Lot E, 200 Aldington Road, Kemps Creek. One warehouse has been allocated to a tenant which will store mainly food and confectionary items and requires a large CO2 based refrigeration system to provide temperature control within the warehouse. CO2 is classified as a Dangerous Good (DG); hence, the site is subject to Chapter 3 of the State Environmental Planning Policy – Resilience & Hazards (SEPP-RH) which is required to demonstrate that the risk profile of the facility is acceptable for the proposed location. The other warehouse is a speculative development; hence, the current tenant is not known; however, it is anticipated that DGs for general warehouse operations may be required and have been allowed for. Lot E is one of multiple lots containing warehouses within the 200 Aldington Rd complex. Thus, the impact of the new warehouse(s) in proximity to other approved warehouses containing DGs is also assessed.

Fife has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare an assessment of the site to determine if it should be deemed potentially hazardous or offensive, thus requiring further assessment.

Conclusions

A review of the quantities of DGs stored at the proposed facility and the associated vehicle movements was conducted and compared to the threshold quantities outlined in “Applying SEPP 33”. The assessment was conducted both for storage and transport for the DGs, as well as for potential to be either hazardous or offensive.

Class 2.2 DGs are excluded from SEPP-33 thresholds. Additionally, the speculated quantities of Class 2.1 DGs (LPG) and Class 3 DGs (flammable liquids) are much lower than the SEPP-33 thresholds. Thus, the criteria of Chapter 3 of SEPP (Resilience and Hazards) are fulfilled and no further assessment is required.

Furthermore, the introduction of the DGs to Lot E will not increase the risk of the entire complex, which includes Lot F, Lot J and Lot K previously assessed by Riskcon, as the quantity of DGs stored at each warehouse does not exceed SEPP-RH thresholds. Additionally, a reivew of the potential to cause offense was conducted which indicated the site operations would be unlikely to result in noise or odour to occur at levels which would cause offense.

As the facility is not considered ‘potentially hazardous’ or ‘potentially offensive’, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of SEPP (Resilience and Hazards) will not apply.

Recommendations

The following recommendations have been made generally for sites storing DGs:

- The DGs shall be stored in a manner which complies with the applicable storage standards (i.e. AS/NZS 1596:2014 or class specific standards such as AS 1940:2017).
- The documentation required by the Work Health and Safety (WHS) Regulation 2017 (Ref. [1][1]) shall be prepared to demonstrate the risks have been assessed and minimised So Far As Is Reasonably Practicable (SFAIRP) as required by the WHS Regulations.

- Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1:2022 (Ref. [2] [2]) shall be prepared to ensure that an ignition source does not enter a hazardous atmosphere as required by the WHS Regulations.

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Abbreviations

Abbreviation	Description
ADG	Australian Dangerous Goods Code
CBD	Central Business District
DGs	Dangerous Goods
LPG	Liquefied Petroleum Gas
PG	Packing Group
PHA	Preliminary Hazard Analysis
RH	Resilience & Hazards
SEPP	State Environmental Planning Policy

1.0 Introduction

1.1 Background

Stockland Fife Kemps Creek Pty Ltd (Fife) is developing two (2) warehouses at Lot E, 200 Aldington Road, Kemps Creek. One warehouse has been allocated to a tenant which will store mainly food and confectionary items and requires a large CO_2 based refrigeration system to provide temperature control within the warehouse. CO_2 is classified as a Dangerous Good (DG); hence, the site is subject to Chapter 3 of the State Environmental Planning Policy – Resilience & Hazards (SEPP-RH) which is required to demonstrate that the risk profile of the facility is acceptable for the proposed location. The other warehouse is a speculative development; hence, the current tenant is not known; however, it is anticipated that DGs for general warehouse operations may be required and have been allowed for. Lot E is one of multiple lots containing warehouses within the 200 Aldington Rd complex. Thus, the impact of the new warehouse(s) in proximity to other approved warehouses containing DGs is also assessed.

Fife has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare an assessment of the site to determine if it should be deemed potentially hazardous or offensive, thus requiring further assessment.

1.2 Scope of Services

The scope of work is to prepare a SEPP-RH assessment for the two (2) warehouses proposed as part of the Lot E, 200 Aldington Road, Kemps Creek development. The assessment does not include any other sites (bar the assessment of risk of the Lot E warhouse in proximity to the existing warehouses) nor the preparation of any additional planning studies should they be required.

2.0 Methodology

2.1 General Methodology

The methodology used in this assessment is as follows:

- Review the types and proposed quantities of DGs to be stored at the site.
- Compare the quantities of DGs the threshold quantities listed in “Applying SEPP 33 – Hazardous and Offensive Development” (Ref. [3]) to identify whether the storage location or quantity triggers SEPP-RH.
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in Applying SEPP 33 (Ref. [3]).
- Report on the findings of the SEPP-RH assessment.

2.2 Application of Chapter 3 of the State Environmental Planning Policy – Resilience & Hazards

State Environmental Planning Policy (Resilience and Hazards) 2021 (which now includes the former SEPP 33) has been developed under the Environmental Planning and Assesment Act 1979 to control potentially hazardous and offensive developments and to ensure appropriate safety features are installed at a faclity to ensure the risks to surrounding land uses is minimised.

The policy includes a guideline that assists government and industry alike in determining whether SEPP-RH applies to a specific development. The guideline, “Applying SEPP 33 - Hazardous and Offensive Developments” (Ref. [3]) provides a list of threshold levels, for the storage of DGs, above which the regulator considers the DG storage to be potentially hazardous. In the event the threshold levels are exceeded, SEPP-RH applies and a Preliminary Hazard Analysis (PHA) is required, followed by a series of hazard analysis studies stipulated by the Department of Planning and Environment in the conditions of consent.

2.3 Data taken from “Applying SEPP 33”

Figure 2-1, extracted from “Applying SEPP 33” provides details on the application of Figures or Tables from the same document to determine the applied screening Threshold (Ref. [3]).

Class	Method to Use/Minimum Quantity
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 2-1: Screening Method to be Used

Table 3 from “Applying SEPP 33” has been extracted and is shown in **Figure 2-2**.

Class	Screening Threshold	Description
1.2	5 tonne	or are located within 100 m of a residential area
1.3	10 tonne	or are located within 100 m of a residential area
2.1	(LPG only — not including automotive retail outlets[1])	
	10 tonne or16 m^3	if stored above ground
	40 tonne or 64 m^3	if stored underground or mounded
2.3	5 tonne	anhydrous ammonia, kept in the same manner as for liquefied flammable gases and not kept for sale
	1 tonne	chlorine and sulfur dioxide stored as liquefied gas in containers <100 kg
	2.5 tonne	chlorine and sulphur dioxide stored as liquefied gas in containers >100 kg
	100 kg	liquefied gas kept in or on premises
	100 kg	other poisonous gases
4.1	5 tonne	
4.2	1 tonne	
4.3	1 tonne	
5.1	25 tonne	ammonium nitrate — high density fertiliser grade, kept on land zoned rural where rural industry is carried out, if the depot is at least 50 metres from the site boundary
	5 tonne	ammonium nitrate — elsewhere
	2.5 tonne	dry pool chlorine — if at a dedicated pool supply shop, in containers <30 kg
	1 tonne	dry pool chlorine — if at a dedicated pool supply shop, in containers >30 kg
	5 tonne	any other class 5.1
5.2	10 tonne	
6.1	0.5 tonne	packing group I
	2.5 tonne	packing groups II and III
6.2	0.5 tonne	includes clinical waste
7	all	should demonstrate compliance with Australian codes
8	5 tonne	packing group I
	25 tonne	packing group II
	50 tonne	packing group III

Figure 2-2: General Screening Threshold Quantities

Transportation screen thresholds have been provided in **Figure 2-3**, based on Table 2 from Ref. ([3]).

	Vehicle Movements		Minimum quantity* per load (tonne)	
	Cumulative	Peak		
Class	Annual *or*	Weekly	Bulk	Packages
1	see note	see note	see note	
2.1	>500	>30	2	5
2.3	>100	>6	1	2
3PGI	>500	>30	1	1
3PGII	>750	>45	3	10
3PGIII	>1000	>60	10	no limit
4.1	>200	>12	1	2
4.2	>100	>3	2	5
4.3	>200	>12	5	10
5	>500	>30	2	5
6.1	all	all	1	3
6.2	see note	see note	see note	
7	see note	see note	see note	
8	>500	>30	2	5
9	>1000	>60	no limit	

Figure 2-3: Transportation Screening Thresholds

3.0 Project Description

3.1 Site Description

Lot E is located at 200 Aldington Road, Kemps Creek which is approximately 52 km west of the Sydney Central Business District (CBD). **Figure 3-1** shows the regional location of the site in relation to the Sydney CBD.

Figure 3-1: Site Location

3.2 Site Background

200 Aldington Rd, Kemps Creek is a bespoke warehouse and distribution centre which represents a contemporary and innovative response to the site operational needs and the logistical requirements for a major national business. The development is comprised of one building containing two warehouses divided by an inter-tenancy wall, It includes on-grade and recessed docks, ancillary offices, car parking, hardstand vehicle parking, is surrounded by perimeter landscaping and visual treatments.

The site is zoned IN1 General Industrial under the Chapter 2 of the State Environmental Planning Policy (Industry and Employment) 2021 (I&E SEPP). Industries (other than offensive or hazardous industries) are permitted with development consent within land zoned IN1. Development for the purpose of a warehouse or distribution centre is defined as a type of 'general industry' and therefore falls within the permissible development of 'industries.

The vision for Lot E, and other lots within the Kemps Creek Industrial Estate, is to create a world class facility for industrial businesses with an emphasis on design quality, sustainability, innovation and a complementary mix of estate occupants.

The warehouse and distribution centre is classified as SSD due to the estimated development cost which is greater than $50 million, as prescribed under Section 12 of Schedule 1 to the State Environmental Planning Policy (Planning Systems) 2021.

3.3 Quantities of Dangerous Goods Stored and Handled

The quantities of DG stored and handled at the site have been summarised in **Table 3-1**. The layout of Lot 3, which consists of Warehouse 4A and 4B, is shown in **Figure 3-2**. The only confirmed DG to be stored within the Lot E site boundaries is the CO_2 associated with the refrigeration system in W4B. The other DGs are speculative due to their common use in regular warehouse operations. The quantities indicated of these DGs are rough estimates and subject to change.

Table 3-1: Quantities of DGs Stored and Handled

Warehouse	Class	DG Description	PG	Quantity (kg or L)
W4A	2.1 (LPG)	Speculated Liquified Petroleum Gas (LPG) storage	n/a	<180
	3	Speculated flammable liquids storage	II & III	250
W4B	2.1 (LPG)	Speculated LPG storage	n/a	<180
	2.2	Carbon dioxide (in refrigeration system)	n/a	3,000

3.4 Major Hazard Facility Review

Where more than one class of dangerous goods are stored and handled at the site an AQR exists. This ratio is calculated using **Equation 3-1:**

$$AQR = \frac{q_x}{Q_x} + \frac{q_y}{Q_y} + [\ldots] + \frac{q_n}{Q_n}$$ **Equation 3-1**

Where:

x,y […] and n are the dangerous goods present

q_x, q_y, […] and q_n is the total quantity of dangerous goods x, y, […] and n present.

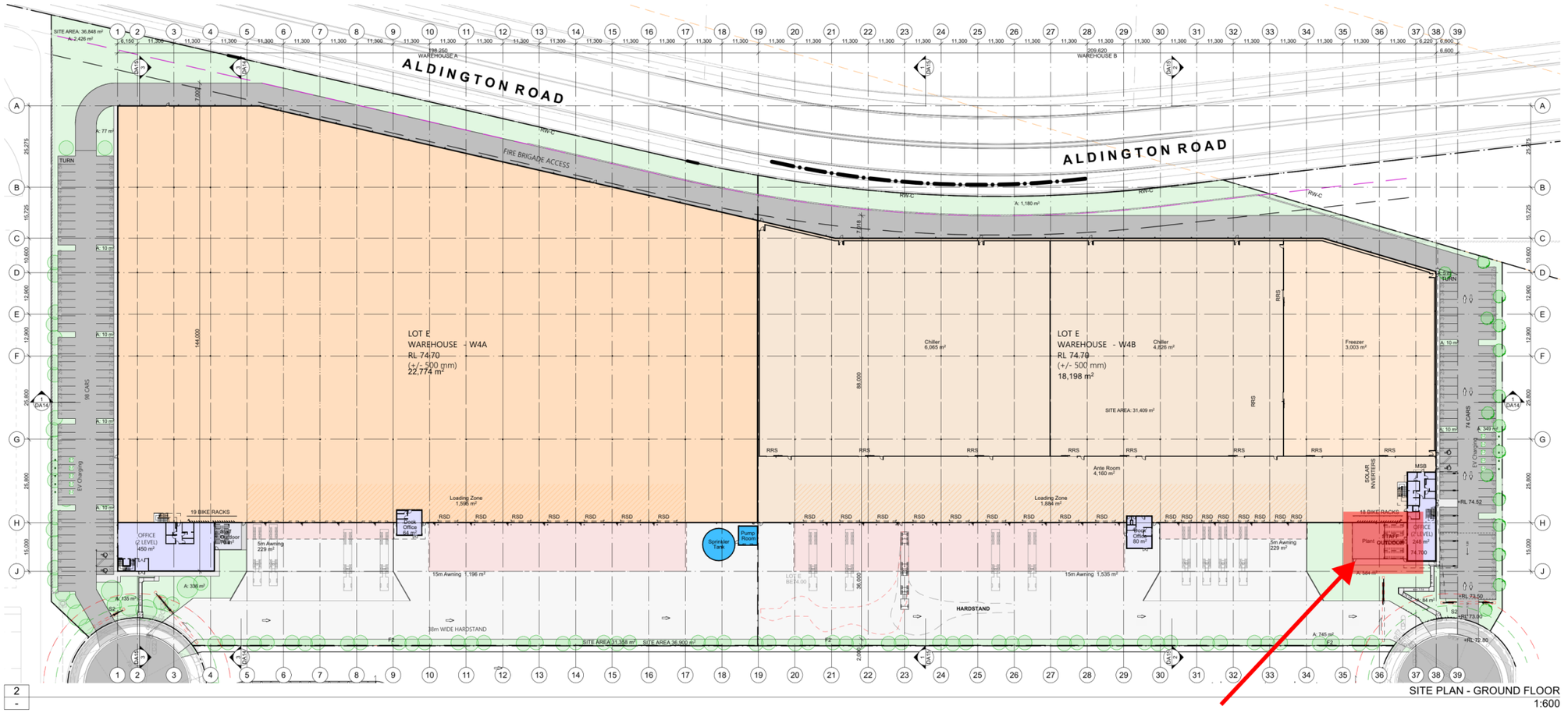
Q_x, Q_y, […] and Q_n is the individual threshold quantity for each dangerous good of x, y, […] and n

Where the ratio AQR exceeds a value of 1, the site would be considered a Major Hazard Warehouse (MHF). The threshold quantity for each class is taken from Schedule 15 of the WHS Regulation (Ref. [1]). These AQR assessment has been summarised in **Table 3-2**.

Table 3-2: Major Hazard Warehouse Thresholds

Class	Packing Group	Quantity (Tonnes)		Quantity Ratio
		Storage	Threshold	
2.1	n/a	0.36	200	0.002
2.2	n/a	3	200	0.015
3	II & III	0.25	50,000	negligible
			AQR	**0.017**

The AQR is <1; hence, the warehouse would not be classified as an MHF.



Plant Room (contains condensors/ compressors with CO_2)

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY DTA ARCHITECTS.

Revision	Amendment	Date	Dwn	Chk
P3	Preliminary Issue	29/05/2025		
P4	Preliminary Issue	11/07/2025		
P5	Preliminary Issue	8/08/2025		
P6	Preliminary Issue	17/09/2025		

Project North:

Client: FIFECAPITAL

DTA ARCHITECTS
suite 1109, 31 lasso road gregory hills nsw 2557
t: +612 9601 1011 | e: admin@dta.net.au | w: www.dta.net.au

Project: PROPOSED INDUSTRIAL WAREHOUSE DEVELOPMENT
Address: D.P 1285691
LOT E - 200 ALDINGTON ROAD KEMPS CREEK NSW 2178
Dwg Name: SITE PLAN - GROUND FLOOR - OVERALL

CAD File: BIMcloud: TeamWorkPC - BIMcloud Basic for Archicad 27\2025.011 FIFE LotE KempsCreek DA01

Nominated Architect	Scale:	Drawn:	Print Date:	Job No.	Drawing No.	Revision
Daniel Donai NSW ARB No. 9068 | ARBV No. 19868	1:600	MS	17/09/2025	2025.011	DA04	P6

Figure 3-2: Site Plan Including Proposed DG Storage Location

4.0 SEPP Review

4.1 Assessment of Hazards

4.1.1 Storage

The only DG confirmed on Lot E grounds is compressed carbon dioxide, which is a Class 2.2 – non-flammable, non-toxic gas. Class 2.2 DGs are not subject to SEPP thresholds (as per **Figure 2-2**, taken directly from 'Applying SEPP 33').

Minor stores of flammable liquids (Class 3) and LPG (Class 2.1) have been identified as likely DGs to be introduced to W4A and W4B when the tenants occupy the space, as these DGs are often used in regular operations works. However, as summarised in **Table 4-1**, the quantities are far below the SEPP-RH thresholds above which a PHA would be required. Thus, no storage of DGs on Lot E grounds is anticipated to exceed SEPP-RH thresholds.

Table 4-1: Quantities Stored in W4A and W4B and SEPP-RH Thresholds

Class	Description	PG	Quantity (kg)		Does SEPP Apply? (Y/N)
			Stored	SEPP Threshold	
2.1	LPG	n/a	360	10,000	N
2.2*	Compressed Carbon Dioxide	n/a	3,000	N/A	N
3	Flammable liquids	II & III	250	5,000	N

*Non-flammable, non-toxic gases are not subject to SEPP-RH.

4.1.2 Transport

Similar to Class 2.2 DGs are not subject to SEPP-RH transport thresholds (as per **Figure 2-3**, taken directly from 'Applying SEPP 33'). Furthermore, to exceed SEPP-RH transport limits for the Class 2.1 and Class 3 DGs, both the quantity and vehicular movement thresholds need to be exceeded. The turnover of DGs required for the quantity and total vehicular movement thresholds to be exceeded would be nonsensical given the proposed DG storage quantities.

It is not anticipated that SEPP-RH transport thresholds will be exceeded, and no further assessment is required..

4.2 Assessment of Offense

SEPP-RH also contains a requirement for review of operations that may cause offense in the form of odour, environmental impact, nuisance (noise), etc. An indication of whether "offensiveness" may occur at the facility is whether an Environmental Protection Authority (EPA) license is required for specific operations at the site (Ref. [4] and [5]).

A review of the facilities operations indicates that there are no processes that would result in the manufacture, production, or transfer of materials in a form that may result in the release of bulk materials at the site or that could result in odour generation or excessive noise. An EPA license would not be required for this site.

Further, there would be no unusual operations that would cause potential odours, or excessive noise in the closest residential areas. Therefore, it is considered that noise generated from the site operations would not exceed the background noise already exposed at residential areas.

In summary, there is no potential for “offensive” operations at the site; therefore SEPP-RH does not apply in this case.

5.0 Assessment of Risk with Adjacent Warehouses

Lot E is one of multiple lots containing DGs within the 200 Arlington Rd, Kemps Creek address. Lot E is immediately adjacent to Lot F. The DGs stored in the warehouses assessed by Riskcon are summarised in **Table 5-1.**

However, as the DGs contained in Lot E do not exceed the SEPP-RH thresholds, there is limited additional risk introduced, insofar as the SEPP-RH thresholds are concerned. Thus, a PHA assessing the risk of the warehouses as a collective is not required.

Table 5-1: DGs Stored in Various Warehouses in the Estate

Lot ID	Class	Description	PG	Quantity (kg)
Lot E (this report)	2.1	Flammable Gas (LPG)	n/a	360
	2.2	Non-Flammable, Non-Toxic Gases	n/a	3,000
	3	Flammable Liquid	II & III	250
Lot F	2.1	Flammable Gas (Excluding LPG)	n/a	162
	2.1	Flammable Gas (LPG)	n/a	2,840
	2.2 (5.1)	Oxygen	n/a	48
	3	Flammable Liquid	II & III	1,250
	8	Corrosive Substances	II	3,500
Lot J	3	Flammable Liquid	II & III	470
	C1	Combustible Liquids	n/a	205
	8	Corrosive Substances	II	205
Lot K	2.1	Flammable Gas (LPG)	n/a	2,500
	C1	Diesel (Fuel)	n/a	45,630
	C1	Diesel (Generator)	n/a	2,500

Furthermore, Lots F, J and K were previously assessed and shown that the quantities stored do not exceed SEPP-RH thresholds, as per the following reports:

- RCE-24293_ SFKC _SEPP-RH_Final_26Feb25_Rev(2) for Lot F;
- RCE-24727_SFKC_SEPP-RH-Final_20Aug24_Rev(0) for Lot J; and
- RCE-25166_SFKC_SEPP-RH_Final_13Jun25_Rev(1) for Lot K.

Thus, the development of Lot E will not increase the risk of the Estate, despite the proximity of the warehouses.

6.0 Conclusion and Recommendations

6.1 Conclusions

A review of the quantities of DGs stored at the proposed facility and the associated vehicle movements was conducted and compared to the threshold quantities outlined in “Applying SEPP 33”. The assessment was conducted both for storage and transport for the DGs, as well as for potential to be either hazardous or offensive.

Class 2.2 DGs are excluded from SEPP-33 thresholds. Additionally, the speculated quantities of Class 2.1 DGs (LPG) and Class 3 DGs (flammable liquids) are much lower than the SEPP-33 thresholds. Thus, the criteria of Chapter 3 of SEPP (Resilience and Hazards) are fulfilled and no further assessment is required.

Furthermore, the introduction of the DGs to Lot E will not increase the risk of the entire complex, which includes Lot F, Lot J and Lot K previously assessed by Riskcon, as the quantity of DGs stored at each warehouse does not exceed SEPP-RH thresholds. Additionally, a reivew of the potential to cause offense was conducted which indicated the site operations would be unlikely to result in noise or odour to occur at levels which would cause offense.

As the facility is not considered ‘potentially hazardous’ or ‘potentially offensive’, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of SEPP (Resilience and Hazards) will not apply.

6.2 Recommendations

The following recommendations have been made generally for sites storing DGs:

- The DGs shall be stored in a manner which complies with the applicable storage standards (i.e. AS/NZS 1596:2014 or class specific standards such as AS 1940:2017).
- The documentation required by the Work Health and Safety (WHS) Regulation 2017 (Ref. [1]) shall be prepared to demonstrate the risks have been assessed and minimised So Far As Is Reasonably Practicable (SFAIRP) as required by the WHS Regulations.
- Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1:2022 (Ref. [2]) shall be prepared to ensure that an ignition source does not enter a hazardous atmosphere as required by the WHS Regulations.

7.0 References

[1] SafeWork NSW, “Work Health and Safety Regulation,” SafeWork NSW, Lisarow, 2017.

[2] Standards Australia, AS/NZS 60079.10.1:2022 - Explosive Atmospheres Part 10.1: Classification of Areas, Explosive Gas Atmospheres, Sydney: Standards Association of Australia, 2022.

[3] Department of Planning, “Applying SEPP 33,” Department of Planning, Sydney, 2011.

[4] “Protection of the Environment Operations (General) Regulation,” 2009.

[5] “Protection of the Environment Operations Act,” 1997.