



State Environmental Planning Policy (Resilience & Hazards)

706-752 Mamre Road, Kemps Creek NSW 2178

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Quality Management

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Executive Summary

Introduction

ISPT Super Property (ISPT), is developing an industrial estate at 706-752 Mamre Road, Kemps Creek. The estate will contain 8 warehouses of varying sizes and a café. The warehouses are yet to be leased. Currently, detailed design approval is being sought for Warehouses 1, 2 and 3 in the SSDA submission and so those warehouses are the focus of this assessment.

Currently all of the warehouses are speculative developments with no assigned tenants. However, the Secretary's Environmental Assessment Requirements (SEARs) requires the preparation of an assessment against Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) to demonstrate the warehouses do not exceed the DG thresholds within Chapter 3 in the event that future tenants require the storage of materials classified as Dangerous Goods (DGs). Where an exceedance occurs, a Preliminary Hazard Analysis (PHA) is required to demonstrate the risks are compliant with the land zoning.

ISPT has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare the SEPP 33 assessments for the sites.

Conclusions

A review of the quantities of DGs proposed to be stored at Warehouse 1, 2 and 3 at 706-752 Mamre Road, Kemps Creek NSW and the associated vehicle movements was conducted and compared to the threshold quantities outlined in "Applying SEPP 33" (Ref. [1]). The results of this analysis indicates the threshold quantities for the DGs to be stored and transported are not exceeded; hence, Chapter 3 of the SEPP does not apply to the project.

As the facility is not classified as potentially hazardous, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of the SEPP does 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 3833:2007 or Class specific standards such as AS 1940:2017).
- The documentation required by the Work Health and Safety (WHS) Regulation 2017 (Ref. [2]) shall be prepared to demonstrate the risks have been assessed and minimised So Far As Is Reasonably Practicable (SFARP) as required by the WHS Regulations.
- Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1:2009 (Ref. [3]) 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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1.0 Introduction

1.1 Background

ISPT Super Property (ISPT), is developing an industrial estate at 706-752 Mamre Road, Kemps Creek. The estate will contain 8 warehouses of varying sizes and a café. The warehouses are yet to be leased. Currently, detailed design approval is being sought for Warehouses 1, 2 and 3 in the SSDA submission and so those warehouses are the focus of this assessment.

Currently all of the warehouses are speculative developments with no assigned tenants. However, the Secretary's Environmental Assessment Requirements (SEARs) requires the preparation of an assessment against Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) to demonstrate the warehouses do not exceed the DG thresholds within Chapter 3 in the event that future tenants require the storage of materials classified as Dangerous Goods (DGs). Where an exceedance occurs, a Preliminary Hazard Analysis (PHA) is required to demonstrate the risks are compliant with the land zoning.

ISPT has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare the SEPP 33 assessments for the sites.

1.2 Scope of Work

The scope of work is to prepare a Chapter 3 SEPP assessment for the proposed Warehouses 1, 2 and 3 at 706-752 Mamre Road, Kemps Creek. Should any additional studies be required (i.e. PHA) these are not included within the scope of works. No other sites are included within the scope of works.

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 against the threshold quantities listed in “Applying SEPP 33 – Hazardous and Offensive Development” (Ref. [1]) to identify whether the storage location or quantity triggers Chapter 3 of the SEPP.
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in Applying SEPP 33.
- Report on the findings of the assessment.

2.2 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 for each class of DG. **Figure 2-2** indicates the general screening thresholds for DG storage (Table 3 from the document) and **Figure 2-3** indicates the general screening thresholds for vehicular movements (Table 2 from the document).

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

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 or 16 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

Class	Vehicle Movements		Minimum quantity*	
	Cumulative Annual	Peak or Weekly	per load (tonne)	
			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 General Description

3.1 Site Location

The site is located at 706-752 Mamre Road, Kemps Creek NSW which is approximately 38 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.

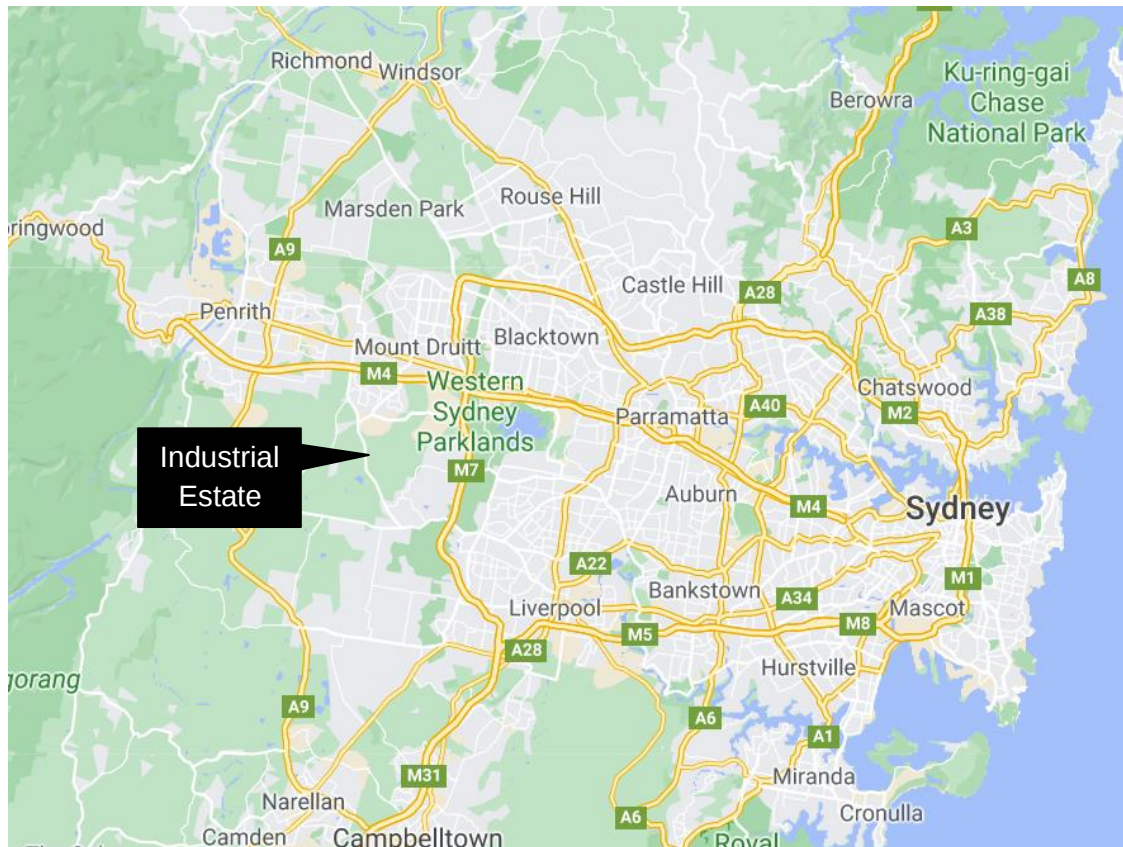


Figure 3-1: Site Location

3.2 Adjacent Land Uses

The warehouses are located within an industrial estate currently being developed by ISPT. The exact nature of the adjacent land uses is not established as tenants are not yet in the warehouses; however, all immediately adjacent uses will be industrial in nature with no sensitive land uses within the estate. It is noted that there are two schools and a retirement village nearby to the North of the estate, situated on Bakers Lane. Given that the results of this assessment indicate that the site is not considered potentially hazardous, these land uses are of no concern and will not be adversely impacted by the site. Similarly, the adjacent land uses will not contribute to an increase in the risk profile of the estate.

3.3 Site Layout

Provided in **Figure 3-2** is the site layout for the industrial estate, with Warehouse 1, 2 and 3 highlighted in orange.

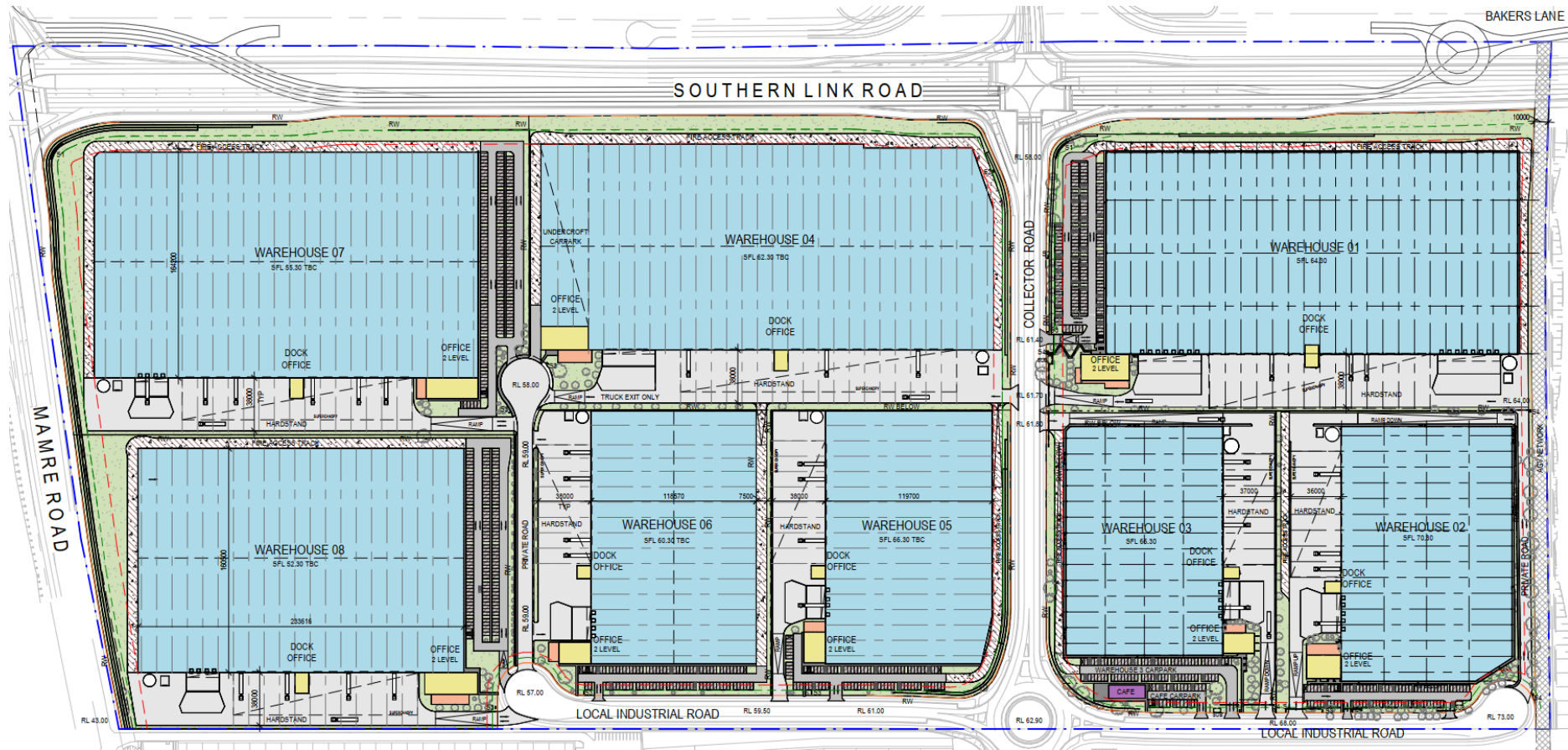


Figure 3-2: Summit at Kemps Creek Site Layout

4.0 SEPP 33 Review

4.1 Introduction

Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) contains the document “Applying SEPP 33” that has been developed under the Environmental Planning and Assessment Act 1979 to control potentially hazardous and offensive developments and to ensure appropriate safety features are installed at a facility to ensure the risks to surrounding land uses are minimised.

The policy includes a guideline that assists government and industry alike in determining whether Chapter 3 of the SEPP applies to a specific development. The guideline, “Applying SEPP 33 - Hazardous and Offensive Developments” (Ref. [1]) 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, Chapter 3 of the SEPP 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.

4.2 Assessment

4.2.1 Description

Despite existing in a single industrial estate, each warehouse can be considered a standalone site for the purpose of assessment against Chapter 3 of the SEPP.

4.2.2 Proposed Storage Details

None of Warehouse 1, 2 or 3 have been allocated to a tenant yet; hence, it would be a speculative development and so the storage commodities are unknown at this stage. Therefore, to provide some flexibility in terms of potential tenants, an assessment has been conducted to provide an allowance for storage of DG commodities as part of the initial Development Application (DA).

Provided in **Table 4-1** is a summary of the DGs proposed to be stored in each tenancy at the facility as part of the site operations.

Table 4-1: DG Classes or Materials Stored and Maximum Quantities at Each Warehouse

Class (PG)	Description	Maximum Quantity (kg)
2.1	Flammable gases (i.e. aerosols)	25,280 / 6,320*
	Flammable gas (LPG)	1,808 / 3,288 L [^]
3 (II & III)	Flammable liquids (e.g. hand sanitisers)	400,000
4.1	Flammable solids (e.g. ethanol wipes)	4,000
5.1	Oxidising substances, excl. ammonium nitrate	4,000
8 (II)	Corrosive substances (e.g. cleaning chemicals)	20,000
8 (III)	Corrosive substances (e.g. cleaning chemicals)	40,000

*Based upon 25% of the aerosol product weight being LPG; [^]Density of LPG is 550 kg/m³

The flammable liquids threshold is based upon the distance to the site boundary, as outlined in **Figure 4-1** below. Based on the storage of 400,000 kg of flammable liquids, a distance of at least

19 m is required. Each warehouse has a minimum distance to the site boundary of approximately 30 m; hence, the requirements of Chapter 3 of the SEPP are met, and the storage would not be considered to be potentially hazardous.

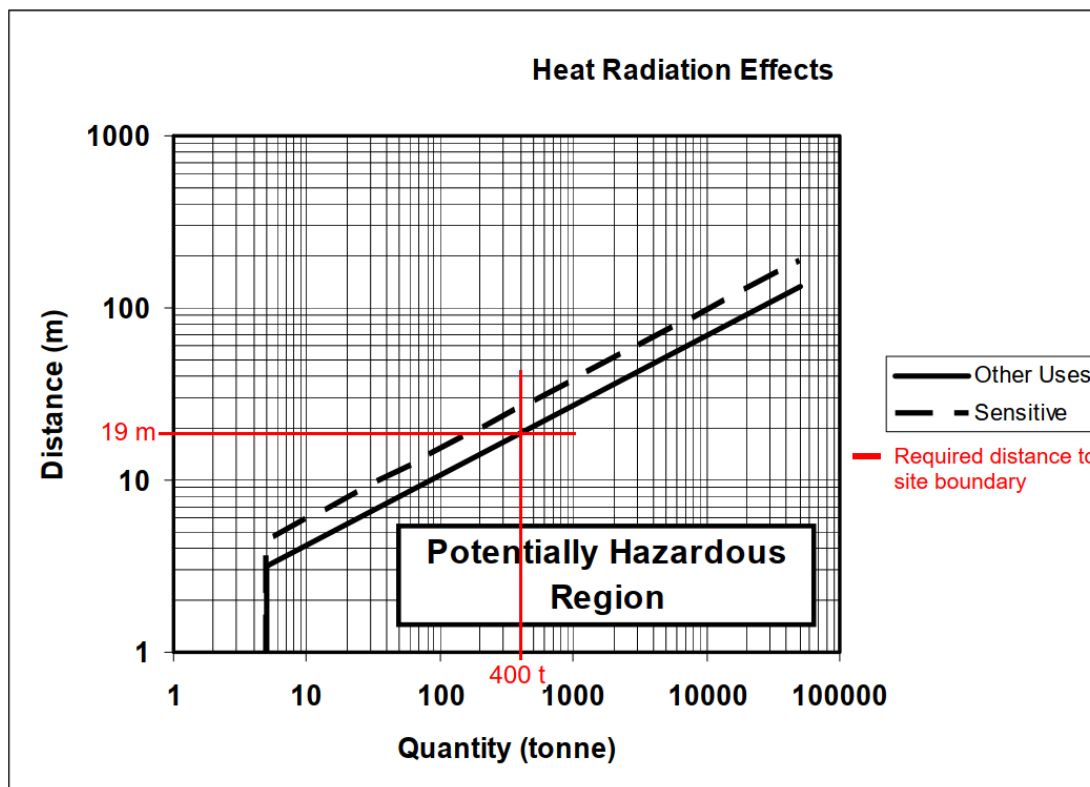


Figure 4-1: Class 3 Separation Distance

4.2.3 Storage Assessment – Warehouse 1

Threshold limits for the application of Chapter 3 of the SEPP are presented in **Table 4-2** indicating the maximum quantity that can be stored on site for each class.

Table 4-2: Quantities Stored and Thresholds for Warehouse 1

Class	Description	Maximum Quantity (kg)	Threshold (kg)	Does SEPP Apply?
2.1	Flammable gases (i.e. aerosols – 6,320 and LPG – 3,288)	9,608	10,000	N
3 (II & III)	Flammable liquids (e.g. hand sanitisers)	400,000	19 m to site boundary (see Figure 4-1)	N
4.1	Flammable solids (e.g. ethanol wipes)	4,000	5,000	N
5.1	Oxidising substances, excl. ammonium nitrate	4,000	5,000	N
8 (II)	Corrosive substances (e.g. cleaning chemicals)	20,000	25,000	N
8 (III)	Corrosive substances (e.g. cleaning chemicals)	40,000	50,000	N

4.2.4 Storage Assessment – Warehouse 2

Threshold limits for the application of Chapter 3 of the SEPP are presented in **Table 4-3** indicating the maximum quantity that can be stored on site for each class.

Table 4-3: Quantities Stored and Thresholds for Warehouse 2

Class	Description	Maximum Quantity (kg)	Threshold (kg)	Does SEPP Apply?
2.1	Flammable gases (i.e. aerosols and LPG)	9,608	10,000	N
3 (II & III)	Flammable liquids (e.g. hand sanitisers)	400,000	19 m to site boundary (see Figure 4-1)	N
4.1	Flammable solids (e.g. ethanol wipes)	4,000	5,000	N
5.1	Oxidising substances, excl. ammonium nitrate	4,000	5,000	N
8 (II)	Corrosive substances (e.g. cleaning chemicals)	20,000	25,000	N
8 (III)	Corrosive substances (e.g. cleaning chemicals)	40,000	50,000	N

4.2.5 Storage Assessment – Warehouse 3

Threshold limits for the application of Chapter 3 of the SEPP are presented in **Table 4-4** indicating the maximum quantity that can be stored on site for each class.

Table 4-4: Quantities Stored and Thresholds for Warehouse 3

Class	Description	Maximum Quantity (kg)	Threshold (kg)	Does SEPP Apply?
2.1	Flammable gases (i.e. aerosols and LPG)	9,608	10,000	N
3 (II & III)	Flammable liquids (e.g. hand sanitisers)	400,000	19 m to site boundary (see Figure 4-1)	N
4.1	Flammable solids (e.g. ethanol wipes)	4,000	5,000	N
5.1	Oxidising substances, excl. ammonium nitrate	4,000	5,000	N
8 (II)	Corrosive substances (e.g. cleaning chemicals)	20,000	25,000	N
8 (III)	Corrosive substances (e.g. cleaning chemicals)	40,000	50,000	N

4.2.6 Transport

The quantities to be stored are less than “Applying SEPP 33” shown in **Figure 2-3** or not applicable; hence, a high turnover of stored product would be required to exceed the transport movements associated with the corresponding storage. This rate of turnover is not credible; hence, it is considered that the transport screening thresholds of “Applying SEPP 33” would not be exceeded and therefore, Chapter 3 of the SEPP would not apply.

4.3 Cumulative Transport Assessment

A review of the warehouses within the industrial estate indicates that even if the sites were all operating with the expected limits of DG storage proposed for each site, the potential to exceed the transport movements of DGs would require a substantial turnover of product which is not considered credible. Therefore, the cumulative assessment of all sites operating would not be considered to exceed the transport thresholds.

5.0 Conclusion and Recommendations

5.1 Conclusions

A review of the quantities of DGs proposed to be stored at Warehouse 1, 2 and 3 at 706-752 Mamre Road, Kemps Creek NSW and the associated vehicle movements was conducted and compared to the threshold quantities outlined in “Applying SEPP 33” (Ref. [1]). The results of this analysis indicates the threshold quantities for the DGs to be stored and transported are not exceeded; hence, Chapter 3 of the SEPP does not apply to the project.

As the facility is not classified as potentially hazardous, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of the SEPP does not apply.

5.2 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 3833:2007 or Class specific standards such as AS 1940:2017).
- The documentation required by the Work Health and Safety (WHS) Regulation 2017 (Ref. [2]) shall be prepared to demonstrate the risks have been assessed and minimised So Far As Is Reasonably Practicable (SFARP) as required by the WHS Regulations.
- Where flammable gases or liquids are stored, a hazardous area classification in accordance with AS/NZS 60079.10.1:2009 (Ref. [3]) shall be prepared to ensure that an ignition source does not enter a hazardous atmosphere as required by the WHS Regulations.

6.0 References

- [1] Department of Planning, "Applying SEPP 33," Department of Planning, Sydney, 2011.
- [2] SafeWork NSW, "Work Health and Safety Regulation," SafeWork NSW, Lisarow, 2017.
- [3] Standards Australia, AS/NZS 60079.10.1:2009 - Explosive Atmospheres Part 10.1: Classification of Areas, Explosive Gas Atmospheres, Sydney: Standards Association of Australia, 2009.