



State Environmental Planning Policy (Resilience and Hazards)

Warehouse 6, 44 Clunies Ross Street, Prospect

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Warehouse 6, 44 Clunies Ross Street, Prospect

ISPT Pty Ltd

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Quality Management

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A	29 June 2022	Draft issue for comment	Renton Parker	Jason Costa
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Executive Summary

Background

ISPT Pty Ltd (ISPT) has proposed to convert Warehouse 6 at 44 Clunies Ross Street, Greystanes into a freezer which would require the installation of an anhydrous ammonia refrigeration system. Anhydrous ammonia is a Class 2.3 toxic gas and is subject to Chapter 3 of the State Environmental Planning Policy - Resilience and Hazards (SEPP-RH), formerly known as the State Environmental Planning Policy No. 33 (SEPP 33) which is a threshold-based risk assessment to determine whether the facility is acceptable for the land use.

ISPT has commissioned Riskcon Engineering Pty Ltd (Riskcon) to prepare a Chapter 3 assessment for the facility to determine whether the risk profile is acceptable for the location. This document represents the SEPP-RH assessment for Warehouse 6 at 44 Clunies Ross Street, Prospect.

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 results of this analysis indicates the threshold quantities for the DGs to be stored and transported are not exceeded; hence, the Chapter 3 of SEPP (Resilience and Hazards) does not apply to the project. Furthermore, a review 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 classified as potentially hazardous or offensive, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of SEPP (Resilience and Hazards) does not apply.

Recommendations

Notwithstanding the above, the following recommendations have been made:

- The Dangerous Goods (DG) shall be stored in accordance with the Work Health and Safety Regulation 2017 and any documentation required by the Regulation shall be prepared prior to occupying the space with DGs.

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Abbreviations

Abbreviation	Description
ADG	Australian Dangerous Goods Code
DA	Development Application
DGs	Dangerous Goods
DPE	Department of Planning and Environment
SEPP	State Environmental Planning Policy

1.0 Introduction

1.1 Background

ISPT Pty Ltd (ISPT) has proposed to convert Warehouse 6 at 44 Clunies Ross Street, Greystanes into a freezer which would require the installation of an anhydrous ammonia refrigeration system. Anhydrous ammonia is a Class 2.3 toxic gas and is subject to Chapter 3 of the State Environmental Planning Policy - Resilience and Hazards (SEPP-RH), formerly known as the State Environmental Planning Policy No. 33 (SEPP 33) which is a threshold-based risk assessment to determine whether the facility is acceptable for the land use.

ISPT has commissioned Riskcon Engineering Pty Ltd (Riskcon) to prepare a Chapter 3 assessment for the facility to determine whether the risk profile is acceptable for the location. This document represents the SEPP-RH assessment for Warehouse 6 at 44 Clunies Ross Street, Prospect.

1.2 Scope of Services

The scope of work is to prepare a SEPP-RH assessment for the facility located at Warehouse 6 at 44 Clunies Ross Street, Prospect. The assessment does not include any other sites or 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. [1]) to identify whether the storage location or quantity triggers SEPP 33.
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in Applying SEPP 33 (Ref. [1]).
- Report on the findings of the SEPP 33 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 (Ref. [1]).

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 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

Transportation screen thresholds have been provided in **Figure 2-3**.

Class	Vehicle Movements		Minimum quantity*	
	Cumulative	Peak	per load (tonne)	
	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 Location and Layout

The proposed warehouse is located at Warehouse 6 at 44 Clunies Ross Street, Prospect which is approximately 31 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 (source Google Maps)

3.2 General Description

The warehouse will function as a freezer for the purposes of cold chain logistics operations. The warehouse will be chilled using an anhydrous ammonia system to provide cooling down to -33°C which will be used to cool the warehouse by chilling air inside penthouses within the warehouse which will circulate into the warehouse providing temperature control.

With the exception of the refrigeration system, the warehouse will function as a standard warehouse in terms of design and construction which will include the main warehouse and operations area, offices and amenities, car parking, fork, roller shutter doors and hardstand area.

A layout of the warehouse within the estate has been provided in



Figure 3-2.



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4.0 SEPP Review

4.1 Proposed Storage Details

The maximum quantities of products and DGs that are to be stored at the facility, are shown in **Table 4-1**. The data has been provided by ISPT for the site modification. Provided in **Table 4-1** is an assessment of whether the Class is subject to SEPP.

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

Class	Description	PG	Quantity (kg)	Class Subject to SEPP 33 (Y/N)
2.3	Anhydrous ammonia	n/a	2,000	Y

4.2 Application of State Environmental Planning Policy No.33 – Hazardous and Offensive Developments

State Environmental Planning Policy No. 33 – Hazardous and Offensive Developments (SEPP 33) has been developed under the 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 is minimised.

The policy includes a guideline that assists government and industry alike in determining whether SEPP 33 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, SEPP 33 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.

4.3 Assessment of Hazards

4.3.1 Storage

Threshold limits for the application of SEPP 33 are presented in **Table 4-2** along with maximum DG quantities that will be stored at the site. The results summarised in the table indicates the SEPP 33 criteria is not exceeded; hence, no further assessment would be required.

Table 4-2: Quantities Stored and SEPP 33 Threshold

Class	Description	PG	Quantity (kg)	SEPP Threshold (kg)	Does SEPP 33 (Y/N)
2.3	Anhydrous ammonia	n/a	2,000	5,000	N

4.3.2 Transport

The DGs stored at the site will be based upon the refrigeration system which is a closed loop system and will not require regular top up s of the system to maintain function. Therefore, other than the initial charging and commissioning of the system, additional anhydrous ammonia deliveries to the site are not expected to occur frequently. Therefore, the transport limits within SEPP 33 would not be exceeded; hence, with respect to transport, SEPP-RH does not apply.

Further, there would be no unusual operations that would cause potential odours, or excessive noise at 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 or noise that has been assessed as part of the estate DA and therefore SEPP 33 does not apply in this case.

5.0 Conclusion and Recommendations

5.1 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 results of this analysis indicates the threshold quantities for the DGs to be stored and transported are not exceeded; hence, the Chapter 3 of SEPP (Resilience and Hazards) does not apply to the project. Furthermore, a review 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 classified as potentially hazardous or offensive, it is not necessary to prepare a Preliminary Hazard Analysis for the facility as Chapter 3 of SEPP (Resilience and Hazards) does not apply.

5.2 Recommendations

Notwithstanding the above, the following recommendations have been made:

- The Dangerous Goods (DG) shall be stored in accordance with the Work Health and Safety Regulation 2017 and any documentation required by the Regulation shall be prepared prior to occupying the space with DGs.

6.0 References

- [1] Department of Planning, "Applying SEPP 33," Department of Planning, Sydney, 2011.
- [2] "Protection of the Environment Operations (General) Regulation," 2009.
- [3] "Protection of the Environment Operations Act," 1997.