Riskcon engineering

State Environmental Planning Policy No. 33

3 Foundation Place, Greystanes

HS Fresh Food Pty Ltd
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HS Fresh Food Pty Ltd

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Rev	Date	Remarks	Prepared By	Reviewed By
A	16th of July, 2021	Draft issued for review	Sarah Torrington	Renton Parker
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Executive Summary

Introduction

HS Fresh Food Pty Ltd (HFF) has proposed to lease a warehouse at 7 Foundation Place, Greystanes to house their manufacturing, storage, and distribution operations. Part of their operations will require the use of materials classified as Dangerous Goods (DGs); hence, the site is subject to the State Environmental Planning Policy No. 33 (SEPP 33) which is a threshold-based risk assessment to determine the potential impact of the site upon adjacent land uses. Where an exceedance occurs, a Preliminary Hazard Analysis (PHA) is required to demonstrate the risks are compliant with the land zoning.

Aliro, on behalf of HFF, has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare the SEPP 33 assessments for the HFF warehouse.

Conclusions

A review of the quantities of DGs proposed to be stored at the warehouse 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, SEPP 33 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 facilty as SEPP 33 does not apply.

Recommendations

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

- 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

HS Fresh Food Pty Ltd (HFF) has proposed to lease a warehouse at 7 Foundation Place, Greystanes to house their manufacturing, storage, and distribution operations. Part of their operations will require the use of materials classified as Dangerous Goods (DGs); hence, the site is subject to the State Environmental Planning Policy No. 33 (SEPP 33) which is a threshold-based risk assessment to determine the potential impact of the site upon adjacent land uses. Where an exceedance occurs, a Preliminary Hazard Analysis (PHA) is required to demonstrate the risks are compliant with the land zoning.

Aliro, on behalf of HFF, has engaged Riskcon Engineering Pty Ltd (Riskcon) to prepare the SEPP 33 assessments for the HFF warehouse.

1.2 Scope of Work

The scope of work is to prepare a SEPP 33 assessment for the proposed warehouse located at 7 Foundation Place, Greystanes. 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 SEPP 33.
- Review the likely vehicular movements involving DGs and compare against the applicable thresholds detailed in Applying SEPP 33.
- 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 for each class of DG. **Figure 2-2** indicates the SEPP 33 general screening thresholds for DG storage (Table 3 from the document) and **Figure 2-3** indicates the SEPP 33 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 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

	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 SEPP 33 Review

3.1 Introduction

State Environmental Planning Policy No. 33 – Hazadous and Offensive Developments (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 are 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, Industry, and Environment in the conditions of consent.

3.2 Proposed Storage Details

Provided in **Table 3-1** is an assessment of whether the Class is subject to SEPP 33.

Table 3-1: DG Classes or Materials Stored and Maximum Quantities

Class	Description	PG	Quantity (kg)	Class Subject to SEPP 33 (Y/N)
2.1	Acetylene	n/a	50	Y
2.2	Non-flammable, non-toxic gases	n/a	200	N
2.3	Anhydrous Ammonia	n/a	500	Y
3	Flammable liquids	II & III	3,000	Y
5.1	Oxygen	n/a	50	Y
5.2	Organic peroxide	III	1,000	Y
8	Corrosive substances	III	20	Y

3.2.1 Storage

Threshold limits for the application of SEPP 33 are presented in **Table 3-2** along with maximum DG quantities that will be stored. Based upon the assessment, no class exceeds the accepable threshold therefore SEPP 33 would not apply to the facility.

Table 3-2: Quantities Stored and SEPP 33 Threshold

Class	Description	PG	Quantity (kg)	SEPP Threshold (kg)	Does SEPP 33 (Y/N)
2.1	Acetylene	n/a	50	100	N
2.3	Anhydrous Ammonia	n/a	500	5,000	N
3	Flammable liquids	II & III	3,000	5,000	N
5.1	Oxidising agent	III	50	5,000	N

Class	Description	PG	Quantity (kg)	SEPP Threshold (kg)	Does SEPP 33 (Y/N)
5.2	Organic peroxide	III	1,000	10,000	N
8	Corrosive substances	III	20	50,000	N

3.2.2 Transport

The quantities to be stored are less than 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 SEPP 33 would not be exceeded and therefore, SEPP 33 would not apply.

4.0 Conclusion and Recommendations

4.1 Conclusions

A review of the quantities of DGs proposed to be stored at the warehouse 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, SEPP 33 does not apply to the project.

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4.2 Recommendations

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

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5.0 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.