



BLACKIE MENDHAM
Industrial Fire and Risk Engineering

State Environmental Planning Policy No. 33 Assessment

Bringelly Road Business Park

Commercial & Industrial Property
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Commercial & Industrial Property

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Abbreviations

Abbreviation	Description
ADG	Australian Dangerous Goods Code
BMPL	Blackie Mendham Pty Ltd
DG	Dangerous Goods
PHA	Preliminary Hazard Analysis
SEPP 33	State Environmental Planning Policy No. 33

Executive Summary

Background

Commercial & Industrial Property (CIP) proposes to develop a warehouse located within the Bringelly Road Business Park to house the Nulon Products Australia Pty Ltd (Nulon) operations. Nulon produces combustible liquid oils and lubricants for the automotive industry and also receives and stores aerosol products as part of their operations.

While combustible liquids are not classified as Dangerous Goods (DG), the aerosols are classified as Class 2.1 DGs therefore it is necessary to perform a State Environmental Planning Policy No. 33 (SEPP 33) assessment to assess the potential risk of the facility and to determine whether additional risk assessment in the form of a Preliminary Hazard Analysis (PHA) would be required.

CIP has commissioned Blackie Mendham Pty Ltd (BMPL) to prepare a SEPP 33 assessment for the proposed warehouse development.

Conclusions

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

1.0 Introduction

1.1 Background

Commercial & Industrial Property (CIP) proposes to develop a warehouse located within the Bringelly Road Business Park to house the Nulon Products Australia Pty Ltd (Nulon) operations. Nulon produces combustible liquid oils and lubricants for the automotive industry and also receives and stores aerosol products as part of their operations.

While combustible liquids are not classified as Dangerous Goods (DG), the aerosols are classified as Class 2.1 DGs therefore it is necessary to perform a State Environmental Planning Policy No. 33 (SEPP 33) assessment to assess the potential risk of the facility and to determine whether additional risk assessment in the form of a Preliminary Hazard Analysis (PHA) would be required.

CIP has commissioned Blackie Mendham Pty Ltd (BMPL) to prepare a SEPP 33 assessment for the proposed warehouse development.

1.2 Scope of Services

The scope of work is for a SEPP 33 assessment of the warehouse to be located within the Bringelly Road Business Park to determine whether the SEPP 33 policy applies. The assessment does not include any other sites or the preparation of any other 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 as a result of DGs being stored and compared 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.

- LPG is classified as a Class 2.1 gas; hence, Table 3 shall be used.
- The combustible liquids are not stored with other flammable liquids; hence, are considered to not be potentially hazardous under SEPP 33 and not assessed.

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 3-3**.

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')	
	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

Note: The classes used are those referred to in the Australian Dangerous Goods Code and are explained in Appendix 7.

Figure 2-3: General Screening Threshold Quantities

3.0 SEPP 33 Review

3.1 Proposed Storage Details

The maximum quantities of products and DGs that are to be stored at the warehouse, are shown in **Table 3-1**. The data has been taken from existing site operations with allowance for a level of inventory growth into the future.

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

Class	Description	PG	Quantity (L or kg)
2.1	Aerosols	n/a	35,000 L
C1	Combustible liquids	n/a	1,066,025 L

3.1.1 Classification of Stored Products

The Australian Dangerous Goods Code (ADG, Ref. [2]) provides a list of materials which are classified as DGs under the requirements of the code. The goods to be stored are classified as DGs by the ADG with the exception of the combustible liquid products. Therefore, the materials classified as DGs are subject to the assessment requirements of SEPP 33. As the combustible liquid products are not DGs they have not been carried forward for further assessment.

3.2 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.

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. The results summarised in the table indicates the SEPP 33 criteria is not exceeded; hence, no further assessment would be required.

Table 3-2: Quantities Stored and SEPP33 Threshold

Class	Description	PG	Quantity (kg)	SEPP 33 Threshold (kg)	Does SEPP 33 Apply?
2.1	LPG Cylinders	n/a	8,750*^	10,000 kg	No

*Assumed density of an aerosol is of 1,000 kg/m³

^Approximately 25% of an aerosol can is propellant (LPG); hence, only this component of the aerosol has been considered for assessment against SEPP 33

3.2.2 Transport

Table 2 from Applying SEPP 33 has been extracted and reproduced in **Figure 3-2**. This table indicates for a Class 2.1 gas, the maximum movements for packages (exceeding a delivery load of 5 tonnes) is 30 movements.

5 tonnes of LPG would result in a >50% turnover of total product stored at the facility in one movement. Therefore, it is likely that all movements of aerosols at the facility would be <5 tonnes per movement. Therefore, based on the quantity of product stored, it is not conceivable for the facility to exceed the movement limits for Class 2.1.

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 3-2: Transportation Screening Thresholds

4.0 Conclusion and Recommendations

4.1 Conclusions

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

5.0 References

- [1] Department of Planning, "Applying SEPP 33," Department of Planning, Sydney, 2011.
- [2] National Transport Commission (NTC), "Australian Code for the Transport of Dangerous Goods by Road & Rail, 7th Edition," 2011.