Riskcon engineering

# State Environmental Planning Policy No. 33

## Lot 2A and 2B Oakdale South Estate, Horsely Park

Goodman Limited
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# State Environmental Planning Policy No. 33

Lot 2A and 2B Oakdale South Estate, Horsely Park

Goodman Limited

Prepared by

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## Quality Management

| Rev | Date | Remarks | Prepared By | Reviewed By |
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# Executive Summary

## Introduction

Goodman Limited (Goodman) seeks approval for a concept masterplan for the future development of Lot 2A and Lot 2B within the Oakdale South Estate, Horsley Park. It is proposed for Lot 2A to contain two warehouses, with one having dual tenancy, and for Lot 2B to contain one warehouse with dual tenancy, overall amounting to five (5) separate tenants. Currently all the warehouses are speculative developments with no assigned tenants. However, the Secretary's Environmental Assessment Requirements (SEARs) for SSD6917 requires the preparation of a State Environmental Planning Policy No. 33 (SEPP 33) to demonstrate the warehouses do not exceed SEPP 33 were future tenants to 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.

It is noted that while there are a number of lots within the estate, the approval is only sought for construction of warehouses on Lot 2A and Lot 2B. As no tenants have been allocated, it has been proposed to prepare a SEPP 33 assessment for each warehouse to provide an allowance of DGs within each warehouse to provide flexibility in leasing options. Goodman 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 Lot 2A and Lot 2B of the Oakdale South Estate in Horsley Park, 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, 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:

- Flammable liquids shall not be stored within 15 m of the intertenancy wall for Warehouse 2A-1 and 2A-2
- Flammable liquids shall not be stored within 21 m of the intertenancy wall for Warehouse 2B-1 and 2B-2.
- 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

Goodman Limited (Goodman) seeks approval for development of Lot 2A and Lot 2B within the Oakdale South Estate, Horsley Park. It is proposed for Lot 2A to contain two warehouses, with one having dual tenancy, and for Lot 2B to contain one warehouse with dual tenancy, overall amounting to five (5) separate tenants. Currently all the warehouses are speculative developments with no assigned tenants. However, the Secretary's Environmental Assessment Requirements (SEARs) for Oakdale South Estate, SSD6917, requires the preparation of a State Environmental Planning Policy No. 33 (SEPP 33) to demonstrate the warehouses do not exceed SEPP 33 were future tenants to 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.

It is noted that while there are a number of lots within the estate, the approval is only sought for construction of warehouses on Lot 2A and Lot 2B. As no tenants have been allocated, it has been proposed to prepare a SEPP 33 assessment for each warehouse to provide an allowance of DGs within each warehouse to provide flexibility in leasing options. Goodman 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 SEPP 33 assessment for the proposed warehouses to be constructed on Lot 2A (two warehouses, one with dual tenancy) and Lot 2B (one warehouse with dual tenancy) at the Oakdale South Estate, Horsley Park NSW. 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* | |
|---|---|---|---|---|
| | Cumulative | Peak | per load (tonne) | |
| 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 General Description

## 3.1 Site Location

The site is located at Oakdale South Estate, Horsley Park NSW which is approximately 38 km northwest 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 Goodman. The exact nature of the adjacent land uses are not established as tenants are not yet in the warehouses; however, all adjacent uses will be industrial in nature with no sensitive land uses within the vicinity.

## 3.3 Site Layout

Provided in **Figure 3-2** and **Figure 3-3** are the site layouts for Lot 2A and Lot 2B of the Oakdale South Estate, respectively. Marked in red are the proposed storage locations for flammable liquids (Class 3) in order to optimise the capacity for DG storage in accordance with Applying SEPP 33 (Ref. [1]).

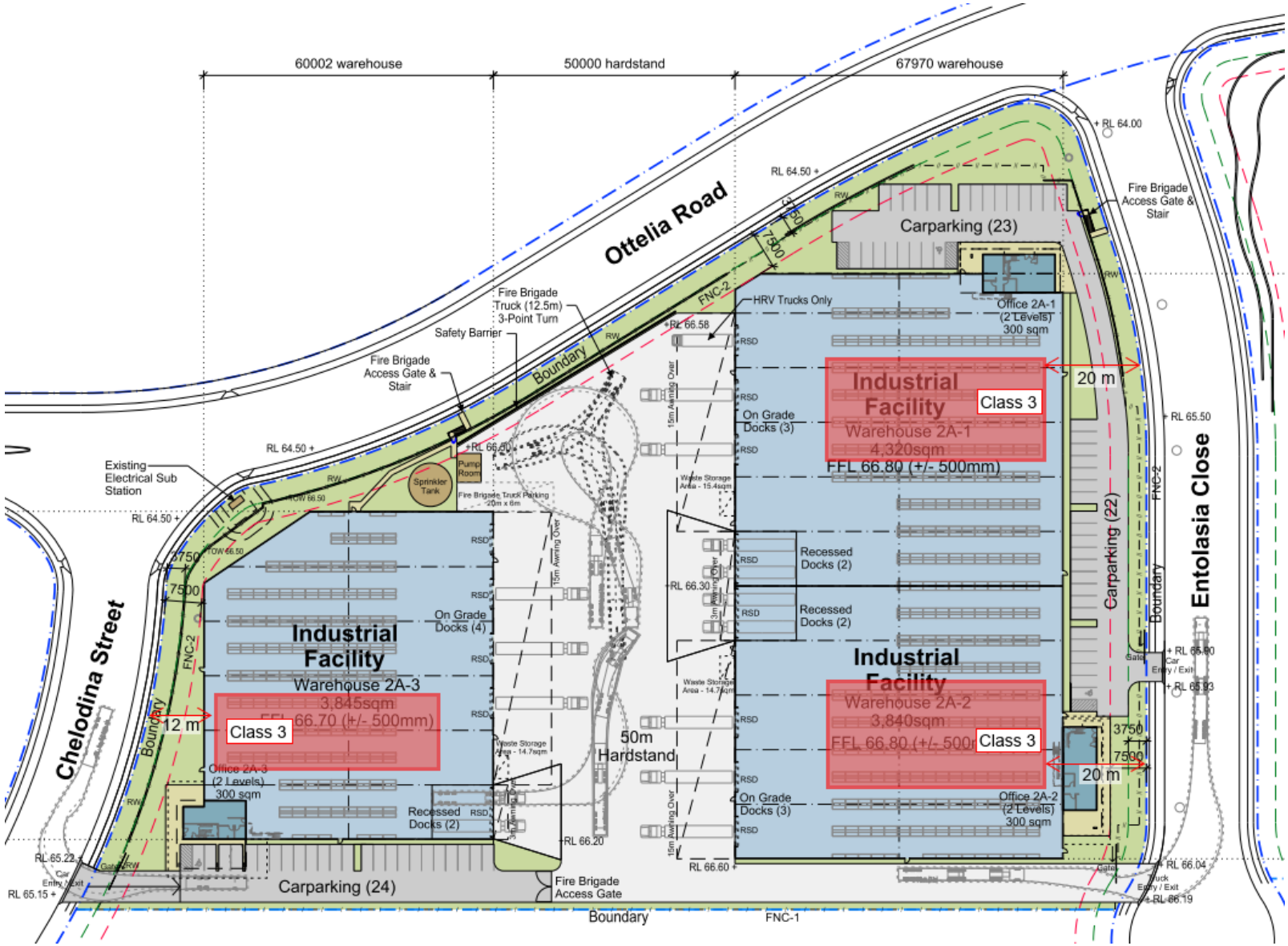


**Figure 3-2: Lot 2A Oakdale South Estate Site Layout**

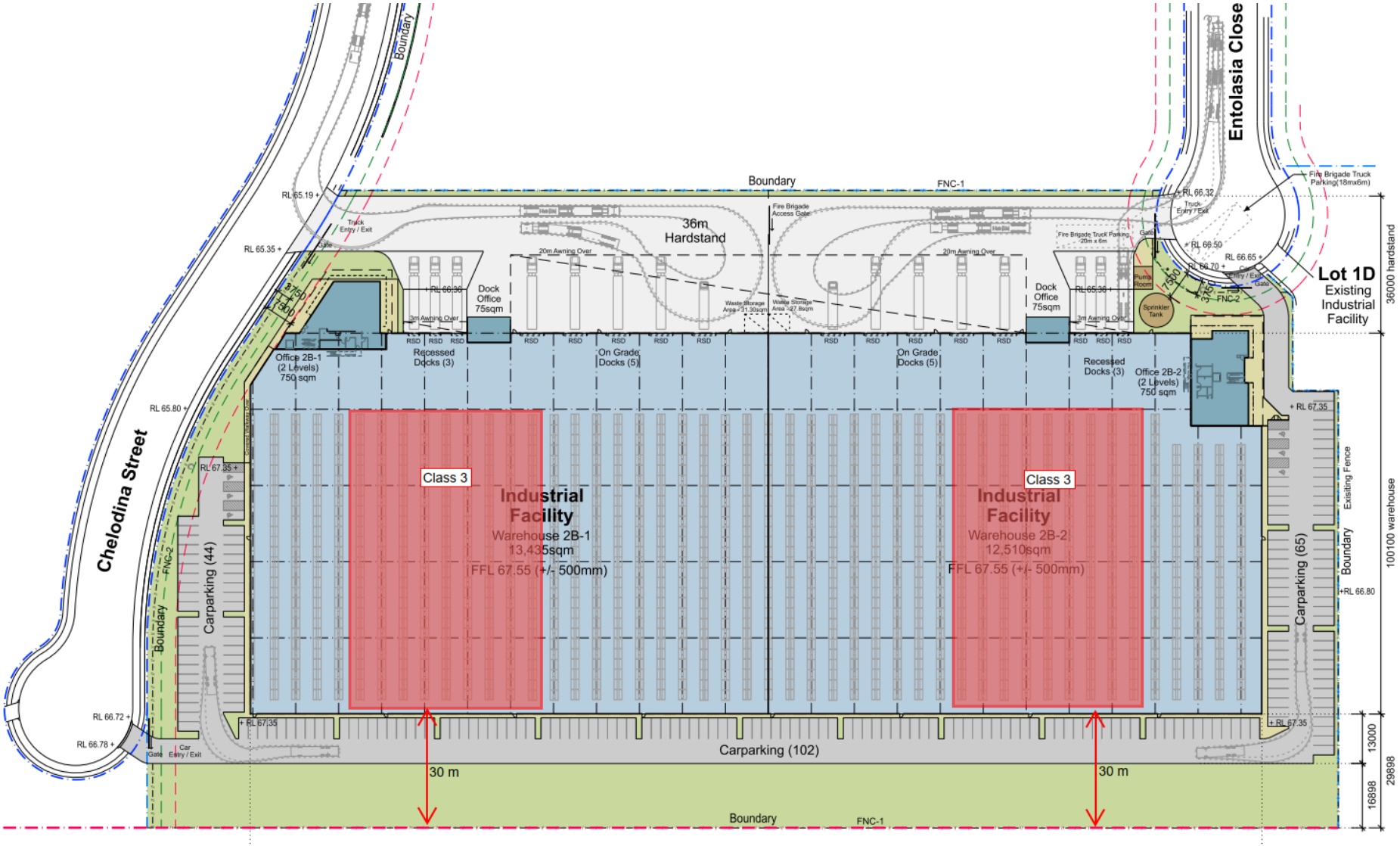


**Figure 3-3: Lot 2B Oakdale South Estate Site Layout**

# 4.0 SEPP 33 Review

## 4.1 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.

## 4.2 Lot 2A – Warehouse 1 & 2

### 4.2.1 Description

Lot 2A contains two warehouses, one standalone warehouse and one with dual tenancy. The dual tenancy warehouse, 2A-1 and 2A-2, requires SEPP 33 assessment as a whole; as such, the SEPP 33 DG storage quantities have been divided evenly amongst the two tenancies for the purposes of this assessment. The closest site boundary for each warehouse would be the wall separating the two tenancies.

### 4.2.2 Proposed Storage Details

Neither Warehouse 2A-1 nor 2A-2 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, a SEPP 33 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** and **Table 4-2** are 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 Warehouse 2A-1**

| Class (PG) | Description | Maximum Quantity (kg) |
|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols) | 12,640 / 3,160* |
| 2.1 | Flammable gas (LPG) | 840 / 1,644 L^ |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 200,000 |
| 4.1 | Flammable solids (e.g. ethanol wipes) | 2,000 |
| 5.1 | Oxidising substances, excl. ammonium nitrate | 2,000 |
| 8 (II) | Corrosive substances (e.g. cleaning chemicals) | 10,000 |
| 8 (III) | Corrosive substances (e.g. cleaning chemicals) | 20,000 |

*Based upon 25% of the aerosol product weight being LPG; ^Density of LPG is 550 kg/m$^3$

**Table 4-2: DG Classes or Materials Stored and Maximum Quantities at Warehouse 2A-2**

| Class (PG) | Description | Maximum Quantity (kg) |
|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols) | 12,640 / 3,160* |
| 2.1 | Flammable gas (LPG) | 840 / 1,644 L^ |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 200,000 |
| 4.1 | Flammable solids (e.g. ethanol wipes) | 2,000 |
| 5.1 | Oxidising substances, excl. ammonium nitrate | 2,000 |
| 8 (II) | Corrosive substances (e.g. cleaning chemicals) | 10,000 |
| 8 (III) | Corrosive substances (e.g. cleaning chemicals) | 20,000 |

*Based upon 25% of the aerosol product weight being LPG; ^Density of LPG is 550 kg/m$^3$

The flammable liquids threshold is based upon the distance to the site boundary, as outlined in **Figure 4-1** below. Based on the combined storage of 400,000 kg of flammable liquids, a distance of at least 19 m is required. Both warehouses 2A-1 and 2A-2 have a minimum distance to the site boundary of 20 m, as depicted in **Figure 3-2**; hence, the requirements of SEPP 33 are met and the storage would not be considered to be potentially hazardous.

There is also a requirement to assess the flammable liquids stores for each of the individual tenancies to ensure that the distance from these stores to the intertenancy wall does not exceed the SEPP 33 threshold. Based on 200,000 kg of flammable liquids being stored in both tenancies, the minimum distance required to the intertenancy wall would be 15 m, as shown in **Figure 4-2**. Therefore, the following recommendation has been made:

- Flammable liquids shall not be stored within 15 m of the intertenancy wall for Warehouse 2A-1 and 2A-2.

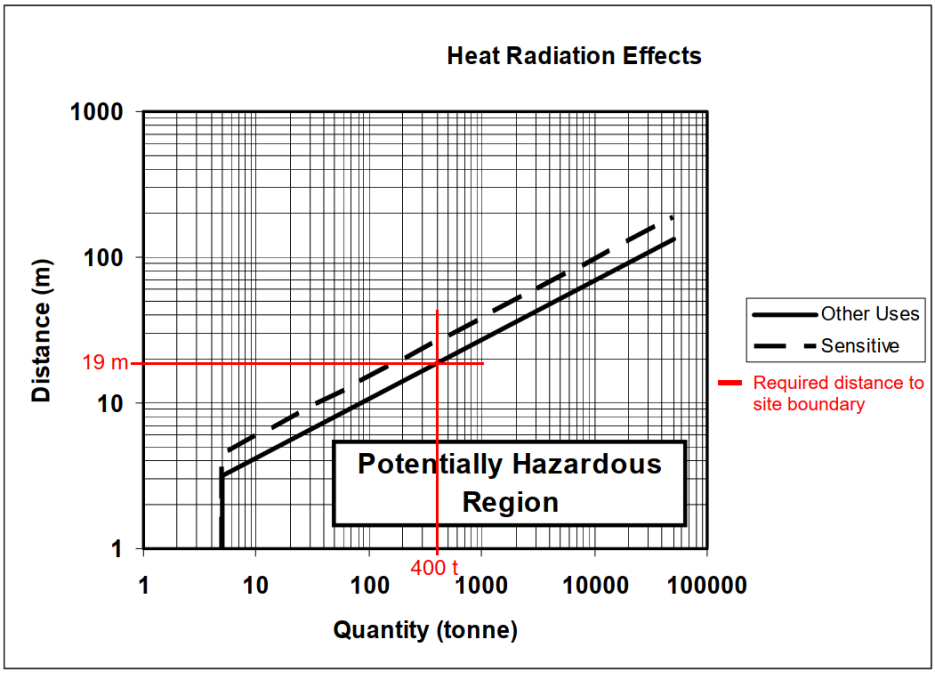


**Figure 4-1: Class 3 SEPP 33 Distance – Warehouse 2A-1 and 2A-2**

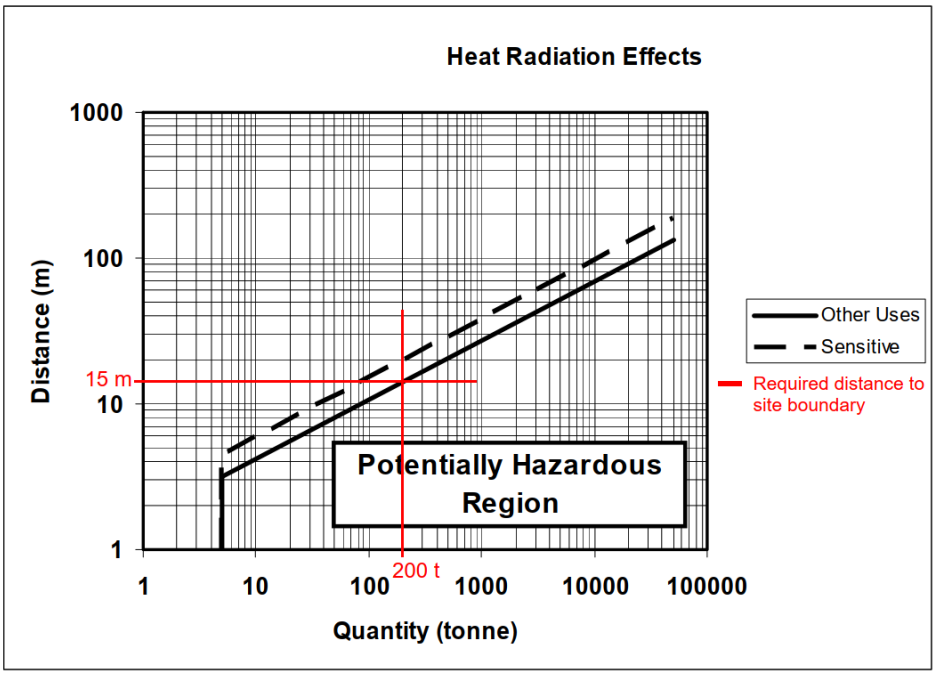


**Figure 4-2: Warehouse 2A-1 and 2A-2 Minimum Distance to Intertenancy Wall**

### 4.2.3 Storage Assessment

Threshold limits for the application of SEPP 33 are presented in **Table 4-3** indicating the maximum quantity that can be stored on site for each class. The listed quantities are the aggregate for Warehouse 2A-1 and 2A-2.

**Table 4-3: Quantities Stored and SEPP 33 Threshold for Warehouse 2A-1 & 2A-2**

| Class | Description | Maximum Quantity (kg) | SEPP 33 Threshold (kg) | Does SEPP 33 Apply? |
|---|---|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols and LPG) | 8,000 | 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 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.

## 4.3 Lot 2A – Warehouse 3

### 4.3.1 Description

The standalone warehouse on Lot 2A, warehouse 2A-3, is located on the southern side of the lot. The closest site boundary is to the west at a distance of 7.5 m; however, based on the proposed location of flammable liquid storage, there is a distance of 12 m from the flammable liquids to the site boundary.

### 4.3.2 Proposed Storage Details

Warehouse 2A-3 has not 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, a SEPP 33 has been conducted to provide an allowance for storage of DG commodities as part of the initial Development Application (DA).

Provided in **Table 4-4** is a summary of the speculative quantities to be approved for Warehouse 2A-3.

**Table 4-4: DG Classes or Materials Stored and Maximum Quantities for Warehouse 2A-3**

| Class (PG) | Description | Maximum Quantity (kg) |
|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols) | 25,280 / 6,320* |
| 2.1 | Flammable gas (LPG) | 1,680 / 3,055 L^ |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 100,000 |
| 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/m$^3$

The flammable liquids threshold is based upon the distance to the site boundary, as outlined in **Figure 4-3** below. Based on the storage of 100,000 kg of flammable liquids, a distance of at least 11 m is required. Warehouse 2A-3 has a minimum distance to the site boundary of 12 m, as depicted in **Figure 3-2**; hence, the requirements of SEPP 33 are met and the storage would not be considered to be potentially hazardous.

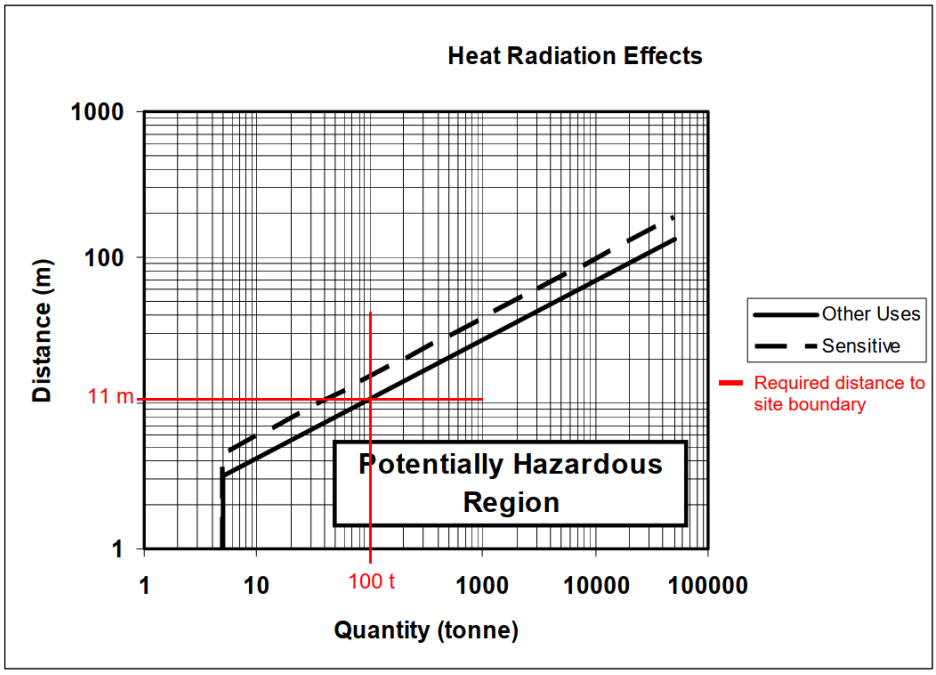


**Figure 4-3: Class 3 SEPP 33 Distance – Warehouse 2A-3**

### 4.3.3 Storage Assessment

Threshold limits for the application of SEPP 33 are presented in **Table 4-5** indicating the maximum quantity that can be stored on site for each class.

**Table 4-5: Quantities Stored and SEPP 33 Threshold for Warehouse 2A-3**

| Class | Description | Maximum Quantity (kg) | SEPP 33 Threshold (kg) | Does SEPP 33 Apply? |
|---|---|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols and LPG) | 8,000 | 10,000 | N |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 100,000 | 11 m to site boundary (see **Figure 4-3**) | 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 |

### 4.3.4 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.

## 4.4 Lot 2B – Warehouse 2B-1 & 2B-2

### 4.4.1 Description

Lot 2B contains one warehouse with dual tenancy. The dual tenancy warehouse, 2B-1 and 2B-2, requires SEPP 33 assessment as a whole; as such, the SEPP 33 DG storage quantities have been divided evenly amongst the two tenancies for the purposes of this assessment. The closest site boundary for each warehouse would be the wall separating the two tenancies.

### 4.4.2 Proposed Storage Details

Neither Warehouse 2B-1 nor 2B-2 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, a SEPP 33 has been conducted to provide an allowance for storage of DG commodities as part of the initial Development Application (DA).

Provided in **Table 4-6** and **Table 4-7** are a summary of the DGs proposed to be stored in each tenancy at the facility as part of the site operations.

**Table 4-6: DG Classes or Materials Stored and Maximum Quantities at Warehouse 2B-1**

| Class (PG) | Description | Maximum Quantity (kg) |
|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols) | 12,640 / 3,160* |
| 2.1 | Flammable gas (LPG) | 840 / 1,644 L^ |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 500,000 |
| 4.1 | Flammable solids (e.g. ethanol wipes) | 2,000 |
| 5.1 | Oxidising substances, excl. ammonium nitrate | 2,000 |
| 8 (II) | Corrosive substances (e.g. cleaning chemicals) | 10,000 |
| 8 (III) | Corrosive substances (e.g. cleaning chemicals) | 20,000 |

*Based upon 25% of the aerosol product weight being LPG; ^Density of LPG is 550 kg/m$^3$

**Table 4-7: DG Classes or Materials Stored and Maximum Quantities at Warehouse 2B-2**

| Class (PG) | Description | Maximum Quantity (kg) |
|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols) | 12,640 / 3,160* |
| 2.1 | Flammable gas (LPG) | 840 / 1,644 L^ |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 500,000 |
| 4.1 | Flammable solids (e.g. ethanol wipes) | 2,000 |
| 5.1 | Oxidising substances, excl. ammonium nitrate | 2,000 |
| 8 (II) | Corrosive substances (e.g. cleaning chemicals) | 10,000 |
| 8 (III) | Corrosive substances (e.g. cleaning chemicals) | 20,000 |

*Based upon 25% of the aerosol product weight being LPG; ^Density of LPG is 550 kg/m$^3$

The flammable liquids threshold is based upon the distance to the site boundary, as outlined in **Figure 4-4** below. Based on the combined storage of 1,000,000 kg of flammable liquids, a distance of at least 27 m is required. Both warehouses 2B-1 and 2B-2 have a minimum distance to the site boundary of 30 m, as depicted in **Figure 3-3**; hence, the requirements of SEPP 33 are met and the storage would not be considered to be potentially hazardous.

There is also a requirement to assess the flammable liquids stores for each of the individual tenancies to ensure that the distance from these stores to the intertenancy wall does not exceed the SEPP 33 threshold. Based on 500,000 kg of flammable liquids being stored in both tenancies, the minimum distance required to the intertenancy wall would be 21 m, as shown in **Figure 4-5**. Therefore, the following recommendation has been made:

- Flammable liquids shall not be stored within 21 m of the intertenancy wall for Warehouse 2B-1 and 2B-2.

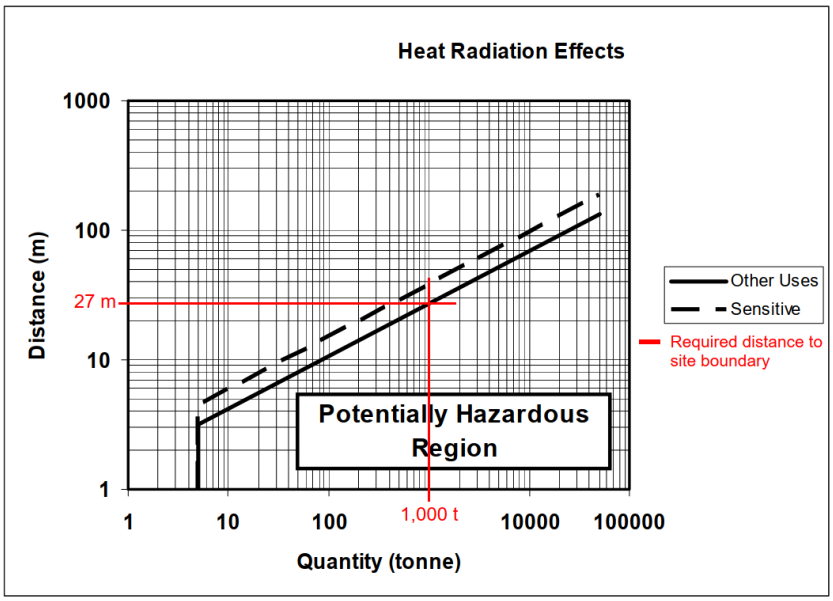


**Figure 4-4: Class 3 SEPP 33 Distance – Warehouse 2B-1 and 2B-2**

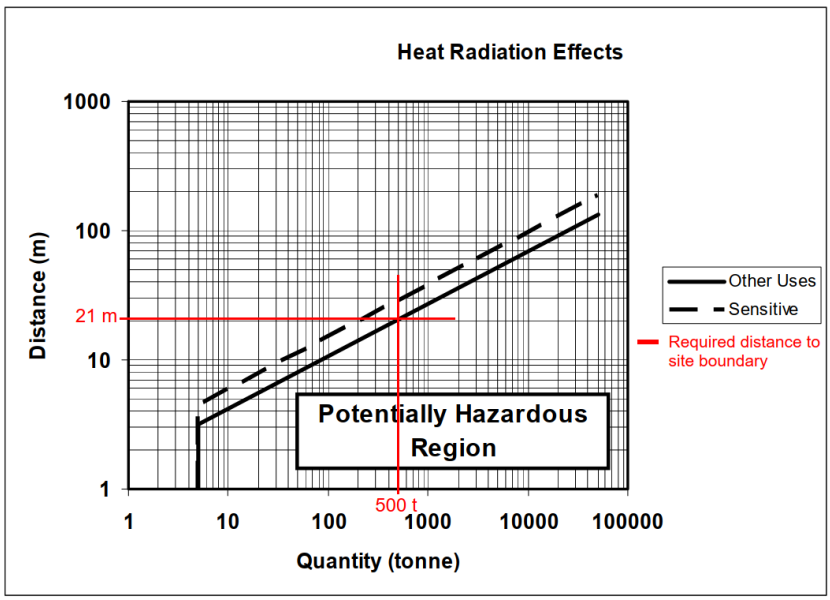


**Figure 4-5: Warehouse 2B-1 and 2B-2 Minimum Distance to Intertenancy Wall**

### 4.4.3 Storage Assessment

Threshold limits for the application of SEPP 33 are presented in **Table 4-8** indicating the maximum quantity that can be stored on site for each class. The listed quantities are the aggregate for Warehouse 2B-1 and 2B-2.

**Table 4-8: Quantities Stored and SEPP 33 Threshold for Warehouse 2A-1 & 2A-2**

| Class | Description | Maximum Quantity (kg) | SEPP 33 Threshold (kg) | Does SEPP 33 Apply? |
|---|---|---|---|---|
| 2.1 | Flammable gases (i.e. aerosols and LPG) | 8,000 | 10,000 | N |
| 3 (II & III) | Flammable liquids (e.g. hand sanitisers) | 1,000,000 | 27 m to site boundary (see **Figure 4-4**) | 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 |

### 4.4.4 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.

## 4.5 Cumulative Transport Assessment

A review of the warehouses on Lot 2A and Lot 2B 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 Lot 2A and Lot 2B of the Oakdale South Estate in Horsley Park, 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, 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.

## 5.2 Recommendations

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

- Flammable liquids shall not be stored within 15 m of the intertenancy wall for Warehouse 2A-1 and 2A-2.
- Flammable liquids shall not be stored within 21 m of the intertenancy wall for Warehouse 2B-1 and 2B-2.
- 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.

[4] National Transport Commission (NTC), “Australian Code for the Transport of Dangerous Goods by Road & Rail, 7th Edition,” 2011.