

**Design  
for a better  
*future* /**

HUNT ARCHITECTS

**ALLIED PINNACLE  
FLOUR AND MAIZE MILL**

PROPOSED  
MODIFICATION  
(DA-318-12-2004)

**wsp**

NOVEMBER 2021

PUBLIC

# APPENDIX I

## SEPP 33 PRELIMINARY HAZARD ANALYSIS



**Design  
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ALLIED PINNACLE

**ALLIED PINNACLE  
WAREHOUSE  
EXTENSION**

SEPP 33  
PRELIMINARY HAZARD  
ANALYSIS

**wsp**

SEPTEMBER 2021

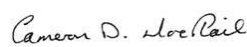
# Question today *Imagine tomorrow* Create for the future

## ALLIED PINNACLE WAREHOUSE EXTENSION SEPP 33 PRELIMINARY HAZARD ANALYSIS ALLIED PINNACLE

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WSP acknowledges that every project we work on takes place on First Peoples lands.  
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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# ABBREVIATIONS

AS	Australian Standard
AEMR	Annual Environment Management Report
CBD	Central Business District
CIP	Clean-in-place
DA	Development application
DG	Dangerous Goods
DPIE	Department of Planning, Industry and Environment
EIS	Environment Impact Statement
EPA	Environmental Planning and Assessment
HAC	Hazardous Area Classification
HIPAP	Hazardous Industry Planning Advisory Paper
ISO	International Organization for Standardization
LGA	Local Government Area
LPG	Liquefied Petroleum Gas
NSW	New South Wales
OEMP	Operational Environmental Management Plans
PG	Packaging Group
PHA	Preliminary Hazard Analysis
PIRMP	Pollution Incident Response Management Plan
PPE	Personal protective equipment
SEPP33	State Environment Planning Policy No. 33 – Hazardous and Offensive Development
SSD	State Significant Development
ULP	Unleaded Petrol

# EXECUTIVE SUMMARY

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## BACKGROUND

Allied Pinnacle Australia Pty Ltd is one of Australia's largest manufacturers and distributors of bakery premixes, flour and semi-finished grain products. Its Picton site (herein: Allied Pinnacle or the Picton Site) operates a flour and maize mill near Maldon in the Wollondilly Local Government Area (LGA) with an operation capacity of 300,000 tonnes per annum.

The Picton site was approved by way of a development consent (DA-318-12-2004-i) granted in August 2005 by the Minister under Part 4 of the Environmental Planning and Assessment Act 1979 (EPA Act) and commenced operation in March 2009. The development consent has since been modified on three occasions.

Allied Pinnacle is proposing to expand its flour and maize milling facility to accommodate additional warehouse space and implementing a new blending and bagging facility within the existing building. The proposed expansion will make use of the current building and vehicle access, on ground already highly disturbed.

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## PURPOSE

The purpose of this report is to provide a State Environment Planning Policy No. 33 (SEPP33) screening assessment and a preliminary hazard analysis (PHA) for Allied Pinnacle as requested by NSW Department of Planning, Industry and Environment on 22 July 2021 to understand the risk of storage and handling of dangerous goods and control measures.

The analysis focuses on the warehouse extension while also taking account of the cumulative hazard from the site. It covers acute safety impacts to the public due to the other risk factors identified relating to hazardous material on site and forms part of the overall Environmental Impact Statement (EIS).

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## SEPP33 SCREENING AND HAZARD ANALYSIS OVERVIEW

Based on SEPP33 screening assessment, Allied Pinnacle Picton site is considered as 'potentially hazardous' due to the consideration of other risk factors which identified hazards outside the scope of the risk screening method.

Subsequently a preliminary hazard analysis was conducted using Hazard Identification process in line with AS/ISO 31000:2018 Risk Management Guidelines and focused on preventing or minimising major hazardous incidents on-site, such as fire and explosion or the release of significant quantities of toxic or biologically harmful chemicals, that could result in significant off-site effects.

The hazard identification exercise comprised a review of:

- Vulnerable Groups
- External hazards, both natural and of human origin
- Possible accident scenarios, their initiating events and consequence and
- Technical and procedural safeguards

Once all significant hazards (fires, explosions process hazards or environmental discharge) have been identified, representative events and accident scenarios will be carried forward for further studies.

The hazard identification tables identify the following for each scenario:

- the hazardous event



- the initiating causes of the event
  - the consequence of the event
  - safeguards
  - whether the scenario has a potential offsite impact
  - the proposed level of assessment
- 

## FINDINGS

No hazards leading to a consequential major off-site event were found. This report documents the analysis of internal and external events and found no hazards which need to be taken for further consequence analysis. This report finds the hazards are minor risks which can be mitigated by engineering design or managed by procedural controls.

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## RECOMMENDATIONS

No further control measures are recommended at the PHA stage.

Note: Should the storage conditions or volumes change, the contents and findings in the report shall be reviewed, and the risks associated with any change shall be assessed and controlled.

# 1 INTRODUCTION

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## 1.1 PROJECT BACKGROUND

Allied Pinnacle Australia Pty Ltd is one of Australia's largest manufacturers and distributors of bakery premixes, flour and semi-finished grain products. Its Picton site (the site) operates a flour and maize mill near Maldon in the Wollondilly Local Government Area (LGA) with an operation capacity of 300,000 tonnes per annum.

The Picton site was approved by way of a development consent (DA-318-12-2004-i) granted in August 2005 by the Minister under Part 4 of the Environmental Planning and Assessment Act 1979 (EPA Act) and commenced operation in March 2009. The development consent has since been modified on three occasions.

Allied Pinnacle is proposing to expand its flour and maize milling facility to accommodate additional warehouse and implementing a new blending and bagging facility within the existing building. The proposal will increase production and volume from 300,000 to 309,000 tonnes per annum. The proposed expansion will make use of the current building and vehicle access, on ground already highly disturbed.

WSP was engaged by HUNT Architects on behalf of Allied Pinnacle to provide a SEPP33 screening assessment and a preliminary hazard analysis (PHA) for the proposed warehouse extension as a part of the Environmental Impact Statement (EIS) to support the modification application to the Department of Planning, Industry and Environment (DPIE).

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## 1.2 STATUTORY AND STRATEGIC CONTEXT

NSW Department of Planning, Industry and Environment requested a SEPP33 report to understand the risk of storage and handling of dangerous goods and control measures of the modification proposal on 22 July 2021.

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## 1.3 SCOPE

The report provides a SEPP 33 screening assessment and a preliminary hazard analysis (PHA) as per requirement by NSW Department of Planning, Industry and Environment on 22 July 2021.

## 2 PROJECT OVERVIEW

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### 2.1 PROJECT LOCATION

The proposed development is located within the existing Allied Pinnacle (formally Allied Mills) site at 330 Picton Road near Maldon NSW in the Wollondilly local government area, approximately 80 km south-west of the Sydney CBD (Figure 2.1).

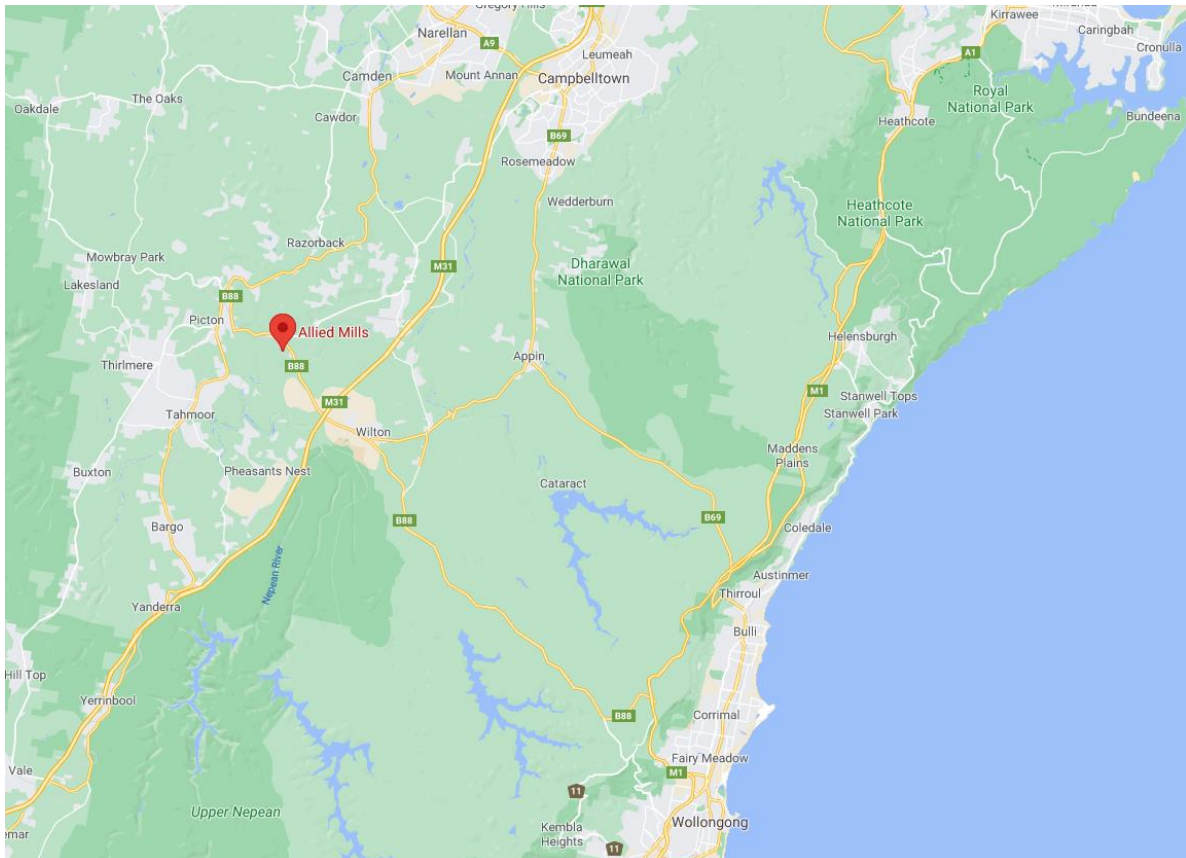


Figure 2.1 Project Location

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## 2.2 PROJECT AREA

The proposed development highlighted in red (Figure 2.2), is adjacent to the existing building on site. The site is bounded by Picton Road to the north, the Great Southern Railway Line to the south and agricultural land to the east and west.



Figure 2.2 Aerial view of the Allied Pinnacle Picton Site

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## 2.3 DANGEROUS GOODS STORAGE

Schedule of existing dangerous goods on site is provided in Appendix A of this document.

## 3 SEPP 33 SCREENING ASSESSMENT

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### 3.1 SEPP 33 APPLICABILITY

#### 3.1.1 SCREENING TEST METHODOLOGY

SEPP 33 applies to any proposals which fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry' under the Hazardous and Offensive Development Application Guidelines – Applying SEPP 33, published by New South Wales Department of Planning (1).

- **'potentially hazardous industry'** – *'when all locational, technical, operational and organizational safeguards are employed continues to pose a significant risk.'* (1) Applying SEPP 33 includes a screening method, based on the quantities of dangerous goods on a site and their vehicle movements, to assist in determining if a development is likely to be potentially hazardous industry.
- **'potentially offensive industry'** – the primary consideration whether the consent authority is satisfied that there are adequate safeguards to ensure that any emissions from a facility can be controlled to a level at which they are not significant. Where proposed activities do not require a license pursuant to Protection of the Environment Operations Act 1997, or where they do require a license but in the opinion of the environmental regulator the proponent can fully meet its license requirements, a proposal is not deemed to be 'offensive industry'.

#### 3.1.2 CONSIDERATION OF EXISTING FACILITIES

Section 6 Common Queries in 'Apply SEPP 33' (1) clarifies the implications of SEPP 33 for an existing development. SEPP 33 applies to the warehouse extension because the modification interacts with the existing premises and adds to the overall quantity of potentially hazardous inventory on site. The cumulative hazards may be increased and therefore considered in this report.

#### 3.1.3 OTHER RISK FACTORS

In some cases, the applicability of SEPP 33 is not immediately apparent. In such instances, applicants should be requested to address the matters listed in Appendix 2 of 'Apply SEPP 33' (1), to provide Councils with adequate information to base a judgement on SEPP 33 applicability.

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## 3.2 POTENTIALLY HAZARDOUS INDUSTRY ASSESSMENT

### 3.2.1 STORAGE QUANTITIES SCREENING AGAINST SEPP33 THRESHOLD

The aggregate storage quantities of the warehouse extension and the existing premises are listed individually in Table 3.1 below. The storage quantities on site are the sum of all premises. If the storage quantity in the proposed warehouse extension or the added quantity elevates the totally storage quantity above the threshold, then a 'Yes' is given in the last column of the table.

Table 3.1 SEPP 33 General Screening Threshold Quantities, Ref: Applying SEPP 33, Table 1 and Table 3 (1)

<b>DG CLASS</b>	<b>DESCRIPTION</b>	<b>SEPP33 THRESHOLD</b>	<b>DESCRIPTION</b>	<b>EXISTING</b>	<b>PROPOSED</b>	<b>TOTAL</b>	<b>DOES SEPP33 APPLY</b>
2.1	Flammable Gases	10 tonne or 16 m <sup>3</sup>	If stored above ground	4 × 210 kg LPG Cylinders 4 × 15 kg LPG Cylinder for Forklift supply	New LP Gas water heaters from existing LPG supply  No new proposed quantities	900 kg	No
		40 tonne or 64 m <sup>3</sup>	If stored underground or mounded	N/A	N/A	N/A	N/A
2.2	Non-flammable, non-toxic gases	No limit is set	Non-flammable, nontoxic gas	Argon Gas for maintenance workshops	N/A	Existing Quantities only - minimal	No
2.3	Toxic gases	5 tonnes	Anhydrous ammonia	N/A	N/A	N/A	N/A
		1 tonne	Chlorine and sulphur dioxide stored as liquefied gas in containers <100kg	8 × 70 kg Chlorine gas cylinders	N/A	560 kg	No
		2.5 tonne	Chlorine and sulphur dioxide stored as liquefied gas in containers >100 kg	N/A	N/A	N/A	N/A
		100 kg	Liquefied gas kept in or on premises	N/A	N/A	N/A	N/A
		100 kg	Other poisonous gases	N/A	N/A	N/A	N/A



<b>DG CLASS</b>	<b>DESCRIPTION</b>	<b>SEPP33 THRESHOLD</b>	<b>DESCRIPTION</b>	<b>EXISTING</b>	<b>PROPOSED</b>	<b>TOTAL</b>	<b>DOES SEPP33 APPLY</b>
3	Flammable Liquids	2 tonnes	PG I	ULP supply to fire pump	N/A	40L (Ref: Table A.1)	No
		5 tonnes	PG II/III	N/A	N/A	N/A	N/A
4.1	Flammable solids, self-reactive substances and solid desensitised explosives	5 tonnes	None	N/A	N/A	N/A	N/A
5.1	Oxidizing agents i.e. ammonium dichromate	25 tonnes	Ammonium nitrate — high density fertiliser grade, kept on rural zoned land where rural industry is carried out, if the depot is at least 50 metres from the site boundary	N/A	N/A	N/A	N/A
		5 tonnes	Ammonium nitrate — elsewhere	N/A	N/A	N/A	N/A
		2.5 tonne	Dry pool chlorine — if at a dedicated pool supply shop, in containers < 30 kg	N/A	N/A	N/A	N/A
		1 tonne	Dry pool chlorine — if at a dedicated pool supply shop, in containers > 30 kg	N/A	N/A	N/A	N/A
		5 tonnes	Any other class 5.1	N/A	N/A	N/A	N/A
5.2	Organic peroxides i.e. ethyl methyl ketone peroxide	10 tonnes	None	N/A	N/A	N/A	N/A

<b>DG CLASS</b>	<b>DESCRIPTION</b>	<b>SEPP33 THRESHOLD</b>	<b>DESCRIPTION</b>	<b>EXISTING</b>	<b>PROPOSED</b>	<b>TOTAL</b>	<b>DOES SEPP33 APPLY</b>
6.1	Toxic substances i.e. cyanides, arsenic compounds and lead acetate	0.5 tonne	PG I	N/A	N/A	N/A	N/A
		2.5 tonne	PG II and III	N/A	N/A	N/A	N/A
6.2	Toxic/ Infectious Substances	0.5 tonne	Includes clinical waste	N/A	N/A	N/A	N/A
7	Radioactive material	All	All	N/A	N/A	N/A	N/A
8	Corrosive substances	5 tonnes	PG I	N/A	N/A	N/A	N/A
		25 tonnes	PG II	N/A	N/A	N/A	N/A
		50 tonnes	PG III	N/A	N/A	N/A	N/A
9	Miscellaneous dangerous substances and articles	No limit is set	PG I, II and III	N/A	N/A	N/A	N/A



### 3.2.2 VEHICLE MOVEMENTS

Table 3.2 Transportation Screening Thresholds, Ref: Applying SEPP33 Table 2 (1)

DG CLASS	DESCRIPTION	VEHICLE MOVEMENTS		MINIMUM QUANTITY (SEE NOTE 1)		PROPOSED	DOES SEPP33 APPLY
		Cumulative	Peak	per load (tonne)			
		Annual	Weekly	Bulk	Packages		
2.1	Flammable Gases	> 500	>30	2	5	Existing LPG Replenishment Schedule - Once a week	No
2.2	Non-flammable, non-toxic gases	No limit is set	No limit is set	No limit is set	No limit is set	N/A	No
2.3	Toxic gases	> 100	> 6	1	2	Existing Chlorine Replenishment Schedule - Four bottles every 1 to 2 weeks.	No
3 PG I	Flammable Liquids	> 500	> 30	1	1	N/A	No
3 PG II		> 750	> 45	1	10	N/A	No
3 PG III		> 1000	> 60	10	No limit	N/A	No
4.1	Flammable solids	> 200	> 12	1	2	N/A	No
4.2		> 100	> 3	2	5	N/A	No
4.3		> 200	> 12	5	10	N/A	No
5	Oxidizing agents	> 500	> 30	2	5	N/A	No
6.1	Toxic Substances	All	All	1	3	N/A	No
6.2	Toxic/ Infectious Substances	See Note 2	See Note 2	See Note 2	See Note 2	N/A	No

DG CLASS	DESCRIPTION	VEHICLE MOVEMENTS		MINIMUM QUANTITY (SEE NOTE 1)		PROPOSED	DOES SEPP33 APPLY
		Cumulative	Peak	per load (tonne)			
		Annual	Weekly	Bulk	Packages		
7	Radioactive material	See Note 2	See Note 2	See Note 2	See Note 2	N/A	No
8	Corrosive Substances	> 500	> 30	2	5	N/A	No
9	Miscellaneous dangerous substances and articles	> 1000	> 60	No limit	No limit	N/A	No

Notes:

1. If quantities are below this level, the potential risk is unlikely to be significant unless the number of traffic movements is high (Ref: Applying SEPP33 Table 2).
2. Where proposals include materials of class 1, 6.2 or 7, the Department of Planning should be contacted for advice (Ref: Applying SEPP33 Table 2).

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### 3.3 POTENTIALLY OFFENSIVE INDUSTRY ASSESSMENT

The warehouse extension is not considered as a ‘potentially offensive industry’.

The site is currently under Environment protection licence No. 12498 and provides for 100,000 to 250,000 tonnes of general agricultural processing. With the proposed warehouse extension, the site will remain within the threshold and no changes to the license are required. Therefore, the warehouse extension is not considered as a ‘potentially offensive industry’.

Other controls in place and managed by Allied Pinnacle include:

- EPA Annual Return
- Annual Environment Management Report (AEMR)
- Pollution Incident Response Management Plan (PIRMP) and
- Operational Environmental Management Plan (OEMP) carried out every 3 years

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### 3.4 SEPP 33 – OTHER RISK FACTORS

Appendix 2 of Applying SEPP 33 (1) outlines other risk factors for consideration to identify hazards outside the scope of the risk screening method. A review of these risk factors was undertaken as shown in Table 3.3.

Two risk factor items were found to trigger a PHA, including the possible existence of dusts within confined areas and details of known past incidents involving hazardous materials and process in similar industries.

Table 3.3 SEPP 33 Other Risk Factors

<b>ITEM NO.</b>	<b>RISK FACTOR/S</b>	<b>COMMENTS</b>	<b>PHA REQUIRED</b>
1	Any incompatible materials (hazardous and non-hazardous materials)	N/A	No
2	Any wastes that could be hazardous	N/A	No
3	The possible existence of dusts within confined areas	Yes, due to storage and handling of grains, flours and ingredients.	Yes
4	Types of activities the dangerous goods and otherwise hazardous materials are associated with (storage, processing, reaction, etc.)	N/A	No
5	Incompatible, reactive or unstable materials and process conditions that could lead to uncontrolled reaction or decomposition	N/A	No
6	Storage or processing operations involving high (or extremely low) temperatures and/or pressures; and	N/A	No
7	Details of known past incidents (and near misses) involving hazardous materials and processes in similar industries	Yes. Dust explosion incidents are known risk in the industry.	Yes

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## 3.5 CONCLUSION ON THE APPLICABILITY OF SEPP 33

The proposed development is considered a 'Potentially Hazardous Industry' due to the risk of dust explosion. Therefore, a PHA is required for the Allied Pinnacle modification application.

# 4 PRELIMINARY HAZARD ANALYSIS OVERVIEW

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## 4.1 OVERALL APPROACH

The PHA is a tool for systematically identifying and assessing the hazards and risks associated with Allied Pinnacle. The greatest benefit of hazard analysis is not the numerical outputs but rather the insight into the risks and their implications provided by the analytical processes (2).

Hazard Identification process was adopted in this report and conducted in line with AS/ISO 31000:2018 Risk Management Guidelines (3). It concludes the following steps:

- Establish context
  - Identify hazards
  - Assess consequences
  - Assess likelihood
  - Determine the risk
  - Evaluate the risk
  - Mitigate the risk if required
- 

## 4.2 CONTEXT

The context of the risk assessment was set by the Department of Planning, Industry and Environment to undertake an assessment of:

- a preliminary risk screening regarding all dangerous goods and hazardous materials associated with the development
- a Preliminary Hazard Analysis

The assessment covers acute safety impacts to the public due to the other risk factors identified regarding hazardous material on site and forms part of the overall Environmental Impact Statement (EIS).

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## 4.3 GUIDANCE

The following documents were used as guidance in this assessment:

- Potential hazardous impacts were identified following the NSW Department of Planning, Hazardous and Offensive Development Application Guidelines, Applying SEPP33, January 2011 (referred to as SEPP 33 in this document)
- The hazard analysis followed the requirements of the NSW Department of Planning Hazardous Industry Planning Advisory Paper (HIPAP) No. 6, Hazard Analysis, January 2011

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## 4.4 METHODOLOGY

The PHA for Allied Pinnacle was carried out in accordance with HIPAP 6 (2), and included the following steps:

- Identification of potentially hazardous impacts and risk to the public
- Analysis of consequences for those scenarios that were judged to be potentially hazardous and a risk to the public
- Assessment whether further analysis is required if there is an offsite impact due to fires, explosions, process hazards or environmental discharge in the consequence analysis

# 5 HAZARD IDENTIFICATION

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## 5.1 OVERVIEW

The hazard identification exercise comprised a review of:

- Vulnerable Groups
- External hazards, both natural and of human origin
- Internal hazards, both of operations and maintenance origin
- Possible accident scenarios, their initiating events and consequence and
- Technical and procedural safeguards

Once all significant hazards (fires, explosions, process hazards or environmental discharge) have been identified, representative events and accident scenarios will be carried forward for further studies.

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## 5.2 HAZARD IDENTIFICATION WORD DIAGRAM

The hazard identification tables identify the following for each scenario:

- the hazardous event
- the initiating causes of the event
- the consequence of the event
- safeguards
- whether the scenario has a potential offsite impact
- the proposed level of assessment

## 5.3 HAZARD IDENTIFICATION

### 5.3.1 VULNERABLE GROUPS

Table 5.1 Hazardous Identification Table – Vulnerable Groups

<b>HAZID NO.</b>	<b>VULNERABLE GROUP</b>	<b>NO OF PERSONS</b>	<b>LOCATION</b>	<b>TIME AT RISK</b>	<b>DETAIL</b>	<b>COMMENTS</b>
1	Operator	1	Preparation and blending	Two Shift Operation	Weighing and Scoping Ingredients transfer to process	N/A
2		3	Bagging and packaging	Two Shift Operation	Cutting/Tipping into mix feed. Clamping bag into feed/ Removing bag from process to pallet	N/A
3		2	Warehouse	Two Shift Operation	Forklift transfer of RM and Finished product to and from warehouse	N/A
4	Maintainer	1	All areas	Infrequent	Equipment maintenance	N/A
5	Contractor	N/A	N/A	N/A	N/A	Considered/accounted as staff/operator.
6	Public	N/A	N/A	N/A	N/A	Rural area (Site: 110 hectares) Closest resident on the corner of Menangle Rd (Approx. 450 m)



### 5.3.2 EXTERNAL EVENTS

Table 5.2 Hazardous Identification Table – External Events

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>COMMENTS</b>
1	Flood	No risk identified
2	Rainwater Deluge	No risk identified
3	High Wind (Storm)	No risk identified
4	Bush Fire	No risk identified
5	Lightning	Concrete Building
6	Earthquake	No risk identified
7	Solar Gain	Panel ceiling in production area within existing building
8	High Environmental Temperature	No risk identified
9	Low Environmental Temperature	No risk identified
10	Coastal Environment	No risk identified

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>COMMENTS</b>
11	Missile (Plane crash)	No risk identified
12	Vehicle Impact	No off-site risk identified due to designated roads on site and predominantly one-way system and bollards on site
13	Loss of off-site power	No risk identified to operations No generators on site
14	Adjacent Facility Event	Separation distance is at large. Low Impact
15	Security (Theft/Vandalism)	Perimeter fencing and controlled access to facility - Manned 24 hr (security and personnel)

### 5.3.3 INTERNAL EVENTS

Table 5.3 Hazardous Identification Table – Internal Events

HAZID NO.	GUIDEWORD	HAZARDOUS EVENT/S	THREATS / CAUSES	POTENTIAL CONSEQUENCES / EFFECTS	SAFEGUARDS / EXISTING CONTROLS	RECOMMENDATIONS / ADDITIONAL CONTROLS	POTENTIAL OFF-SITE IMPACT?	COMMENTS
1	Fire and Explosion	Flash fire	Personnel Injuries Burns Equipment damage	Ignition of combustible dust	HAC Zoning Qualified Electrical system Equipment static earthing No hot works in areas Safe work Procedures Signage and PPE Dust collection system with maintenance schedule	Personnel Static straps	No - internal	Raw Material Loading and finished product bagging covered  No off-site risk identified
2		Explosion	Personnel Injuries Burns Fatality Equipment damage	Ignition of combustible dust	HAC Zoning Qualified Electrical system Equipment static earthing No hot works in areas Safework Procedures Signage and PPE Dust collection system with maintenance schedule Vacuum cleaning around equipment	Personnel Static straps Electrical equipment meets the IECEX standards	No	Compressed air excluded Cinnamon Sugar (Fine/granular - bagged) Blender Mixer with breather (1 m diameter) No off-site risk identified

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>HAZARDOUS EVENT/S</b>	<b>THREATS / CAUSES</b>	<b>POTENTIAL CONSEQUENCES / EFFECTS</b>	<b>SAFEGUARDS / EXISTING CONTROLS</b>	<b>RECOMMENDATIONS / ADDITIONAL CONTROLS</b>	<b>POTENTIAL OFF-SITE IMPACT?</b>	<b>COMMENTS</b>
3		Flash fire / Explosion	Personnel Injuries Burns Fatality Equipment damage	Overheating bearing ignites dust	Bearings outside the HAC zoning area	No additional control required	No	N/A
4	Process Hazards	Operator exposure to dusts	Irritation Illness Injuries	Dust release from process	Dust collection system Negative pressure on hoppers Enclosed system	No Additional control required	No	Dust Masks when/where necessary
5	Utility Systems	Hot water clean / Sanitiser	Burns Injuries	Personnel Contaminated Slips Trips / Falls	Installed CIP system for mixers / blenders	No additional controls required	No	Thermal mixer at sinks Wash water go to drain Hot water temperature: 70 °C
6		Wastewater Discharge to Drain	Back-up of wastewater	Facility contamination	1000 L receiver with duty/standby pumps feeding to grease separator to site waste treatment  Existing treatment systems for different levels of sugars	No additional control required	No	Separation between the grease separator and factory exit Gap point under mixers Drains held internal

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>HAZARDOUS EVENT/S</b>	<b>THREATS / CAUSES</b>	<b>POTENTIAL CONSEQUENCES / EFFECTS</b>	<b>SAFEGUARDS / EXISTING CONTROLS</b>	<b>RECOMMENDATIONS / ADDITIONAL CONTROLS</b>	<b>POTENTIAL OFF-SITE IMPACT?</b>	<b>COMMENTS</b>
7		Food Grade Oil Leak	Ends up in treatment plant	Loss of containment to drain	Large Grease separator Controlled quantity (Max. 30% per batch) Max 1000 L delivery Bunded pallets Contractor clean up	No additional control required	No	Non solidifying
8		Forklift operations	Property damage Personnel Injuries	Collisions	Licensed Drivers Training Traffic Management Material Flow Study	No additional control required	No	N/A
9	Maintenance Hazards	Fire / explosion	Personnel Injuries Burns Fatality Equipment damage	Hot work maintenance	HAC Zoning Qualified Electrical system Equipment static earthing Hot works policy Safework Procedures Signage and PPE Dust collection system with maintenance schedule Vacuum cleaning around equipment	No additional controls required	No	N/A

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>HAZARDOUS EVENT/S</b>	<b>THREATS / CAUSES</b>	<b>POTENTIAL CONSEQUENCES / EFFECTS</b>	<b>SAFEGUARDS / EXISTING CONTROLS</b>	<b>RECOMMENDATIONS / ADDITIONAL CONTROLS</b>	<b>POTENTIAL OFF-SITE IMPACT?</b>	<b>COMMENTS</b>
10	Environmental Discharge	Release of dust	Failure of dust collector	Environmental discharge	Plant operations are suspended when dust collection is not working	No additional control required	No	N/A
11		Noise	Plant operation	Environmental discharge	Existing environmental license  New facility is internal to existing building  Internal noise workplace surveys	No additional controls required	No	N/A
12		Liquid Waste	Failure of site water treatment plant  Capacity/ Sugars Concentration exceeded	Environmental discharge	Flow meter  Wastewater study  Water and soil monitoring  Irrigation  Consent condition compliance  Operational Procedures	No additional controls required	No	N/A
13		Spills	Failure of containment	Environmental discharge	Annual Environmental audit and reports conducted on site  EPA license and Annual Return Report  Pollution Incident Response Management Plan (PIRMP)	No additional controls required	No	N/A

<b>HAZID NO.</b>	<b>GUIDEWORD</b>	<b>HAZARDOUS EVENT/S</b>	<b>THREATS / CAUSES</b>	<b>POTENTIAL CONSEQUENCES / EFFECTS</b>	<b>SAFEGUARDS / EXISTING CONTROLS</b>	<b>RECOMMENDATIONS / ADDITIONAL CONTROLS</b>	<b>POTENTIAL OFF-SITE IMPACT?</b>	<b>COMMENTS</b>
					Operational Environmental Management Plan (OEMP) carried out every 3 years			
14		Solid Waste	Environmental contamination	Waste generated on site	Specialist Contractor for collection and disposal	Waste Management Program (currently in development)	No	Food Waste, Packaging, Recyclables, General Waste, Oils

## 6 CONSEQUENCE ANALYSIS

HIPA No.6 Hazard Analysis states that the PHA should emphasise on ‘*preventing or minimising major hazardous incidents on-site, such as fire and explosion or the release of significant quantities of toxic or biologically harmful chemicals, that could result in significant off-site effects. Furthermore, neither quantified nor qualitative analysis should be pursued for its own sake. For example, if the earlier steps in the analysis show there to be no hazards of concern, no significant consequences, or frequencies so low as to be considered noncredible, then proceeding with the analysis beyond such points may well be fruitless*’ (2).

No significant hazards have been identified in the hazard identification process for Allied Pinnacle. Therefore, consequence analysis will not be proceeded in this report and is deemed not necessary for the proposed modification



## 7 CONCLUSIONS

Based on SEPP33 screening assessment, Allied Pinnacle Picton site is considered as ‘potentially hazardous’ due to the other risk factors identified.

Subsequent preliminary hazard analysis concludes that risks are managed by engineering and procedural controls, there is no significant off-site risk that requires further analysis.

No further control measures are recommended at the PHA stage.

Should the storage conditions or volumes change, the contents and findings in the report shall be reviewed, and the risks associated with any change shall be assessed and controlled.

## 8 REFERENCES

- (1) Hazardous and Offensive Development Application, Apply SEPP 33. s.l. : NSW Planning, Jan 2011.
- (2) Hazardous Industry Planning Advisory Paper (HIPAP) No. 6, Hazard Analysis. s.l. : NSW Department of Planning, January 2011.
- (3) AS/ISO 31000:2018 Risk Management Guidelines.

# APPENDIX A

## HAZARDOUS CHEMICAL REGISTER



# A1 ALLIED PINNACLE PICTON HAZARDOUS CHEMICAL REGISTER

Table A.1 Summary of Existing Dangerous Goods Storage at Allied Pinnacle Picton Site.

AREA	LOCATION	PRODUCT NAME	DG CLASS	HAZARDOUS (Y/N)	QUANTITY	NOTE
Maintenance	Caged store in Workshop	Plumbweld PVC Cement N Blue	3	Y	2x125ml	Date Last Reviewed 17.5.19
	Caged store in Workshop	Heavy Duty parts Cleaner	2.1	N	20L	Date Last Reviewed 17.5.19
	Caged store in Workshop	Gel Grip Contact Adhesive	3	Y	500ml	Date Last Reviewed 17.5.19
	Caged store in Workshop	Fomofill (Aerosol)	2.1	Y	4x750ml	Date Last Reviewed 17.5.19
	Caged store in Workshop	Zero Weed Killer	9	Y	5L	Date Last Reviewed 17.5.19
	Fitters locker	WD- 40 Aerosol	2.1	Y	12 x 425g	Date Last Reviewed 17.5.19
	Fitters locker	CRC Brakleen (Aerosol)	2.2	N	8x400ml	Date Last Reviewed 17.5.19
	Electricians Office	CO Contact Cleaner (Aerosol)	2.1	N	8x350ml	Date Last Reviewed 17.5.19
	Electricians Office	2-26 Multi-Purpose Lubricant (Aerosol)	2.1	N	4x450ml	Date Last Reviewed 17.5.19
	Electricians Office	Invertible Dust Remover	2.2	N	4x420ml	Date Last Reviewed 17.5.19
	Electricians Office	Air Brush	2.2	N	N/A	Date Last Reviewed 17.5.19
	Flammables Store Outside	Kerosene	3	N	20L	Date Last Reviewed 17.5.19
	Flammables Store Outside	Unleaded petrol	3	N	2x20L	Date Last Reviewed 17.5.19

AREA	LOCATION	PRODUCT NAME	DG CLASS	HAZARDOUS (Y/N)	QUANTITY	NOTE
	Flammables Store Outside	Diesel	9	N	2x20L	Date Last Reviewed 17.5.19
	Flammables Store Outside	Rocol White Chain & Drive spray	2.1	Y	12x250g	Date Last Reviewed 17.5.19
	Flammables Store Outside	CRC Belt Grip (Aerosol)	2.1	Y	6x400g	Date Last Reviewed 17.5.19
	Flammables Store Outside	Spray paint Aerosols - Colours	2.1	Y	26x360g	Date Last Reviewed 17.5.19
	Flammables Store Outside	Spray paint Aerosols - Silver	2.1	Y	6x350g	Date Last Reviewed 17.5.19
	Flammables Store Outside	Spray Paint Aerosol - Duragal	3	Y	6x350g	Date Last Reviewed 17.5.19
	Flammables Store Outside	Polyfilla Expanding foam	2.1	Y	6x350g	Date Last Reviewed 17.5.19
	Flammables Store Outside	SIKA Boom FR	2.1	Y	10x750g	Date Last Reviewed 17.5.19
	Flammables Store Outside	Butane gas refill	2.1	Y	2x200g	Date Last Reviewed 17.5.19
Warehouse	Packing*	Ink JP-K67B	3	Y	6 x 600ml	Date Last Reviewed 29.4.21
	Packing*	Make up printer Type A	3	Y	1L	Date Last Reviewed 29.4.21
	Packing*	Loctite 401	9	Y	30ml	Date Last Reviewed 29.4.21
	Packing*	Contact Cleaner	2.1	Y	500ml	Date Last Reviewed 29.4.21
	Packing*	WD-40	2.1	Y	500ml	Date Last Reviewed 29.4.21
	Packing*	Alcohol 70%	3	Y	5Lt	Date Last Reviewed 29.4.21
	Warehouse/Maint	Linemarking Aerosol	3	Y	12 x 500ml	Date Last Reviewed 29.4.21
	Warehouse/Maint	Linemarking Aerosol, selected colours	2.1	Y	12 x 500ml	Date Last Reviewed 29.4.21
	Warehouse	LPG	2.1	No	As advised in Table 3.1	Date Last Reviewed 29.4.21

AREA	LOCATION	PRODUCT NAME	DG CLASS	HAZARDOUS (Y/N)	QUANTITY	NOTE
Laboratory	Lab Chem cupboard	Ammonia Solution	8	Y	1L	Date Last Reviewed 29.4.21
	Lab Chem cupboard	Methanol	3	Y	1L	Date Last Reviewed 29.4.21
Mill	Chlorine Room	Ammonia Solution	8	Y	200ml	Date Last Reviewed 23.8.18
	Office Cupboard	Dulux Quickdry Spray	2.1	Y	80gm	Date Last Reviewed 23.8.18
	Corridor Cupboard	Mineral Turpentine	3	Y	750ml	Date Last Reviewed 23.8.18
	Corridor Cupboard	Methylated Spirits	3	Y	750ml	Date Last Reviewed 23.8.18
	Chlorine Room cage near Maintenance	Chlorine	5.1 & 8	Y	8 X 70kg & 4 70kg bottles	Date Last Reviewed 23.8.18
	Corridor Cupboard	70% Ethanol	3	Y	20Lt	Date Last Reviewed 23.8.18
	Control Room and Office	WD-40	2.1	Y	425gm	Date Last Reviewed 23.8.18
	Control Room and Office	Food Grade Machine Oil	2.1	N	750ml	Date Last Reviewed 23.8.18
	Control Room and Office	Disinfectant Cleaner	2.2	N	5Lt	Date Last Reviewed 23.8.18
Silks Room	Silks Room Flammable Cupboard	Quicktal 6502	2.1	Y	200ml x 10	Date Last Reviewed 29.4.21
	Silks Room Flammable Cupboard	Kwik Grip	2	Y	200gm	Date Last Reviewed 29.4.21
Administration	Kitchen/Boardroom	Mineral Turpentine	3	N	1 Unit	Date Last Reviewed 17.5.19
	Kitchen/Boardroom	Toilet Bowl cleaner	8	Y	1 Unit	Date Last Reviewed 17.5.19
	Kitchen/Boardroom	Mortein Fast Knockdown Aerosol	2.1	Y	1 Unit	Date Last Reviewed 17.5.19

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