# **Decision Report**

# **Application for Works Approval**

Division 3, Part V Environmental Protection Act 1986

Works Approval Number	W6302/2019/1		
Applicant	Halliburton Australia Pty Ltd		
ACN	009 000 775		
File Number	DER2019/000538		
Premises	Broome Liquid Mud Plant		
	Lot 587 Crab Creek Road		
	Legal description		
	Part of Lot 587 on Plan 71791		
	ROEBUCK WA 6725		
Date of Report	10 01 2020		
Status of Report	Final		

Works Approval: W6302/2019/1

# **Table of Contents**

1.	Definitions of terms and acronyms1				
2.	Purpose and scope of assessment2				
	2.1	Application details2			
3.	Bac	kground2			
4.	Ove	rview of Premises3			
	4.1	Construction and installation aspects			
	4.2	Operational aspects			
	4.2	.1 Blending of liquids4			
	4.2	.2 Bulk storage of chemicals4			
	4.2	2.3 Stormwater management4			
	4.3	Infrastructure			
	4.4	Exclusions to the Premises5			
5.	Leg	islative context6			
6.	Con	sultation6			
7.	Loc	ation and siting6			
	7.1	Siting context			
	7.2	Residential and sensitive premises			
	7.3	Specified ecosystems			
	7.4	Groundwater and water sources7			
	7.5	Meteorology7			
	7.5	.1 Rainfall7			
8.	Risk	assessment8			
	8.1	Determination of emission, pathway and receptor8			
9.	Dete	ermination of Works Approval conditions13			
10.	Арр	licant's comments13			
11.	Con	clusion13			
App	endix	c 1: Key documents			
Atta	chme	ent 1: Issued Works Approval W6302/2019/115			
Figur (Bure	e 1: A eau of	Verage rainfall and mean maximum temperature at Broome Airport 1939 to 2019 Meteorology 29 November 2019)			
Table	e 1: D	efinitions1			
Table 2: Documents and information submitted during the assessment process2					
Table 3: Prescribed premises categories in the works approval					
Table	e 4: B	roome Liquid Mud Plant category 73 and 75 infrastructure5			
Table	95: R	elevant approvals and tenure6			

Table 6: Receptors and distance from activity boundary	.6
Table 7: Environmental values	.7
Table 8: Groundwater and water sources	.7
Table 9. Identification of emissions, pathway and receptors during construction	.9
Table 10: Identification of emissions, pathway and receptors during operation	10
Table 11: Summary of conditions to be applied	13

# 1. Definitions of terms and acronyms

In this decision report, the terms in **Error! Reference source not found.** have the meanings defined.

#### Table 1: Definitions

Term	Definition
ACN	Australian Company Number
Applicant	Halliburton Australia Pty Ltd
ASME Sect. VIII Div.1 2017	2017 American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section VIII, Division 1: Rules for Construction of Pressure Vessels.
BGL	Below ground level
Category/ categories	Categories of prescribed premises as set out in Schedule 1 of the EP Regulations
Decision report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environment Protection Authority
EP Act	Environmental Protection Act 1986 (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
LAO	Liner alpha olefin based muds
m <sup>3</sup>	cubic metres
Minister	the Minister responsible for the EP Act and associated regulations
Noise Regulations	Environmental Protection (Noise) Regulations 1997 (WA)
Prescribed premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this decision report applies, as specified at the front of this decision report
Risk event	as described in Guidance Statement: Risk Assessment
SBM	Synthetic based muds
Unauthorised Discharges Regulations	Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)
WBM	Water based muds

# 2. Purpose and scope of assessment

The Applicant applied on 2 October 2019 for a works approval to construct the Broome Liquid Mud Plant for the manufacture and storage of drilling and completion fluids (or drilling muds) including water based muds, synthetic based muds and linear alpha olefin based muds. The proposed Premises will be located within part of Lot 587 Crab Creek Road, Broome.

The manufacture and storage of drilling muds meets the definition of prescribed premises Categories 73 and 75 under the EP Regulations.

On 23 September 2019 the Applicant had a scoping meeting with a DWER representative in Broome. At this meeting the Applicant indicated they would apply to operate the Premises under a registration.

This decision report focusses on the emissions and discharges associated with the construction and operation of the Premises and does not assess other facilities located on Lot 587 which are occupied by an external party, Northwest Nitrate Supplies.

This decision report documents the Delegated Officer's risk assessment of emissions and discharges and determination of the Application consistent with DWER's *Guidance Statement: Risk Assessment* (DER, 2017) and *Guideline: Decision Making* (DER, 2019) respectively.

### 2.1 Application details

Table 2 lists the documents submitted during the assessment process.

#### Table 2: Documents and information submitted during the assessment process

Document/information description	Date received
<ul> <li>A1829825 DWER Works Approval Application</li> <li>Category 73 and 75 works approval application form</li> <li>Supporting document</li> </ul>	2 October 2019
A1839998 Environmental Management Plan Halliburton Australia Pty Ltd, Environmental Management Plan: Liquid Mud Plant, Lot 587 Crab Creek Road, Broome, Western Australia	8 November 2019
A1850000 Email titled 'Works Approval Application – Halliburton Australia – Broome Liquid Mud Plant' containing additional information in relation to infrastructure to be constructed on the Premises	10 December 2019

# 3. Background

The Applicant leases part of Lot 587 Crab Creek Road from Marphil Holdings Pty Ltd. The lease is valid for a five year period, expiring on 31 October 2024 with the option to extend to 31 October 2029. The Premises is located in an industrial zone 8 km northeast of the Broome township.

Lot 587 is jointly occupied by Northwest Nitrate Supplies who operate a technical ammonium nitrate storage and transfer facility. There are two existing sheds on Lot 587 which share a single roof separated by a drive through access lane. The eastern shed is occupied by Northwest Nitrate Supplies. The liquid mud plant will be constructed within the western shed which is currently vacant. In addition to the existing sheds, there is a third existing structure that is not occupied by the Applicant.

The Applicant will share existing facilities within Lot 587 including roads, stormwater detention basins, a weighbridge, existing earth bunding around the permitter of the lot, parking and offices

with Northwest Nitrate Supplies.

The Applicant proposes to construct a liquid mud plant for mixing and storage of drilling and completion fluids used in offshore drilling operations associated with the oil and gas industry. The liquid mud plant will produce and store various types of drilling fluids including, WBM, SBM and LAO based muds.

The Premises is on an existing developed lot therefore no clearing of native vegetation will occur.

Table 3 lists the prescribed premises categories that have been applied for.

 Table 3: Prescribed premises categories in the works approval

Classification of Premises	Description	Approved Premises maximum design capacity
	Bulk storage of chemicals etc.: premises on which acids, alkalis or chemicals that —	3,890m <sup>3</sup> in aggregate
Category 73	a) contain at least one carbon to carbon bond; and	
	b) are liquid at STP (standard temperature and pressure),	
	are stored.	
Category 75	Chemical blending or mixing not causing discharge: premises on which chemicals or chemical products are mixed, blended or packaged in a manner that does not cause or is not likely to cause a discharge of waste into the environment.	60,000 tonnes per year

# 4. **Overview of Premises**

### 4.1 Construction and installation aspects

The liquid mud plant will comprise existing and new infrastructure. Existing infrastructure on the Premises which will be used for the operation of the liquid mud plant includes:

- a 90 m x 38 m shed;
- two stormwater retention basins;
- parking area, office and amenities; and
- a weighbridge.

The Applicant intends to build an 81.5 m x 35 m x 0.3 m concrete bunded area south of the existing shed for storage of brine, synthetic base fluids and mixed drilling fluids. A second 20 m x 20 m x 0.3 m concrete bunded area will be constructed inside the existing shed to contain the chemical mixing infrastructure.

The Applicant will install other infrastructure required for operation of the liquid mud plant including mixing and storage tanks and footings, bag cutters, dust collectors, storage silos, generator fuel storage tank, a water tank and associated ancillary equipment including generators, compressors, pumps and a mobile oil/water separation unit.

### 4.2 **Operational aspects**

The Applicant intends to mix and store drilling and completion fluids, also known as drilling muds, on the Premises. The drilling fluids are produced by batch mixing powdered bentonite, barite and other additives, such as viscosity modifiers and fluid loss control agents, with a carrier fluid such as water, brine or synthetic liquids. Power to operate the Premises infrastructure will be supplied by generators. A small 0.06 MW generator will power site lighting and offices when equipment is not being operated and a larger 0.7 MW primary generator will power all equipment

on the Premises. A second 0.7 MW generator will serve as a backup generator should the primary generator require repair or maintenance. A self bunded 30 m<sup>3</sup> fuel tank will store fuel for the generators.

### 4.2.1 Blending of liquids

The mixing area will be inside the existing shed in a concrete bunded area. The bunded mixing area will contain WBM, SBM, LAO and brine mixing tanks and have a capacity to contain 120 m<sup>3</sup> of spills (150 per cent capacity of the largest vessel which is an 80 m<sup>3</sup> mixing tank). Raw materials including bentonite, barite and mixing fluids are pumped from storage tanks or silos into 80 m<sup>3</sup> and 54 m<sup>3</sup> mixing tanks. Spillages which may occur will be contained within the bunded area and recovered for reuse onsite or removed offsite for treatment or disposal.

#### 4.2.2 Bulk storage of chemicals

Brine, synthetic base fluids and mixed drilling fluids will be stored in 54 m<sup>3</sup> Baraswift tanks within a concrete bunded storage area outside of the shed. The external bunded area will have a capacity of more than 20 per cent of all stored liquids and will have sumps in all corners to allow for spillages and stormwater to be collected and pumped out of the area. Bulk volumes of barite, bentonite and cement will be stored in silos on a concrete pad north of the existing shed. Four silos will be used for barite and bentonite storage and five silos will be used to store cement.

Barite, bentonite and cement powders will be blown into the storage silos from bag cutting pods via enclosed transfer lines. Bag cutting pods and air walls will be located inside the shed and will be connected to dust collectors that will capture dust in the transfer lines. The silos will also be connected to dust collectors.

A dust collector for the barite and bentonite silos will be located adjacent to the silos and a dust collector for the cement silos will be located inside the shed. Filters in the dust collectors are cleaned using pulses of compressed air and dust is collected in bulk bags for reuse in the process or removal off site. The clean air is vented through the shed or into the atmosphere depending on the location of the dust collector.

#### 4.2.3 Stormwater management

The external bunded area will have the capacity to contain up to 200 mm of rainfall in a 24 hour period (560,000 L) without overtopping. Stormwater captured in the bunded area will drain into one of four 1,296 L capacity sumps located in each of the corners of the bunded area. Under normal rainfall conditions (190.9 mm per month as determined from Bureau of Meteorology, records for Broome airport), diaphragm pumps will be used to transfer stormwater from the sumps into storage tanks located on the Premises for reuse in the mixing process.

In severe rainfall conditions (24 hour rainfall exceeding 200 mm as determined from Bureau of Meteorology records for Broome airport) or when storage tanks are unable to accept additional stormwater, diaphragm pumps will be used to empty the external bunded area by feeding a mobile twin pod cartridge water filtration unit fitted with oil-bond cartridges (oily water interceptor). The maximum processing rate of the oily water interceptor is 3,430,000 L per 24 hours and is 99% efficient in removing oil from water. Treated water will fall to the ground and will drain to the stormwater retention basins, with a combined storage capacity of 9,000 kL. Stormwater unsuitable for discharge will be removed from the Premises for disposal at a licensed liquid waste facility.

Periodically, and prior to a severe rainfall event, sumps will be cleaned of contained materials using a vacuum truck and waste removed from the Premises. Bunded areas will be checked weekly to ensure they are fit for purpose and at least 48 hours before any forecast cyclone or major rainfall event.

Uncontaminated stormwater from the yard area and roof runoff (non-processing areas) will flow to one of the stormwater retention basins located to the northwest and east of the Premises.

### 4.3 Infrastructure

The facility infrastructure, as it relates to category 73 and 75 activities, is detailed in Table 4 with reference to the Site Plan (attached in the issued works approval).

#### Table 4: Broome Liquid Mud Plant category 73 and 75 infrastructure

Infrastructure	Site layout plan or site plan reference			
Prescribed Activity category 73 and 75				
Mixing area 20 m x 20 m x 0.3 m concreted bunded area inside the shed with a 1,296 L concrete sump with air driven diaphragm pump	Bunded area SP1 (Error! Reference source not found.)			
Mixing tanks 2 x 80 m <sup>3</sup> and 1x 54 m <sup>3</sup> impervious steel Baraswift tanks within the mixing area	500 BBL WBM Mix Tank, 500 BBL OBM Mix Tank and 340 BBL Brine Mix Tank (Error! Reference source not found.)			
Storage area 81.5 m x 35 m x0.3 m concrete bunded area outside the shed with four 1,296 L concrete sumps each with air driven diaphragm or air driven submersible pump	External bunded area S1 to S4 (Error! Reference source not found.)			
Storage tanks 72 x 54 m <sup>3</sup> impervious steel Baraswift tanks each fitted with VegaPuls 62 level sensors within the storage area	Baraswift tank 340 BBL (Error! Reference source not found.)			
Silos 9 x 62 m <sup>3</sup> silos fitted with a pressure gauge and relief valve	Baurite Silos and Cement Bulk Silos (Error! Reference source not found.Error! Reference source not found.)			
2 x Donaldson Downflo Evolution DFE 2-4 dust collectors	DC1 and Dust Collector (Error! Reference source not found.)			
2 x bag cutting pods connected to silos via enclosed transfer lines. Cutting pods meet ASME Sect. VIII Div 1 2017.	Airwall and 2 cutting pods (Error! Reference source not found.)			
Oily water interceptor Twin pod cartridge water filtration unit fitted with oil-bond cartridges to treat potentially contaminated water in sumps and external bunded area.	NA mobile			
3" wilden diaphragm pumps to be connected to sumps	NA mobile			
80 m <sup>3</sup> Water Tank	500 BBL water tank (elevated) (Error! Reference source not found.)			
30 m <sup>3</sup> self-bunded fuel tank	Fuel Tank (Error! Reference source not found.)			
Ancillary equipment and utilities (1 x 0.06 MW generator, 2 x 0.7 MW generators, compressors, pumps etc.)	Generator G1-3, air compressor HPC (Error! Reference source not found.)			

### 4.4 Exclusions to the Premises

The Northwest Nitrate Supplies storage and transfer facilities, and shared weighbridge, roads, office and parking facilities are not considered in this decision report.

# 5. Legislative context

Table 5 summarises approvals relevant to the assessment.

 Table 5: Relevant approvals and tenure

Legislation	Number	Approval
Shire of Broome Town Planning Scheme No. 06 Administered in accordance with the provisions of the <i>Planning and</i> <i>Development Act 2005.</i>	CRA-2/LT 587 : 2019/79	Development Approval was granted on 17 December 2019 allowing for the production and storage of drilling fluids at Lot 587 Crab Creek Road Roebuck WA.
Rights in Water and Irrigation Act 1914	GWL 176352	Licence allows entitlement of 40,000 kL per year for general purposes.

# 6. Consultation

The Shire of Broome was sent a request for comment on the application on 24 October 2019. A response was provided on 19 November 2019, notifying DWER that an application for development approval had been submitted and was being assessed under delegation. The Shire of Broome also confirmed the proposed development is located in an industrial zone.

The application was uploaded to the DWER website on 16 October 2019 for 21 days to seek comments from the public. No responses were received from this consultation processes.

# 7. Location and siting

### 7.1 Siting context

The Premises is located 8 km northeast of Broome in the Broome Road Industrial Area, a developing industrial precinct.

### 7.2 Residential and sensitive premises

The distances to residential and sensitive receptors are detailed in Table 6.

#### Table 6: Receptors and distance from activity boundary

Sensitive land uses	Distance from prescribed activity
Morrell Park residential community	3.5 km southwest of the Premises boundary

### 7.3 Specified ecosystems

Specified ecosystems are areas of high conservation value and special significance that may be impacted as a result of activities at, or emissions and discharges from the Premises. The distances to specified ecosystems are shown in Table 7

#### Table 7.

Table 7 also identifies the distances to other relevant ecosystem values which do not fit the

definition of a specified ecosystem.

The table has also been modified to align with the Guidance Statement: Environmental Siting.

 Table 7: Environmental values

Biological component	Distance from the Premises		
Macrotis lagotis (Greater bilby)	Recording located 398 m southwest of the Premises boundary		
LGA priority 3 threatened flora 9673	824 m northwest of the Premises boundary		

### 7.4 Groundwater and water sources

Groundwater at the Premises is located approximately 26.5 m below ground level and water sources are shown in Table 8.

Table 8: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value	
Broome water reserve	650 m north of the Premises boundary	Public drinking water source area, priority 1.	
Broome water reserve	700 m north of the Premises boundary	Wellhead protection zone.	

### 7.5 Meteorology

Rainfall can provide a direct pathway for transmission of potentially contaminated stormwater or major breach of containment (via mobilising spilled materials), so the rainfall patterns in the vicinity of the Premises have been considered. The closest Bureau of Meteorology weather station to the Premises is located at Broome Airport approximately 9 km southwest of the Premises.

### 7.5.1 Rainfall

The Premises is located within a tropical monsoon climate with rainfall and cyclones typically occurring during the wet season from November to April. Average rainfall is between 250 to 800 mm per year with the heaviest and most widespread downpours associated with thunderstorms (Figure 1).

Evapotranspiration varies moderately across seasons, however generally remains higher than rainfall, averaging 1,980 mm per year even in the wet season.



Figure 1: Average rainfall and mean maximum temperature at Broome Airport 1939 to 2019 (Bureau of Meteorology 29 November 2019).

### 8. Risk assessment

### 8.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a risk event which requires detailed risk assessment.

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a risk event. Where an emission has an actual or likely pathway and a receptor which may be adversely impacted, that emission will not be risk assessed further and will be screened out through Table 10.

The identification of the sources, pathways and receptors to determine risk events are set out in Table 9 and Table 10 below.

Risk events			Continue to	Reasoning			
Sc	ources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
Construction, mobilisation and positioning of infrastructure	Earthworks for construction of storage tank footings and external concrete bunded area. Placement of infrastructure (storage tanks, silos, mixing tanks, etc.). Vehicle movements during the construction period.	Dust Noise	No human receptors or other sensitive receptors in proximity. Nearest human residence located 3.5 km from Premises boundary	Air / wind dispersion	Public amenity Public amenity	No	No receptor present. No receptor present. The Noise Regulations apply at all times

#### Table 9. Identification of emissions, pathway and receptors during construction

### Table 10: Identification of emissions, pathway and receptors during operation

Risk events					Continue to	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
Movement of powders from bulk bags into silos. Use of cutting pods to break bags etc. Movement of powders from silos to mixing tanks.	Dust	No potential receptors. Nearest human residents 3.5 km from Premises boundary.	Air/wind dispersion	Public amenity	No	No receptor present.
Mixing and bulk storage of chemicals (use of pumps, compressors and generators).	Noise	No potential receptors. Nearest human residents 3.5 km from Premises boundary.	Air/wind dispersion	Public amenity	No	No receptor present. The Noise Regulations apply at all times.

Mixing and bulk storage of chemicals (WBM, SBM, Brine and LAO). Unloading of products and raw materials and load out of mixed fluids to trucks. Transfer of raw materials into shed from silos and into storage tanks from shed.	Stormwater contaminated with hydrocarbons, powdered bentonite, barite or cement	Soils and groundwater (located around 26.5 m BGL) including nearby public drinking water source areas (located 350 m north).	Overland runoff and seepage to groundwater	Soil contamination and/or infiltration causing impacts to groundwater	No	Due to containment infrastructure listed below, there is no pathway to soils or groundwater under normal operating conditions. The Applicant's proposed stormwater mitigation controls are likely to be sufficient at mitigating contaminated stormwater emissions and will be included in the works approval regulatory controls. These controls include:
						Concreted bunded area outside will have a capacity of 20% of the total stored volume and will have four 1,296 L sumps in each corner.
						Sumps will be emptied of stormwater using diaphragm pumps and reused in mixing process or (during extreme rainfall events) treated by a mobile oily water interceptor and released to stormwater basins. The oily water interceptor removes 99% of oil in the water
						Sumps will be periodically cleaned using a vacuum truck and waste removed from site.
						Mixing of chemicals occurs inside the shed and within an impervious concrete bunded area with a capacity of 150% of the largest vessel (no potential for generation of stormwater during mixing processes)
						Spill response kits will be available on site and contents inspected regularly. Spills will be recovered without delay, contained and used on site or removed offsite for treatment in accordance with the Halliburton Global Spill Management Standard.
						Level sensors will be installed on all storage tanks.
						The Unauthorised Discharges Regulations apply at all times during operations.

Risk events				Continue to	Reasoning	
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
Bulk storage of chemicals (WBM, SBM, Brine and LAO).	Major breach of containment infrastructure causing discharge to land.	Soils and groundwater (located around 26.5 m BGL) including nearby public drinking water source areas (located 350 m north).	Overland runoff and seepage to groundwater	Soil contamination and/or infiltration causing impacts to groundwater	No	<ul> <li>The site is located in an industrial area.</li> <li>The Applicant's proposed chemical containment controls are likely to be sufficient at mitigating impacts associated with major breach of containment and will be included in the works approval regulatory controls. These controls include:</li> <li>Concreted bunded area outside with a capacity of 20% of the total stored volume and will have four 1,296 L sumps in each corner to contain any leaks or spills of drill muds.</li> <li>Capacity of sumps will be maintained by removing stormwater with onsite pumps for reuse in mixing process or treated via an oily water interceptor and released to the premises storm water basins.</li> <li>Sumps will be periodically cleaned using a vacuum truck and waste removed from site.</li> <li>Spill response kits will be available on site and contents inspected regularly. Spills will be recovered without delay, contained and used on site or removed offsite for treatment in accordance with the Halliburton Global Spill Management Standard.</li> <li>Hazardous materials will be stored in compatible containers and these containers will be regularly inspected.</li> <li>Unauthorised Discharges Regulations apply at all times during operations.</li> </ul>

# 9. Determination of Works Approval conditions

The conditions in the issued works approval in Attachment 1 have been determined in accordance with the *Guidance Statement: Setting Conditions* (DER 2015).

Table 11 provides a summary of the conditions to be applied to this works approval.

Table 11: Summary of conditions to be applied

Condition Ref	Grounds
Infrastructure and equipment 1	This condition is valid, risk-based and contains appropriate controls to mitigate the risk of emissions and discharges associated with dust, noise and contaminated stormwater during construction and operation of the Premises.
Compliance reporting 2	This condition is valid, risk-based and consistent with the EP Act. The Applicant must submit specified certifications for the installed infrastructure following completion of the works to confirm the works have been constructed in accordance with the specified requirements.
Records and reporting 3, 4 and 5	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

Potential emissions associated with the application include dust and noise during construction and dust, noise, contaminated stormwater and major breach of containment during operations. Applicant controls have been included in Condition 1 (infrastructure requirements) of the works approval as they lower the risk of emissions impacting receptors during the operation of the Premises. Conditions have also been included to include compliance reporting and record keeping requirements.

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the works approval under the EP Act.

# 10. Applicant's comments

The applicant was provided with the draft decision report and draft issued works approval on 24 December 2019. The applicant provided clarifications to queries in the draft documents on 30 December 2019.

# 11. Conclusion

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarised in Appendix 1).

Based on this assessment, it has been determined that the issued works approval will be granted for a period of three years subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The works approval shall be granted for a standard duration of three years.

The Applicant may apply for a category 73 and 75 Licence or Registration to allow operations to commence and must comply with the Noise Regulations and Unauthorised Discharges Regulations during operations.

Amine Callegari A/Manager, Process Industries Delegated Officer under section 20 of the *Environmental Protection Act 1986* 

# Appendix 1: Key documents

Document title	Availability
DER, July 2015. <i>Guidance Statement: Regulatory principles.</i> Department of Environment Regulation, Perth.	
DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth.	
DER, August 2016. <i>Guidance Statement: Works approval duration.</i> Department of Environment Regulation, Perth.	accessed at
DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	www.dwer.wa.gov.au
DWER, June 2019. <i>Guideline: Decision Making.</i> Department of Water and Environmental Regulation, Perth.	
DWER, June 2019. Guideline: <i>Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	