Decision Report

Application for Licence

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L9109/2017/1
Applicant	Contract Resources (Karratha) Pty Ltd
ACN	609 929 580
File Number	DER2017/002200
Premises	Karratha Mercury Treatment Plant 117 Bedrock Turn GAP RIDGE WA 6714 Legal description - Lot 117 on Deposited Plan 76660 As defined by the coordinates in Schedule 1 of the Licence/Revised Licence/Works Approval
Date of Report	02/03/2018
Status of Report	Final

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1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
AS 4156.6 – 2000	Australian Standard AS 4156.6 – 2000: Determination of Dust/moisture Relationship for Coal.
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CS Act	*Contaminated Sites Act 2003* (WA)
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 *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the *Public Sector Management Act 1994* and is responsible for the administration of the *Environmental Protection Act 1986* along with other legislation.
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Review
Km	means kilometres

Licence Holder	Contract Resources (Karratha) Pty Ltd
LWSB	Liquid Waste Storage Bund
m^3	cubic metres
MTF	Mercury Treatment Facility
Minister	the Minister responsible for the EP Act and associated regulations
NEPM	National Environmental Protection Measure
Noise Regulations	*Environmental Protection (Noise) Regulations 1997* (WA)
Occupier	has the same meaning given to that term under the EP Act.
PM	Particulate Matter
PM_{10}	used to describe particulate matter that is smaller than 10 microns (µm) in diameter
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
Primary Activities	as defined in Schedule 2 of the Revised Licence
Risk Event	As described in *Guidance Statement: Risk Assessment*
UDR	*Environmental Protection (Unauthorised Discharges) Regulations 2004* (WA)
$\mu g/m^3$	micrograms per cubic metre
µg/L	micrograms per litre

2. Purpose and scope of assessment

Contract Resources (Karratha) Pty Ltd (the Licence Holder) has submitted a Licence application (the Application) to store packaged liquid and solid waste at their Mercury Treatment Facility at 117 Bedrock Turn Gap Ridge Industrial Estate (the Premises).

The Application was received on 19 December 2017 from the Licence Holder for Prescribed Premises Categories 61 and 61A defined in Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations)

This Decision Report presents an assessment of potential environmental and public health risks from emissions and discharges from the operation of the Premises. As a result of this assessment, a Licence has been granted (Issued Licence) (Attachment 1).

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
Signed Application Form (pages 1-10)	19 December 2017
Signed Application Form (pages 11-24)	
Appendix A – Environmental Management Plan	14 December 2017
Appendix C – ASIC Extract	
Appendix D – Contract Resources Spill Management Guide – Environmentally Hazardous Substances	
Appendix E – Cyclone Management Plan	
Appendix F – Waste Acceptance Procedure	
Stage 1 Licence Application – Supporting Documentation	

3. Background

The Licence Holder was issued with Works Approval W5958/2016/1 for the construction of a Mercury Treatment Facility (MTF) in June 2016. The Plant will be able to separate mercury, hydrocarbons, water and solids from a range of mercury contaminated wastes including spent absorbents and hydrocarbon sludge products from the oil and gas industry.

When extracting gas from reserves located in the northern gas fields of Australia, producers of liquefied natural gas (LNG) are finding increased levels of mercury within their gas streams. To prevent this mercury from coming into contact with aluminium components, usually found within LNG cooling systems, a mercury guard bed is installed. If this mercury was to come into contact with aluminium components it could cause rapid corrosion, which could result in significant production losses and increased process safety risks. As the quantity of mercury builds up within these mercury guard beds over time, the catalyst that sits within them requires changing out.

Once removed from the guard beds the spent catalysts are considered to be a controlled waste, due to the high mercury, copper and zinc content. Currently there are no industrial sized treatment facilities within Australia that have the capability of recovering the mercury and other heavy metals. As no safe disposal mechanism currently exists in Australia the majority

of mercury contaminated wastes and spent catalysts are been shipped from Australia to Europe for treatment.

Stage 1 of Works Approval W5958/2017/1 was for the construction of the Liquid Waste Storage Bund (LWSB), compacted road base laydown area, main service road and perimeter fencing of the Premises. The Licence Holder submitted a compliance document noting the infrastructure associated with Stage 1 of the Works Approval had been constructed. Stage 2 of the Works Approval was for the construction of the washpad, evaporation ponds, process warehouse liquid transfer station and installation of the Thermal Desorption Unit, High Temperature Treatment Unit, and Mercury Purification Process Module.

This Licence is for the operation of Stage 1 infrastructure only, which will allow the Licence holder to store spent packaged mercury catalysts and hydrocarbon sludge products at the Premises. Only packaged controlled wastes will be accepted onto site and no consolidation or transfer activities will occur under this Licence.

The Licence Holder is required to apply to amend the Licence or Works Approval in order to commission processing plant or undertake any waste processing at the facility.

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

Table 3: Prescribed Premises Categories in the Existing Licence

Classification of Premises	Description	*Approved Premises production or design capacity or throughput*
Category 61	Liquid waste facility: premises, on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	1,000 tonnes per annual period
Category 61A	Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	1,500 tonnes per annual period

4. Overview of Premises

4.1 Operational aspects

Solid waste (spent catalysts) are brought onto site in waste receptacles i.e. United Nations (UN) approved drums, Intermediate Bulk Containers (IBC's), Bulka bags and Dangerous Goods certified vessels or isotanks. The spent catalysts will be stored in Spent Catalyst Laydown area A or B and the Liquid waste storage bund. Only packaged controlled wastes will be accepted onto site and no consolidation or transfer activities will occur under this Licence.

Hydrocarbon storage sludge will be brought onto site in sealed impervious containers These receptacles will be stored within the LWSB which was constructed with reinforced concrete to achieve a permeability of less than 1 $x10^{-9}$ m/s.

4.2 Infrastructure

The MTF infrastructure, as it relates to Categories 61 and 61A activities, is detailed in Table 4 and with reference to the Site Plan.Table 4 lists infrastructure associated with each prescribed premises category.

Table 4: MTF infrastructure

	Infrastructure	Site Plan Reference
Prescribed Activity Category 61		
1	Liquid Waste Storage Bund	Figure 1
Prescribed Activity Category 61A		
1	Catalyst Laydown area A	Figure 1
2	Catalyst Laydown area B	Figure 1

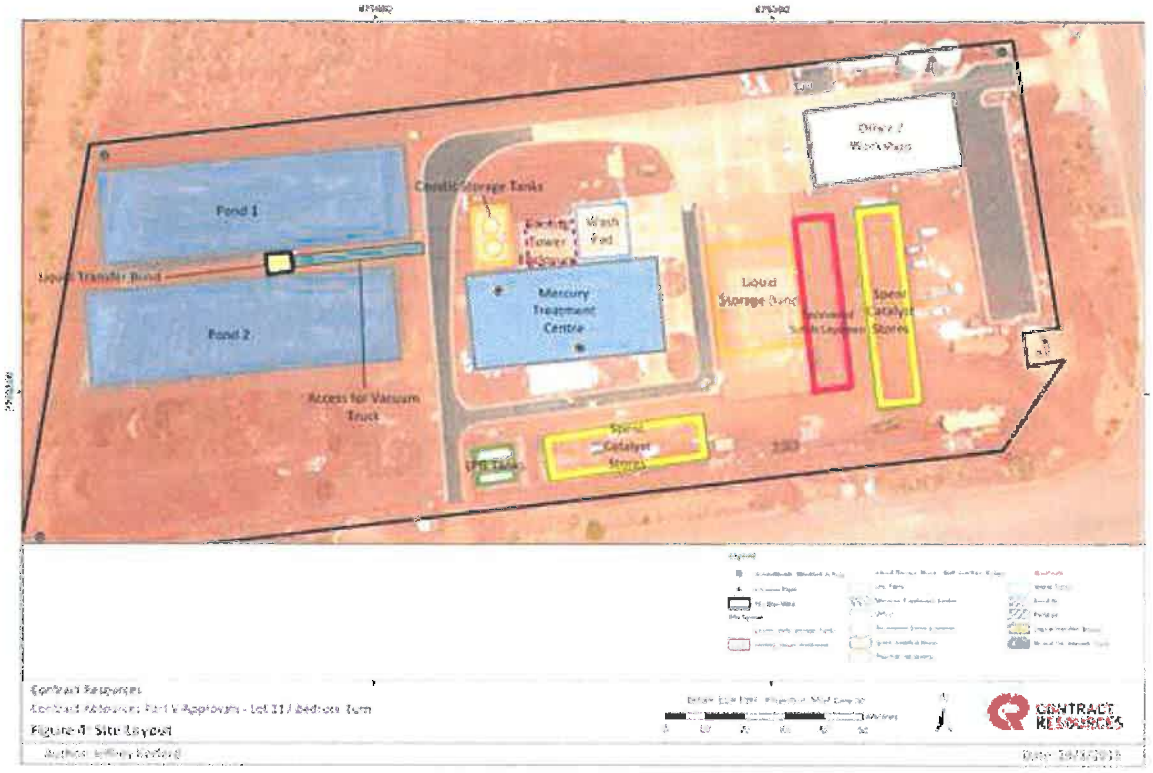

Figure 1: MTF site layout

5. Legislative context

Table 5 summarises approvals relevant to the assessment.

Table 5: Relevant approvals and tenure

Legislation	Number	Subsidiary	Approval
Dangerous Goods Safety Act 2004	*DGS022313*	*Contract Resources (Karratha) Pty Ltd*	*Licence to store dangerous goods*

5.1 Other relevant approvals

5.1.1 Planning approvals

The Licence Holder was granted with Development Approval by Kimberley/Pilbara Gascoyne Joint Development Assessment Panel (JDAP) on 10 June 2016 in accordance with the *Planning and Development Act 2005* and the *Planning and Development (Development Assessment Panels) Regulations 2011*.

The City of Karratha provided correspondence to the Department on 2 February 2018 outlining no objection to the commencement of operations of the MTF under licence.

5.2 Part V of the EP Act

5.2.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

The guidance statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Licence Duration (August 2016)*
- *Guidance Statement: Publication of Annual Audit Compliance Reports (May 2016)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessments (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

5.2.2 Works approval and licence history

Table 6 summarises the works approval and licence history for the premises.

Table 6: Works approval and licence history

Instrument	Issued	Nature and extent of works approval, licence or amendment
W5958/2016/1	27/06/2016	Works Approval issued for the construction of the MTF.
L9109/2017/1	2/03/2018	Licence issued for Stage 1 completion of Works Approval W5958/2016/1 to store packaged liquid and solid waste at the Premises

5.2.3 Key and recent works approvals

The Licence Holder submitted correspondence to the Department on 14 December 2017 outlining completion of the Stage 1 infrastructure under Works Approval W5958/2016/1.

6. Consultation

The Application was advertised in the West Australian newspaper on 8 January 2018. The City of Karratha was also notified as the Local Government Authority.

7. Location and siting

7.1 Siting context

The Premises is located in the Gap Ridge Industrial Estate in the township of Karratha, in the Pilbara Region of Western Australia, 1,535 kilometres north of Perth. The Premises adjoins to the Karratha Recycling premises (Licence L8861/2014/1). The City of Karratha's Seven Mile Waste Disposal Site (7021/1997/15) is located across the road. Other industrial premises also operate within the Gap Ridge Industrial Estate.

7.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 7.

Table 7: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Civeo Accommodation Camp	2.27km

7.3 Groundwater and water sources

Three groundwater monitoring bores were installed, to allow accurate determination of groundwater flow direction and the potential direction for contaminant migration. The bores were positioned hydraulically up-gradient and down gradient from the site. The bores were installed to a maximum depth of 15 metres below ground level (mbgl).

The nearest water course is Seven Mile Creek, located 1.2 km to the west of the Premises

The distances to groundwater and water sources are shown in Table 9.

Table 8: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value
Groundwater	Depth to groundwater at the site is between 8-10 metres below ground level. Groundwater flows from east to west at the premises.	No known potable or industrial uses in the area due to depth below ground level.
Seven Mile Creek	1.2km west of the Premises	Seven Mile Creek is an ephemeral drainage system which contains water after large rainfall events.

7.4 Meteorology

Karratha lies within the Pilbara region of WA and has a tropical arid climate with two main seasons: a hot wet summer (October to April) and a warm dry winter (May to September). The region is characterised by highly variable, but generally low rainfall and high year-round temperatures. The nearest official weather station is Karratha Aero. The average annual rainfall at Karratha Aero is 293.8 mm with most rainfall occurring between January and March. Karratha Aero has average monthly temperatures that peak at 36°C in January and reach a low of 13.6°C in July. Cyclonic activity is significant with several systems affecting the area annually.

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. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 9.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 9 below.

Table 9: Identification of emissions, pathway and receptors during operation

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Category 61: Liquid waste facility	*Storage of waste oil and hazardous liquid waste containing mercury*	*Odour*	*Accommodation camp located 2.27km north*	Air / wind dispersion	Amenity impacts causing nuisance (human health)	*No*	All hydrocarbon sludge accepted onto the premises will be in enclosed receptacles within the liquid waste storage bund. This licence is for the acceptance and storage of waste only. Commissioning and processing of waste will be authorised under a subsequent amendment application. There will be no consolidation of transfer of waste that is brought onto the premises under this licence. The Delegated Officer considers the s49 of the EP Act sufficient to regulate odour from the Premises

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
		Discharge to land from containment failure and stormwater runoff contaminated with hazardous liquid waste	*Depth to groundwater at the site is between 8-10 mbgl. TDS ranges from 1,000 to 2,500 mg/L. No known potable or industrial uses in the area due to depth below ground level.*	*Infiltration to groundwater through underlying soils*	*Contamination of land and underlying groundwater*	*Yes*	See Section 8.4
Cat 61A: Solid waste facility	Storage of solid hazardous wastes *containing mercury* (inorganic chemicals and soil and sludges)	*Odour*	*Accommodation camp located 2.27km north*	Air / wind dispersion	Amenity impacts causing nuisance (human health)	*No*	All solid wastes accepted onto the premises will be in enclosed receptacles and stored within a 20ft. sea container for secondary containment in either the Spent Catalyst Laydown Area A or B. There will be no consolidation of transfer of waste that is brought onto the premises under this iteration of the licence. The Delegated Officer considers the s49 of the EP Act sufficient to regulate odour from the Premises
		Discharge to land from containment failure and stormwater runoff contaminated with hydrocarbon sludge	*Depth to groundwater at the site is between 8-10 mbgl. TDS ranges from 1,000 to 2,500 mg/L. No known potable or industrial uses in the area due to depth below ground level.*	*Infiltration to groundwater through underlying soils*	*Contamination of land and underlying groundwater*	*Yes*	*See section 8.5*

8.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 10 below.

Table 10: Risk rating matrix

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 11 below.

Table 11: Risk criteria table

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		**The following criteria has been used to determine the consequences of a Risk Event occurring:**		
			Environment	**Public health* and amenity (such as air and water quality, noise, and odour)**
Almost Certain	The risk event is expected to occur in most circumstances	Severe	• **onsite impacts**: catastrophic • **offsite impacts local scale**: high level or above • **offsite impacts wider scale:** mid-level or above • Mid to long-term or permanent impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are significantly exceeded	• Loss of life • **Adverse health effects:** high level or ongoing medical treatment • Specific Consequence Criteria (for public health) are significantly exceeded • **Local scale impacts:** permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	• **onsite impacts**: high level • **offsite impacts local scale**: mid-level • **offsite impacts wider scale**: low level • Short-term impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are exceeded	• **Adverse health effects:** mid-level or frequent medical treatment • Specific Consequence Criteria (for public health) are exceeded • **Local scale impacts**: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	• **onsite impacts**: mid-level • **offsite impacts local scale**: low level • **offsite impacts wider scale**: minimal • Specific Consequence Criteria (for environment) are at risk of not being met	• **Adverse health effects:** low level or occasional medical treatment • Specific Consequence Criteria (for public health) are at risk of not being met • **Local scale impacts:** mid-level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	• **onsite impacts**: low level • **offsite impacts local scale**: minimal • **offsite impacts wider scale**: not detectable • Specific Consequence Criteria (for environment) likely to be met	• Specific Consequence Criteria (for public health) are likely to be met • **Local scale impacts:** low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	• **onsite impact**: minimal • Specific Consequence Criteria (for environment) met	• **Local scale**: minimal to amenity • Specific Consequence Criteria (for public health) met

^ Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting.*

* In applying public health criteria, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines.*

"onsite" means within the Prescribed Premises boundary.

8.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment table 12 below:

Table 12: Risk treatment table

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
High	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

8.4 Risk assessment – liquid waste emissions

8.4.1 Description of liquid waste emissions

Liquid waste emissions from wastes stored in United Nations (UN) approved drums, Intermediate Bulk Containers (IBC's), Iso-tanks, Dangerous Goods Rated Sludge Bins and Dangerous Goods Certified Vessels flowing overland and seeping into the soil causing environmental impacts to the soil quality on the Premises and local groundwater sources.

8.4.2 Identification and general characterisation of emission

Emissions are not anticipated during normal operations, and would only occur in the event of failure of the containment infrastructure. Given the soil type at the Premises there is unlikely to be significant seepage through the soil below ground level, and therefore emissions are most likely to be transported through overland flow.

8.4.3 Description of potential adverse impact from the emission

Liquid wastes spilt onto the ground may contaminate the soil and cause the Premises to become contaminated, which may restrict the ability to use the Premises for a variety of purposes. Liquid wastes which spill onto the ground and travel overland to surface waters may cause impacts to surface water ecology and flora and fauna that use the surface water as a resource. Waste oils and hydrocarbons can potentially have a mutagenic or carcinogenic effect on organisms, may restrict plant growth, or may cause irritation of mucus membranes on fauna. Mercury waste can also impact on human health through inhalation of mercury particles effecting reproduction, nervous system and brain development.

8.4.4 Criteria for assessment

The Assessment levels for soil, sediment and water (Department of Environment and Conservation, February 2010) are considered the most appropriate for assessing impacts to soil and surface water.

The Premises is also subject to the *Environmental Protection (Unauthorised Discharge) Regulations 2004*.

8.4.5 Applicant/Licence Holder controls

Wastes accepted onto the Premises are stored in United Nations (UN) approved drums, IBC's, Iso-tanks, Dangerous Goods Rated Sludge Bins and Dangerous Goods Certified Vessels within the LWSB which is capable of storing 800 tonnes of liquid waste. The LWSB has been designed for a 1:20 year weather event in accordance with AS 1940 and is concrete lined to achieve a permeability of well below 1 $x10^{-9}$ m/s. There will be no consolidation or transfer of waste that is brought onto the premises.

8.4.6 Key findings

The Delegated Officer has reviewed the information regarding liquid waste emissions and has found:

1. Spillages and seepages of liquid waste have the potential to impact near surface soils and any flora and fauna that may be present.
2. Receipt and storage infrastructure is satisfactory for Stage 1 operation of the plant. Spillages and seepages are not expected under normal operating conditions.

8.4.7 Consequence

If liquid waste emissions occur, then the Delegated Officer has determined that the impact of liquid waste contamination of soils will be low-level on site impacts and off site impacts would be minimal on a local scale. Therefore, the Delegated Officer considers the consequence of liquid waste emissions to be **Minor.**

8.4.8 Likelihood of Risk Event

The Delegated Officer has determined that liquid waste emissions would only occur in exceptional circumstances. Therefore, the Delegated Officer considers the likelihood of liquid waste emissions to be **Rare**.

8.4.9 Overall rating of liquid waste emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 9) and determined that the overall rating for the risk of liquid waste emissions is **Low.**

8.5 Risk assessment – solid waste emissions

8.5.1 Description of solid waste emissions

Solid waste emissions from spillage of wastes stored in waste receptacles into the soil causing environmental impacts to the soil quality at the Premises.

8.5.2 Identification and general characterisation of emission

Emissions are not anticipated during normal operations, and would only occur in the event of failure of the containment infrastructure. Given the soil type at the Premises there is unlikely to be significant seepage through the soil below ground level.

8.5.3 Description of potential adverse impact from the emission

Solid wastes spilt onto the ground may contaminate the soil and cause the Premises to become contaminated, which may restrict the ability to use the Premises for a variety of purposes. Solid wastes which spill onto the ground may cause impacts to surface water ecology and flora and fauna that use the surface water as a resource. Mercury waste can also impact on human health through inhalation of mercury particles effecting reproduction, nervous system and brain development.

8.5.4 Criteria for assessment

The Assessment levels for soil, sediment and water (Department of Environment and Conservation, February 2010) are considered the most appropriate for assessing impacts to soil and surface water.

The Premises is also subject to the *Environmental Protection (Unauthorised Discharge) Regulations 2004*.

8.5.5 Applicant/Licence Holder controls

All solid wastes will be brought onto site in impervious waste receptacles. These wastes will be stored within a DG rated shipping container onsite, which will act as a secondary containment. The Licence Holder will conduct weekly visual inspections of the waste receptacles to ensure their integrity. There will be no consolidation of transfer of solid waste that is brought onto the premises.

8.5.6 Key findings

The Delegated Officer has reviewed the information regarding solid waste emissions and has found:

1. Spillages and accidental discharges of solid waste have the potential to impact near surface soils.
2. Receipt and storage infrastructure is satisfactory for Stage 1 operation of the plant. Spillages are not expected under normal operating conditions.

8.5.7 Consequence

If solid waste emissions occur, then the Delegated Officer has determined that the impact of solid waste contamination of soils will be low-level on site impacts and off site impacts would be minimal on a local scale. Therefore, the Delegated Officer considers the consequence of solid waste emissions to be **Minor.**

8.5.8 Likelihood of Risk Event

The Delegated Officer has determined that solid waste emissions would only occur in exceptional circumstances. Therefore, the Delegated Officer considers the likelihood of liquid waste emissions to be **Rare**.

8.5.9 Overall rating of liquid waste emissions

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix (Table 9) and determined that the overall rating for the risk of solid waste emissions is **Low.**

9. Regulatory controls

A summary of regulatory controls determined to be appropriate for the Premises are set out in in Table 13. The risks are set out in the assessment in section 10 and the controls are detailed in this section. DWER will determine controls having regard to the adequacy of controls proposed by the Licence Holder. The conditions of the Licence will be set to give effect to the determined regulatory controls.

Table 13: Summary of regulatory controls to be applied

		Controls (references are to sections below, setting out details of controls)		
		Licence		
		9.2.1 Infrastructure and equipment	9.2.2 Waste acceptance and storage	9.2.3 Specified actions
Risk Items (see risk analysis in section 8)	1. Liquid Waste	•	•	•
Risk Items (see risk analysis in section 8)	2. Solid Waste	•	•	•

9.1 Licence controls

9.1.1 Infrastructure and equipment

The Applicant will be required to operate and maintain the following infrastructure:

- Liquid Waste Storage area with bund capable of containing 800t of liquid within the bunded area and stormwater from a 1 in 20 year 72 hour average rainfall event;
- Perimeter fencing
- Spent Catalyst Laydown A
- Spent Catalyst Laydown B

Grounds: *This condition requires that the infrastructure currently at the Premises is maintained in good working order. The infrastructure was considered by the Delegated Officer in determining the risk of emissions from the Premises and is considered necessary in minimising the risk of liquid waste and dust emission impacts.*

9.1.2 Waste Acceptance and Storage

The Licence Holder is limited to accepting 3,500 tonnes of liquid waste and 3,500 tonnes of solid waste per year of the following waste types:

Liquid waste

- B100 Acidic solutions or acids in solid form;
- C100 Basic solutions or bases in solid form;
- D120 Mercury and mercury compounds;
- J100 Waste mineral oils unfit for their intended purpose;
- J120 Waste oil and water mixtures or emulsions and hydrocarbon and water mixtures or emulsions;
- J130 Oil interceptor waste;
- J160 Waste tarry residues arising from refining, distillation or pyrolytic treatment;
- J180 Oil sludge;
- L150 Industrial wash water;
- N100 Containers or drums contaminated with residues of a controlled waste;
- N190 Filter cake containing a controlled waste; and
- N205 Industrial waste treatment plant residue

Grounds: *These are the waste types and volumes that were assessed under the decision report. Any alterations to these would require re-assessment of potential emissions and discharges.*

The Licence Holder is limited to storing liquid waste in the LWSB.

Grounds: *The requirement to store these wastes within the specified infrastructure minimises the likelihood of seepage or overland flow, and were considered in determining the risk of emissions from the Premises in this Decision Report. These requirements replicate the controls proposed by the Applicant.*

Solid Waste

- D120 Mercury and mercury compounds;
- D140 Chromium compounds;
- D190 Copper compounds;
- D200 Cobalt compounds;
- D210 Nickel compounds;
- D230 Zinc compounds;
- D270 Vanadium compounds;
- N120 Soils contaminated with a controlled waste;
- N160 Encapsulated or chemically fixed, solidified or polymerised controlled waste; and

- N205 Industrial waste treatment plant residue

9.1.3 Specified actions

The Applicant will be required to immediately clean any spills of waste on the Premises.

Grounds: *The requirement to immediately clean any spills of waste minimises the likelihood of seepage or overland flow in the event of a spill and therefore minimises the likelihood of any impacts to the soils on the Premises.*

The Applicant will be required to securely lock the Premises when not attended.

Grounds: *The requirement to lock the Premises when not attended minimises the likelihood of illegal dumping of wastes or damage to infrastructure controls. This therefore minimises the likelihood of liquid waste emissions due to incorrectly stored wastes or damage to containment infrastructure.*

10. Determination of Licence conditions

The conditions in the issued Licence in Attachment 1 have been determined in accordance with the *Guidance Statement: Setting Conditions*.

The *Guidance Statement: Licence Duration* has been applied and the issued licence expires in 20 years from date of issue.

Table 14 provides a summary of the conditions to be applied to this Licence.

Table 14: Summary of conditions to be applied

Condition Ref	Grounds
Environmental Compliance Condition 1	Environmental compliance is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Infrastructure and equipment Condition 2	This condition is valid, risk-based and contains appropriate controls.
Waste acceptance and storage Conditions 3, 4 and 5	These conditions are valid, risk-based and contain appropriate controls.
Specified actions Conditions 6 and 7	These conditions are valid, risk-based and contain appropriate controls.
Record-keeping Condition 7, 8 and 9	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

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 Licence under the EP Act.

11. Applicant's comments

The Licence Holder was provided with the draft Decision Report and draft issued Licence on 8 February 2018. The Licence Holder did not have any comments to make regarding the conditions of the Licence or information contained in the Decision Report

12. 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 Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Steve Checker
MANAGER LICENSING – WASTE INDUSTRIES
REGULATORY SERVICES (ENVIRONMENT)

Delegated Officer
under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Works Approval W5958/2016/1 – Karratha Mercury Treatment Facility	W5958/2016/1	accessed at www.dwer.wa.gov.au
2.	Application Documentation	Application	DWER records (A1587096)
3.	DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
4.	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	DER 2015b	
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Attachment 1: Issued Licence L9109/2017/1