Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: Bernard Hart Nominees Pty Ltd T/A Hartway Galvanisers

Licence: L5265/1988/11

Registered office: Suite 1, 57 Labouchere Road
SOUTH PERTH WA 6151

ACN: 129 671 343

Premises address: Hartway Galvanisers
10 Sherman Street
CANNING VALE WA 6155
Being Lot 441 on Diagram 80541as depicted in Schedule 1.

Issue date: Friday, 25 September 2015

Commencement date: Thursday, 01 October 2015

Expiry date: Wednesday, 30 September 2020

Prescribed premises category
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
48A	Metal finishing: premises on which iron or steel is galvanized.	Not applicable	No more than 24,000 tonnes per annual period

Conditions
This Licence is subject to the conditions set out in the attached pages.

.....
Lauren Trott
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role
The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements
This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:
http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.

- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.

- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions
If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The Premises is located in the Canning Vale Industrial Area, South of Perth and was originally established in 1984. Closest sensitive receptors are approximately 300 metres north of the premises. The Premises is located on the Swan Coastal Plain. Residential suburb of Parkwood is the nearest sensitive receptor located approximately 350 metres north of the premises.

The galvanising process involves preparing items to be immersed in molten zinc, applying a uniform coating of zinc and zinc-iron alloy layers. This provides corrosion protection for steel structures. The current galvanizing operation consists of eleven vats contained within a low permeability fibreglass and PVC bund designed to hold more than 110% of the volume of the largest vat. These vats include: one drying pit; one heated pre-flux tank; one water rinse vat; six hydrochloric acid vats, one caustic rinse and one heated caustic vat. The Premsies holds a Dangerous Goods Site Licence (DGS014321).

Key emission from the process include fumes from the galvanizing and emissions of ammonia, ammonium chloride, zinc, particulate matter, and acid gases such as hydrochloric acid and sulphuric acid. The Premises has been subject of complaints in the past. Causes have included employees from neighbouring premises experiencing sore/itchy eyes, throats and headaches and odour emissions. An inspection of the premises, conducted on 26 October 2009, identified the need to upgrade the fume extraction system to minimise potential for offensive odours and emissions from the premises. Works approval W5512/2013/1 was granted for installation of fume enclosure 'fixed / attached' to the double girder gantry which travels up and down the workshop together. The gantry enclosure stops over the galvanising baths whilst the galvanising process takes place and is stated to contain upto 95% of the fumes. The fumes are directed through a wet scrubbing treatment system prior to discharge through the stack. This fume extraction system doesnot accommodate large oversized items. Current exhaust fans are operated whilst galvanising of oversized items is undertaken.

This Licence is the successor to licence L5266/1988/10.

The licences and works approvals issued for the Premises since 01/10/2000 are:

Instrument log		
Instrument	**Issued**	**Description**
L5265/1988/5	01/10/2000	Licence re-issue
W3300/1988/1	06/12/2000	Works Approval
L5265/1988/6	01/10/2001	Licence re-issue
L5265/1988/7	01/10/2002	Licence re-issue
L5265/1988/8	01/10/2003	Licence re-issue
L5265/1988/9	01/10/2004	Licence re-issue
W4230/1988/1	01/07/2007	Works Approval
W4641/2010/1	19/08/2010	Works Approval

L5265/1988/10	24/10/2010	Licence re-issue
L5265/1988/10	15/08/2013	Licence amendment to REFIRE format
W5512/2013/1	3/10/2013	Works approval to authorise completion of works associated with fume extraction system on expiry of original works approval W4641/2010/1.
L5265/1988/11	25/9/2015	Licence re-issue. Changes to template incorporated. Conditions to authorise operation of the fume extraction system, constructed through W5512, included.

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986;*

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'CEMS Code' means the current version of the Continuous Emission Monitoring System (CEMS) Code for Stationary Source Air Emissions, Department of Environment & Conservation, Government of Western Australia;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'dry process' means a galvanising process where no dry ammonium chloride flux powder is added to the surface of the galvanising bath or to the surface of the articles being galvanised;

"fugitive emissions" means all emissions not arising from point sources;

"fumes" means visible gases or vapour generated by the metal finishing process;

'Licence' means this Licence numbered L5265/1988/11 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated; and

'wet process' means a galvanising process where dry ammonium chloride flux powder is added to the surface of the galvanising bath or to the surface of the articles being galvanised.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
(a) pollution;
(b) unreasonable emission;
(c) discharge of waste in circumstances likely to cause pollution; or
(d) being contrary to any written law.

1.2 General conditions

1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.3 The Licensee shall:
(a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
(b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.[1]

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

1.3.1 The Licensee shall ensure that all metal finishing activities identified in Table 1.3.1 are undertaken in accordance with the process limits described in that Table.

Table 1.3.1: Processing of materials

Material	Process	Process limits
Iron and steel	Galvanising	a) Roof exhaust fans shall be operated at all times when galvanising is being carried out on the premises. b) The factory building shall be maintained and operated such that the escape of offensive odours and fumes through doorways and windows is minimised. c) All items removed from the fluxing bath shall be air dried before they are placed in the galvanising bath. d) Only Dry Process of galvanising shall be carried out during weekdays. e) Wet Process of galvanising may be carried on weekends where necessary.

2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Point source emissions to air

2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 [and identified on the map of emission points in Schedule 1] it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to air

Emission point reference and location on Map of emission points	Emission Point and source	Emission point height (m)	Source, including any abatement
A1	Wet scrubber exhaust stack	12.4	Emisisons from the fume hood from galvanising process that are directed to the wet scrubber

2.2.2 The Licensee shall not cause or allow point source emissions to air greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to air

Emission point Reference	Parameter	Limit (including units)[1]	Averaging period
A1	Particulates	50mg/m^3	Stack test (Minimum 60 minutes average)

Note 1: All units are referenced to STP dry

3 Monitoring

3.1.1 The Licensee shall ensure that annual monitoring is undertaken at least 9 months apart.

3.1.2 The Licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.

3.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of point source emissions to air

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to air

Emission point reference	Parameter	Units[1]	Averaging period	Frequency[2]	Method
A1	Particulates	mg/m^3 g/sec	Minimum 60 minutes average	Annual	Stack test (USEPA Method 5)

Note 1: All units are referenced to STP dry
Note 2: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.

3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

4 Information

4.1 Records

4.1.1 All information and records required by the Licence shall:
- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

4.1.2 The Licensee shall ensure that:
- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

4.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

4.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 31calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
3.2.1	Monitoring data	None specified
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified
-	Premises throughput in tonnes per annual period	Tabular format : quantities processed each month and Annual total

4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
(a) any relevant process, production or operational data recorded under Condition 3.1.2; and
(b) an assessment of the information contained within the report against previous monitoring results and Licence limits.

4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form
-	Breach of any limit specified in the Licence.	As soon as practicable but no later than 5pm of the next usual working day.	N1

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

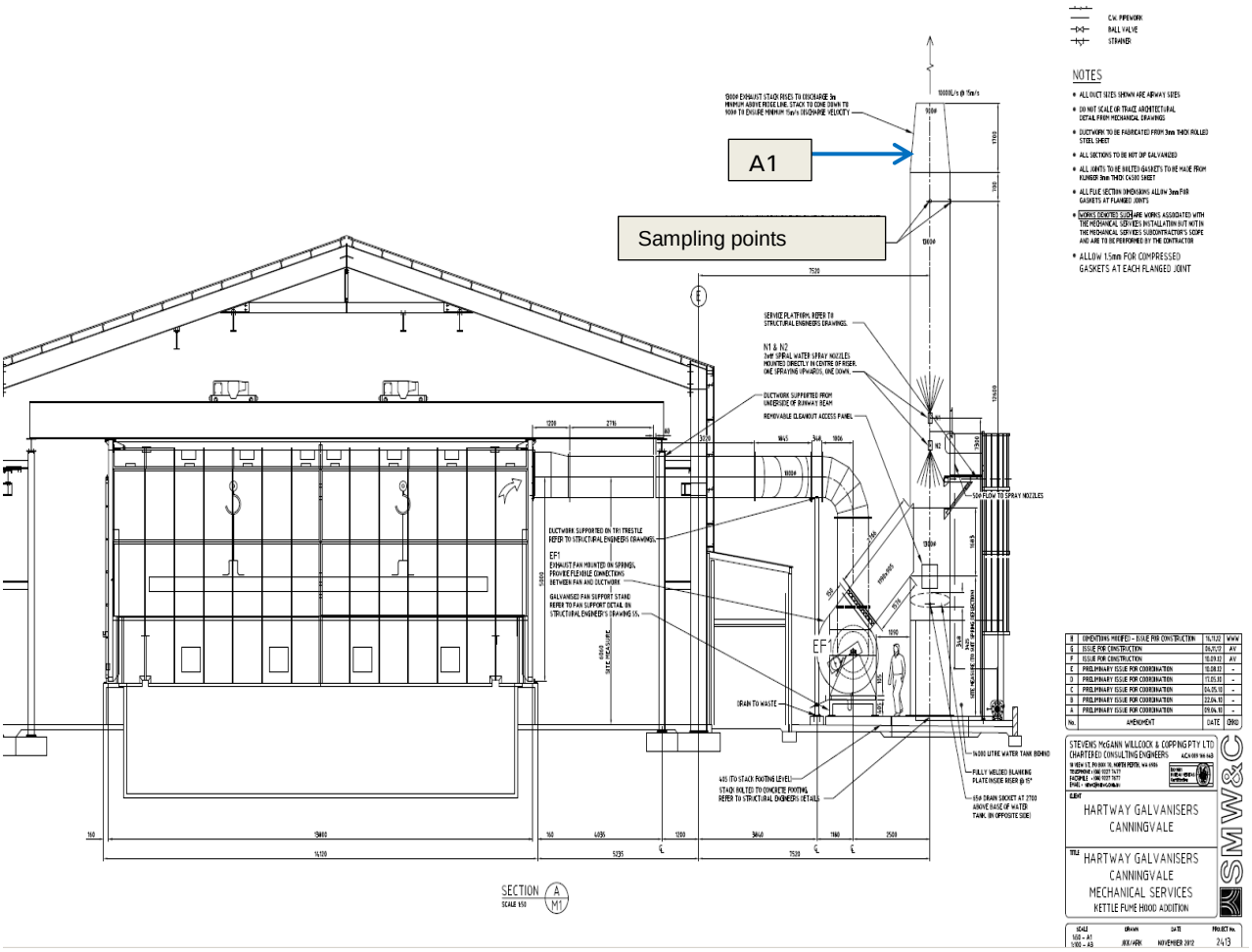
Schedule 1: Maps

Premises map

The Premises is shown in the map below. The pink line depicts the Premises boundary.

Map of emission points

The locations of the emission point defined in Tables 2.2.1, 2.2.2 and 3.2.1 are shown below.



Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: Trading as:	ABN:
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:

SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each Licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
☐ Yes ☐ Reported to DER verbally Date _____ ☐ Reported to DER in writing Date _____	☐ No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:

SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	□	by the individual licence holder, or
	□	by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	□	by the principal executive officer of the licensee; or
	□	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	□	by affixing the common seal of the licensee in accordance with the *Corporations Act 2001*; or
	□	by two directors of the licensee; or
	□	by a director and a company secretary of the licensee, or
	□	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	□	by the principal executive officer of the licensee; or
	□	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	□	by the principal executive officer of the licensee; or
	□	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	□	by the chief executive officer of the licensee; or
	□	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of $50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SEAL (if signing under seal)

Licence: L5265/1988/11 Licensee: Bernard Hart Nominees Pty Ltd
Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Name	
Post	
Signature on behalf of Bernard Hart Nominees Pty Ltd	
Date	

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Bernard Hart Nominees Pty Ltd T/A Hartway Galvanisers**

Licence: **L5265/1988/11**

Registered office:	Suite 1, 57 Labouchere Road SOUTH PERTH WA 6151
ACN:	129 671 343
Premises address:	Hartway Galvanisers 10 Sherman Street CANNING VALE WA 6155 Being Lot 441 on Diagram 80541
Issue date:	Friday, 25 September 2015
Commencement date:	Thursday, 01 October 2015
Expiry date:	Wednesday, 30 September 2020

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by:	Gargi Joshi Licensing Officer
Decision Document authorised by:	Lauren Trott Delegated Officer

Contents

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986.* Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☒ Licence amendment ☐ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	48A	No more than 24,000 tonnes per annual period
Application verified Application fee paid	Date: 14 July 2015 Date: 27 July 2015	
Works Approval has been complied with Compliance Certificate received	Yes☒ No☐ N/A☐ Yes☒ No☐ N/A☐	
Commercial-in-confidence claim	Yes☐ No☒	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes☐ No☒	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☐ No☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☐	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☐ No☒ If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes☐ No☒ If Yes, include details here, eg Site is subject to SO_2 requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

The Premises is located in the Canning Vale Industrial Area, South of Perth and was originally established in 1984. Closest sensitive receptors are approximately 300 metres north of the premises. The Premises is located on the Swan Coastal Plain. Residential suburb of Parkwood is the nearest sensitive receptor located approximately 350 metres north of the premises.

The galvanising process involves preparing items to be immersed in molten zinc, applying a uniform coating of zinc and zinc-iron alloy layers. This provides corrosion protection for steel structures. The current galvanizing operation consists of eleven vats contained within a low permeability fibreglass and PVC bund designed to hold more than 110% of the volume of the largest vat. These vats include: one drying pit; one heated pre-flux tank; one water rinse vat; six hydrochloric acid vats, one caustic rinse and one heated caustic vat. The Premises holds a Dangerous Goods Site Licence (DGS014321).

Key emissions from the process include fumes from the galvanizing and emissions of ammonia, ammonium chloride, zinc, particulate matter, and acid gases such as hydrochloric acid and sulphuric acid. The Premises has been subject of complaints in the past. Causes have included employees from neighbouring premises experiencing sore/itchy eyes, throats and headaches and odour emissions. An inspection of the premises, conducted on 26 October 2009, identified the need to upgrade the fume extraction system to minimise potential for offensive odours and emissions from the premises. Works approval W5512/2013/1 was granted for installation of fume enclosure 'fixed / attached' to the double girder gantry which travels up and down the workshop together. The gantry enclosure stops over the galvanising baths whilst the galvanising process takes place and is stated to contain up to 95% of the fumes. The fumes are directed through a wet scrubbing treatment system prior to discharge through the stack. This fume extraction system does not accommodate large oversized items. Current exhaust fans are operated whilst galvanising of oversized items is undertaken.

In determining this licence application, DER has considered the stack emissions monitoring data collected during commissioning of the fume extraction system and the wet scrubber. This decision document includes partial risk assessment for emissions from the premises for point source emissions to air, fugitive emissions, odour emissions and emissions to stormwater. Details for DER's assessment and decision making are included in the Decision Table. It is recommended that the licence be granted for a period of 5 years.

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
General conditions	L1.2.2- L1.2.3	Emission Description (Normal operation) *Emission:* Spills, leaks of chemicals during normal operation or storage and handling that may lead to contamination of stormwater. The process of galvanisation uses a number of chemicals including degreasing solvents (such as caustic) , acids (such as hydrochloric or sulphuric acid) for pickling, chemicals such as ammonia for fluxing and molten zinc (for galvanising). Improper storage, handling of these chemicals or accidental spills, leaks etc can result in emissions to land or contamination of stormwater. *Impact:* The Premises is located approximately 350m away from the residential suburb of Parkwood and is in close proximity of other industrial premises. There are no surface water bodies nearby. Any spills, leaks may have localised impact. *Controls:* The storage/processing tanks are constructed out of steel, lined with fibreglass and timber or poly. They are positioned in the containment pit, designed to contain any leaks. All chemicals delivered to site are transferred straight into the processing tanks. There is no separate storage area. The processing area has bunded concrete floors. The Premises holds Dangerous Goods Site Licence (DGS014321) which covers storage of following chemicals: • Hydrochloric acid (stored in Acid Rinse Tank 1; Acid Tank 2- Acid Tank 7 and Acid Tank B-E); • Phosphoric acid (stored in Acid Tank A);	Dangerous Goods Site Licence (DGS014321)

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		• Sodium hydroxide solution (stored in Caustic Rinse Tank 2 and Hot Caustic Tank 1); • Corrosive liquid Flux (stored in Flux Tank 1 and Flux Tank F); • Hot chromate liquid (stored in Hot Chromate Tank 1 and 2); and • Molten Zinc (stored in Molten Zinc Tank 1 and 2). Zinc ash (process waste) is stored on site in steel containers and transported to Hartway's Naval Base shop for further processing. Spent Acid is neutralized on site in one of the processing tanks and transported offsite. Other solid waste generated on the premises is mainly household waste which is disposed of at landfills. <u>Risk Assessment</u> *Consequence:* Minor *Likelihood*: Unlikely *Risk Rating:* Moderate <u>Regulatory Controls</u> Emission risk associated with storage and handling is dependent mainly on location of storage, quantity stored and availability of engineering controls such as secondary containment, leak detection measures and routine maintenance and inspection procedures. Condition L1.2.3 on previous licence regarding storage of environmentally hazardous materials has not been retained. Dangerous Goods Site Licence (DGS014321) is considered appropriate regulatory mechanism to manage potential risks associated with storage and handling of chemicals on site. L1.2.2 replaces condition L1.2.4 from previous licence and requires the licensee to recover or remove and dispose of any spills of environmentally hazardous materials. L1.2.3 replaces condition L1.2.5 from previous licence and requires the licensee to implement all practical measures to prevent stormwater contamination. L1.2.1	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		replaces condition L1.2.2 from previous licence. Residual Risk *Consequence:* Minor *Likelihood*: Rare *Risk Rating:* Low	
Premises operation	L1.3.1	Process limits on the galvanising process have been retained from previous licence.	-
Emissions general	L2.1.1	Air emission limits have been set through condition 2.2.2 of the licence and therefore condition regarding recording and investigation of exceedances of limits has been included.	-
Point source emissions to air including monitoring	L1.2.1 L2.2.1-2.2.2 L3.1.1-3.1.4 L3.2.1-3.2.3	Emission Description (Normal operation) *Emission:* The process of galvanisation includes a series of steps such as pre-treatment (using caustic, hydrochloric acid or sulphuric acid), fluxing with zinc ammonium chloride / ammonia solution, galvanising with molten zinc and quenching. There is potential for emissions to air from the processing vats. These may include acid gases, ammonia, ammonium chloride, zinc oxide, zinc chloride, particulate matter, fumes and volatile organic compounds. These emissions are vented to air using a fume extraction system. *Impact:* The Premises is located approximately 350m away from the residential suburb of Parkwood and is in close proximity of other industrial premises. Emissions of acid gases, ammonium chloride etc may cause short term health effects. The Premises has been subject of a number of complaints in the past. Causes have included employees from neighbouring premises experiencing sore/itchy eyes, throats and headaches and odour emissions. There is no record of ongoing complaints. Control: The operation is housed in a high ceiling metal shed which is ventilated by two exhaust fans. The Licensee was granted a works approval W5512/2013/1 for construction of a fume extraction system and wet scrubber. Previous licence required the licensee to maintain the operating shed under negative pressure. The Licensee has	W5512/2013/1

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		indicated that given the site traffic and design of the shed (no doors) this is difficult to achieve. The new fume extraction system is intended to address this issue by extracting up to 95% of the fumes from process vats. Stack emissions monitoring undertaken by the Licensee during commissioning of the wet scrubber and the fume extraction system shows that particulate concentrations of less than 20mg/m^3 can be achieved. The new fume extraction and treatment proposed system cannot accommodate oversized items. Approximately 5% of items processed each week (2 – 3 dips per week) are oversized and will not fit within the new fume hood. These dips will be ventilated by means of the current exhaust fans which will be in operation whilst galvanising operations are in progress. <u>Risk Assessment</u> *Consequence:*Minor *Likelihood*: Likely *Risk Rating:* Moderate <u>Regulatory Controls</u> Condition 1.3.1 from previous licence has been retained requiring the Licensee to operate exhaust fans so as to minimise escape of offensive odours and fumes. Restriction on undertaking wet process of galvanising on weekends only has been retained to minimise potential for ammonium chloride emissions. Point source emission limit of 50mg/m^3 has been specified for particulate emissions which is consistent with similar operations. Annual monitoring requirement has been specified through L 3.2.1. Condition 3.2.2 requires the licensee to undertake sampling in accordance with AS4323 and to ensure that sampling and analysis is undertaken by holder of NATA accreditation. L1.2.1 has been retained to require the licensee to maintain pollution control and monitoring equipment. General monitoring requirements have been added through condition 3.1.1 -3.1.4 to specify frequency of monitoring, information to be	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		collected during monitoring and calibration requirements for the monitoring equipment. Residual Risk *Consequence:* Minor *Likelihood*: Unlikely *Risk Rating:* Moderate	
Fugitive emissions	-	Emission Description (Normal operation) *Emission:* Fugitive emissions from process tanks. The process of galvanisation includes a series of steps such as pre-treatment (using caustic, hydrochloric acid or sulphuric acid), fluxing with zinc ammonium chloride / ammonia solution, galvanising with molten zinc and quenching. There is potential for emissions to air from the processing vats. These may include acid gases, ammonia, ammonium chloride, zinc oxide, zinc chloride, particulate matter, fumes and volatile organic compounds. The Premises has a fume extraction system which cannot accommodate the oversized items (2-3 dips each week). Fugitive emissions may be occurring during this process. *Impact:* The Premises is located approximately 350m away from the residential suburb of Parkwood and is in close proximity of other industrial premises. Emissions of acid gases, ammonium chloride etc may cause short term health effects. The Premises has been subject of complaints in the past. Causes have included employees from neighbouring premises experiencing sore/itchy eyes, throats and headaches and odour emissions. However there is no record of ongoing complaints. Control: The operation is housed in a high ceiling metal shed which is ventilated by two exhaust fans which are operated whilst galvanising operations are in progress. The new fume extraction and treatment proposed system constructed under W5512 cannot accommodate oversized items. Risk Assessment *Consequence:* Insignificant *Likelihood*: Possible *Risk Rating:* Moderate	*Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Regulatory Controls Condition 1.3.1 from previous licence has been retained requiring the Licensee to operate exhaust fans so as to minimise escape of offensive odours and fumes. Restriction on undertaking wet process of galvanising on weekends only has been retained to minimise potential for ammonium chloride emissions. Large loads only comprise 5% of items processed on site each. Fugitive emissions can be managed under general provisions of the *Environmental Protection Act 1986* (EP Act). Residual Risk *Consequence:* Insignificant *Likelihood*: Possible *Risk Rating:* Low	
Odour	-	Emission Description (Normal operation) *Emission:* Odour emissions from the process. The process of galvanisation includes a series of steps such as pre-treatment (using caustic, hydrochloric acid or sulphuric acid), fluxing with zinc ammonium chloride / ammonia solution, galvanising with molten zinc and quenching. There is potential for odour emissions due to acid gases, ammonia, ammonium chloride and volatile organic compounds. *Impact:* The Premises is located approximately 350m away from the residential suburb of Parkwood and is in close proximity of other industrial premises. The Premises has been subject of complaints in the past. Causes have included employees from neighbouring premises experiencing sore/itchy eyes, throats and headaches and odour emissions. There is no record of ongoing complaints. Control: The operation is housed in a high ceiling metal shed which is ventilated by two exhaust fans. The new fume extraction system and wet scrubber constructed under W5512/2013/1 is expected to control emission stack emissions and result in reducing the likelihood of odour emissions. The new fume extraction and treatment proposed system cannot accommodate oversized items. Approximately 5% of items processed each week (2 – 3 dips per	*Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		week) are oversized and will not fit within the new fume hood. These dips will be ventilated by means of the current exhaust fans which will be in operation whilst galvanising operations are in progress. Galvanising process is not considered to be inherently odorous in nature. Risk Assessment *Consequence:* Insignificant *Likelihood*: Unlikely *Risk Rating:* Low Regulatory Controls Condition 1.3.1 from previous licence has been retained and requires the Licensee to operate exhaust fans and maintain and operate the process so as to minimise escape of offensive odours and fumes. Restriction on undertaking wet process of galvanising on weekends only has been retained to minimise potential for ammonium chloride emissions. Odour emissions from the premises can be managed using general provisions under the EP Act. Residual Risk *Consequence:* Minor *Likelihood*: Possible *Risk Rating:* Moderate	
Information	L4.1.1-L4.1.4 L4.2.1, L4.2.2	Recordkeeping requirements are specified in Condition 4.1.1, 4.1.2. Condition 4.1.3 requires the licensee to submit an Annual Audit Compliance Report demonstrating compliance with licence condition. Condition 4.1.4 requires the licensee to implement a complaints management system. Conditions 4.2.1 and 4.2.2 require the licensee to submit Annual Environmental Report and analysis of monitoring results.	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Licence Duration		The Premises is considered a low risk. In accordance with DER's current practice, the licence is being granted for a period of 5 years.	DER Guidance Statement *Licence duration Part V Environmental Protection Act 1986,* May 2015

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
3/8/2015	Application advertised in West Australian (or other relevant newspaper)	No comments received	Not applicable.
16/9/2015	Proponent sent a copy of draft instrument	Proponent confirmed acceptance of conditions proposed through email on Friday 18/9/2015.	No changes required.

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High