



Mr Ben Tan
Tesla Geraldton Pty Ltd
68 St Georges Terrace
PERTH WA 6000

Dear Mr Tan

ENVIRONMENTAL PROTECTION ACT 1986 – AMENDMENT TO LICENCE

Licence: L8713/2012/1
Premises: Tesla Geraldton Peak Lopping Facility

Further to my letter dated 15 August 2013, please find enclosed your amended *Environmental Protection Act 1986* licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on 6467 5540 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

Yours sincerely

Ruth Dowd
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

29 August 2013

enc: Environmental Protection Act 1986 Licence L8713/2012/1
copy to: Local Government Authority: City of Greater Geraldton





Licence

Environmental Protection Act 1986, Part V

Licensee: Tesla Geraldton Pty Ltd

Licence: L8713/2012/1

Registered office: Level 3, Exchange House
68 Saint Georges Terrace
PERTH WA 6000

ACN: 146 754 289

Premises address: Tesla Geraldton Peak Lopping Facility
Part of Lot 101 on Plan 25963
Deepdale Road
GERALDTON WA 6530

Issue date: Thursday 31 January 2013

Commencement date: Monday 4 February 2013

Expiry date: Sunday 30 September 2018

Prescribed Premises Category
Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Premises production or design capacity
52	Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	10 Megawatts (MWe) or more in aggregate (using a fuel other than natural gas)	10 Megawatts (MWe)

Conditions of Licence

Subject to the conditions of licence set out in the attached pages.

Officer delegated under Section 20
of the *Environmental Protection Act 1986*



Contents

Licence	1
Contents	2
Introduction	2
Licence Conditions	5
1 General	5
2 Emissions	7
3 Monitoring	7
4 Improvements	9
5 Information	9
Schedule 1: Maps	11
Schedule 2: Reporting & notification forms	13

Introduction

This Introduction is not part of the Licence conditions.

Who we are

The Department of Environment Regulation (DER) is a Government Department in the portfolio of the Minister for Environment. DER's purpose is to protect and conserve the State's environment on behalf of the people of Western Australia.

Our industry licensing role

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement licensing and industry regulation policy.

Licence requirements

This licence is issued under Part V of the Act. Conditions contained with 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 the Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

Tesla Geraldton Pty Ltd (Tesla) have constructed the Tesla Geraldton Peak Lopping Facility in accordance with W5060/2011/1 and are now proposing to operate this facility. The Tesla Geraldton Peak Lopping Facility is designed to provide peak loading capacity into the South-West Interconnected System (SWIS), as required by the network operator. Land surrounding the Tesla Geraldton Peak Lopping Facility is predominately utilised for industrial and agricultural purposes, forming part of the Geraldton Airport Precinct located within the City of Greater Geraldton. This area is zoned "Public Utility". The nearest sensitive receptors are located approximately 850 metres north of the site.

The Tesla Geraldton Peak Lopping Facility includes five diesel fuelled Caterpillar type 3516B-HD generator sets rated to 2000 kilowatts providing a combined maximum capacity of 10 megawatts (MWe) of power to the SWIS. Generators will run on diesel consuming 2,625L per hour and operate for no more than 200 hours per year. The fuel system for the Tesla Geraldton Peak Lopping Facility will consist of one approximately 55,000L tank to provide greater than 20 hour power station runtime capacity.

Although the emissions of Oxides of Nitrogen are higher than Industry standards, cumulative volumes are much lower as the facility is only operational for 200 hours per year (2.3% per year).

Generators will be maintained monthly and serviced quarterly to ensure all machinery is running efficiently and at optimal performance, in an effort to minimise emission production.

This Licence is the result of an amendment sought by the Licensee to align the expiry date and reporting period to 30 September.

The licences and works approvals issued for the Premises since 02 February 2012 are:



Instrument log		
Instrument	Issued	Description
W5060/2012/1	02 February 2012	New Application
L8713/2012/1	31 January 2013	New Licence
L8713/2012/1	30 August 2013	Amendment

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 Act apply unless the contrary intention appears.

1.1.2 In the Licence, unless the contrary intention appears:

“the Act” means the *Environmental Protection Act 1986*;

“annual period” means the inclusive period from 1 October until 30 September in the following year;

“AS 4323.1” means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*;

“averaging period” means the time over which a limit or target is measured or a monitoring result is obtained;

“CEMS” means continuous emissions monitoring system;

“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;

“Code of Practice for the Storage and handling of dangerous goods” means the current version of the Storage and handling of dangerous goods, Code of Practice, Dept of Mines and Petroleum, Government of Western Australia;

“Contact Address” for the purpose of correspondence and advice means:

Regional Leader, Industry Regulation, Midwest Region
Department of Environment Regulation
PO Box 72
GERALDTON WA 6530
Telephone: (08) 9921 5955
Facsimile: (08) 9921 5713

“dangerous goods” has the meaning defined in the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;

“environmentally hazardous material” means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm;

“fugitive emissions” means all emissions not arising from point sources identified in Sections 2.2, 2.3, 2.4 and 2.5;



“**Licence**” means this Licence numbered L8713/2012/1 and issued under the *Environmental Protection Act 1986*;

“**Licensee**” means the person or organisation named as Licensee on page i of the Licence;

“**MWe**” means power output (electricity generated) in megawatts;

“**NATA**” means the National Association of Testing Authorities, Australia;

“**NATA accredited**” means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

“**normal operating conditions**” means any operation of a particular process excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

“**NOx**” means oxides of nitrogen;

“**placard quantity**” has the meaning defined in the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;

“**Premises**” is as defined by Condition **Error! Reference source not found.** of the Licence;

“**quarterly period**” means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

“**Schedule 1**” means Schedule 1 of this Licence unless otherwise stated;

“**Schedule 2**” means Schedule 2 of this Licence unless otherwise stated;

“**shut-down**” means the period when plant or equipment is brought from normal operating conditions to inactivity;

“**STP dry**” means standard temperature and pressure (0° Celsius and 101.325 kilopascals respectively), dry;

“**USEPA**” means United States (of America) Environmental Protection Agency; and

“**usual working day**” means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the current version of that standard.

1.1.4 Any reference to a Guideline or Code of Practice in the Licence means the current version of the Guideline or Code of Practice.

1.2 General conditions

1.2.1 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.

- 1.2.2 The Licensee shall maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the Code of Practice for the Storage of dangerous goods.
- 1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.3 Premises operation

- 1.3.1 The Licensee shall ensure that the power generation equipment is not operated for more than 200 hours per year.
- 1.3.2 The Licensee shall ensure that fuel used in the power generation equipment has a sulphur content of less than 10 mg/L.
- 1.3.3 The Licensee shall ensure that unloading of fuel tankers is undertaken on a hardstand with a low permeability (10^{-9} m/s or less).
- 1.3.4 The Licensee shall ensure that the hardstand described in condition 1.3.3 will:
 - (a) be graded and include a sumps designed to allow the recovery of liquid; and
 - (b) include valves, pumps and meters associated with unloading operations wherever practical. Otherwise the equipment shall be adequately protected (eg. bollards) and contained in an area designed to permit recovery of spilled fuel.

2 Emissions

2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedence of any descriptive or numerical limit, and/or target in this section.

2.2 Point source emissions to air

- 2.2.1 The Licensee is permitted, subject to conditions in the Licence, to emit waste to the atmosphere from the emissions points listed in Table 2.2.1 and identified in the Map of emission points in Schedule 1.

Table 2.2.1: Point source emissions to air

Emission point reference	Emission point reference on Map of emission points	Emission Point and source	Emission point height (m)	Source, including any abatement
A1	A1	Stack 1 – multi-flued stack	12.5	Five generator units (2 MWe each)



2.3-2.4 Point source emissions to surface waters and groundwater

There are no specified conditions relating to point source emissions to surface water or groundwater in these sections.

2.5 Emissions to land

There are no specified conditions relating to emissions to land in this section.

2.6-2.8 Fugitive emissions, odour and noise

There are no specified conditions relating to fugitive emissions, odour or noise in these sections.

3 Monitoring

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

3.1.2 The Licensee shall have all monitoring equipment referred to in any condition of the Licence calibrated in accordance with the manufacturer's specifications, the requirements of the Licence and any relevant Australian standard.

3.1.3 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 Director 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 ^{1,3}	Frequency ²	Method
A1-5	Volatile Organic Compounds	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 18
A1-5	Sulfur dioxide	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 6 or 6C
A1-5	Nitrogen oxides	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 7E or 7D
A1-5	Carbon monoxide	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 10
A1 – 5	PM ₁₀	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 5 or USEPA Method 17
A1 – 5	PM _{2.5}	mg/m ³ g/s	Every 500 hours of operation	USEPA Method 5 or USEPA Method 17

Note 1: All units are referenced to STP dry.

Note 2: Monitoring shall be undertaken to reflect normal operating conditions, all five units operating at >90% load, and any limits or conditions on inputs or production.

Note 3: All units are referenced to 3% O₂.



3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in compliance 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.

3.3-3.4 Monitoring of point source emissions to surface water and groundwater

There are no specified conditions relating to monitoring of point source emissions to surface water or groundwater in this section.

3.5 Monitoring of emissions to land

There are no specified conditions relating to monitoring of emissions to land in this section.

3.6 Monitoring of inputs and outputs

There are no specified conditions relating to monitoring of inputs and outputs in this section.

3.7-3.9 Process, ambient environmental quality and meteorological monitoring

There are no specified conditions relating to process, environmental quality or meteorological monitoring in this section.

4 Improvements

4.1 Improvement program

There are no specified improvement conditions in this section.

5 Information

5.1 Records

5.1.1 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 5.1.1(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.



- 5.1.2 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.
- 5.1.3 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.
- 5.1.4 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.

5.2 Reporting

- 5.2.1 The Licensee shall submit to the Director at the Contact Address an Annual Environmental Report within 28 calendar days after of the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form
1.3.1	Operational hours	None specified
3.2	Stack emissions monitoring	
5.1.3	Compliance	AACR
5.1.4	Complaints summary	None specified

- 5.2.2 The Annual Environmental Report shall also contain:
- (a) any relevant process, production or operational data recorded under Condition 3.1.2;
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets; and
 - (c) any original monitoring reports submitted to the Licensee from third parties.
- 5.2.3 The Licensee shall submit the information in Table 5.2.2 to the Director at the Contact Address according to the specifications in that table.

Table 5.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹
Table 3.2.1	Volatile Organic Compounds, Sulphur Dioxide, Nitrogen Oxides, Carbon Monoxide, PM ₁₀ and PM _{2.5} .	Every 500 hours of operation	28 calendar days	AR1

Note 1: Forms are in Schedule 2



5.3 Notification

5.3.1 Parameters listed in Table 5.3.1 shall be notified to the Director at the Contact Address and in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
3.1.3	Calibration report	As soon as practicable.	None specified
	Any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	As soon as practicable	N1

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

Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

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





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.

Licence: L8713/2012/1 Licensee: Tesla Geraldton Pty Ltd
Form: AACR Period :
Name: Annual audit compliance report

Annual audit compliance report

Section A: Statement of compliance with Licence conditions

Were all conditions of licence complied with within the annual period?		
Yes	<input type="checkbox"/>	Initial Sections A & B, then proceed to Section C
No	<input type="checkbox"/>	Initial Section A, then 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

a) Licence condition not complied with?	
b) Date(s) b) Date(s) and time(s) the non compliance occurred, if applicable?	
c) Was this non compliance reported to DER?	
<input type="checkbox"/> Yes, and <input type="checkbox"/> Reported to DER verbally Date <input type="checkbox"/> Reported to DER in writing Date	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of 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	

Please use a separate page for each Licence condition that was not complied with. Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



Section C: Signature and certification

This AACR must only be signed by a person(s) with legal authority to sign it as defined 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 AACR must be signed and certified:
an individual	<input type="checkbox"/>	by the individual Licence holder, or
	<input type="checkbox"/>	by a person approved in writing by the Chief Executive Officer (CEO) of DER to sign on the Licensee's behalf.
a corporation	<input type="checkbox"/>	by affixing the common seal of the Licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the Licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the Licensee, or
	<input type="checkbox"/>	if the Licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
A public authority (other than a local government)	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
a local government	<input type="checkbox"/>	by the CEO of the Licensee; or
	<input type="checkbox"/>	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 AACR is correct and not false or misleading in a material particular.

Signature:

Signature:

Name: (printed)

Name: (printed)

Position:

Position:

Date:

Date:

Seal (if signing under seal)



Licence: L8713/2012/1 Licensee: Tesla Geraldton Pty Ltd

Form: AR1 Period:

Name: Monitoring of point source emissions to air

Form AR1: Monitoring of point source emissions to air						
Emission point	Parameter	Result ^{1,2} (mg/m ³)	Result ^{1,2} (g/s)	Averaging period	Method	Sample date & times
A1	Volatile Organic Compounds	mg/m ³	g/s		USEPA Method 18	
A1	Sulfur dioxide	mg/m ³	g/s		USEPA Method 6	
A1	Nitrogen oxides	mg/m ³	g/s		USEPA Method 7E or 7D	
A1	Carbon monoxide	mg/m ³	g/s		USEPA Method 10	
A1	PM ₁₀	mg/m ³	g/s		USEPA Method 5 or USEPA Method 17	
A1	PM _{2.5}	mg/m ³	g/s		USEPA Method 5 or USEPA Method 17	

Note 1: All units are referenced to STP dry
Note 2: All units are referenced to 3% O₂

Signed on behalf of Tesla Geraldton Pty Ltd: Date:



Licence: L8713/2012/1
Form: N1

Licensee: Tesla Geraldton Pty Ltd
Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

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	L8713/2012/1
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	

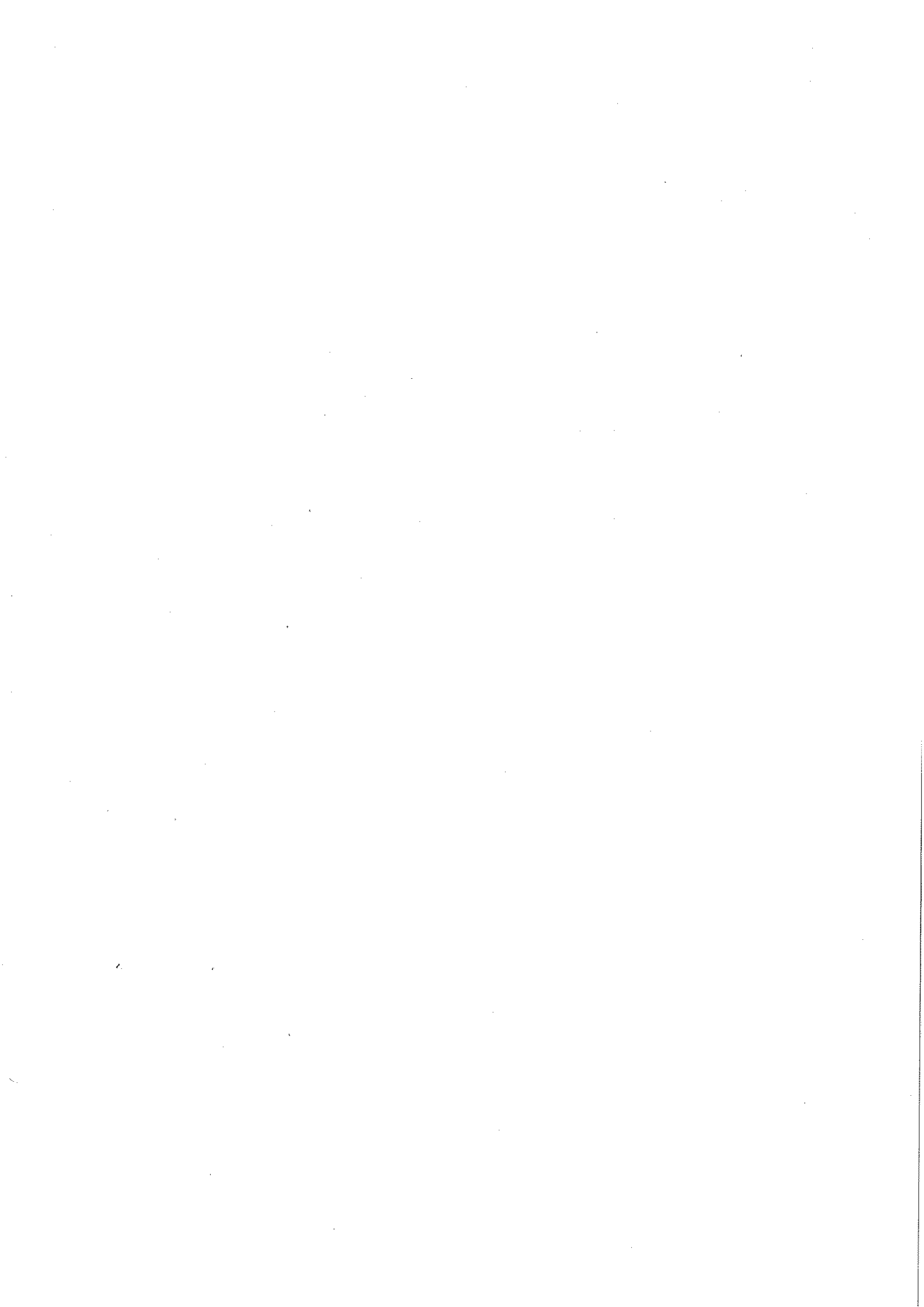
Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any previous N1 notifications for the Premises in the preceeding 24 months.	

Name	
Post	
Signature on behalf of Tesla Geraldton Pty Ltd	
Date	





Decision Document

Environmental Protection Act 1986, Part V

Proponent: Tesla Geraldton Pty Ltd

Licence: L8713/2012/1

Registered office: Level 3, Exchange House
68 Saint Georges Terrace
PERTH WA 6000

ACN: 146 754 289

Premises address: Tesla Tesla Geraldton Peak Lopping Facility
Portion of Lot 101 on Deposited Plan 25963
Deepdale Road
GERALDTON WA 6530
WA 6000

Issue date: Thursday 31/01/2013

Commencement date: Monday 04/02/2013

Expiry date: Sunday 30/09/2018

Decision

Based on the assessment detailed in this document, the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision document prepared by:

Caroline Conway-Physick
Regional Environmental Officer

Decision Document Authorised By:

Craig McLernon
Regional Leader



Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative Summary	3
4 Decision Table	5
5 Advertisement and Consultation Table	11
6. Appendix 1	12
Appendix A	12

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.3, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.3, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



2 Administrative Summary

Administrative Details									
Application Type	Works Approval <input type="checkbox"/> New Licence <input checked="" type="checkbox"/> Licence Amendment <input type="checkbox"/> Works Approval Amendment <input type="checkbox"/>								
Activities that cause the premises to become prescribed premises	<table border="1"> <thead> <tr> <th>Category Number(s)</th> <th>Design Capacity</th> </tr> </thead> <tbody> <tr> <td>52</td> <td>10 Megawatts</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Category Number(s)	Design Capacity	52	10 Megawatts				
	Category Number(s)	Design Capacity							
	52	10 Megawatts							
Application Verified	Date: 07 January 2013								
Application Fee Paid	Date: 18 December 2012								
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>								
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>								
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Commercial-in-confidence claim outcome									
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td> Referral Decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/> </td> </tr> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral Decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>						
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral Decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>								
Is the proposal subject to Ministerial Conditions?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td> Ministerial Statement No: EPA Report No: </td> </tr> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial Statement No: EPA Report No:						
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	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 <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
If Yes include details of which EPP(s) here.									
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.									



3 Executive summary of proposal

Tesla Geraldton Pty Ltd (Tesla) have constructed the Tesla Geraldton Peak Lopping Facility in accordance with W5060/2011/1 and are now proposing to operate this facility. The Tesla Geraldton Peak Lopping Facility is designed to provide peak loading capacity into the South-West Interconnected System (SWIS) as required by the network operator. Land surrounding the Geraldton Power Station is predominately utilised for industrial and agricultural purposes, forming part of the Geraldton Airport Precinct located within the City of Greater Geraldton. This area is zoned "Public Utility". The nearest sensitive (residential premises) receptors are located approximately 850 metres north of the site.

The surrounding land is utilised for a variety of purposes including industrial and agricultural. The area to the south, north and east is zoned "Rural". The land to the west is zoned "Rural/Residential". The site is currently unused.

The Tesla Geraldton Peak Lopping Facility includes five diesel fuelled Caterpillar type 3516B-HD generator sets rated to 2000 kilowatts providing a combined maximum capacity of 10 megawatts (MWe) of power to the SWIS. Generators will run on diesel consuming 2,625L per hour and operate for no more than 200 hours per year. The fuel system for the Tesla Geraldton Peak Lopping Facility will consist of one approximately 55,000L tank which will provide greater than 20 hour power station runtime capacity.

Although the emissions of Oxides of Nitrogen are higher than Industry standards, cumulative volumes are much lower as the facility is only operational for 200 hours per year (2.3% per year).

Generators will be maintained monthly and serviced quarterly to ensure all machinery is running efficiently and at optimal performance, in an effort to minimise emission production.



4 Decision Table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's Policy Statement - Limits and targets for prescribed premises 2006 and the risk matrix attached to this decision document in Appendix A. Where other references have been used in making the decision they are detailed in the decision table.

DECISION TABLE				
Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference Documents
General Conditions	L1.2 L1.3	NSC	<p>Operation <i>Emission Significance - 3</i> <i>Socio-political context - No concern or interest.</i> <i>Risk Assessment - D – licence conditions</i> Five Caterpillar type 3516B-HD generator sets have been installed onsite to power the plant. Low to moderate point source air emissions are expected from the operation of the Tesla Tesla Geraldton Peak Lopping Facility. However, cumulative air emissions are likely to increase the emission significance to moderate when air emissions from other industry are included.</p> <p>The Tesla Tesla Geraldton Peak Lopping Facility operation will be controlled by Western power as an additional power source when extra power is required on hot days in summer.</p> <p>Refilling of fuel storage tanks will occur approximately five times per year. There are no emission limits set through section 2 of the licence.</p>	<p>Environmental Protection (Unauthorised Discharges Regulations, 2004).</p> <p>National Environmental Protection Council Act, 1996.</p> <p>NEPM (Ambient Air Quality), 1997 NEPM (Air Toxics), 1996.</p> <p>Application supporting documentation.</p>
	L2.1	N/A	<p>Operation <i>Emission Significance - 3</i> <i>Socio-political context – No concern or interest.</i> <i>Risk Assessment - D – Licence conditions, limits set</i> Details of DER's assessment and decision making are included in Appendix 1.</p>	N/A.
Emissions General	L2.1	N/A	<p>Operation <i>Emission Significance - 3</i> <i>Socio-political context – No concern or interest.</i> <i>Risk Assessment - D – Licence conditions, limits set</i> Details of DER's assessment and decision making are included in Appendix 1.</p>	<p>Environmental Protection (Unauthorised Discharges Regulations, 2004).</p> <p>National Environmental Protection Council Act, 1996.</p>
Point source emissions to air including monitoring	L1.3.1 L1.3.2 L2.2.1 L3.2.1 - 3.2.3	OSC NSC	<p>Operation <i>Emission Significance - 3</i> <i>Socio-political context – No concern or interest.</i> <i>Risk Assessment - D – Licence conditions, limits set</i> Details of DER's assessment and decision making are included in Appendix 1.</p>	<p>Environmental Protection (Unauthorised Discharges Regulations, 2004).</p> <p>National Environmental Protection Council Act, 1996.</p>



DECISION TABLE

Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference Documents
			Any issues with air emissions occurrences will result in operation of the plant ceasing and investigations will be carried out. Due to the low operating hours of the plant this is likely to be mitigated by regular maintenance.	National Environment Protection Measures (NEPM) (Ambient Air Quality), 1997 NEPM (Air Toxics), 1996. Application supporting documentation. Application supporting documentation.
Point source emissions to surface water including monitoring	L2.3 L3.3	N/A	<p>Operation <i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>There will be no point source emissions to surface water during operation of the Tesla Tesla Geraldton Peak Lopping Facility. No water courses are on or adjacent to the premises with the Chapman River approximately 1 kilometre to the north of the site. In addition no Ramsar wetlands or Nationally important wetlands are on or adjacent to the premises. No specified conditions relating to point source emissions to water or the monitoring of such emissions are required to be added to the works approval or licence.</p>	Australia Standards AS1940 and AS1692 Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007. Code of Practice for the Storage and Handling of Dangerous Goods,
Emissions to land including monitoring	L1.3.3 L1.3.4 L2.5 L3.5	N/A	<p>Operation <i>Emission Significance</i> – 3 <i>Socio-political context</i> – Low concern or interest <i>Risk Assessment</i> – D – Other management mechanisms, licence conditions</p> <p>Any leak or spill of chemicals/hydrocarbons could result in contamination of soils and leaching to groundwater. Chemicals stored and used on site include:</p> <ul style="list-style-type: none"> Ethylene Glycol/Water: for cooling systems (3,350L) Engine lubrication oil SAE 15W40 (2,275L) Mineral oil for main transformer (4,571L) 	Australia Standards AS1940 and AS1692 Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007. Code of Practice for the Storage and Handling of Dangerous Goods,



DECISION TABLE

Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference Documents
			<ul style="list-style-type: none"> Mineral oil for auxiliary transformer (629L) These chemicals will be contained in self-bunded tanks or placed within portable bunds. <p>The onsite storage of hydrocarbons is proposed to be a maximum of 55,000L in a safe fill, self-bunded, double skinned fuel tank. Loading and unloading pump and connections will be located in a bunded area that is drained to a sump for the collection of spills and leaks.</p> <p>Although the likelihood of a spill/ leak during the transport, storage or unloading of chemicals and hydrocarbons is considered very low, the environmental impacts of such a discharge would be high due to the significant volumes used during operation. Therefore a moderate risk rating has been assigned. NSC1.3.3 and 1.3.4 have been included within the licence to ensure that operating procedures further reduce the risk of a discharge of hydrocarbons to land and seepage to groundwater.</p> <p>Cloest conservation area is located approximately 15km to the north east of the premises.</p>	<p>Department of Mines and Petroleum, Government of Western Australia.</p> <p>Environmental Protection (Controlled Waste) Regulations.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p> <p>Application supporting documentation.</p>
Point source emissions to groundwater including monitoring	L2.4 L3.4	N/A	<p>Operation <i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>There will be no point source emissions to groundwater during operation of the Tesla Tesla Geraldton Peak Lopping Facility. Groundwater at the site is unknown, however surrounding groundwater bores (21) in the vicinity of the plant indicate the groundwater depth to be in the range of 17.6m – 36.5m, averaging</p>	<p>Application supporting documentation and based on Works Approval for the site.</p>



DECISION TABLE

Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference Documents
			23.5m . Soil testing in the area have shown there are no Acid Sulfate Soils or Potential Acid Sulfate Soils. No specified conditions have been added to the licence regarding point source emissions to groundwater.	
Fugitive Emissions	L2.6	N/A	<p>Operation <i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>No fugitive emissions of dust are anticipated during operation of the Tesla Tesla Geraldton Peak Lopping Facility. The site is unmanned with only monthly servicing of the plant and fuel brought in approximately five times per year. No specified conditions have been added to the licence regarding fugitive emissions.</p>	<p>Application supporting documentation. General provisions of the <i>Environmental Protection Act 1986</i>.</p>
Odour	L2.7	N/A	<p>Operation <i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>Minor odour emissions are expected during operation from the burning of diesel within the generators. However, given the distance to the nearest sensitive receptor (850m) and infrequent, low use operational hours, the impact of odour emissions is expected to be insignificant. No specified conditions relating to odour emissions have been added to the licence.</p>	<p>Application supporting documentation. General provisions of the <i>Environmental Protection Act 1986</i>.</p>
Noise	L2.8	N/A	<p>Operation <i>Emission Significance</i> – 2 <i>Socio-political context</i> – Low concern or interest <i>Risk Assessment</i> – D – Other management mechanisms</p>	<p>Environmental Protection (Noise) Regulations 1997.</p>



DECISION TABLE			
Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)
			<p>Noise emitted during the operation of the power generators will only occur during Western Power's South-West Interconnected System peak load periods, which will require a maximum operation time of 200 hours per year (2.3% per year) at approximately six hourly operational hour batches.</p> <p>Measurements taken during commissioning found that although modelling conducted will not exceed the 65 dB(A) limit for industrial receptors set under the Environmental Protection (Noise) Regulations 1997. Modelling at the residential critical receptors showed noise levels at 31dB(A). With an assigned noise level of 38 dB(A), compliance would be marginal if tonality was present. Noise from the northern boundary however is not considered to have tonal characteristics.</p> <p>Should noise levels exceed standards, Tesla will identify the source of noise and investigate noise abatement and mitigation measures such as sound-proofing of equipment. Tesla are required to comply with the Environmental Protection (Noise) Regulations 1997. These regulations adequately protect nearby receptors and therefore no specified conditions relating to noise emissions have been added to the licence.</p>
Monitoring General	L3.1 .1 - L3.2.3	OSC	No site specific monitoring conditions have been added to the licence. All monitoring required in the licence are specified under OSC's 3.1.1 to 3.1.3, which require the recording of monitoring data and calibration of monitoring equipment.
Monitoring General	L3.1 .1 to L3.2.3	OSC	No site specific monitoring conditions have been added to the licence. All monitoring required in the licence are specified under OSC's 3.1.1 to 3.2.3, which require the recording of monitoring data and calibration of monitoring equipment.
			Application supporting documentation.



DECISION TABLE

Works Approval / Licence Section	Condition Number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference Documents
Process Monitoring	L3.7	N/A	There are no specified conditions relating to process monitoring.	
Ambient Quality Monitoring	L3.8	N/A	Monitoring of emissions from the stack during commissioning validated ambient air quality modelling conducted ahead of construction. Therefore stack testing will be an adequate determining factor of ground level concentrations and will ensure that the potential for air pollutants to exceed limits set under NEPM are identified and prevented.	National Environmental Protection Council Act, 1996. National Environment Protection Measures (NEPM) (Ambient Air Quality), 1997 NEPM (Air Toxics), 1996.
Meteorological monitoring	L3.9	N/A	Monitoring of meteorological conditions is not required to adequately manage emissions from this proposal and therefore specified conditions have not been added to the licence.	Application supporting documentation.
Improvements	L4.1	N/A	No specific improvements are required by DER as the proposal is for a new premises. It has been assessed that the management measures committed to by Tesla are adequate to manage the potential emissions and discharges produced from the site. No specific conditions relating to improvements have been added to the licence.	
Information	L5.1.1 – 5.1.4 L5.2.1 - 5.2.3 L5.3.1	N/A	Standard conditions relating to the management of records and complaints, notification requirements and the submission of an annual audit compliance report and annual environmental report have been added to the licence.	



5 Advertisement and Consultation Table

Date	Event	Comments received/Notes	How comments were taken into consideration
24/12/2012	Application advertised in West Australian (or other relevant newspaper)	No comments received.	N/A.
24/12/2012	Application referred to interested parties listed: <ul style="list-style-type: none">• City of Greater Geraldton• Adjoining Landowners	Two comments received.	Landowners informed that: the construction of the plant will be in accordance with relevant laws and standards; Noise Modelling will comply with required levels; No dust issues are expected as the site will be unmanned; Lighting of stack will be restricted to low level fluorescent lighting above enclosure access doorways.
29/1/2013	Proponent sent a copy of draft instrument	No comments received.	N/A
16/08/2013	Proponent sent a copy of draft amended instrument	No comments received.	N/A



6. Appendix 1

Point source emissions to air including monitoring

The principle emissions of concern for the Tesla Tesla Geraldton Peak Lopping Facility are emissions to air. DER has reviewed Tesla's impact assessment for emissions to air from the premises (Generators 1 and 2 sampling points) and is satisfied that the assessment provided by Tesla has been undertaken in an appropriate manner.

Tesla modelled the potential effects on air quality from emissions to air using Ausplume (version 6) which is accepted by DER as a suitable model.

Ground level concentrations and compliance factors for Tesla Geraldton Peak Lopping Facility.

Pollutant	Aver. time	Assess. criteria	b/g	Worst-case boundary discrete receptor				Worst-case gridded receptor			
				GLC (-b/g)	GLC (+b/g)	CF	Receptor	GLC (-b/g)	GLC (+b/g)	CF	Location and time
CO	15 min	100	0.43	0.099	0.53	>100	I	0.025	0.46	>100	(0,150) 2pm 14/Mar
	1 hour	30	0.33	0.009	0.34	88.5	I	0.019	0.35	85.9	(0,150) 2pm 4/Mar
	8 hours	10	0.23	0.003	0.23	42.9	E	0.011	0.24	41.6	(0,200) 4pm 24/Oct
NO ₂	1 hour	0.246	0.055	0.079	0.13	1.5	I	0.112	0.17	1.2	(0,150) 2pm 4/Mar
	1 year	0.062	0.004	9.3 x10 ⁻⁴	0.005	12.6	D	8.4 x10 ⁻³	0.012	5.0	(-50,300)
PM ₁₀	24 hours	0.05	0.04	7.8 x10 ⁻⁵	0.040	1.2	E	4.5 x10 ⁻⁴	0.040	1.2	(-50,250) 12pm 11/Jan
	1 year	0.03	0.008	7.4 x10 ⁻⁶	0.008	3.7	D	6.7 x10 ⁻⁵	0.008	3.7	(-50,300)
PM _{2.5}	24 hours	0.025	0.014	7.6 x10 ⁻⁵	0.014	1.8	E	4.3 x10 ⁻⁴	0.014	1.7	(-50,250) 12pm 11/Jan
	1 year	0.008	0.003	7.2 x10 ⁻⁶	0.003	2.7	D	6.6 x10 ⁻⁵	0.003	2.6	(-50,300)
SO ₂	10 min	0.713	0.027	4.5 x10 ⁻⁵	0.027	26.3	J	1.1 x10 ⁻⁴	0.027	26.3	(0,150) 2pm 4/Mar
	1 hour	0.52	0.019	3.5 x10 ⁻⁵	0.019	29.9	I	7.5 x10 ⁻⁵	0.019	29.9	(0,150) 2pm 4/Mar
	24 hours	0.21	0.008	4.4 x10 ⁻⁶	0.008	28.5	E	2.5 x10 ⁻⁵	0.008	28.4	(-50,250) 12pm 11/Jan
	1 year	0.06	0.002	4.2 x10 ⁻⁷	0.002	25.0	D	3.8 x10 ⁻⁶	0.002	25.0	(-50,300)
Acetaldehyde	1 hour	0.042	0	8.7 x10 ⁻⁷	8.7 x10 ⁻⁷	>100	I	1.8 x10 ⁻⁶	1.8 x10 ⁻⁶	>100	(0,150) 2pm 4/Mar
Benzene	1 hour	0.029	0	2.8 x10 ⁻⁵	2.8 x10 ⁻⁵	>100	I	5.8 x10 ⁻⁵	5.8 x10 ⁻⁵	>100	(0,150) 2pm 4/Mar
Formaldehyde	1 hour	0.02	0	2.8 x10 ⁻⁶	2.8 x10 ⁻⁶	>100	I	5.8 x10 ⁻⁶	5.8 x10 ⁻⁶	>100	(0,150) 2pm 4/Mar
PAHs	1 hour	0.0004	0	3.9 x10 ⁻¹⁰	3.9 x10 ⁻¹⁰	>100	I	8.3 x10 ⁻¹⁰	8.3 x10 ⁻¹⁰	>100	(0,150) 2pm 4/Mar
Toluene	1 hour	0.36	0	9.9 x10 ⁻⁶	9.9 x10 ⁻⁶	>100	I	2.1 x10 ⁻⁵	2.1 x10 ⁻⁵	>100	(0,150) 2pm 4/Mar
Xylenes	1 hour	0.19	0	6.7 x10 ⁻⁶	6.7 x10 ⁻⁶	>100	I	1.4 x10 ⁻⁵	1.4 x10 ⁻⁵	>100	(0,150) 2pm 4/Mar

All concentrations are expressed in mg/m³. Shaded cells mark GLCs that are more than 10% of the regulatory limit, i.e. have a compliance factor < 10.

Air quality monitoring was carried out by Emissions Testing Consultants (ETC) in August 2012 (NATA Accreditation 14601). The results from the two generators tested at the power plant for Nitrogen oxides showed:



Pollutant	Generator	Pollutant breakdown	Concentration (mg/m ³)	Percentage (%)	Mass Rate
Nitrogen Oxides (NO _x)	Nitrix oxide (NO)	Generator 1	2198.1	90.33	370
				9.67	
	Nitrogen dioxide (NO ₂)	Generator 2	2351.7	94.65	350
				5.35	

Due to the short duration and infrequent use of the Tesla Tesla Geraldton Peak Lopping Facility (2.3% per year), NO_x emissions are considered to be of low risk from this facility at the submitted emission concentrations and volume per year. The modelling of air quality emissions for this facility were based on NEPM, National Standards for Criteria Air Pollutants in Australia.

Limits/Targets

Given that the generators are standard and will be maintained on a regular basis, limits to point source air emissions are not considered necessary. However, non standard conditions have been included within the licence to restrict the time of operation to 200 hours per year. This will ensure that air emissions remain low over a yearly average.

Emissions Monitoring

Based on the findings of the air quality assessment, DER has imposed monitoring conditions on the point source emissions to air through condition 3.2.1.

The methods for monitoring are consistent with those proposed by the proponent and are considered appropriate. Conditions 3.2.2-3.2.3 have been included to require all samples to be undertaken at sampling locations in compliance with AS 4323.1 and analysis to be undertaken by a NATA accredited laboratory. These conditions are required to ensure the monitoring data is reliable and accurate.

As the Tesla Tesla Geraldton Peak Lopping Facility is only operational for a maximum of 200 hours (2.3%) per year, frequent monitoring was not considered appropriate by DER. In addition, Tesla has committed to conducting monthly checking and quarterly servicing of each generator set to ensure all machinery is running at its most efficient and optimal to minimise emissions. It is recommended that point source emissions be monitored every 500 hours of operation to identify any ambient air emission exceedances of NEPM.



Appendix A

EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

Note: These matrix are taken from the current DER Officer's Guide to Emissions and Discharges Risk Assessment May 2006.

Table 3: Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95 th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 th Percentil	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

*For reliable technology, this figure could increase to 30%

Table 4: Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

*This is determined by DER using the DER "Officer's Guide to Emissions and Discharges Risk Assessment" May 2006.

Table 5: Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

PRIORITY MATRIX ACTION DESCRIPTORS

A = Do not allow (fix)

B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)

C = licence condition (setting targets + EMPs - longer timeframes)

D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools

E = No regulation, other management mechanisms