

Permit

Environmental Protection Act 1994

Environmental authority EPPR00424913

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: EPPR00424913**Environmental authority takes effect on 09 November 2017****Environmental authority holder(s)**

Name(s)	Registered address
Origin Energy Mt Stuart BV	Level 45 264-278 George Street SYDNEY NSW 2000

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 08 - Chemical Storage, 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)	Lot 8/RP908391
Prescribed ERA, ERA 14 - Electricity Generation, 2: Generating electricity by using a fuel, other than gas, at a rated capacity of, (b) more than 150MW electrical	Lot 8/RP908391

Additional information for applicantsEnvironmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the Environmental Protection Act 1994 (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or

Environmental authority

- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days); that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the Planning Act 2016 or an SDA Approval under the State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Tariq Khan
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Extraction, Energy and Chemical Industries
Assessment
Department of Environment and Heritage Protection
Phone: 1300 130 372
Email: palm@ehp.qld.gov.au

Date issued: 09 November 2017

Obligations under the Environmental Protection Act 1994

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)

Environmental authority

- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)



Legislative Requirements and Conditions of Environmental Authority

A1 Conditions with the prefix A1 apply only to ERA 14-2(b): *Generating electricity by using a fuel, other than gas, at a rated capacity of more than 150MW electrical.*

General

- A1G1 In carrying out an ERA to which this environmental authority relates, all reasonable and practicable measures must be taken to prevent and/or to minimise the likelihood of environmental harm being caused.
- A1G2 The operator of an ERA to which this environmental authority relates must:
- a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and
 - b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - c) operate such measures, plant and equipment in a proper and efficient manner.
- A1G3 All records required by this environmental authority must be kept for 5 years.
- A1G4 Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this environmental authority.
- A1G5 A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition A1G4:
- a) the name of the operator, including their environmental authority number;
 - b) the name and telephone number of a designated contact person;
 - c) quantity and substance released;
 - d) vehicle and registration details;
 - e) person/s involved (driver and any others);
 - f) the location and time of the release;
 - g) the suspected cause of the release;
 - h) a description of the effects of the release;
 - i) the results of any sampling performed in relation to the release;
 - j) actions taken to mitigate any environmental harm caused by the release; and
 - k) proposed actions to prevent a recurrence of the release.

A1G6 From commencement of an ERA to which this environmental authority relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

- a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
- b) Identification of environmental issues and potential impacts.
- c) Control measures for routine operations to minimise likelihood of environmental harm.
- d) Contingency plans and emergency procedures for non-routine situations.
- e) Organisational structure and responsibility.
- f) Effective communication.
- g) Monitoring of contaminant releases.
- h) Conducting environmental impact assessments.
- i) Staff training.
- j) Record keeping.
- k) Periodic review of environmental performance and continual improvement.

A1G7 The site based management plan must not be implemented or amended in a way that contravenes any condition of this environmental authority.

A1G8 Record, compile and keep all monitoring results required by this environmental authority and present this information to the administering authority when requested.

A1G9 A competent person(s) must conduct any monitoring required by this environmental authority.

A1G10 An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

A1G11 Anyone operating under this environmental authority must be trained in the use of the spill kit.

A1G12 All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this environmental authority must be calibrated, and appropriately operated and maintained.

Acoustic

- A1N1 The method of measurement and reporting of noise levels must comply with the latest edition of the Environmental Protection Agency's Noise Measurement Manual.
- A1N2 When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days to the administering authority. Monitoring must include:
- L_{A10} , adj, 10 mins;
 - L_{A1} , adj, 10 mins;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction;
 - effects due to extraneous factors such as traffic noise; and
 - location, date and time of recording.
- A1N3 In the event of a complaint being received by the administering authority about noise that the administering authority considers is reasonable, then the emission of noise from the activity must not result in levels greater than those specified in *Table 4 - Acceptable Noise Levels at Different Time Periods* on no more than two consecutive days.

Table 4 - Acceptable Noise Levels at Different Time Periods

Noise Level (L_{A90}) Adjacent to Xstrata Carpark Easting 484474 Northing 7861530 (Grid Location based on WGS 84 Map Datum)	Period
75 dB(A)	7 am – 6 pm
70 dB(A)	6 pm – 10 pm
63 dB(A)	10 pm – 7 am

- A1N4 Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place

Air

- A1A1 Contaminants must be released to the atmosphere from a release point at a height and a flow rate not less than the corresponding height and velocity stated for that release point in *Table 1 - Contaminant release limits to air*.
- A1A2 The release of contaminants to the atmosphere from a point source must only occur from those release points identified in *Table 1 - Contaminant release limits to air* and must be directed vertically upwards without any impedance or hindrance.

- A1A3 All release points referred to in *Table 1 - Contaminant release limits to air* must be conspicuously marked with the corresponding release point number.
- A1A4 Monitoring of any releases to the atmosphere required by a condition of this environmental authority must be carried out in accordance with the following requirements:
- a) Australian Standard AS 4323.1 - 1995 'Stationary source emissions Method 1: Selection of sampling positions' (or more recent editions).
 - b) The following information must be recorded for each sampling event:
 - i. temperature; and
 - ii. water vapour concentration (moisture content).
 - c) Where practicable, samples must be taken when emissions are expected to be at maximum rates.
- A1A5 Unless explicitly expressed by a condition in this authority, contaminants must only be released to air from the release points in accordance with Table 1 – Contaminant release limits to air and the associated requirements.

Table 1 - Contaminant release limits to air

Source Description	Release Point	Minimum Release Ht. (metres)	Minimum Velocity (metres/sec)	Contaminant	Maximum Release Limit	Maximum Release limit during testing	Release Limit Units
Turbine Exhaust Stack 1	1a	25	32	Oxides of Nitrogen	0.15	0.609	g/m ³ NO ₂ at a 15% oxygen reference level
Turbine Exhaust Stack 2	2a	25	32			0.609	
Turbine Exhaust Stack 3	3a	25	32			0.507	

Associated requirements

1. The above NO₂ limits do not apply to start-up, shut-down for a period of up to 20 minutes.
2. 'Maximum release limits during testing' only apply to the turbine unit being tested, and for a maximum duration of 10mins per test.

- A1A6 Contaminants must be monitored not less frequently than specified in *Table 2 - Monitoring frequency for emissions to air*.

Table 2 - Monitoring frequency for emissions to air

Source Description	Release Point	Contaminants	Monitoring
Turbine Exhaust Stack 1	1a	Oxides of Nitrogen & Sulphur Dioxide	Biennial
Turbine Exhaust Stack 2	2a	Oxides of Nitrogen & Sulphur Dioxide	Biennial
Turbine Exhaust Stack 3	3a	Oxides of Nitrogen & Sulphur Dioxide	Three times in the first eighteen months and biennial thereafter.

- A1A7 The sulphur content of any fuel burned in industrial fuel burning equipment is not to exceed 0.5 percent by weight.
- A1A8 Power Station contribution to ground level air quality must be estimated for NO_x and SO₂ using data collected under condition (A1A4). Estimates are to be made through the use of the latest version of the 'TAMS' air dispersion model, or other modelling package acceptable to the administering authority.
- A1A9 Air dispersion modelling must be repeated at intervals not exceeding five years and when contaminant release monitoring indicates an increase in the rate of contaminant release of 10% or greater.
- A1A10 The release of dust and/or particulate matter resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive or commercial place.
- A1A11 The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.
- A1A12 In the event that the water injection system fails and a unit deloads, condition A1A5 does not apply for a period of 20mins, for the unit which is deloading.
- A1A13 The EA holder must notify the administering authority in writing at least 2 weeks prior to any testing undertaking in accordance with condition A1A5.

The notification must include the time, date, duration and purpose of the tests.

Land

- A1L1 Contaminants must not be released to land.

A1L2 Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

NOTE: All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

Social

A1S1 The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

- a) Time, date, name and contact details of the complainant;
- b) reasons for the complaint;
- c) any investigations undertaken;
- d) conclusions formed; and
- e) any actions taken.

Water

A1WA1 Contaminants must not be released from the site to any waters or the bed and banks of any waters.

- A2 Conditions with the prefix A2 apply only to ERA 8-3: *Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)*

General

- A2G1 In carrying out an ERA to which this environmental authority relates, all reasonable and practicable measures must be taken to prevent and/or to minimise the likelihood of environmental harm being caused.
- A2G2 A competent person(s) must conduct any monitoring required by this environmental authority.
- A2G3 From commencement of an ERA to which this environmental authority relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

- a) Environmental commitments - a commitment by senior management to achieve specified and relevant environmental goals.
 - b) Identification of environmental issues and potential impacts.
 - c) Control measures for routine operations to minimise likelihood of environmental harm.
 - d) Contingency plans and emergency procedures for non-routine situations.
 - e) Organisational structure and responsibility.
 - f) Effective communication.
 - g) Monitoring of contaminant releases.
 - h) Conducting environmental impact assessments.
 - i) Staff training.
 - j) Record keeping.
 - k) Periodic review of environmental performance and continual improvement.
- A2G4 The site based management plan must not be implemented or amended in a way that contravenes any condition of this environmental authority.
- A2G5 Record, compile and keep all monitoring results required by this environmental authority and present this information to the administering authority when requested.
- A2G6 All records required by this environmental authority must be kept for 5 years.

- A2G7 Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this environmental authority.
- A2G8 A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition A2G7:
- a) the name of the operator, including their environmental authority number;
 - b) the name and telephone number of a designated contact person;
 - c) quantity and substance released;
 - d) vehicle and registration details;
 - e) person/s involved (driver and any others);
 - f) the location and time of the release;
 - g) the suspected cause of the release;
 - h) a description of the effects of the release;
 - i) the results of any sampling performed in relation to the release;
 - j) actions taken to mitigate any environmental harm caused by the release; and
 - k) proposed actions to prevent a recurrence of the release.
- A2G9 The operator of an ERA to which this environmental authority relates must:
- a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and
 - b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - c) operate such measures, plant and equipment in a proper and efficient manner.
- A2G10 All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this environmental authority must be calibrated, and appropriately operated and maintained.
- A2G11 Anyone operating under this environmental authority must be trained in the use of the spill kit.
- A2G12 An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

Acoustic

- A2N1 Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.

Air

- A2A1 The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Land

- A2L1 Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

NOTE: All petroleum product storage's must be designed, constructed and maintained in accordance with AS 1940 - Storage and Handling of Flammable and Combustible Liquids.

- A2L2 Contaminants must not be released to land.

Social

- A2S1 The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

- a) time, date, name and contact details of the complainant;
- b) reasons for the complaint;
- c) any investigations undertaken;
- d) conclusions formed; and
- e) any actions taken.

Water

- A2WA1 Stormwater within the onsite containment systems or general runoff may be released to the stormwater drainage system where:

- the released water has not been in contact with contaminants; or
- water that has been in contact with contaminants is treated prior to release and the released water does not produce any slick or other visible or odorous evidence of oil, grease, kerosene or other hydrocarbons.

- A2WA2 Washing, degreasing, servicing or other maintenance of vehicles, plant, or other equipment must not occur on the approved place in any area where resulting contaminants will or may be released to any stormwater drain or waters.

Definition

Words and phrases used throughout this permit are defined below. Where a definition for a term used in this permit is sought and the term is not defined within this permit the definitions provided in the relevant legislation shall be used.

‘administering authority’ means the Environmental Protection Agency or its successor.

‘annual return’ means the return required by the annual notice (under section 308 of the *Environment Protection Act 1994*).

‘authorised place’ means the place authorised under this environmental authority for the carrying out of the specified environmentally relevant activities.

‘commercial place’ means a place used as an office or for business or commercial purposes.

‘Deload’ means reduction of MW load to a lower rate.

‘dwelling’ means any of the following structures or vehicles that is principally used as a residence -

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land;
- a water craft in a marina.

‘Environmental Protection Agency’ means the department or agency (whatever called) administering the *Coastal Protection and Management Act 1995* or the *Environmental Protection Act 1994*.

‘intrusive noise’ means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

‘ $L_{A10, \text{adj}, 10 \text{ mins}}$ ’ means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

‘ $L_{A1, \text{adj}, 10 \text{ mins}}$ ’ means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10 minute measurement period, using Fast response.

‘ $L_{A, \text{max adj}, T}$ ’ means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response,

‘land’ in the ‘land schedule’ of this document means land excluding waters and the atmosphere.

‘mg/L’ means milligrams per litre.

‘noxious’ means harmful or injurious to health or physical wellbeing.

'nuisance sensitive place' includes -

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or
- a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
- a public thoroughfare, park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

'offensive' means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

'regulated waste' means non-domestic waste mentioned in Schedule 7 of the Environmental Protection Regulation 2008 (whether or not it has been treated or immobilised), and includes -

- for an element - any chemical compound containing the element; and
- anything that has contained the waste.

'site' means land or tidal waters on or in which it is proposed to carry out the development approved under this environmental authority.

'Unit' means the generating unit, the plant used in the production of electricity and all related equipment essential to its functioning as a single entity.

'watercourse' means a river, creek or stream in which water flows permanently or intermittently -

- in a natural channel, whether artificially improved or not; or
- in an artificial channel that has changed the course of the watercourse.

'waters' includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

'works' or 'operation' means the development approved under this environmental authority.

'you' means the holder of this environmental authority or owner / occupier of the land which is the subject of this environmental authority.