Permit[1]

Environmental Protection Act 1994

Environmental authority

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

Permit[1] number: EPPR00607113

Environmental authority takes effect on 25-MAR-2015.

The anniversary date of this environmental authority remains 01 July. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
EDL CSM (Qld) Pty Ltd	Building 17 2404 Logan Road EIGHT MILE PLAINS QLD 4113

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
14-(1) Electricity generation >10MW gas	Grasstree Road, Grasstree Mine MIDDLEMOUNT QLD 4746 – Lot 9 Plan TT442

Additional information for applicants

Environmentally relevant activities

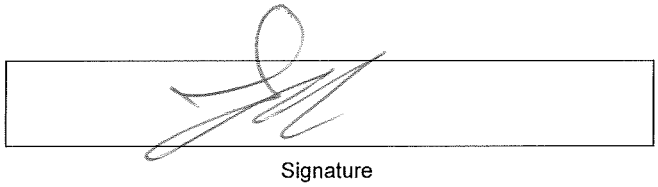
The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental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

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority 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 if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation



Signature

25/3/2015

Date

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

Enquiries:
PO Box 731
TOOWOOMBA QLD 4350
Phone: (07) 4699 4333
Fax: (07) 4699 4388

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)
- 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)

Conditions of environmental authority

Environmentally relevant activity(ies)	Location(s)
14-(1) Electricity generation >10MW gas	Grasstree Road, Grasstree Mine MIDDLEMOUNT QLD 4746 – Lot 9 Plan TT442

The environmentally relevant activity(ies) conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

Schedule A – General
Scale and intensity

(A1) This development approval authorises the generation of electricity by using gas at a maximum rated capacity of 45MW electrical.

(A2) Change, replacement or operation of any plant or equipment is not permitted if the change, replacement, or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm[1] above that expressly provided by this development approval.

Display of development approval

(A3) A copy of this development approval must be kept in a location readily accessible to personnel carrying out the ERA.

Approved Plans

(A4) The development is approved generally in accordance with Drawing Ref: **2029-CMM-00-DK-300, Rev: E** entitled Grasstree Power Station Proposed Expansion – General Arrangement prepared by Energy Developments.

Site Based Management Plan

(A5) From the commencement of an ERA to which this development approval 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;

[1] An example of a substantial increase in the risk of environmental harm is an increase of 10% or more in the quantity of the contaminant to be released to the environment.

(i) Staff training;
(j) Record keeping; and
(k) Periodic review of environmental performance and continual improvement.

(A6) The SBMP must not be implemented or amended in a way that contravenes any condition of this development approval.

Maintenance of measures, plant and equipment

(A7) The operator of an ERA to which this development approval relates must:
(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this development approval.
(b) maintain such measures, plant and equipment in a proper and efficient condition.
(c) operate such measures, plant and equipment in a proper and efficient manner.

Records

(A8) The operator of an ERA authorised by this development approval must record, compile and keep all data required by this development approval and present this information to the administering authority when requested.

(A9) All records required by this development approval must be kept for 5 years.

Monitoring

(A10) Any monitoring required by this permit must be conducted by an appropriately qualified person.

(A11) All analysis and tests required to be conducted under this development approval must be carried out by a laboratory that has National Association Testing Authorities (NATA) certification for such analysis and tests, except as otherwise prior approved by the administering authority.

(A12) All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this development approval must be calibrated, and appropriately operated and maintained.

Notification and reporting

(A13) Any release of contaminants not in accordance with the conditions of this development approval must be reported by telephone to the DERM Pollution Hotline[2] or DERM office located in the area where the release occurred. Any such release must be reported as soon as possible but no later than 24 hours after the registered operator becomes aware of the release. A written notice detailing the following information must be provided to DERM within 7 days:
(a) the name of the registered operator, including their registration certificate number;
(b) the name and telephone number of a designated contact person;
(c) quantity and substance released;
(d) person/s involved;
(e) the location and time of the release;
(f) the suspected cause of the release;
(g) a description of the effects of the release;
(h) the results of any sampling performed in relation to the release;
(i) actions taken to mitigate any environmental harm caused by the release; and
(j) proposed actions to prevent a recurrence of the release.

END OF SCHEDULE A CONDITIONS

[2] DERM may need to respond quickly to some spills with the potential to cause environmental harm. Priority should be given to notifying DERM of these spills immediately after they occur. The Pollution Hotline number is 1300 130 372.

Schedule B – Air
The release of contaminants to the atmosphere

(B1) Contaminants must not be released to the atmosphere from any individual power station engine other than in accordance with **Table 1**.

(B2) The combustion efficiency (CO vs CO_2) of the power generation modules must be measured and compared to the manufacturer's specifications;
- (a) for all units after initial commissioning; and
- (b) for four (4) of the 2 MW power generation modules and one (1) of the 3.35 MW power generation modules measured annually on a rotational basis.

(B3) The release of contaminants to the atmosphere from a point source must only occur from the release points identified in **Table 1** at a height and a flow rate not less than the corresponding height and velocity stated for that release point in **Table 1** and must be directed vertically upwards without any impedance or hindrance.

Table 1 - Contaminant Releases to Air

Release point number	Minimum release height (metres)	Minimum velocity (m/sec)	Determination Required	Maximum Release Limit*	Sampling frequency
Stack numbers 1 to 16 (2 MW power generation modules)	7.1	36	Mass emission rate of Oxides of Nitrogen (NOx)*	684 mg/Nm^3 @ 5% O_2	▪ All units after initial commissioning; and ▪ 4 stacks per year on a rotational basis commencing 12 months after commissioning.
Stack numbers 17 to 20 (3.35 MW power generation modules)	12.5	33	Oxides of Nitrogen (NOx)*	500 mg/Nm^3 @ 5% O_2	▪ All units after initial commissioning; and ▪ 1 stack per year on a rotational basis commencing 12 months after commissioning.

*Standard reporting conditions; NOx is expressed as NO_2 at dry stack gas at 273°K, 101.3 kPa *and expressed as milligrams per normal cubic metre (mg/Nm3) of dry flue gas. Monitoring must be conducted when the plant is operating at its peak (i.e. should exclude startup and shutdown).*

(B4) When requested by the administering authority, contaminant monitoring and recording must be undertaken to investigate any report of contamination. When monitoring is requested the following must be complied with:
- (a) Monitoring provisions for the release points listed in **Table 1** must comply with the *Australian Standard AS4323.1 – 1995 'Stationary source emissions Method 1: Selection of sampling positions'.*
- (b) The following tests must be performed for each emission type specified in **Table 1:**
  - (i) gas velocity and volume flow rate;
  - (ii) temperature;
  - (iii) water vapour concentration (moisture content); and
  - (iv) emission concentration
- (c) Where samples must be taken when emissions are expected to be at maximum rates;
- (d) During the sample period the following information must be recorded;
  - (i) production rate at the time of sampling;
  - (ii) raw materials used;
  - (iii) operating temperature;
  - (iv) number of units operating; and
  - (v) reference to the test method and accuracy of method.

(B5) Contaminants must not be released to the atmosphere from a release point at a mass emission rate/concentration in excess of the levels stated in **Table 1**.

(B6) All determinations of air quality must be:
(a) made in accordance with methods prescribed in the latest edition of the Department of Environment and Resource Management's *Air Quality Sampling Manual*; and
(b) carried out on samples that are representative of the media being tested.

Dust and odour

(B7) The release of noxious or offensive odour and/or dust or particulate matter generated by the ERA must not cause an environmental nuisance at any nuisance sensitive place.

(B8) When requested by the administering authority, odour or dust monitoring must be undertaken within timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any nuisance sensitive place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.

(B9) If the administering authority determines the odour, dust or particulate matter released to constitute an environmental nuisance, then the registered operator must:
(a) address the complaint including the use of appropriate dispute resolution if required; or
(b) implement dust or odour abatement measures so that emissions of dust from the ERA do not result in further environmental nuisance.

END OF SCHEDULE B CONDITIONS

Schedule C – Water

Offsite release of wastewater

(C1) When conditions prevent the provision of wastewater to other person(s), alternative measures must be taken to store or lawfully dispose of the wastewater (such as tanking off site to another treatment plant). A record must be kept of any removal or discharge off site, including destination, transporter, dates and volumes.

Provision of Wastewater to Other Person(s)

(C2) If the person undertaking the activity to which this approval relates gives or transfers ownership of the wastewater including condensate and/or stormwater to another person(s) ("the third party"), the person undertaking the activity to which this approval relates must –
(a) prior to giving such wastewater or transferring ownership of such wastewater to the third party, obtain from the third party details of how they will comply with the general environmental duty (GED) provided for by section 319 of the *Environmental Protection Act 1994* in respect of the use and disposal of such wastewater, particularly in relation to the environmental sustainability of any wastewater disposal, protection of public health and protection of environmental values of water;
(b) only give or transfer ownership of such wastewater in accordance with a written agreement between the person undertaking the activity to which this approval relates and the third party;
(c) include, in any third party agreement, the provision that supply of wastewater may be discontinued at any time if the supplier reasonably believes that the third party is utilising wastewater in a way that may cause environmental harm, or is otherwise not complying with the GED; and
(d) if the person becomes aware that the person is not or is not likely to comply with the general environmental duty provided by section 319 of the *Environmental Protection Act 1994*, cease the giving and transferring ownership of such wastewater.

(C3) The permit holder must ensure that wastewater released from the site under condition C2 is of a suitable quality for its intended end use.

(C4) Monitoring of suitable water quality parameters must be conducted at a suitable frequency to ensure compliance with condition C3.

Stormwater management

(C5) There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.

(C6) Suitable banks and/or diversion drains must be installed and maintained to exclude stormwater runoff recovery of any spilt material where possible;

(C7) Spillage of all chemicals, flammable and combustible liquids must be controlled in a manner that prevents environmental harm.

(C8) Contaminants must not be released from the site to any waters or the bed and banks of any waters.

END OF SCHEDULE C CONDITIONS

Schedule D – Land

Preventing contaminant release to land

(D1) Contaminants must not be released to land.

Fuel and Chemical Management

(D2) All bulk flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current edition of *AS 1940 – Storage and Handling of Flammable and Combustible Liquids.*

(D3) Any liquid held in a container such as a tank or drum that has the potential to cause environmental harm if released to the environment must be bunded. Volumes of liquid less than 1000L may be stored without bunding if:

(a) containers or drums are stored undercover on an impervious base;
(b) is occurring at least 100m from any waters; and
(c) there is absorbent material readily available at the site for clean up if necessary.

(D4) Individual drums may be temporarily stored on spill containment pallets.

(D5) All chemicals stored on site that have the potential to cause environmental harm must be stored in or serviced by an effective containment system that is impervious to the materials stored and managed to prevent the release of liquids to waters or land in accordance with the relevant Australian Standard. Where no relevant Australian Standard is available, the following must be applied:

(a) storage tanks must be bunded so that the capacity and construction of the bund is sufficient to contain at least 110% of a single storage tank or 100% of the largest storage tank plus 10% of the second largest storage tank in multiple storage areas; and
(b) drum storages must be bunded so that the capacity and construction of the bund is sufficient to contain at least 25% of the maximum design storage volume within the bund.

Spill kit

(D6) 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.

Erosion and sediment control

(D7) Erosion protection and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment.

END OF SCHEDULE D CONDITIONS

Schedule E – Waste

(E1) All regulated waste removed from the site must be removed by a person who holds a current approval to transport such waste under the provisions of the *Environmental Protection Act 1994.*

(E2) A record is to be kept of the disposal of regulated waste identifying the date, quantity, type of waste, the name of the waste transporter and the intended disposal destination.

END OF SCHEDULE E CONDITIONS

Schedule F – Noise

Environmental Nuisance

(F1) Noise resulting from the ERA must not cause an environmental nuisance at any nuisance sensitive place.

(F2) Noise from the ERA must not result in levels greater than those specified in Table 3 – Noise Limits.

Table 3 - Noise Limits

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
$L_{A10, adj, 15 mins}$	b/g + 5	b/g + 5	b/g + 0	b/g + 5	b/g + 5	b/g + 0
$L_{A1, adj, 15 mins}$	b/g + 10	b/g + 10	b/g + 5	b/g + 10	b/g + 10	b/g + 5
	Noise measured at a 'Commercial place'					
$L_{A10, adj, 15 mins}$	b/g + 10	b/g + 10	b/g + 5	b/g + 10	b/g + 10	b/g + 5
$L_{A1, adj, 15 mins}$	b/g + 15	b/g + 15	b/g + 10	b/g + 15	b/g + 15	b/g + 10

Note 1: *b/g = background noise level, $L_{A90, 15 mins}$. In no case is the background noise level, $L_{A90, 15 mins}$ to be less than 25 dB(A). In the event that measured b/g is less than 25 dB(A), then 25 dB(A) is to be used.*
Note 2: The noise levels specified for $L_{A90, adj, 15}$ mins are measured outdoors in the free field at a location at least 4m from the external facade of a building at the nuisance sensitive or commercial place and 1.2m to 1.5m above ground level.

Noise Monitoring

(F3) 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 —

(a) $L_{A10, adj, 15 mins}$;
(b) $L_{A1, adj, 15 mins}$;
(c) The background noise level;
(d) the level and frequency of occurrence of impulsive or tonal noise;
(e) atmospheric conditions including wind speed and direction;
(f) effects due to extraneous factors such as traffic noise;
(g) location, date and time of recording;
(h) details of measurement instrumentation and measurement procedure; and
(i) analysis of monitoring data in the context of defined limits as stated in this approval.

Measuring and reporting noise levels

(F4) The method of measurement and reporting of noise levels in response to any noise monitoring conducted under this approval must be in accordance with most recent edition of the DERM's *Noise Measurement Manual.*

END OF SCHEDULE F CONDITIONS

Schedule G – Community
Complaint response

(G1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

(G2) The holder of this development approval must record the following details for all complaints received and provide this information to the administering authority or request —

(a) name, contact address and contact telephone number of the complainant (note: if the complainant does not wish to be identified then "Not Identified" is to be recorded);
(b) time, date and nature of the complaint;
(c) type of communication (telephone, letter, personal, ect.);
(d) investigations undertaken;
(e) conclusions formed;
(f) actions taken to resolve complaint;
(g) any abatement measures implemented; and
(h) name of person responsible for resolving complaints.

END OF SCHEDULE G CONDITIONS

END OF CONDITIONS



Definitions
Words and phrases used throughout this permit[1] are defined below. Where a definition for a term used in this permit[1] is sought and the term is not defined within this permit[1] the definitions provided in the relevant legislation shall be used.

Administering authority	means the Department of Environment and Resource Management or its successor.
Appropriately qualified person	means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.
Contaminant	means- a) a gas, liquid or solid; or b) an odour; or c) an organism (whether alive or dead), including a virus; or d) energy, including noise, heat, radioactivity and electromagnetic radiation; e) or a combination of contaminants
Environmental harm	means any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. Environmental harm may be caused by an activity— (a) whether the harm is a direct or indirect result of the ERA; or (b) whether the harm results from the ERA alone or from the combined effects of the ERA and other activities or factors.
Environmental nuisance	means unreasonable interference or likely interference with an environmental value caused by: a) noise, dust, odour, light; or b) an unhealthy, offensive or unsightly condition because of contamination; or c) another way prescribed by regulation (e.g. unreasonable noise or dust emissions).
µS/cm	Means Micro-siemens per centimetre
mg/L	means milligrams per litre.
mg/Nm	Means milligrams per normal metre
Measure	means an action, system, procedure and infrastructure that is intended as a means to an end *(ie to take measures to prevent dust release)*.
Noise	includes vibration of any frequency, whether emitted through air or another medium.
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 1992* 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 1998* (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.
Release	means – a) to deposit, discharge, emit or disturb the contaminant; and b) to cause or allow the contaminant to be deposited, discharged, emitted or disturbed; and c) to allow the contaminant to escape; and d) to fail to prevent the contaminant from escaping.
Watercourse Waters	the meaning assigned to it in schedule 4 of the *Water Act 2000* mean – a) river, creek, stream in which water flows permanently or intermittently either: i. in a natural channel, whether artificially improved or not; or ii. in an artificial channel that has changed the course of the river, creek or stream; or b) lake, lagoon, pond, swamp, wetland, dam; or c) unconfined surface water; or d) storm water channel, storm water drain, roadside gutter; or e) bed and banks and any other element of a river, creek, stream, lake, lagoon, pond, swamp, wetland, storm water channel, storm water drain, roadside gutter or dam confining or containing water; or f) groundwater; or g) non-tidal or tidal waters (including the sea); or h) any part-thereof.

END OF PERMIT