



Decision Document

Environmental Protection Act 1986, Part V

Proponent: NewGen Neerabup Pty Ltd

Licence: L8356/2009/2

Registered office: Level 52, 111 Eagle Street
BRISBANE QLD 4001

ACN: 126 965 722

Premises address: Neerabup Power Station
Lot 100 on Deposited Plan 63371 Trandos Road
NEERABUP WA 6031

Issue date: Thursday, 01 November 2012

Commencement date: Monday, 03 December 2012

Expiry date: Saturday, 2 December 2017

Decision

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

Decision Document prepared by: Timothy Moore
Licensing Officer

Decision Document authorised by: Alan Kietzmann
Manager Licensing



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1 Purpose of this Document

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

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: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1, 5.1.2 and 5.3.1.

Licence conditions: 1.1.1-1.1.4, 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 as a result of this application is 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 type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	52	330 megawatts
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" 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> ?	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?	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 and assessment

The proponent, NewGen Neerabup Pty Ltd (NewGen Power), is a subsidiary of ERM Power. The premises is located on Lot 100 on Deposited Plan 63371, 45 Trandos Road, Neerabup within the developing Neerabup Industrial Estate, which is approximately 30km north of Perth and 10km north of the Wanneroo town site.

The power station comprises of two open cycle gas turbines with a design capacity of 165 MWe each. Natural gas is supplied from the Dampier to Bunbury natural gas pipeline. The power station has a demineralised water plant and two evaporation ponds which have been lined with a coefficient of permeability of less than 2×10^{-10} m/s. The effectiveness of the lined containment are determined by monitoring contained fluid balances, standing watertable levels and groundwater quality adjacent to the site in accordance with Water Quality Protection Note No.30 (DoW 2006).

This partial Decision Document specifically relates to the amendment of the ambient groundwater monitoring requirements for the power station; decreasing the monitoring programme from a six monthly frequency to an annual frequency, and extending the due date for annual reporting from 31 July to 31 August. NewGen Power requested the amendment.

The site of the power station is cleared agricultural land, which was previously used for market gardening and contains no remnant vegetation. The premises is adjacent to Bush Forever site 382 which includes Lake Pinjar, a Conservation Category Wetland. However, there is minimal impact to this site from the construction or operation of the power station as Old Yanchep Road provides a buffer between these areas.

There are no priority surface or groundwater resources within the site. The Gnangara Underground Water Pollution Control Area (UWPCA) lies to the east and north of the site. A site contamination assessment has been undertaken for soils and groundwater (360 Environmental, 2007). The investigation concluded that the levels of metals and pesticides in the soil are below recommended guideline levels (EIL and HIL – F guidelines (commercial/industrial landuse)). These results indicate that the impact of potentially contaminating activities undertaken at the site associated with market gardening activities, including the application of pesticides and herbicides, appears to have been minimal on surrounding soils.



4 Decision table

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

DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Ambient environmental quality monitoring	3.8.1		<p>There is currently a groundwater production well on the site. Seven groundwater monitoring bores have been installed both up-gradient and down-gradient of the power station at a density to enable the accurate assessment of any plumes or contamination that may enter or originate from the site. This includes monitoring of groundwater levels and quality entering the development area, within and down-stream of the development. The monitoring programme is undertaken six monthly and will be monitored for groundwater level, pH, electrical conductivity, nutrients and hydrocarbons.</p> <p>The amendment is to decrease the frequency of monitoring ambient groundwater from six monthly intervals to an annual interval. As the plant uses a water desalination – reverse osmosis/demineralised plant to produce high quality potable water for the gas turbine power generation process, the emission of the water plant is a brine solution which is stored in ponds. Groundwater monitoring was a condition of licence as an indicator of any solution breaching the containment infrastructure.</p> <p>Historic water quality data sampling outlined by the licence conditions from 2009 to 2014 has shown no troughs or peaks of contamination (TRH, BTEX and PAH have remained below respective laboratory limits of reporting and all adopted criteria) from the site although it has indicated exceedances in total phosphorous</p>	General provisions of the <i>Environmental Protection Act 1986</i> .



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			<p>and total nitrogen concentrations against the long term irrigation levels. It is understood that this is from off-site sources and not from the operations of the Power station, given the location of the premises is cleared agricultural land used previously as market gardens, it is expected that the total nitrogen and phosphorous is historic. Respectively some monitoring bores are within 50 m of active neighbouring markets garden with identified stockpiles of chicken manure.</p> <p>Other category 52 licences either have no ground water monitoring or monitor for known parameters due to known contaminants on site.</p> <p>As monitoring frequencies and parameters is site specific it is acknowledged that an annual frequency is appropriate for this site.</p>	
Information	5.2.1		<p>The Licensee has requested that the date by which reporting is required by extended to 31 August each year. The Licensee has struggled to meet the current due dates due to monitoring reports being undertaken by a third party which are then reviewed internally by a small team prior to submission to DER.</p> <p>DER accepts the request to postpone annual reporting dates to 31 August each year.</p> <p>In support of this request, the licensee also put forward an amendment to the tabular format of Form AR1 – Monitoring point source emissions to air and GR1 – Monitoring of point source emissions to groundwater.</p> <p>Form AR1 now has separate rows for each emission point, these emission points have also been renamed from A1 stack unit 1 and A2 stack unit 2 to A1 Unit 11 and A2 Unit 12 to fit the proponents premises definitions.</p> <p>Form GR1 now has separate columns for each of the seven monitoring bores.</p>	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
02/8/2014	Proponent sent a copy of draft instrument	Amendment accepted.	N/A
02/10/2014	Proponent sent proposed amendment with option to waive 21 day comment period	No comments, waiver form submitted.	N/A



6. Risk Assessment

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

Table 1: Emissions Risk Matrix

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