Uranquinty Power Station

2012 Annual Environmental Management Report

Date 8 March 2013

Contents

1 Introduction

Project Overview

The Uranquinty Power Station (UPS) is operated to meet New South Wales need for electrical power.

The plant output is generated by four open cycle gas turbines

The power station is fuelled by natural gas that passes through the site at a pressure of up to 25MPa.

The existing buried natural gas pipeline runs along the western side of the Plant and then diverts north-east between the Plant and switchyard. The natural gas enters the facility through a metering skid and a gas receiving station and is then directed to the gas turbines. Exhaust gases are dispersed via a stack, 35m in height, adjacent to each gas turbine building.

Process water is obtained from the town water reticulation system and treated via the demineralization plant to meet process specifications. This process uses reverse osmosis technology with a non-regenerable mixed bed polisher unit and treatment wastes are pumped to the evaporation ponds.

The basic components or structures involved in the facility are:

- gas pipelines and gas fuel filter and reduction station;
- gas turbine buildings, transformers and exhaust stacks;
- water storage and demineralization plant (reverse osmosis);
- power control centre/building;
- emergency diesel generators and minor distillate tanks; and
- fire control facilities.

Other support facilities include an office building, workshop and new warehouse. A storm water holding pond and two evaporation ponds are also constructed adjacent to the Plant.

One to ten persons work on-site but the plant can be operated remotely.

Project Location

The Uranquinty Power Station is located on Uranquinty Cross Road near Uranquinty, approximately 15km south-west of Wagga Wagga in New South Wales. It covers a portion of Lot 782 on DP878179 and Lot 76 on DP754573, Parish of Yarragundry. The designated site area is 450m x 775m (35 Hectares).

The site is located on an intersection or crossover between an existing natural gas pipeline, which traverses local rural properties from south to north, and 132 kV electricity transmission lines. Direct access to the site is available from the sealed Uranquinty Cross Road. A disused railway line also runs along the southern boundary of this road corridor.

The map below shows the locality of the Power Station Site in relation to Wagga Wagga:

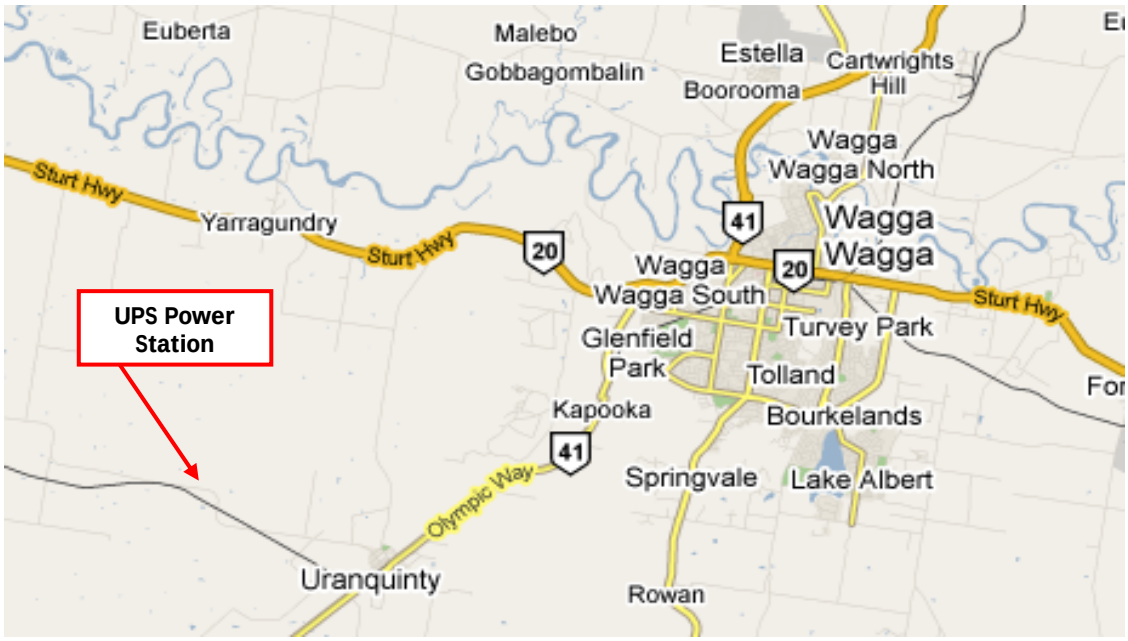


Figure 1 – Project Site Location in Relation to Wagga Wagga

Background to this Report

The Uranquinty Power Station operates under the conditions detailed in:

- The Department of Planning (DoP) Development Consent DA-31-2-2004-i dated 10/06/2005 and subsequent modifications detailed in Section *3. Project Approvals and Licences* of this report.
- The Department of Environment, Climate Change and Water (NSW EPAW) Site Environmental Licence 12490 approved on 27/11/06 and subsequent modifications detailed in *Section 3. Project Approvals and Licences* of this report.

Construction and commissioning works for this project was completed in December 2008, and commercial operation of the power station commenced in January 2009.

Purpose and Scope of this Report

The purpose of this Annual Environmental Management Report is to satisfy the requirements of Condition 7.3 of the site Development Consent - DA-31-2-2004-I which requires an environmental management report to be produced and submitted to the DoP annually from the start of commercial operation.

This report covers the reporting period from the 1 January 2012 to 31 December 2012.

Condition 7.3 of the Consent details the following requirements:

7.3 Annual Performance Reporting

The Applicant shall, throughout the life of the development, prepare and submit for the approval of the Director-General, an Annual Environmental Management Report (AEMR). The AEMR shall review the performance of the development against the Operation Environmental Management Plan (refer to condition 6.5 of this consent), the conditions of this consent and other licences and approvals relating to the development. The AEMR shall include, but not necessarily be limited to:

a) details of compliance with the conditions of this consent;

b) a copy of the Complaints Register (refer to condition 5.3 of this consent) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were addressed and resolved;

c) identification of any circumstances in which the environmental impacts and performance of the development during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 6.4 of this consent, with details of additional mitigation measures applied to the development to address recurrence of these circumstances ;

d) results of all environmental monitoring required under this consent and other approvals, including interpretations and discussion by a suitably qualified person; and

e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the development have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident.

The Applicant shall submit a copy of the AEMR to the Director-General every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of the development. The Director-General may require the Applicant to address certain matters in relation to the environmental performance of the development in response to review of the Annual Environmental Report. Any action required to be undertaken shall be completed within such period as the Director-General may require. The Applicant shall make copies of each AEMR available for public inspection on request.

UPS 2012 Annual Environmental Management Report Authors

This report was written and interpretation & discussion of environmental monitoring was undertaken by:

- Guy Corbett (Bac. App. Sci. & Grad. Dip. Env. Mgt) – Origin Environmental Advisor

2 2012 Production

The Table 1 provides a summary of 2012 operation of the Uranquinty Power Station (UPS) during this reporting period against operating data presented in the UPS 2004 Environmental Impact Statement (EIS).

Table 1. Summary of 2012 operation at the UPS

Production/Resource Use	EIS	2012 Actual Data
Unit Starts/Annum	1000	475
Electricity Generation/Annum	1000 GW/h	299.9 GW/h
Natural Gas Usage/Annum	18.3 PJ	3.51 PJ
Water Use	23m^3/Day	26.9m^3/Day

As detailed, all operating data was below the operating data predicted in the UPS EIS except water usage.

The 2011 UPS Annual Report detailed filter blocking issues associated with the Water Recycling Project approved under DA-31-2-2004-Mod 9. In the AMER it detailed the Project was still experiencing filter blockages and was to undergo engineering and supplier review to implement design changes.

In late 2012 and early 2013, a review of engineering and plant control system had been undertaken with initial changes made. The changes have resulted in a recycled water recovery rate of 50% now being achieved.

Further control system work is planned for early 2013 that is expected to increase water recovery to closer to the 70% system design capacity.

3 Project Approvals and Licences

3.1 Current Approvals and Licences

The Table 2 provides a summary of approvals required for the operation of Uranquinty Power Station during this reporting period.

Table 2. UPS Development Consent Approval and Modifications

Approval	Nature of approval	Relevant Authority	Date
DA-31-2-2004-i 600MW Gas-fired Power Station	Development Consent	NSW Department of Infrastructure Planning and Natural Resources	10/06/2005
DA MOD Stage 2 of development combined with stage 1	Modification to Consent	NSW Department of Infrastructure Planning and Natural Resources	8/08/2006
MOD-47-5-2007-i Change to operational noise limits	Modification to Consent	NSW Department of Planning	6/07/2007
MOD-66-12-2009 Administrative corrections to wording of DA	Modification to Consent	NSW Department of Planning	18/12/2008
DA-31-2-2004I MOD4 Application for the building of a storage shed onsite	Modification to Consent	NSW Department of Planning	14/07/2009
DA-31-2-2004I MOD5 Modification to preclude the application of noise limits where a noise agreement is in place or for residences which are authorised after a specified date	Modification to Consent	NSW Department of Planning	11/12/2009
DA-31-2-2004I MOD6 Application for installation of 60 metre weather mast	Modification to Consent	NSW Department of Planning	13/8/10
DA-31-2-2004I MOD7 Modification to preclude the application of noise limits where a noise agreement is in place or for residences which are authorised after a specified date	Modification to Consent	NSW Department of Planning	27/8/10
DA-31-2-2004I MOD8 Clarification on Normal Operating Hours to allow for Noise Testing	Modification to Consent	NSW Department of Planning	21/9/10
DA-31-2-2004I MOD9 Modification of Water Treatment Plant and Water Recycling Project	Modification to Consent	NSW Department of Planning	12/11/10

The Table 3 provides a summary of licences required for the operation of Uranquinty Power Station during this reporting period.

Table 3. UPS Environmental Licence and Modifications

Approval /Licence	Nature of approval	Relevant Authority	Date
Environment Protection Licence 12490	Environment Protection Licence	NSW Environment Protection Authority	27/11/2006
Notice 1088683 to vary the licence, generation capacity and operational noise limits	Licence variation	NSW Environment Protection Authority	03/07/2008
Notice 1090067 to vary the licence, generation capacity and operational noise limits	Licence variation	NSW Environment Protection Authority	18/07/2008
Notice 1090485 to vary the licence, generation capacity and operational noise limits	Licence variation	NSW Environment Protection Authority	22/07/2008
Notice 1090485 to vary the licence preclude the application of noise limits where a noise agreement is in place	Licence variation	NSW Environment Protection Authority	24/12/2009
Notice 1115626 to vary the licence allow for noise testing & additional water quality conditions for stormwater pond release and irrigation.	Licence variation	NSW Environment Protection Authority	23/9/2010
Allowance for noise testing between April 2011 & October 2011	Licence variation	NSW Environment Protection Authority	15/4/2011

4 Approvals and Licence Compliance Review

Table 4. Approval - Development Consent -DA-31-2-2004-i

Document 1:	**DoP - Development Consent -DA-31-2-2004-i**		
Aspect	**Summary of Project Specific Environmental Conditions**	**Comments**	**Conformance**
3. ENVIRONMENTAL PERFORMANCE			
Air Quality Impacts	3.1 The Applicant shall design, construct, operate and maintain the development in a manner that minimises dust emissions from the site.	• Sealed roadways & gravel areas maintained around site. Further discussion in Section 13.1 Air Quality of this AEMR • Weekly site inspections occurring • Implementation & maintenance of the *Landscape Management Plan* on-site. Further discussion in Section 13.4 Visual Amenity Planning of this AEMR	Yes
	3.2 The Applicant shall not permit any offensive odour, as defined under section 129 of the *Protection of the Environment Operations Act 1997*, to be emitted beyond the boundary of the site.	• Appropriate rubbish bin selection and emptying schedule in place. Further discussion in Section 12.7 Waste Management of this AEMR	Yes
Limitations on Fuel	3.3 The Applicant shall only use natural gas for routine firing in the power station turbines.	• Design of plant - only available fuel	Yes
	3.4 The Applicant shall only use low sulfur diesel (containing no greater than 0.05 wt% (500 ppm) sulfur) in the power station turbines during emergencies.	• Not applicable – No diesel power generation.	N/A

Discharge Limits	3.5 The Applicant shall design, construct, operate and maintain the development to ensure that for each turbine stack discharge point (four in total), the concentration of NOx is not exceeded when utilising the specified fuel.	• There were no NOx exceedance during this reporting period. • Average CEMS data results and further discussion is detailed in Section 13.1 Air Quality of this AEMR	Yes
Meteorological Monitoring Station	3.6 The Applicant shall install, operate and maintain a meteorological monitoring station to monitor weather conditions representative of those on the site. The Applicant shall use the meteorological monitoring station to undertake the monitoring required under condition 4.1 of this consent.	• Monthly down-load of data occurring. • Electronic filing of down loaded weather data is maintained on-site. • Weather monitoring data is not provided with this report due to the very large amount of data generated by the weather monitoring station. • Weekly Inspections occurring	Yes
Noise Impacts	*Vibration Impacts* 3.7 The Applicant shall ensure that the vibration resulting from operation of the development does not exceed the evaluation criteria presented in British Standard BS6472 for low probability of adverse comment, at any affected residential dwelling. *Heavy Vehicles* 3.8 Heavy vehicles shall only be permitted to enter or leave the site between 7:00 am and 7:00 pm on any day. This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.	• Design of plant • Truck access hours in place. Further discussion in Section 13.8 Transport of this AEMR •	Yes
Operation Noise	*Operation Noise* 3.11 The Applicant shall design, construct, operate and maintain the development to ensure that the noise contributions from the development to the background acoustic environment do not exceed specified noise contributions.	• Voluntary noise monitoring undertaken at one near neighbour. Further discussion in Section 13.3 Noise Emissions of this AEMR	Yes

Soil and Water Quality Impacts	3.13 Except as may be expressly permitted by an Environment Protection Licence for the development, the Applicant shall ensure that section 120 of that Act (prohibition of pollution of waters) is complied with in and in connection with the carrying out of the development.	• No uncontrolled releases of pollution. • The site stormwater pond released off-site two separate times during this reporting period. The first time the overflow was for 2 days and the second was for a single day. Water sampling was undertaken on a daily basis during the overflows and the water quality specifications met the sites Environmental Licence on all occasions. • Further discussion in Section 13.2 Sediment Control and Water Management of this AEMR	Yes
	3.14 All water detention basins installed on the site for the management of surface water or storm water shall be lined with an impermeable clay liner (or equivalent) of at least 300 millimetres thickness and with a permeability of no greater than 1 x10-9 mms-1. Livestock shall not be permitted to use these basins.	• The site stormwater pond has been lined with concrete mat lining and the two demin pond evaporation ponds have PPE plastic lining. • No livestock allowed within UPS security fence.	Yes
Hazards and Risk Impacts *Bunding and Spill Management*	3.15 The Applicant shall store and handle all liquid hazardous materials and liquid dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with: a) all relevant Australian Standards; b) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund.	• Weekly Inspections occurring • Chemical/oil storage contained in purpose built chemical/oil shed. • Transformer bunds designed to meet requirement of bund to hold110% of the volume. • Further discussion in Section 13.2 Sediment Control and Water Management of this AEMR	Yes
Waste Generation and Management	3.18 The Applicant shall not cause, permit or allow any waste generated by the development or from outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence issued by the NSW EPA. This condition only applies to wastes for which a licence under the *Protection of the Environment Operations Act* or the *Environmentally Hazardous Chemicals Act 1985* is required.	• No site waste or waste external to site was stored, treated or disposed of on-site. • Further discussion in Section 13.7 Waste Management of this AEMR	Yes

Flora, Fauna and Visual Amenity Impacts	3.19 Nothing in this consent permits the destruction, removal or damage of any tree in undertaking the development.	• No existing trees on-site have been damaged or removed during reporting period.	Yes
	3.20 The Applicant shall take all practicable measures to prevent any off-site lighting impacts from the development. In particular the Applicant shall ensure that no lights are directed towards private residences or roads, and that lighting is consistent with Australian Standard *AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.	• No lighting complaints received during reporting period. • Lighting procedure implemented – mitigation measures detailed in Section 13.4 Visual Amenity Planning of this AEMR.	Yes
Off-Site Screening of Residual Visual Amenity Impacts	3.21 Any landowner with a residential property within three kilometres of the site may, within five years of the commencement of construction of the development, request that the Applicant undertake visual impact mitigation works on the landowner's property.	• Visual amenity plantings completed • Quarterly Inspections occurring • Maintenance program occurring including spraying, mowing and tree replacement • Further discussion in Section 13.4 Visual Amenity Planning of this AEMR	Yes
Heritage Impacts	3.28 In the event that any item with identified or suspected heritage value is discovered/located during the development, the Applicant shall cease all activities that may adversely impact on the item and contact the NSW Heritage Office (in relation to items of non-indigenous heritage significance) or the Department of Environment and Conservation (in relation to items of indigenous heritage significance).	• No historical or artefact discovered on-site during reporting period • Further discussion in Section 13.6 Heritage Management of this AEMR	Yes

4. Environmental Monitoring & Auditing			
Meteorological Monitoring	4.1 From the commencement of any works on the site, the Applicant shall continuously monitor, utilising the meteorological monitoring station – Temperature Wind Speed Wind Direction Sigma Theta Solar radiation	• Weather station data collection is occurring and data stored electronically on-site. Weather monitoring data is not provided with this report due to the very large amount of data generated by the weather monitoring station.	Yes
Air Quality Monitoring	4.2 The Applicant shall determine the pollutant concentrations and emission parameters, at each of the turbine stack discharge points Monitoring shall be undertaken during operation of the development, at the frequency indicated – Nitrogen dioxide (NO_2) - Continuous Velocity - Annually Volumetric flow rate - Annually Temperature - Annually Moisture content in stack gases - Annually Dry gas density - Annually Molecular weight of stack gases - Annually Oxygen - Annually Carbon dioxide - Annually	• Continuous emission monitoring is occurring and data stored electronically on-site because of the large amount of data generated. CEMS monitoring data is not provided with this report due to the very large amount of data generated by the CEMS monitoring station, but a summary of results is provided in Section 13.1 of this AEMR • Annual stack emission monitoring completed and monitoring results provided in Section 13.1 of this report.	Yes

Noise Monitoring	4.5 Within 90 days of the commencement of operation of the development, and during a period in which the development is operating under design loads and normal operating conditions, the Applicant shall undertake a program to confirm the noise emission performance of the development. A report providing the results of the program shall be submitted to the Director-General and the DEC with 28 days of completion of the testing required under a). In the event that the program undertaken to satisfy condition 4.5 of the consent indicates that the operation of the development, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under this consent, then the Applicant shall provide details of remedial measures to be implemented to reduce noise impacts to levels required by that condition. Details of the remedial measures and a timetable for implementation shall be submitted to the Director-General for approval within such period as the Director-General may require, and be accompanied by evidence that the DEC is satisfied that the remedial measures are acceptable.	• 3 noise complaints received during this reporting period. Further information provided in Section 6 Complaints Register and Section 13.3 Noise Management. • Noise monitoring undertaken in 2012 at one outer neighbour which recorded no non-compliances with the UPS Development Consent or UPS Environmental Licence.	Yes
Water Quality Monitoring	4.7 The Applicant shall undertaking monitoring of discharge water quality from the stormwater retention pond and the evaporation pond for each of the pollutants and parameters listed. Monitoring shall be at each discharge lasting more than 2 hours. • Chloride • Conductivity • pH • Sodium • Total suspended solids	• The site stormwater pond released off-site on two separate times during this reporting period. The first time the overflow was for 2 days and the second was for a single day. Water sampling was undertaken on a daily basis during the overflows and the water quality specifications met the sites Environmental Licence on all occasions. • Water quality monitoring for irrigation water quality was undertaken and results provided in Section 13.2 of this AEMR	Yes

Auditing	4.8 & 4.9 Twelve months after the commencement of operation of the development, the Applicant shall commission an independent, qualified person Hazard Audit of the development. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. A Hazard Audit Report & Environmental Audit Report shall be submitted for the approval of the Director-General no later than one month after the completion of the Audit.	• An external Environmental Audit was completed in August 2012 by CDB Environmental. The audit report was sent to the DOPI. Further details about the audit results are detailed in Section 12 Environmental Review.	Yes
Community Information, Consultation and Involvement	5.1 – Community Information 5.2 – 5.3 - Complaints Procedure 5.4 – 5.5 – Community Participation Panel	• As per Section 5.0 of this AEMR • As per Sections 6.0 of this AEMR • As per Section 7.0 of this AEMR	Yes
Environmental Management	6.1 – Environmental Representative 6.5 – 6.6 – Operational Environmental Management Plan	• As per Section 8.0 of this AEMR • OEMP completed and submitted and received approval by DoP. OEMP review as per Section 13 of this AEMR	Yes

Table 5. Approval - NSW EPA Environmental Protection Licence - 12490

Document 2:	**NSW EPA Environmental Protection Licence - 12490**		
Aspect	**Summary of Project Specific Environmental Conditions**	**Comments**	**Conformance**
A1 What the licence authorises and regulates	A1.1 This licence authorises the carrying out of the scheduled development work.	• Only electrical generation undertaken on-site	Yes
Fee Based Activity Scale	Electricity Generation - Generation of electrical power from gas (34[b]) - 1000-4000 Gwh generated	• Electricity generation for 12 month period – 251 Gwh	Yes
2. DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND			
P1 Location of monitoring/discharge points and areas	**Type of Monitoring Point** P1. Turbine Stack 1 P2. Turbine Stack 2 P3. Turbine Stack 3 P4. Turbine Stack 4 P5. Meteorological Station P6. Discharge from storm water retention pond P7. Irrigation from storm water retention pond.	• Monitoring sites as described are available & utilised as required. • No other discharge points other than those prescribed on-site.	Yes
3. LIMIT CONDITIONS			
L1 Pollution of waters	L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	• No pollution of waters has occurred. • The site stormwater pond released off-site during reporting period for three days. Water sampling was undertaken on a daily basis during the overflows and the water quality specifications met the sites Environmental Licence on all occasions.	Yes

L3 Concentration limits	**Pollutant -** Nitrogen Oxides **Units of measure -** mg/Nm3 **100 percentile concentration limit -** 51	• Continuous monitoring equipment available at all times during operation.	Yes
L6 Noise Limits	L6.1 Noise from the premises must not exceed specified sound pressure level (noise) limits	• Discussion in Section 13.3 Noise Emissions	Yes
L7 Potentially offensive odour	L7.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	• No offensive odour generated with implementation & maintenance of appropriate waste management strategies.	Yes
L8 Approved Fuels	L8.1 Natural gas is the only fuel approved for routine firing of the power station turbines. Low sulphur diesel is approved for firing the power station turbines in emergencies when the natural gas supply has been disrupted. Operation of the turbines on diesel fuel must not exceed a total of 70 hours per year.	• Only Natural gas used as fuel on-site	Yes
O1 Activities must be carried out in a competent manner	O1.1 Licensed activities must be carried out in a competent manner. This includes: (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	• Site activities undertaken as per the Environmental Management Plans detailed in the site Operational Environmental Management Plan. A review of the implementation of these plans is detailed in Section 13 of this Report.	Yes

O2 Maintenance of plant and equipment	O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity: (a) must be maintained in a proper and efficient condition; and (b) must be operated in a proper and efficient manner.	• Operating procedures in place • Operator training has and continues to be provided as required. Training files kept up to date on-site. • Maintenance protocols, procedures and inspection checklists in place. • Weekly/Monthly environmental checklists occurring.	Yes
O3 Maintaining Waste Water Utilisation Areas	O3.1 Waste water utilization areas must effectively utilise the waste water applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil is able to absorb the nutrients, salts, hydraulic load and organic materials in the solids or liquids. Monitoring of land and receiving waters to determine the impact of waste water application may be required by the NSW EPA.	• The site irrigation system comprises both paddock irrigation and tree dripper system. • Irrigation water quality monitoring has occurred and monitoring results are provided in Section 13.2 of this report. • Weekly Inspections occurring	Yes
	O4 A Storm water Management Scheme must be prepared for the development and must be implemented.		

5 Monitoring and recording conditions			
M1 Monitoring records	M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	• Site Environmental monitoring records are maintained on-site as either electronic and/or hard copy files.	Yes
	M1.2 All records required to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the NSW EPA who asks to see them.		
	M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.		

M2 Requirement to monitor concentration of pollutants discharged	For each monitoring/discharge point or utilisation area specified, the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified. The licensee must use the sampling method, units of measure, and sample at the frequency, specified.	• Annual stack emission monitoring completed and monitoring results provided in Section 13.1 of this report. • Continuous emission monitoring is occurring and data stored electronically on-site because of the large amount of data generated. CEMS monitoring data is not provided with this report due to the very large amount of data generated by the CEMS monitoring station. Summary of CEMS results for this reporting period is presented in Section 13.1. • Weather station data collection is occurring and data stored electronically on-site because of the large amount of data generated. Weather monitoring data is not provided with this report due to the very large amount of data generated by the weather monitoring station. • The site stormwater pond released off-site during reporting period. Water sampling was undertaken and monitoring results are provided in Section 13.2 of this report. • The site undertook stormwater pond sampling to ensure irrigation water quality was suitable for land application and monitoring results are provided in Section 13.2 of this report.	Yes

M4 Recording of pollution complaints	M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	• Details of the implementation of site Complaints Handling process for this reporting period at the UPS is detailed in Section 5 of this report. • A Complaints Register for this reporting period has been maintained and is provided in Section 6 of this report	Yes
	M4.2 The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.		
	M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.		
	M4.4 The record must be produced to any authorised officer of the NSW EPA who asks to see them		
M5 Telephone complaints line	M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.		

	M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.		
6. REPORTING CONDITIONS			
R1 Annual return documents **What documents must an Annual Return contain?**	R1.1 The licensee must complete and supply to the NSW EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. A copy of the form in which the Annual Return must be supplied to the NSW EPA accompanies this licence. Before the end of each reporting period, the NSW EPA will provide to the licensee a copy of the form that must be completed and returned to the NSW EPA.	• Annual Return for this reporting period has been prepared and was delivered to the NSW EPA.	Yes
Period covered by Annual Return	R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below. Do not complete the Annual Return until after the end of the reporting period.		
Deadline for Annual Return	R1.5 The Annual Return for the reporting period must be supplied to the NSW EPA by registered post not later than 60 days after the end of each reporting period.		
Licensee must retain copy of Annual Return	R1.7 The licensee must retain a copy of the Annual Return supplied to the NSW EPA for a period of at least 4 years after the Annual Return was due to be supplied to the NSW EPA.		

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary	R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: (a) the licence holder; or (b) by a person approved in writing by the NSW EPA to sign on behalf of the licence holder.		
R2 Notification of environmental harm	Note: The licensee or its employees must notify the NSW EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.		Nil notifications required
	R2.1 Notifications must be made by telephoning the NSW EPA's Pollution Line service on 131 555.		
	R2.2 The licensee must provide written details of the notification to the NSW EPA within 7 days of the date on which the incident occurred.		
GENERAL CONDITIONS			
G1 Copy of licence kept at the premises	G1.1 A copy of this licence must be kept at the premises to which the licence applies.	• Hard copy and electronic copy filed on-site	Yes
	G1.2 The licence must be produced to any authorised officer of the NSW EPA who asks to see it.		
	G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.		

5 Complaints Handling

The site maintained the following for community complaints during this reporting period:

Table 6. UPS Complaints Notification Channels

Complaints Notification Channels	
Toll Free Phone Number	1800 465 719
Postal Address	PO Box 46 Uranquinty NSW 2652
Email Address:	complaints@originenergy.com.au

6 Complaints Register

The site maintained the following community complaints register this reporting period:

Table 7. UPS 2012 Community Complaints Register

Issue No	Date	Time	Nature of Complaint	Nature of action taken or reasons for not taking action as relevant	Issue Open / Closed
42	Saturday, 21 July 2012	7.49am	Noise and vibration complaint	CRA advised resident that the complaint had been recorded by Origin and confirmed that a temperature inversion may have caused sound to travel further than normal – Voluntary noise monitoring program continuing at this residence & voluntary negotiations occurring.	Open
43	Tuesday, 14 August 2012	6.56pm	Noise complaint at residence	CRA advised complainant that ORG is committed to complying with relevant laws and environmental regulations; that ORG is continuing to investigate options to manage sound from UPS.	Closed
44	Wednesday, 5 September 2012	11.35am	Noise complaint at residence	CRA advised complainant that ORG is committed to complying with relevant laws and environmental regulations; that ORG is continuing to investigate options to manage sound from UPS.	Closed

7 Community Consultation

7.1 Community Participation Panel

Origin has employed at the UPS a part-time Community Relations Advisor to work with the local community to develop links between the UPS and Uranquinty as well as to the broader Wagga Wagga area. This role has included:

- Community Complaints facilitator
- Program of schools and community visits to the UPS
- Meetings with and support of the Uranquinty Progress Association
- Program of community donations and sponsorships
- Solar partnership with Uranquinty Progress Association and Wagga Wagga City Council
- Developed positive and respectful relationship with neigbours.

7.2 Community Access Document Register

The site maintains a physical on-site document register as well as on-line document register. The following documents have been provided on the Origin web site for community review and information during this reporting period:

- Development Consent
- Environmental Licence
- EIS
- Water Management Strategy
- Statutory Monitoring

8 Environmental Representative

Generation (Electrical generation section of Origin) has nominated a suitably qualified and experienced Environmental Representative for the Project. The Environmental Representative is employed on a full-time basis and has been approved by the Director General.

9 Emergency Response

A site Emergency Response Plan (ERP) has been developed and implemented for the Uranquinty Power Station. The ERP details specific responses to environmental incidents and conditions. The *Emergency Response Plan* contains the following information:

- Emergency priorities
- Hazardous materials
- Emergency types
- Emergency Response Processes
- Responsibilities in an Emergency event
- Resources
- Training
- Notification & Contact Details

The UPS Emergency Response Plan was reviewed by the Site Environmental Advisor and updated on the 26/10/12. The changes to the Plan were to reflect the requirements to the modified POEO Act.

At a corporate level, Origin maintains two separate Emergency Response Plans –

- Crisis Management Plan and
- Generation Group Emergency Management Plan.

10 Environmental Monitoring

As part of implementing the UPS OEMP, Generation recognises that the processes for inspection, monitoring and auditing, are essential in determining how well the environmental management on-site is in:

- addressing key plant and environmental risks;
- achieving policy and regulatory objectives;
- responding to identified incidents, non-compliances or non-conformance issues;
- keeping up-to-date with legislative and industry standards.

Environmental monitoring undertaken during this reporting period is detailed below in section 10.1 and the sites regulatory environmental limits are detailed in Section 10.2.

10.1 Environmental Monitoring/Inspection/Auditing Program.

Table 9. UPS 2012 Environmental Monitoring/Inspection/Auditing Program.

Issue	Summary of Monitoring Requirements	Comments	Completion
Surface Water Quality	Inspect storm water drainage, storm water pond, evaporation pond, irrigation equipment/areas during the weekly Environmental Inspection.	Weekly environmental inspections occurring	Yes
Storm water pond	Storm water pond discharge water quality - Daily for any discharge off-site exceeding two hours – Sampling & Monitoring: Chloride Conductivity pH Sodium Total Suspended Solids	A summary of water sample results is detailed in Section 13.2	Yes
	Irrigation water quality monitoring – Conductivity pH Total Suspended Solids Hydrocarbons	A summary of water sample results is detailed in Section 13.2	Yes
Hazardous Chemical Storage	Inspect chemical storage areas, lube skids and equipment to ensure no leaks are occurring. Inspect oil water separator to ensure proper operation.	Weekly environmental inspections occurring	Yes

Air Quality	NOx Monitoring	Continuous emission monitoring occurred and data stored electronically on-site because of the large amount of data generated. CEMS monitoring data is not provided with this report due to the very large amount of data generated by the CEMS, but a summary of results is provided in Section 13.1 of this AEMR	Yes
	Continuous Emission Monitoring System inspection	Weekly environmental inspections occurring	Yes
	Stack emission testing – • Velocity • Volumetric flow rate • Temperature • Moisture content in stack • Dry gas density • Molecular weight of stack gases • Carbon dioxide • Oxygen	Annually – Completed in November 2012. Summary of results are provided in Section 13.1 of this AEMR.	Yes
Off-Site Visual Screening	Inspect off-site screening works for: • Replanting requirements • Weed Control • Watering schedule • General maintenance	Quarterly environmental inspections occurring	Yes
On-site Landscaping	Inspect off-site screening works for: • Replanting requirements • Weed Control • Watering schedule • General maintenance	Inspections occurring	Yes
Septic Waste System	Inspection operation of overflow submersible pump	Weekly environmental inspections occurring	Yes
	Inspect waste tank level & arrange empting when required	Quarterly occurring	Yes
	Inspect transpiration trench area for: • Water pooling • Vegetation Maintenance	Monthly occurring	Yes

Waste Disposal /Recycling	Inspect bins to ensure organise bin emptying before overflowing.	Weekly environmental inspections occurring	Yes
Noise Emissions	Noise monitoring undertaken in 2012 at one outer neighbour from 30 April to 14 June 2012 & 23 August to 15 November 2012	No non-compliances with the UPS Development Consent or UPS Environmental Licence.	Yes
Meteorological Monitoring	Monitoring for – • Temperature • Wind speed • Wind direction • Sigma theta • Solar Radiation	Continuous monitoring data collection for the parameters nominated is undertaken by on-site weather station.	Yes
	Continuous Meteorological Monitoring System inspection	Weekly environmental inspections occurring	Yes
	Monthly download & storage of data in Site files	Down loading and filing of weather station data is occurring on a monthly basis and data stored electronically on-site because of the large amount of data generated	Yes
Aboriginal Artefacts	Observe excavation works to detect Aboriginal artefacts	No artefacts or historical items found during reporting period.	N/A
Housekeeping	Environmental Inspection Checklist	Weekly environmental inspections occurring	Yes
Audits	External Environmental Audit of EMP and site compliance	Audit undertaken in 2012 by external environmental auditor – no non-compliances identified	Yes

10.2 Site Environmental Limits:

The following environmental limits and 2012 results against these limits are detailed below:

Table 10 details the regulatory environmental limits for stack emissions during this reporting period applied:

Table 10. UPS Stack Emission Environmental Regulatory Limits

NOx:		
	100 Percentile Limit (mgm^{-3})	Reference Conditions
Nitrogen dioxide ($N0_2$) or nitric oxide (NO), or both (as NO_2)	51 (Natural gas)	Dry, 273 K, 101.3 kPa, and 15% 0_2
	Diesel fuel not being used as power station fuel	

The Nitrogen dioxide limits of 51mg/Nm3 at the UPS was exceeded on two occasions during normal operating conditions in this reporting period. The two NOx exceedances related to a Unit fault on Unit 2. The exceedance dates were 3/5/11 – 2.15pm to 7.30pm & 6/5/11 – 2pm to 4.45pm. The exceedance was caused by a faulty gas analyser leading to in-correct turbine operation. The exceedance was reported to NSW EPA at time of occurrence and again in the EPA Annual Return. Full internal investigation of incident undertaken. Environmental harm is not likely to have been caused due to the relatively low concentrations of NOx emissions and duration of release.

Table 11 details the regulatory environmental limits for noise emissions during this reporting period applied:

Table 11. UPS Noise Emission Environmental Regulatory Limits

Noise:				
Residence	Day	Evening	Night	
	7am-6pm Mon-Sat 8am-6pm Sunday & PH	6pm – 10pm all days	10pm-7am Mon-Sat 10pm-8am Sunday & PH	
	L_{Aeq}(15 minute)	L_{Aeq}(15 minute)	L_{Aeq}(15 minute)	L_A(1 minute)
Pine Grove	38	38	38	45
The Wardrobe	37	37	37	45
Wallace	37	37	37	45
Any other residence	35	35	35	45

For the purposes of Table 2A, "any other residence" is defined as:

a) any residence in existence at the date that DA-31-2-2004-i MOD 7 was granted; or b) any residential dwelling that has not yet been constructed but which is authorised (by an approval or otherwise) under the Environmental Planning and Assessment Act 1979 by the date that DA-31-2-2004-i MOD 7 was granted; or

c) any application for a residential dwelling, which is lodged with a relevant authority by the date that DA-31-2-2004-i MOD 7 was granted, and which is subsequently authorised (by an approval or otherwise) by that authority under the Environmental Planning and Assessment Act 1979.

For the purposes of compliance, the noise limits apply in the case of b) and c) above only once the residential dwelling has been constructed.

3.12D Conditions 3.11, 3.12, 3.12A, 3.12B and 3.12C do not apply to any residence for which the owner is party to, or is otherwise subject to, an agreement or other legal instrument which permits noise at levels higher than those specified in conditions

3.12E The operational noise limits specified under conditions 3.11 and 3.12 do not apply to the following situations, which are taken to be operations outside of normal operating conditions:

a) emergency situations; and

b) during periods of noise testing identified and implemented in accordance with an approved noise management procedure prepared in accordance with the requirements of condition 6.6 c) ix).

The Noise limits detailed above were not exceeded during normal operating conditions at the UPS during this reporting period. As per extract from Sonus Reports - S3139C101 & S3139C100:

During the monitoring period:

- *The A-weighted noise (which provides an indication of compliance with the UPS Development Consent and Environment Protection Licence conditions) from the UPS made no significant contribution to the ambient noise levels at the dwellings at any time.*

- *The C-weighted noise (which provides an indication of low frequency noise) from the UPS was detectable at the dwellings on some occasions and therefore it is likely that the noise from the UPS would have been audible at these times.*

Based on the above, it is concluded that the UPS was compliant with the Conditions of Consent and Licence Conditions at the properties at all times in which the Procedure enabled compliance to be assessed.

Table 12 details the regulatory environmental limits for storm water pond overflow and irrigation during this reporting period applied:

Table 12. UPS Storm Water Pond Overflow and Irrigation Environmental Regulatory Limits

Storm Water Pond Quality Criteria		
Stormwater Pond Overflow	Conductivity	800 uS/cm
Stormwater Pond Irrigation	Conductivity	800 uS/cm

The Conductivity limits detailed above for stormwater and irrigation was not exceeded during normal operating conditions at the UPS during this reporting period.

11 Environmental Reporting

The Table 13 below details the statutory reporting requirements for the site in 2012.

Table 13. UPS 2012 Environmental Reporting

Statutory Environmental Reporting				
Reported:	**Reference:**	**To:**	**When:**	**Completed**
Annual Performance Reporting	DA-31-2-2004-i: Section 7.3	DoP	Annually	Yes - This Report
NSW EPA Annual Return	NSW EPA Licence -12490: Section R1.1	NSW EPAW	Due 60 Days after 27 November annually	Submitted

12 Environmental Review

12.1 Environmental Inspections

Environmental site inspections have been carried out by the site Environmental Coordinator on a weekly basis and documented on the Environmental Inspection Checklist.

12.2 Environmental Audits

Mr Correy Beggs of CDB Environment carried out an environmental audit of the UPS on the 14 & 15 August 2012.

The intent was to audit compliance against the Development Consent, EPA Licence and to review work practices on-site.

The audit report concluded – "Overall good environmental management practices are being maintained during operation of the UPS, with no non-conformances observed against the associated approvals or OEMP during the audit".

12.3 Project Environmental Plan Review

The OEMP was reviewed by the Site Environmental Advisor and updated on the 17/8/12. The review utilised the results from a review of the last 12 months of site operations to ensure that the OEMP is maintained and kept up-to-date.

The UPS Emergency Response Plan was reviewed by the Site Environmental Advisor and updated on the 26/10/12. The changes to the Plan were to reflect the requirements to the modified POEO Act.

13 Significant Environmental Issues and Management Plans

The following environmental issues were considered in the OEMP to warrant specific management actions for the operation of the Uranquinty Power Station. These issues have specific regulatory requirements (contained in the Development Consent or Environmental Protection Licence) and are considered to have the potential to result in a non-compliance with a legislative requirement or generate community complaints:

- Air Quality Management Plan
- Sediment Control and Water Quality Management Plan
- Noise Management Plan
- Visual Amenity Management Plan
- Storage and Handling of Chemicals Management Plan
- Heritage Management Plan
- Waste Management Plan
- Transport Code of Conduct

The following Management Plan review found a high level of effectiveness and implementation of requirements and mitigation measures.

13.1 Air Quality Management Plan

The air quality management plan was developed to meet the following objectives:

- To ensure emissions are within the Air Quality limits contained in the DoP Development Consent and NSW EPAW Site Licence.
- To ensure that odour resulting from the power station's operations is minimised
- To ensure that dust resulting from the power station's operations is minimised.

Overall, the air quality management plan and mitigation strategies are achieving the stated objectives. The following observations can be made in regard to 2012 operations.

Dust Management

- The general site areas have been finished in either asphalt, compacted road base or 20mm gravel aggregate over earth grid areas. As a result dust from site has been essentially eliminated except in very high wind events.
- Dust control in external site areas has also been controlled with the completion of the internal landscaping works. The landscape works is detailed in Section 13.4 below.

UPS Air Intakes

Odour

- The sites waste management system is being effectively managed through regular rubbish pickups and adequately sized bins to ensure no overflowing bins or waste being stored on the ground. As such no odours have been generated on-site.

Air Emission Performance

- The Continuous Emission Monitoring System for NOx measurement is effectively operating.

  Average 2012 CEMS NOx data is presented in Table 14 and compared against the UPS EIS data in Table 15 below. The data presented is a summary of all collected NOx data under all plant operating conditions and output. The CEMS NOx data results were consistently well below Consent limits during normal plant operation.

Table 14. Average, Minimum and Maximum Monthly CEMS Data for Nitrogen Oxide Emissions

mg/m3		Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Year End
Unit 1	Average	14	-	10	8	16	12	12	14	6	18	12	16	13
	Minimum	0	-	0	0	4	2	2	0	0	-	2	10	2
	Maximum	37	-	43	43	49	49	51	51	49	49	43	45	46
Unit 2	Average	24	-	24	-	31	31	29	29	24	27	22	31	27
	Minimum	4	-	12	-	24	24	0	0	0	-	-	22	11
	Maximum	49	-	47	-	45	49	51	51	51	51	41	51	49
Unit 3	Average	20	-	24	24	27	29	27	24	24	14	10	10	21
	Minimum	6	-	6	0	18	8	16	0	12	-	-	0	7
	Maximum	47	-	47	49	49	51	51	49	51	51	41	41	48
Unit 4	Average	24	24	24	31	33	31	29	27	22	24	22	35	27
	Minimum	0	20	6	6	18	8	6	0	0	-	4	27	9
	Maximum	33	41	47	51	49	51	51	51	51	51	41	41	47

Note: Blanks - No Operation

UPS Licence NOx Limit - 51mg/m3

Table 15. Average 2012 Annual CEMS Data for Nitrogen Oxide and Calculated Nitrogen Emissions Compared Against 2004 EIS Prediction, Consent limits & 2011 Results (Brackets)

Unit	*EIS Modelled Nox ($Mg/m^{3)}$*	*Consent Limits (Mg/m^3- 15 min)*	*Av CEMS Nox Result (Mg/m^3- 15 min)*	*Calculated Nox Emissions (Tonnes)*
1	*51*	*51*	*12.9 (24)*	*11.2 (15.6)*
2	*51*	*51*	*27.6 (29)*	*16.8 (15.4)*
3	*51*	*51*	*22.5 (28)*	*17.5 (14.4)*
4	*51*	*51*	*27.6 (29)*	*23.2 (14.4)*
			Average – 22.6 (27.5)	*Total – 68.7 (59.8)*

- Annual stack testing was completed in November 2012 by external consultants – EML Air. A summary of results is provided in Table 16 below and compared where available with predicted EIS and 2010 results. The operation of the units during testing was at full load.

Table 16. 2012 Annual Stack Testing Results compared with 2004 EIS Predictions and 2011 Results

	Volume Flow (m^3/sec)		*Exit Velocity (m/sec)*		*Temperature (^OC)*	
2004 EIS – All Units	*1225*		*40.6*		*552*	
Unit	*2011*	*2012*	*2011*	*2012*	*2011*	*2012*
1	*1300*	*1300*	*42*	*42*	*520*	*518*
2	*1300*	*1300*	*42*	*42*	*522*	*526*
3	*1300*	*1300*	*42*	*43*	*523*	*521*
4	*1300*	*1300*	*43*	*42*	*523*	*521*

UPS Stacks

13.2 Sediment Control and Water Management Plan

The Sediment Control and Water Management Plan was developed to meet the following objectives:

- To minimise erosion of sediment on site during establishment of vegetation.
- To provide permanent erosion and sediment control measures where required.
- To ensure the design and construction of storm water and process water works are appropriate and maintained during operations.
- To minimise the risk of contamination of surface water, groundwater and storm water through leaks or spills of chemicals / polluting substances during the operation of the power station.
- To achieve objectives detailed in the site Water Management Strategy document submitted to and approved during the Development Approval process by the DoP and NSW EPA.

Overall, the sediment control and water management plan and mitigation strategies are achieving the stated objectives. The following observations can be made in regard to 2012 operations.

- During the reporting period the stormwater pond overflowed for 3 days over two separate occasions. The calculated estimates of volume of water discharged and subsequent calculated salt loads & solids discharged are presented in Table 17 below.

Table 17. UPS 2012 Stormwater Pond Overflow and Calculated Pollutants

Stormwater Pond Overflow		
Water Released (mega-litres)	**Salt Discharged (Kilograms)**	**Solids Discharged (Kilograms)**
2.7	280	33

- Stormwater pond overflow water quality sampling occurred on each day the pond overflowed (2 occasions) as per the site approval conditions. A summary of monitoring results are provided in Table 18 below. No exceedances of stormwater discharge water quality limits (Environmental Licence or limits defined by Origin in the UPS OEMP) were observed.

UPS Evaporation Ponds – Pond 1 emptied and solids removal occurring

Table 18. UPS 2012 Storm Water Overflow Water Quality Results Summary

Storm Water Pond Overflow Water Quality Results				
Water Quality Parameter	**Maximum Concentration**	**Minimum**	**Maximum**	**Average**
Conductivity	800 uS/cm (Environmental Licence)	97	111	103
pH	7 – 9 (OEMP)	7.4	8.3	7.7
Total Suspended Solids	100 ppm (OEMP)	6	32	18
Hydrocarbons	No Visual oil - <10mg/l (OEMP)	3	3	3
Chloride	-	8	9.3	8.6
Sodium	-	5	7	6

- Weekly Stormwater irrigation sampling has been undertaken during the irrigation season as per the UPS Environmental Licence. The calculated estimates of volume of water irrigated on-site and subsequent calculated salt loads & solids discharged are presented in Table 19 below.

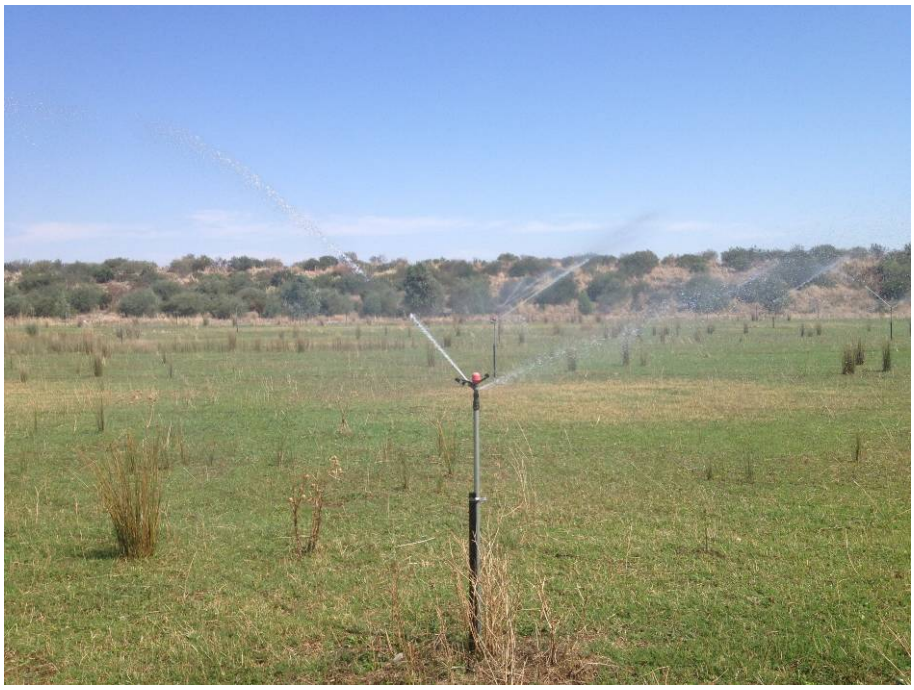
Table 19. UPS 2012 Stormwater Pond Irrigation and Calculated Pollutants

Stormwater Pond Irrigation On-Site		
Water Irrigated (mega-litres)	**Salt Discharged (Kilograms)**	**Solids Discharged (Kilograms)**
8.8	1,963	93

- Stormwater pond irrigation water quality sampling occurred each week while irrigation was occurring on-site as per the site approval conditions. A summary of monitoring results is provided in Table 20 below. No exceedances of stormwater irrigation water quality limits (Environmental Licence or limits defined by Origin in the UPS OEMP) were observed.

Table 20. UPS 2012 Storm Water Irrigation Water Quality Results Summary

Storm Water Pond Irrigation Quality Criteria				
Water Quality Parameter	**Maximum Concentration**	**Minimum**	**Maximum**	**Average**
Conductivity	800 uS/cm (Environmental Licence)	85	367	154
pH	7 – 9 (OEMP)	6.3	9.5	8.4
Total Suspended Solids	100 ppm (OEMP)	5	18	11
11Hydrocarbons	No Visual oil - <10mg/l (OEMP)	1	3	2.3
Chloride	-	10	54	24
Sodium	-	7.8	37	17.3



UPS Irrigation

13.3 Noise Management Plan

The noise management plan was developed to meet the following objectives:

- To minimise noise impacts on the surrounding community from the power stations operations
- To comply with regulatory noise limits detailed in the sites Development Consent and NSW EPA Site Licence.

The following observations can be made in regard to 2012 operations:

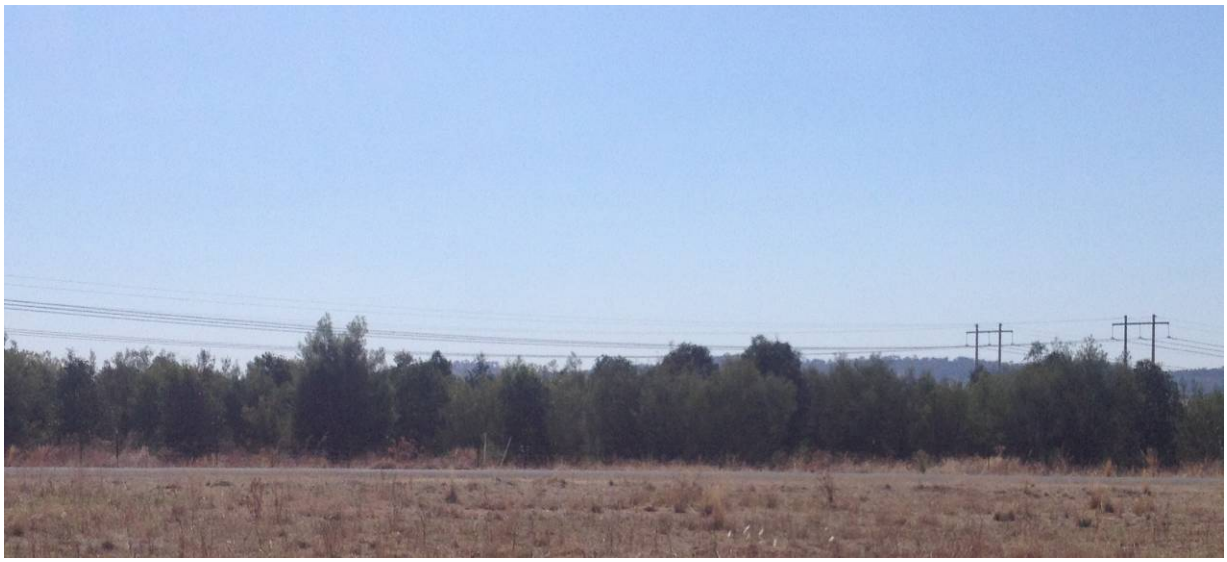
- The UPS has received 3 noise complaints from 2 outer neigbours of the power station. These complaints have been recorded in the UPS Complaints Register as detailed in Section 6 of this report. All complaints have been followed through with the complainant by the UPS Community Relations Advisor.
- No noise non-conformances have been identified at 'Outer Neigbours' during noise monitoring undertaken in 2012.
- In February 2010, Origin submitted the DoP a Noise Measurement Procedure that was developed in consultation with NSW EPAW with the aim to determine noise compliance of the UPS at outer neigbours.
- During periods - 20th April 2012 to the 14th of June 2012 & 23rd August to 15th November, voluntary noise monitoring was conducted at one outer property in the vicinity of the Uranquinty Power Station (UPS) in accordance with the Noise Measurement Procedure, dated February 2010.
- The monitoring consisted of continuous noise measurements at the properties over the periods. The UPS operated many times during the monitoring period, including occasions on which all four turbines operated and occasions on which favorable noise propagating weather conditions were present.
- During the monitoring period, noise data were collected for various levels of output from the UPS and for various weather conditions. The results indicated that the:
    - A-weighted noise from the UPS made no significant contribution to the ambient noise levels at the dwelling at any time.
    - C-weighted noise from the UPS was detectable at the dwelling during some operations and therefore it is likely that the noise from the UPS would have been audible at these times.
- As such, the UPS was compliant with the Conditions at the dwelling at all times in which the Procedure enabled compliance to be assessed.

13.4 Visual Management Plan

The Visual management Plan was developed to meet the following objectives:

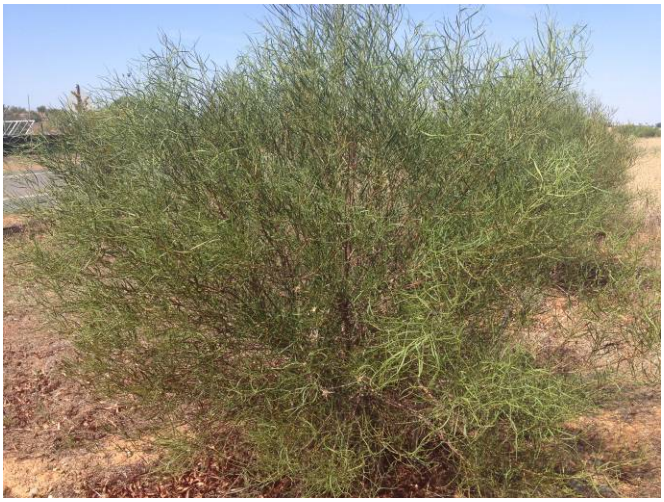
- To minimise visual impacts on the immediate, middle and broad view distances.
- To ensure on-site lighting does not affect near neighbors.

Overall, the visual management plan and mitigation strategies have generally archived the stated objectives but there has been identified some areas for improvement. The following observations can be made in regard to 2012 operations.



UPS Landscaping near Switchyard

- Irrigation of landscape trees is being undertaken through the sites automated reticulation system using storm water captured in the sites storm water pond. Regular inspections and maintenance of landscape areas are occurring.
- The site has developed specific procedures to manage site lighting to ensure lighting has minimal visual impact for near neigbours. These procedures include using minimal lighting to undertake work on-site, ensuring lighting is turned off immediately after use and ensuring lighting is turned off if no personnel are on site. These procedures are operating well with no complaints during this reporting period.



UPS Landscaping near Front Entrance

13.5 Storage and Handling of Oils/Chemicals Management Plan

The storage and handling of oils/chemicals management plan was developed to meet the following objectives:

- To ensure that the storage and handling of chemicals, oils and diesel on site does not cause pollution of the environment or harm to persons.

Overall, the storage and handling of oils/chemicals management plan and mitigation strategies are achieving the stated objectives. The following observations can be made in regard to 2012 operations.

- No spills occurred on-site.
- Storage areas and bunded areas well maintained.

UPS Hazardous Chemical Building

13.6 Heritage Management Plan

The heritage management Plan was developed to meet the following objectives:

- To ensure that any indigenous or non-indigenous heritage objects found on site are treated appropriately and in accordance with the relevant legislation.

No heritage or artifacts found on site during reporting period.

13.7 Waste Management Plan

The waste management Plan was developed to meet the following performance indicators:

- No unnecessary wastes generated.
- Recycling performance.
- No adverse impacts on land and water resources.

Overall, the waste management plan and mitigation strategies are achieving the stated objectives. The following observations can be made in regard to 2012 operations.

- Appropriate number of waste bins & pick up frequency to ensure no waste container overloading or wastes being stored on the ground.
- Administration recycling program has commenced. Recycling of paper, cardboard, glass and plastic containers now occurring.
- The UPS again participated in the 2012 Clean Up Australia Day undertaking off-site cleanup along Uranquinty Cross Road.

UPS Admin Building Recycling

13.8 Transport Code of Conduct

The transport code of conduct was developed to meet the following performance indicators:

- No community complaints in respect to Generation personnel driving or transport deliveries.

Overall, the transport code of conduct is achieving the stated performance indicator. The following observations can be made in regard to 2012 operations.

- No complaints or discussions had with any external parties in relation to traffic disturbance associated with the power station operation.