

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Planning, approve the project referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Frank Sartor MP
Minister for Planning

Sydney

31st

July

2006

File No: 9037381

SCHEDULE 1

Application No: 05_0195

Proponent: Delta Electricity

Approval Authority: Minister for Planning

Land: Part Lot 61 DP1065038, Munmorah Power Station, Munmorah, Wyong local government area

Project: Construction and operation of a gas-fired power station (the "gas turbine facility" project)

Concept Approval: the project is a component of the approved concept plan for the Munmorah Gas Turbine Facility (05_0195)

Major Project: The project is part of a Munmorah Gas Turbine Facility, which is declared a Major Project under section 75B(1)(a) of the *Environmental Planning and Assessment Act 1979*, because it is development of a kind described in clause 24 of Schedule 1 to *State Environmental Planning Policy (Major Projects) 2005*

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SCHEDULE 2

Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
Conditions of Approval	The Minister's conditions of approval for the project.
Council	Wyong Shire Council
DEC	Department of Environment and Conservation
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning (or delegate).
Director-General's Approval	<p>A written approval from the Director-General (or delegate).</p> <p>Where the Director-General's Approval is required under a condition the Director-General will endeavour to provide a response within one month of receiving an approval request. The Director-General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.</p>
Director-General's Report	The report provided to the Minister by the Director-General of the Department under section 75I of the EP&A Act.
Dust	any solid material that may become suspended in air or deposited
EA	<i>Munmorah Gas Turbine Facility, Environmental Assessment, Submission to NSW Department of Planning, prepared by Parsons Brinckerhoff Australia Pty Ltd and dated December 2005</i>
EPA	Environment Protection Authority as part of the Department of Environment and Conservation
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>
Minister, the	Minister for Planning
Proponent	Delta Electricity
Publicly Available	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).
Site	Land to which Major Projects Application 05_0195 applies.
Submission report	<i>Munmorah Gas Turbine Facility, Submissions Report, prepared by Parsons Brinckerhoff Australia Pty Ltd and dated May 2006</i>

1. ADMINISTRATIVE CONDITIONS

Terms of Approval

- 1.1 The Proponent shall carry out the project generally in accordance with the:
 - a) Major Projects Application 05_0195;
 - b) *Munmorah Gas Turbine Facility, Environmental Assessment, Submission to NSW Department of Planning*, prepared by Parsons Brinckerhoff Australia Pty Ltd and dated December 2005;
 - c) *Munmorah Gas Turbine Facility, Submissions Report*, prepared by Parsons Brinckerhoff Australia Pty Ltd and dated May 2006;
 - d) the concept approval granted with respect to the Munmorah Gas Turbine Facility (05_0195); and
 - e) the conditions of this approval.
- 1.2 If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency.
- 1.3 Notwithstanding condition 1.2, if there is any inconsistency between this project approval and the concept approval for the Munmorah Gas Turbine Facility, the concept approval shall prevail to the extent of the inconsistency.
- 1.4 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:
 - a) any reports, plans or correspondence that are submitted in accordance with this approval; and
 - b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Limits of Approval

- 1.5 This project approval shall lapse five years after the date on which it is granted, unless the works subject of this approval are physically and substantially commenced on or before that time.
- 1.6 The project shall comprise four turbines with a total nominal output capacity of up to 660 megawatts.
- 1.7 Notwithstanding condition 1.6, the Proponent may seek the approval of the Director-General to alter the number of turbines and associated stack discharge points permitted under this approval with the submission of information deemed acceptable to the Director-General that demonstrates:
 - a) the air quality impact of the alternative turbine and stack discharge point configuration is no greater than the air quality impacts predicted for the installation of four turbines with total nominal output capacity of 660 megawatts;
 - b) the footprint of the alternative turbine and stack discharge point configuration is generally consistent the footprint associated with the installation of four turbines with total nominal output capacity of 660 megawatts;
 - c) the DEC raises no objection to the alternative turbine and discharge point configuration; and
 - d) the alternative turbine and discharge point configuration would otherwise comply with the conditions of this approval.

Statutory Requirements

- 1.8 The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.

Compliance

- 1.9 The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.
- 1.10 The Proponent shall be responsible for environmental impacts resulting from the actions of all persons on site, including contractors, sub-contractors and visitors.
- 1.11 Prior to each of the events listed below, the Proponent shall certify in writing to the satisfaction of the Director-General that it has complied with all conditions of this approval applicable prior to that event.
- a) commencement of any construction works on the land subject of this approval;
 - b) commencement of operation of the project.
- 1.12 Notwithstanding condition 1.11 of this approval, the Director-General may require an update report on compliance with all, or any part, of the conditions of this approval. Any such update shall meet the requirements of the Director-General and be submitted within such period as the Director-General may agree.
- 1.13 The Proponent shall meet the requirements of the Director-General in respect of the implementation of any measure necessary to ensure compliance with the conditions of this approval, and general consistency with the documents listed under condition 1.1 of this approval. The Director-General may direct that such a measure be implemented in response to the information contained within any report, plan, correspondence or other document submitted in accordance with the conditions of this approval, within such time as the Director-General may agree.

2. SPECIFIC ENVIRONMENTAL CONDITIONS

Fuel Requirements and Limitations

- 2.1 The Proponent shall preferentially use natural gas for firing the power station turbines.
- 2.2 Subject to condition 2.3 of this approval, operation of the power station turbines on distillate shall not exceed a total of 75 hours in any twelve-month period.
- 2.3 The Proponent is permitted to exceed the maximum hours referred to under condition 2.2 in the event that operation, or continued operation, is required:
- a) to manage network system constraints; or
 - b) in the event of failure of existing major electricity generating facilities; or
 - c) in the event of failure of natural gas supplies; or
 - d) in the event of State or regional system shutdown (black start) situation; or
 - e) if cessation of operation would otherwise lead to a loss or reduction in electricity necessary to maintain the required network supply security and reliability; or
 - f) if cessation of operation would otherwise lead to a loss or reduction in electricity necessary to maintain the required network supply security and reliability; or
 - g) at the direction of the National Electricity Market Operator (currently NEMMCO).

Air Quality Impacts

Dust Generation

- 2.4 The Proponent shall construct the project in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

Odour

- 2.5 The Proponent 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.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

Manufacturer's Performance Guarantee

- 2.6 Prior to the installation of any fuel burning equipment associated with the project, the Proponent shall submit manufacturer's performance guarantees for that equipment to the DEC. The documentation shall demonstrate to the DEC's satisfaction that the equipment, when operating at design load will comply with the air discharge limits specified in this approval under condition 2.8.

Monitoring and Discharge Points

- 2.7 For the purposes of this approval, air monitoring/ air discharge points shall be identified as provided in Table 1 below.

Table 1 - Identification of Air Monitoring and Discharge Points

Monitoring / Discharge Point Identifier	Monitoring/ Discharge Point Location
1	Turbine Stack 1
2	Turbine Stack 2
3	Turbine Stack 3
4	Turbine Stack 4

Discharge Limits

- 2.8 The Proponent shall design, construct, operate and maintain the project to ensure that for each turbine stack discharge point, the concentration of each pollutant listed in Table 2 is not exceeded when utilising the specified fuel. This condition only applies to the operation of the project, and to avoid any doubt, does not apply during start-up or shut-down.

Table 2 - Maximum Allowable Discharge Concentration Limits (Air)

Pollutant	Fuel Type	100 Percentile limit (mgm ⁻³)	Reference conditions
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	Natural Gas	50	dry, 273 K, 101.3 kPa, and 15 % O ₂
	Diesel	90	

Noise Impacts

Vibration Impacts

- 2.9 The Proponent shall ensure that the vibration resulting from construction and operation of the project does not exceed the evaluation criteria presented in British Standard BS6472 for low probability of adverse comment, at any affected residential dwelling.

Construction Noise

- 2.10 The Proponent shall only undertake construction activities associated with the project that would generate an audible noise at any residential premises during the following hours:
- 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
 - 8:00 am to 1:00 pm on Saturdays; and
 - at no time on Sundays or public holidays.

This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.

- 2.11 The hours of construction activities specified under condition 2.10 of this approval may be varied with the prior written approval of the Director-General. Any request to alter the hours of construction specified under condition 2.10 shall be:
- considered on a case-by-case basis;
 - accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and
 - accompanied by written evidence of the DEC's agreement with the proposed variation in construction times, after providing any information necessary for the DEC to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of receptors in the vicinity of the site.

Operation Noise

- 2.12 The Proponent shall design, construct, operate and maintain the project to ensure that the noise contributions from the project to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 3, at those locations and during those periods indicated. The maximum allowable noise contributions apply under wind speeds up to 3 ms⁻¹ (measured at 10 metres above ground level), and under temperature inversion conditions of up to 3 °C/ 100 metres.

Table 3 - Maximum Allowable Noise Contribution

Location	Day	Evening	Night
	7:00am to 6:00pm Mondays to Saturdays 8:00am to 6:00pm Sundays and public holidays	6:00pm to 10:00pm on any day	10:00pm to 7:00am Mondays to Saturdays 10:00pm to 8:00am Sundays and public holidays
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)
Sunnylake Caravan Park	35	35	35
Macleay Avenue	41	41	41
Woolana Avenue, Halekulani	40	40	40
Ulana Avenue, Budgeoei	38	38	38
Barega Close, Buff Point	35	35	35
Barker Avenue, San Remo	35	35	35
Denman Street, Colongra	35	35	35

- 2.13 For the purpose of assessment of noise contributions specified under condition 2.12 of this approval, noise from the project shall be:
- at any point within the residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary; and
 - subject to the modification factors provided in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000), where applicable.

Notwithstanding, should direct measurement of noise from the project be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the EPA (refer to Section 11 of the *New South Wales Industrial Noise Policy* (EPA, 2000)).

Details of such an alternative noise assessment method accepted by the EPA shall be submitted to the Director-General prior to the implementation of the assessment method.

Soil and Water Quality Impacts

- 2.14 Except as may be expressively provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters.
- 2.15 Soil and water management controls shall be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities, in accordance with Landcom's *Managing Urban Stormwater: Soils and Conservation*.

Acid Sulfate Soils

- 2.16 Prior to the commencement of site preparation works, the Proponent shall undertake acid sulfate soil testing for areas of the site to be disturbed during site preparation and construction. Acid sulfate soil testing shall be consistent with the DEC's Environmental Guideline *Assessing and Managing Acid Sulfate Soil* and the Acid Sulfate Soil Management Advisory Committee (ASSMAC) document *Acid Sulfate Soil Manual*.

Should testing indicate that any potential or actual acid sulfate soils may be disturbed during site preparation works or the construction of the project, the Proponent shall prepare an Acid Sulfate Soil Management Plan (refer to condition 5.2).

Water Cycle Management

- 2.17 Prior to the commencement of construction of the project, the Proponent shall prepare and submit to the Director-General and the DEC, a **Water Cycle Management Report** detailing water conservation and re-use strategies that will be applied to the project. The Report shall include, but is not necessarily limited to:
- a) a review of best-practice water conservation and re-use initiatives and strategies with consideration given to their suitability for application on-site;
 - b) a description of water conservation and re-use initiatives and strategies under investigation or being implemented on site, including the anticipated benefits of each initiative or strategy; and
 - c) a timetable for investigation and implementation of water conservation and re-use initiatives and strategies on site.

Waste Generation and Management

- 2.18 All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.
- 2.19 The Proponent shall maximise the treatment, reuse and/ or recycling on the site of any waste oils, excavated soils, slurries, dusts and sludges associated with the project, to minimise the need for treatment or disposal of those materials outside the power station.

Note: this condition does not allow the use of any of the materials listed above as potential fuel sources.

- 2.20 The Proponent shall manage any asbestos or asbestos-contaminated materials that may be uncovered during the construction, commissioning and operation of the project strictly in accordance with the requirements under *Protection of the Environment Operations (Waste) Regulation 2005* and any guidelines or requirements issued by the DEC in relation to those materials.
- 2.21 The Proponent shall not cause, permit or allow any waste generated 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 under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

- 2.22 The Proponent shall ensure that all liquid and / or non-liquid waste generated and / or stored on the site is assessed and classified in accordance with *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (DEC, 2004), or any future guideline that may supersede that document.

Hazards and Risk

- 2.23 The Proponent shall demolish all relevant structures strictly in accordance with *Australian Standard 2601-1991: The Demolition of Structures*, as in force at 1 July 1993.

Bunding and Spill Management

- 2.24 The Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:
- a) all relevant Australian Standards;
 - b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
 - c) the EPA's Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

Pre-Construction Hazards Studies

- 2.25 Prior to the commencement of construction of the project, the Proponent shall prepare and submit for the approval of the Director-General, the following studies:
- a) a **Fire Safety Study** for the project, covering all aspects detailed in the Department's publication *Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Guidelines* and the New South Wales Government's *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*. The Study shall include a strict maintenance schedule for essential services and other safety measures. The Study should review the integrity of the diesel tank bund both during a spill and fire. This should include the sealing of joints, the sealing material used and sealing where pipes pass through the bund wall. The Study shall be submitted for the approval of the Commissioner of the NSW Fire Brigades prior to submission to the Director-General;
 - b) a **Hazard and Operability Study (HAZOP)** for the project, chaired by an independent, qualified person or team. The independent person or team shall be approved by the Director-General. The Study shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines* and shall, in particular, address the early shutdown procedures and systems in the event of a gas leak and recommended measures for early shutdown in the event of an incident. The HAZOP report shall be accompanied by a program for the implementation of all recommendations made in the HAZOP report. If the Proponent intends to defer the implementation of a recommendation, justification must be included.
 - c) a **Final Hazard Analysis** prepared in accordance with the Department's *Hazardous Industry Advisory Paper No.6 – Guidelines for Hazard Analysis*; and
 - d) a **Construction Safety Study** for the project, prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines*. The commissioning portion of the Study may be submitted two months prior to commissioning the project. In particular, risks during the construction period from and to the existing plant should be considered as part of this study.

Pre-Commissioning Hazards Studies

- 2.26 Prior to the commencement of commissioning of the project the Proponent shall prepare and submit for the approval of the Director-General the following studies:
- a) an **Emergency Plan** for the project. The Plan shall be prepared in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*. The plan shall include detailed procedures for the safety of all people outside of the development who may be at risk from the project; and
 - b) a **Safety Management System**, covering all operations at the project and any associated transport activities involving hazardous materials. The System shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to safety procedures. The System shall be developed in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*.

Traffic and Transport Impacts

- 2.27 The Proponent shall not construct or utilise any direct access point to the site from the F3 Highway of the Motorway Link Road.
- 2.28 Upon determining the haulage route(s) for construction materials associated with the project, the Proponent shall commission an independent, qualified person or team to undertake a **Road Dilapidation Report** in consultation with the RTA and Wyong Shire Council. The report shall assess the current condition of the roads and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction and ongoing operation of the project. The Report shall be submitted to the RTA and Wyong Shire Council for review prior to the commencement of haulage.

The cost of any restorative work described in the Report or recommended by the RTA and Wyong Shire Council after review of the Report, shall be funded by the Proponent. Such work shall be undertaken at a time as agreed upon between the Proponent, the RTA and the Wyong Shire Council. In the event of a dispute between the parties with respect to the extent of restorative work that may be required under this condition, any party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.

Aviation Impacts

- 2.29 Prior to the commencement of construction, the Proponent shall consult with the Civil Aviation Safety Authority in relation to any modifications to instruments or procedures required at the Warnervale Airport, or other airports where relevant, as a result of the project. At the request of the Civil Aviation Safety Authority, the Proponent shall fund any such modifications to the satisfaction of the Director-General.

3. ENVIRONMENTAL MONITORING AND AUDITING

Air Quality Monitoring

- 3.1 The Proponent shall determine the pollutant concentrations and emission parameters specified in Table 4 below, at each of the turbine stack discharge points (established in strict accordance with the requirements of test method TM-1 as specified in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2001)). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DEC.

Table 4 – Periodic Pollutant and Parameter Monitoring (Air)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	mgm ⁻³	CEM-2	Continuous
Velocity	ms ⁻¹	TM-2	Post commissioning and annually
Volumetric flow rate	m ³ s ⁻¹	TM-2	
Temperature	°C	TM-2	
Moisture content in stack gases	%	TM-22	
Dry gas density	kgm ⁻³	TM-23	
Molecular weight of stack gases	g.gmol ⁻¹	TM-23	
Carbon dioxide	%	TM-24	
Oxygen	%	TM-25	

Air Quality Performance Verification

3.2 Within 90 days of the commencement of operation of the project, or as may be agreed by the Director-General, and during a period in which the project is operating under design loads and normal operating conditions, the Proponent shall undertake a program to confirm the air emission performance of the project. The program shall include, but not necessarily be limited to:

- a) point source emission sampling and analysis subject to the requirements listed under condition 3.1;
- b) a comprehensive air quality impact assessment, using actual air emission data collected under a). The assessment shall be undertaken strictly in accordance with the methods outlined in *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2001);
- c) a comparison of the results of the air quality impact assessment required under b) above, and the predicted air quality impacts detailed in the documents listed under condition 1.1 of this approval;
- d) a comparison of the results of the air quality impact assessment required under b) above, and the impact assessment criteria detailed in *Approved Methods and Guidance for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2001); and
- e) details of any entries in the Complaints Register (condition 4.3 of this approval) relating to air quality impacts.

A report providing the results of the program shall be submitted to the Director-General and DEC within 28 days of completion of the testing required under a).

3.3 In the event that the program undertaken to satisfy condition 3.2 of this approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to:

- a) greater point source emissions or ground-level concentrations of air pollutants than predicted in the documents listed under condition 1.1 of this approval; or
- b) greater point source emissions or ground-level concentrations of air pollutants than the impact assessment criteria detailed in *Approved Methods and Guidance for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2001);

then the Proponent shall provide details of remedial measures to be implemented to reduce point source emissions or ground-level concentrations of air pollutants to no greater than that predicted in the documents listed under condition 1.1 of this approval and to meet the impact assessment criteria detailed in *Approved Methods and Guidance for the Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2001). 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.

Noise Monitoring

- 3.4 Within 90 days of the commencement of operation of the project, or as may be agreed by the Director-General, and during a period in which the project is operating under design loads and normal operating conditions, the Proponent shall undertake a program to confirm the noise emission performance of the project. The program shall meet the requirements of the DEC, and shall include, but not necessarily be limited to:
- a) noise monitoring, consistent with the guidelines provided in the *New South Wales Industrial Noise Policy* (EPA, 2000), to assess compliance with condition 2.12 of this approval;
 - b) methodologies for noise monitoring;
 - c) location of noise monitoring (this shall include but is not limited to Macleay Street in Noise Catchment Area B);
 - d) frequency of noise monitoring;
 - e) identification of monitoring sites at which pre- and post-project noise levels can be ascertained; and
 - f) details of any entries in the Complaints Register (condition 4.3 of this approval) relating to noise impacts.

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).

- 3.5 In the event that the program undertaken to satisfy condition 3.4 of the approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under condition 2.12 of this approval, then the Proponent 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.

Hazard Compliance

- 3.6 Within 90 days of the commencement of the project, or as may be agreed by the Director-General, the Proponent shall submit a report detailing compliance with conditions 2.25 and 2.26. The report shall include, but not necessarily be limited to:
- a) dates of study, plan or system completion, and commencement of construction and commissioning;
 - b) actions taken or proposed to implement recommendations made in the studies, plans or systems; and
 - c) responses to each requirement that may be requested by the Director-General in respect to the implementation of any measures arising from recommendations of the studies or reports described by conditions 2.25 and 2.26.

Auditing

- 3.7 Twelve months after the commencement of operation of the project, or within such period otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake a Hazard Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. A **Hazard Audit Report** shall be submitted for the approval of the Director-General no later than one month after the completion of the Audit. Further Hazard Audits shall be undertaken every three years, or as otherwise agreed or required by the Director-General. Hazard Audits shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines*. The hazard audit report shall be accompanied by a program for the implementation of all recommendations made in the hazard audit report. If the Proponent intends to defer the implementation of a recommendation, justification must be included.

- 3.8 Twelve months after the commencement of operation of the project, and every three years thereafter, or as otherwise agreed or required by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake an Environmental Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. An **Environmental Audit Report** shall be submitted for the approval of the Director-General within one month of the completion of the Audit. The Audit shall:
- a) be carried out in accordance with *ISO 19011:2002 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
 - b) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;
 - c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval; and
 - d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works.

The Director-General may require the Proponent to undertake works to address the findings or recommendations presented in the Report. Any such works shall be completed within such time as the Director-General may require. The Environmental Audit Report shall be made available for public inspection on request.

If the preparation and submission of a Hazard Audit Report and an Environmental Audit Report are required at the same time, the requirements of condition 3.7 and 3.8 of this approval may be satisfied with a single report prepared by a single independent person or team approved by the Director-General.

4. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- 4.1 Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

Complaints Procedure

- 4.2 Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation):
- a) a telephone number on which complaints about construction and operational activities at the site may be registered;
 - b) a postal address to which written complaints may be sent; and
 - c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public, and which clearly indicates the purposes of the sign.

- 4.3 The Proponent shall record details of all complaints received through the means listed under condition 4.2 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:
- a) the date and time, where relevant, of the complaint;
 - b) the means by which the complaint was made (telephone, mail or email);
 - c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
 - d) the nature of the complaint;
 - e) any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact with the complainant; and
 - f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General upon request.

5. ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

5.1 The Proponent shall prepare and implement a **Construction Environmental Management Plan** to outline environmental management practices and procedures to be followed during construction of the project. The Plan shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004) and shall include, but not necessarily be limited to:

- a) a description of all activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;
- b) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
- c) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
 - i) measures to monitor and manage dust emissions;
 - ii) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters during construction activities;
 - iii) measures to monitor and control noise emissions during construction works;
 - iv) measures to monitor and control air emissions during construction to ensure that air emissions are both minimised and in compliance with the requirements of this approval and the Environment Protection Licence for the site;
 - v) measures to minimise the impact of construction on local flora and fauna, consistent with the mitigation measures described in section 9.3 of the EA
- d) a description of the roles and responsibilities for all relevant employees involved in the construction of the project;
- e) the additional studies listed under condition 5.2 of this approval; and
- f) complaints handling procedures during construction.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of any construction works associated with the project, or within such period otherwise agreed by the Director-General. Construction works shall not commence until written approval has been received from the Director-General.

5.2 As part of the Construction Environmental Management Plan for the project, required under condition 5.1 of this approval, the Proponent shall prepare and implement the following:

- a) a **Traffic Management Protocol** to outline management of traffic conflicts that may be generated during construction of the project. The Plan shall address the requirements of Council and the Roads and Traffic Authority and shall include, but not necessarily be limited to:
 - i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads;
 - ii) detailed consideration of measures to be employed to ensure traffic volume, acoustic and amenity impacts along the heavy vehicle routes are minimised;
 - iii) detailed consideration of alternative routes (where necessary);
 - iv) demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with.
- b) an **Acid Sulfate Soil Management Plan** to detail measures to be implemented in relation to the management and handling of any potential or actual acid sulfate soils identified in accordance with condition 2.16 of this approval. The Plan shall be prepared in accordance with guidance provided in *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998) and to meet the requirements of

the Director General. The Acid Sulfate Soil Management Plan need only be prepared should potential or actual acid sulfate soils be identified on the site. The Acid Sulfate Soil Management Plan, should such a Plan be required, shall be submitted for the approval of the Director-General no later than one month prior to the commencement of site preparation works, or within such period otherwise agreed by the Director-General;

Operation Environmental Management Plan

5.3 The Proponent shall prepare and implement an **Operation Environmental Management Plan** to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR 2004) and shall include, but not necessarily be limited to:

- a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to operation of the project, including all approvals, licences, approvals and consultations;
- b) a description of the roles and responsibilities for all relevant employees involved in the operation of the project;
- c) overall environmental policies and principles to be applied to the operation of the project;
- d) standards and performance measures to be applied to the project, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;
- e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;
- f) the additional studies listed under condition 5.4 of this approval; and
- g) the environmental monitoring requirements outlined under conditions 3.1 to 3.8 of this approval, inclusive.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of operation of the project, or within such period otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.

5.4 As part of the Operation Environmental Management Plan for the project, required under condition 5.3 of this approval, the Proponent shall prepare and implement the following Management Plans:

- a) an **Air Quality Management Plan** to outline measures to minimise impacts from the project on local and regional air quality. The Plan shall include, but not necessarily be limited to:
 - i) identification of all major sources of particulate and gaseous air pollutants that may be emitted from the project, being both point-source and diffuse emissions, including identification of the major components and quantities of these emissions;
 - ii) monitoring for gaseous and particulate emissions from the project, in accordance with any requirements of the DEC;
 - iii) procedures for the minimisation of gaseous and particulate emissions from the project;
 - iv) pro-active and reactive management and response mechanisms for particulates and gaseous emissions, with specific reference to measures to be implemented and actions to be taken to minimise and prevent potential elevated air quality impacts on surrounding land uses as a consequence of meteorological conditions, upsets within the project, or the mode of operation of the project at any time;
 - v) specific procedures for the management of generating efficiency and the minimisation of greenhouse gas emissions per unit of electricity generated;

- vi) procedures aimed at maximising the efficiency of the start-up and shut-down cycles for the project;
 - vii) provision for regular review of air quality monitoring data, with comparison of monitoring data with that assumed and predicted in the documents listed under condition 1.1 of this approval, including verification of air quality modelling and predictions, as may be relevant;
 - viii) Plans for regular maintenance of process equipment to minimise the potential for leaks and fugitive emissions; and
 - ix) a contingency plan should an incident, process upset or other initiating factor lead to elevated air quality impacts, whether above normal operating conditions or environmental performance goals/ limits.
- b) a **Water Management Plan** to outline measures that will be employed to manage water on the site, to minimise soil erosion and the discharge of sediments and other pollutants to lands and/ or waters throughout the life of the project. The Plan shall be based on best environmental practice and shall address the requirements of the Department and the DEC. The Plan shall include, but not necessarily be limited to:
- i) consideration of all reasonable and feasible options to avoid discharge to ground and/or ambient waters including methods to minimise the volume of contaminated water and effluent generated, recycling and reusing water and effluent;
 - ii) identification of clean and dirty water areas on site maps for different stages of the project;
 - iii) identification of criteria for nomination of areas as clean or dirty;
 - iv) details of water management measures to be implemented for clean and dirty waters;
 - v) calculations for a water balance for all waters generated on the site including potential volumes of groundwater, stormwater and process water for treatment on-site or off-site, proposed discharges, recycling or reuse;
 - vi) details of the remedial actions to be taken by the Proponent and site operators in response to an exceedance of concentration limits or other performance criteria for the on-site or ambient water management controls;
 - vii) characterisation of wastewater qualities and quantities for reuse on-site shall be characterised and irrigation management practices specified;
 - viii) specification of wastewater reuse areas shall be specified on site maps for different stages of the project; and
 - ix) specific details shall be provided in relation to the times, locations, volumes and qualities of the water to be irrigated, including how the quality of water to be used for irrigation will be assessed.
- c) a **Noise Management Plan** to detail measures to mitigate and manage noise during operation of the project. The Plan shall include, but not necessarily be limited to:
- i) procedures to ensure that all reasonable and feasible noise mitigation measures are applied during operation of the project;
 - ii) procedures to generate suitable documentation for annual environmental auditing, that demonstrates that the noise limits and noise goals specified under this approval, or best practice noise control operations, are being met;
 - iii) identification of all relevant receivers and the applicable criteria at those receivers commensurate with the noise limits and noise goals specified under this approval;
 - iv) identification of activities that will be carried out in relation to the project and the associated noise sources;
 - v) procedures for periodic consideration of noise impacts at the relevant receivers against the noise limits and noise goals specified under this approval;
 - vi) details of all management methods and procedures that will be implemented to control individual and overall noise emissions from the site during operation;
 - vii) project of reactive and pro-active strategies for dealing promptly with any noise complaints, including documentation of a fast response (eg within one hour), the completed action on a complaint and feedback from the complainant (eg within 24 hours); and

- viii) noise monitoring and reporting procedures.

6. ENVIRONMENTAL REPORTING

Incident Reporting

- 6.1 The Proponent shall notify the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 12 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.
- 6.2 The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 6.1 of this approval, within such period as the Director-General may require.

Annual Performance Reporting

- 6.3 The Proponent shall, throughout the life of the project, prepare and submit for the approval of the Director-General, an **Annual Environmental Management Report (AEMR)**. The AEMR shall review the performance of the project against the Operation Environmental Management Plan (refer to condition 5.3 of this approval), the conditions of this approval and other licences and approvals relating to the project. The AEMR shall include, but not necessarily be limited to:
- a) details of compliance with the conditions of this approval;
 - b) a copy of the Complaints Register (refer to condition 4.3 of this approval) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were address and resolved;
 - c) identification of any circumstances in which the environmental impacts and performance of the project during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.1 of this approval, with details of additional mitigation measures applied to the project to address recurrence of these circumstances ;
 - d) results of all environmental monitoring required under this approval 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 project 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 Proponent 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 project. The Director-General may require the Proponent to address certain matters in relation to the environmental performance of the project 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 Proponent shall make copies of each AEMR available for public inspection on request.
