Operation Environmental Management Plan

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1. CONTEXT

Newcastle Coal Infrastructure Group (NCIG) is the operator of a Coal Export Terminal (CET) located in the industrial area of Kooragang Island in the Port of Newcastle. NCIG has approval to construct and operate a 66 Million Tonnes per Annum (Mtpa) CET, including associated rail and coal handling infrastructure and wharf/ship loading facilities.

NCIG exists to provide export capacity for its shareholders and other producers in the New South Wales coal market. In order to deliver this capacity, NCIG management employs a strategic model encompassing a number of key areas, critical to the sustainable operation of the terminal – see Figure 1 below.

![NCIG Strategic Model](image)

**Figure 1. NCIG Strategic Model**

In order to manage environmental impacts, there are a number of external and internal issues that NCIG are required to manage. These issues can generally be categorised as:

- **Meteorological** – conditions which the NCIG operation experiences which has the potential to result in environmental impacts, eg. strong winds leading to dust generation, high rain events resulting in flooding and runoff.
- Regulatory – approvals, permits and legislation, which NCIG is subject to, where non-compliance may lead to actual or potential environmental impact, or result in prosecution against the company.
- Activity – operational activities conducted by NCIG, including maintenance and administration, which have the potential to impact the environment, eg. coal handling, storage of hydrocarbons, electricity demand.
- Stakeholder – these could be any stakeholder that interacts with the business and has the potential to affect the environment or be affected by business activities, eg. customer, supplier, community member, employee, regulator, shareholder, investor.

Each of these issues will have an influence on NCIG’s environmental performance. For this reason, NCIG implements a system to identify, address and manage environmental risks related to the company’s operation, including review of the controls in place.

1.1 Needs and Expectations

There are a number of stakeholders, or ‘interested parties’, engaged with NCIG’s activities. In order to maintain an ongoing relationship with these parties and contribute to its ‘Social Licence to Operate’, NCIG considers the needs and expectations of these parties in developing its environmental and community management strategy. Table 1 identifies these stakeholders, their requirements or expectations, and the means by which NCIG believes it meets its obligations in maintaining these relationships.

<table>
<thead>
<tr>
<th>Stakeholder (Interested Party)</th>
<th>Requirement / Expectation</th>
<th>NCIG Obligation</th>
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<tr>
<td>Customer/Shareholder</td>
<td>NCIG operates within relevant approvals and licences, to ensure a sustainable business that provides ongoing capacity, and assists in the management of environmental issues that apply more broadly to coal chain, eg. dust from the rail network.</td>
<td>Project Approval 06_0009 EPL 12693 Particular Manner Decision 2006-2987 Relevant Environmental Legislation</td>
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<tr>
<td>Stakeholder (Interested Party)</td>
<td>Requirement / Expectation</td>
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| Employee                       | NCIG operates within relevant approvals and licences, to ensure a sustainable business with ongoing employment, as well as an interest in working for a socially responsible company                                           | Project Approval 06_0009  
EPL 12693  
Particular Manner Decision 2006-2987  
Relevant Environmental Legislation                                                                                                                                                                           |
| Community Member               | NCIG operates in a sustainable manner, that has negligible or no impact on their livelihood or existing lifestyle. NB/ Of particular importance is the concept ‘Social Licence to Operate’.                                                      | Project Approval 06_0009  
EPL 12693  
Particular Manner Decision 2006-2987  
Relevant Environmental Legislation  
NCIG Complaints Response Procedure                                                                                                                                                                           |
| Supplier                       | NCIG continues to operate sustainably, to provide an ongoing business partner and a socially responsible working relationship.                                                                                           | Project Approval 06_0009  
EPL 12693  
Particular Manner Decision 2006-2987  
Relevant Environmental Legislation                                                                                                                                                                           |
## Stakeholder Requirement / Expectation NCIG Obligation

### Investor
- NCIG operates in a socially responsible manner, including completion of government energy, water and waste reporting requirements.
- Project Approval 06_0009
- EPL 12693
- Particular Manner Decision 2006-2987
- Relevant Environmental Legislation
  - National Pollutant Inventory (NPI) Reporting
  - National Greenhouse and Energy Reporting (NGER)
  - Annual Environmental Management Report (AEMR)

### Regulator
- NCIG complies with all relevant environmental legislation and approval conditions, both state and federal, and will freely interact on developing policy and regulatory issues.
- Project Approval 06_0009
- EPL 12693
- Particular Manner Decision 2006-2987
- Relevant Environmental Legislation
  - National Pollutant Inventory (NPI) Reporting
  - National Greenhouse and Energy Reporting (NGER)
  - Annual Environmental Management Report (AEMR)

NCIG is committed to maintaining positive relationships with its stakeholders. Therefore, the obligations listed above are tracked as compliance obligations. Legislation, Approvals and Licencing Requirements are covered in more detail in Section 3.1.
1.2 Purpose

The Operation Environmental Management Plan (OEMP) has been developed in order to document the way in which NCIG manages activities that have the potential to impact the environment. It outlines the system that identifies and assesses environmental risks including statutory and approval requirements, the controls and procedures that manage these risks, and measures to review the system including, its effectiveness. Critical to this approach is business leadership and involvement, particularly at the planning and review stage to ensure that clear objectives and targets are established, and adequate resources are provided in order to achieve these.

The system outlined in this document is consistent with the framework established by the business and contained within the NCIG Sustainable Development Management Plan (HSEC.MP.01), which is modelled around a Plan-Do-Check-Act methodology – see Figure 2 below. This model is reflected in the overarching Sustainable Development Management Plan (SDMP) framework, which is divided into four (4) key elements:

- **Element 1** – Policy and Standards;
- **Element 2** – Planning;
- **Element 3** – Implementation and Operation; and
- **Element 4** – Management Review

Relevant documentation of the system, including this OEMP and other key environmental documents, fall within these elements.

Importantly, the OEMP aims to outline how the continuous improvement model applies specifically to environmental and community aspects of NCIG, and to assist NCIG in the implementation of appropriate environmental management measures during operation. Changes in the context or needs and expectations of stakeholders will be taken into consideration when implementing and updating this management plan.

1.3 Scope

This OEMP applies to the operation of the NCIG CET up to the maximum 66 Mtpa capacity (in accordance with Condition 1.1 of the CET Project Approval (06_0009)). It applies specifically to activities undertaken to operate the CET, including general operations, maintenance and administration activities. It does not apply to construction activities, as they are outlined within the NCIG Environmental Assessment (Ref.) and Project Approval (06_0009), or construction and maintenance activities undertaken within the NCIG Compensatory Habitat areas. These activities fall within a different set of management plans, which cover specific environmental risks. Despite this, management measures and controls are consistent between all areas under NCIG’s operational control wherever practicable.

The NCIG CET operation is located on the south arm of the Hunter River. The following three major
activities are undertaken during operations:

- **Train Unloading** – trains enter the NCIG site from the Kooragang mainline, travel along the rail spur and empty their coal wagons into one of two dump stations. Empty trains travel around the rail loop then rejoin the mainline.

- **Coal Handling and Stockpiling** – coal is transferred from the dump station, via a series of conveyors, to the stockyard for stockpiling. One of four stacker/reclaimers is used to stack coal onto the stockpile and reclaim coal via a bucket-wheel. Coal is reclaimed from the stockpile and sent to the wharf via an outbound series of conveyors.

- **Ship Loading** – two ship loaders are available to transfer coal onto ships at berth, drawing from the buffer bins. There are three berths at the NCIG wharf, taking three ships at any one time.

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![Diagram](image)

**Figure 2. Continuous Improvement (Plan-Do-Check-Act) Model.**
The CET Operational site is shown on Figure 3 based on the maximum allowable coal throughput of 66 Mtpa.

Other key features of the NCIG CET include the water management system (including containment and reuse of water onsite), Administration, Store and Workshop Buildings, access roads and internal roads, utilities including electricity, water and sewer infrastructure, and site security features.

1.4 **Structure**

This OEMP is structured as follows:

**Section 2** – Leadership and Commitment, including policies and leadership involvement.

**Section 3** – Planning and System Support, including risk management, compliance obligations, environmental objectives and targets, planning to act, resources, competence and awareness, internal and external communication and documentation.

**Section 4** – Operation and Implementation, including operational control and emergency preparedness.

**Section 5** – Performance Evaluation and Improvement.

NCIG was granted Project Approval (06_0009) on 13 April 2007. This OEMP has been prepared in accordance with Conditions 3.2-3.8, 4.1, 4.3, 6.2, 6.3, 7.5 and 7.6 of the Project Approval (06_0009). The table contained in Appendix B indicates where these requirements have been addressed in this OEMP.
Figure 3. NCIG Project General Arrangement
2. LEADERSHIP AND COMMITMENT

2.1 NCIG Sustainable Development Management Approach

NCIG is committed to managing the impacts of its activities on the environment, including the local community. This is reflected in the NCIG Sustainable Development Policy (Appendix A), which includes:

- a target of zero harm to the environment;
- a commitment to meet all legislative requirements and seek to continuously improve;
- management of environmental risks;
- the setting and achievement of targets and the efficient use of resources including the reduction and prevention of pollution;
- respect for the traditional rights of indigenous people and value of cultural heritage; and
- development of relationships that foster the sustainable development of our local communities.

These policy statements were developed in consultation with the NCIG Executive Leadership Team (ELT) and have been agreed to by the NCIG Board of Directors and signed by the Board Chairman. This policy represents the accountability assumed by NCIG management for its environmental performance, including effectiveness of the underlying Sustainable Development Management Plan (HSEC.MP.01).

Beyond the statements within the Sustainable Development Policy, NCIG management provides support for the effective management of environmental issues by:

- providing adequate resources for the management of environmental aspects;
- ensuring integration of environmental management requirements throughout business processes, eg. risk assessment, procurement and acquisition, use of natural resources;
- communication of environmental performance and conformance with environmental requirements, eg. Quarterly HSEC Board Reports, CEO presentations at Business-wide Communication Days; and
- ensuring that environmental management is reflected across business and departmental objectives, through the development of objectives and targets during the annual business planning process – see Section 3.3.

NCIG strives to achieve best practice for environmental management. For this reason, the NCIG SDMP, which includes this management plan, aims to comply with the provisions of ISO14001:2015, which is supported and actively assisted by the Executive Leadership Team. This includes all key areas of the standard, including establishing the context of the organisation, leadership, planning, support, operation, performance evaluation and improvement.
2.2 Roles, Responsibilities and Functions

Management of environmental issues is regarded as the responsibility of all NCIG employees and contractors. As well as this, key environmental accountabilities fall with senior and environmental-specific roles within the organisation. The NCIG Organisational Structure is shown in Figure 4 below, with key accountabilities outlined in the following sections.

2.2.1 Chief Executive Officer (CEO)
- Actively promote and support the effective implementation of this plan
- Ensure adequate resources are provided to manage environmental aspects and impacts of the business

2.2.2 Manager – HSEC
- Ensure the adequacy of this plan to meet relevant approval and licence conditions, legislative requirements and other compliance obligations
- Ensure that the Sustainable Development Management Plan, which includes this management plan, complies with ISO14001:2015.
- Ensure the plan is aligned with relevant NCIG policy and kept up to date with industry best practice
- Ensure environmental and community risks are covered in Broad Brush Risk Assessments (BBRAs)
- Develop the plan in consultation with other NCIG Departments and, where relevant, other stakeholders, eg. government regulators
- Monitor the effective implementation of this plan
- Ensure adequate levels of environmental training for all levels of personnel
- Accountable for the timely and effective response of community enquiries, including complaints, in accordance with Condition 6.2, Schedule 2 of the Project Approval (06_0009)
- Principal point of contact for environmental regulators
- Ensure environmental performance is reported regularly to the ELT and Board of Directors through appropriate means, eg. Quarterly HSEC Reports.
- Fulfil the role of Department of Planning and Environment (DoPE)-approved Environmental Representative for the NCIG Project (see Appendix B), including taking reasonable steps to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased
immediately should an adverse impact on the environment be likely to occur.

2.2.3 Executive Leadership Team (ELT)
- Ensure this management plan is implemented in their area of accountability
- All direct reports adhere to the requirements of this plan
- All direct reports have sufficient resources to adequately comply with and continuously improve this plan
- All environment and community matters are brought to the attention of the Manager – HSEC

2.2.4 HSEC Department
- Ensure that this plan is developed to meet or exceed the requirements of relevant approval and licence conditions, legislative requirements and other compliance obligations
- Ensure that this plan is developed to address potentially significant environmental impacts resulting from NCIG’s operational activities
- Assist other departments in the implementation of controls outlined in this management plan, including provision of environmental training
- Organise environmental monitoring as it is identified in this plan and sub-plans and maintain environmental records including environmental monitoring data, complaints and environmental incident reports
- Monitor and review compliance of this plan, including auditing and compliance tracking required in Project Approval (06_0009)
- Any non-conformance of the plan is appropriately addressed through corrective actions, eg. incident or hazard reporting, review of actions.

2.2.5 Superintendents / Team Leaders
- Ensure all direct reports are trained and adhere to the applicable requirements of this management plan

It is noted that, where relevant, these accountabilities have been formalised by NCIG management in the various Position Descriptions for NCIG personnel.
Figure 4. NCIG Organisational Structure
Figure 5. NCIG Organisational Structure (continued)
3. PLANNING AND SYSTEM SUPPORT

3.1 Legislation, Approvals and Licensing Requirements

Operation activities are undertaken in accordance with all statutory and other obligations including key legislation and policies, approvals, licences and agreements. NCIG maintains a HSEC Legal Register, which is regularly updated to remain current with changes in environmental legislation. This register outlines the actions taken to comply with relevant legislation. In order to update the register and relevant actions, NCIG receives quarterly legal update reports from its legal consultants outlining key changes in legislation.

In accordance with Condition 1.7, Schedule 2 of the Project Approval (06_0009), all licences, permits and approvals will be obtained and maintained as required throughout the life of the Project and a copy of the Project Approval (06_0009) and all relevant environmental approvals will be available at the NCIG site at all times.

The Manager – HSEC\(^1\) is responsible for obtaining and renewing all licences, approvals and permits. In accordance with Condition 5.1, Schedule 2 of the Project Approval (06_0009) a Compliance Tracking Program is maintained to track compliance with relevant approval and licence conditions.

Key approval requirements are described in further detail below.

**Environmental Planning and Assessment Act 1979**

The Project will be carried out generally in accordance with the Project Approval (06_0009). A copy of the Project Approval (06_0009) has been included as Appendix B.

**Protection of the Environment Operations Act 1997**

An Environmental Protection Licence (EPL) 12693 was obtained prior to construction of the Project from the DECC (now EPA) pursuant to the Protection of the Environment Operations Act 1997. Subsequent amendments to this licence have been made to reflect changes in site boundaries and activities. A copy of the EPL has been included as Appendix C.

**Environment Protection and Biodiversity Conservation Act 1999**

NCIG Operations will be carried out in accordance with Environmental Protection and Biodiversity Conservation Act Particular Manner Decision 2006/2987. A copy of the Particular Manner Decision 2006/2987 has been included as Attachment D.

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\(^1\) Manager – HSEC assumes role DoPE-approved Environmental Representative for the Project
3.2 Environmental Risk Assessment

All activities undertaken by NCIG in operating the terminal, which have the potential to interact with the environment, are risk assessed. In this context, these activities are considered to be aspects. An environmental impact refers to the change to the environment as a result of the aspect, whether adverse or beneficial (definitions adapted from AS/NZS ISO 14001:2015 – Environmental Management Systems). For this reason, environmental risk assessment should not only take into account risks, but also opportunities.

Risk assessment of environmental aspects is conducted in accordance with the NCIG Risk Management Procedure (HSEC.PRO.03.01). High level aspects and impacts for the NCIG operation are identified and assessed as part of business-wide Broad Brush Risk Assessments (BBRAs), which also include operational, asset and safety risks, and involve participation from leadership representatives from each of these areas. BBRAs are undertaken every 2 years, or when a significant change in operation is planned, i.e. new development. In alternate years, the Environmental Advisor is responsible for reviewing these aspects and impacts. Aspects and impacts are retained in a consolidated database and cover multiple aspects of the business, including activities undertaken at the site, legislative requirements, consent conditions and the statutory approvals.

Those aspects that have the potential to cause a significant impact on the environment, as defined by the NCIG Risk Management Procedure, are determined, with identification of appropriate mitigation measures or actions. Significant environmental aspects provide the fundamental framework for environmental management, including development of yearly HSEC Plans, management plans and procedures, monitoring, auditing and inspections and review.

In addition to high level aspects and impacts, NCIG assesses environmental risk at the job and task level (eg. Workplace Risk Assessment and Control, Safe Work Procedure, Job Safety and Environment Analysis, Take 5), consistent with the NCIG Risk Management Procedure.

Where a fundamental change to business processes or plant is proposed, the NCIG Change Management Procedure (HSEC.PRO.03.02) is to be complied with. The change management process includes assessment and control of risks resulting from the change, including environmental risks.

3.3 Planning of Objectives and Targets

NCIG’s Sustainable Development Policy articulates our commitment to the environment and community in a number of ways. NCIG plans for objectives and targets, including environmental management actions, to meet the intent of these policy statements. High level NCIG objectives and targets are established in accordance with the business planning process to drive continuous improvement. Objectives and targets are developed annually during the business planning and review process involving the NCIG Executive Leadership Team, which consists of the CEO and
Department Managers. Relevant considerations in developing objectives and targets include:

- NCIG business objectives
- The outcome of previous objectives and targets
- Past HSEC Plans
- Compliance obligations, based on the Compliance Tracking Program (CTP), Independent Environmental Audit (IEA), review of the Legal Register and other changes in government policy and regulation
- Current risk profile, including the outcome of Broad Brush Risk Assessments, significant environmental aspects, both adverse risks and beneficial opportunities
- Previous outcomes of auditing and inspections, both external (ISO14001:2015) and internal (management plan or contractor audits)
- Environmental incidents
- Environmental training requirements

This process is consistent with the process outlined in the NCIG Management Planning, Monitoring and Review Procedure (HSEC.PRO.15.02). Relevant objectives and targets will be recorded in the HSEC Plan, along with the resources needed to achieve objectives, including where Departmental Managers are accountable. Where applicable, these objectives will filter through to departmental objectives in respective departmental annual plans.

Formal reporting on achievement of HSEC objectives is delivered to the ELT each year during the annual business planning process. Informally, progress of objectives is reported to the ELT by the Manager – HSEC at regular ELT meetings or quarterly through Quarterly HSEC Reports. Where appropriate, progress on HSEC objectives is reported to the wider business during quarterly Team Communications Days. Review of environmental and community objectives and targets is repeated annually, including the effectiveness of actions taken – see Section 5.12.

### 3.4 Support

NCIG provides adequate support for the business in fulfilling its environmental requirements, including legislative and compliance obligations. This is the primary role of the HSEC Department, which provides support, most notably in the following areas.

#### 3.4.1 Training Requirements

Environmental training requirements of NCIG personnel and contractors are identified within the business training system. All environmental training and competency assessments will be conducted and recorded in accordance with NCIG Training, Learning and Development Policy and Procedure.

All NCIG personnel and contractors will undergo environmental induction training before
commencing work on site, as part of the HSEC Level 1 Induction. This induction is competency based, renewed on a regular basis, and includes:

- Site orientation;
- Emphasis on the importance of conformance with the relevant statutory requirements and the requirements of the SDMP, including this OEMP;
- Risk assessment and incident reporting requirements;
- Relevant legal and other requirements;
- The potential environmental impacts of their work activities;
- Their roles and responsibilities in achieving conformance with the environmental policies and requirements, including emergency preparedness and response requirements;
- The potential consequences of non-compliance with relevant statutory requirements and the SDMP, including this OEMP; and
- Emergency preparation and emergency response requirements, including pollution incidents of material environmental harm.

HSEC Level 3 Inductions are conducted with employees and permanent full-time contractors, focussing specifically on the provisions of this management plan, and relevant sub-plans (eg. ODMP, ONMP, OWMP, OSCMP etc).

Environmental awareness training is conducted regularly and is attended by NCIG staff and contractors, based on applicability and needs identified in the business training system. Content may include the points outlined above, as well as familiarisation with specific site environmental controls and community involvement/relation requirements. This type of training is normally administered during quarterly Team Communications Days, regular crew or departmental meetings or specific “one-off” training sessions.

In addition to this, employees and contractors also undergo specific training undertaken as tool-box training. This type of training is provided on an as-needs basis, for example, following the identification of a new environmental risk, relevant changes in legislation or a change in operation methodologies.

It is also noted that environmental aspects are covered in operational training for the coal terminal employees. This includes competency-based training for operation of specific NCIG plant (eg. prevention of spillage during ship loader operation, or control of dust during dump station control room operation) and emergency preparedness training (i.e. pollution incident response drills) – see Section 4.1.
3.4.2 Consultation and Communication

Internal communications regarding environmental management at NCIG is conducted in accordance with the NCIG Consultation and Communication Procedure (HSEC.PRO.07.01). The purpose of this procedure is to ensure all workers are aware of important issues regarding the environment, and to provide all workers with an opportunity to influence these issues. The procedure identifies the means by which NCIG will consult and communicate internally, including:

- Board Meetings;
- Executive Leadership Team (ELT) Meetings;
- Department Management Meetings;
- Consultation Committee Meetings;
- Team Communication Day Meetings;
- Contractor HSEC Meetings;
- Pre-Start Toolbox and Team Briefing Meetings; and
- Sub-committees.

There are also informal means of communications including individual consultation, HSEC interactions and training. Formal internal site communication can be seen in the form of Site Bulletins and HSEC Alerts, HSEC Notice Boards, Electronic HSEC Information Boards and internal HSEC Reports.

External communications are conducted in accordance with the NCIG Communication and Consultation Procedure (HSEC.PRO.07.01) and the NCIG Community Interaction Procedure (HSEC.PRO.8.03). These procedures outline how NCIG communicates with government regulators and the community respectively, including distribution of environmental reports, recording of communication details with regulators and how frequent community newsletters will be distributed to neighbouring suburbs regarding NCIG’s activities.

In developing this plan, consultation has been and will continue to be conducted with the following government authorities and key community stakeholders with respect to Project operation activities and the preparation of environmental management plans/programs/protocols where relevant:

- Commonwealth Department of Environment (DoE);
- NSW Department of Planning and Environment (DoPE);
- NSW Office of Environment and Heritage (OEH);
- NSW Department of Primary Industries – Fisheries (DPI – Fisheries);
- Port of Newcastle (PoN);
3.4.3 Documentation

All applicable environmental and community documents are consistent with the NCIG Document Management Policy (COMM.POL.001), which includes provisions for the creation and maintenance of information and records. Changes made when updating these documents are recorded in a revision table.

4. OPERATION AND IMPLEMENTATION

4.1 Emergency Contacts and Response

Consistent with the NCIG Emergency Management Procedure (HSEC.PRO.14.01), the Emergency Controller is the primary contact person in an environmental emergency. For environmental emergencies, contact:

Position: NCIG Emergency Controller (Process Leader)

Telephone: (02) 4920 3999 or 3999 (internal phones)

In the event of a major pollution incident any person carrying out an activity must notify the relevant authorities immediately when material environmental harm is caused or threatened. This is consistent with the NCIG Emergency Management Procedure (HSEC.PRO.14.01) and the NCIG Spill and Pollution Incident Response Management Plan (HSEC.MP.13.04). Harm to the environment is defined as material if:

1. It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or;
2. It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations).

An incident should also be considered material and notifications undertaken in the event that external agencies/emergency services are called in to assist in the management of a pollution related incident.

In accordance with Condition 7.1, Schedule 2, of the Project Approval (06_0009), the Manager – HSEC will have the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

4.1.1 Notification

In accordance with the NCIG Emergency Management Procedure (HSEC.PRO.14.01) and the NCIG Spill and Pollution Incident Response Management Plan (HSEC.MP.13.04), the following relevant authorities are to be contacted in the following order in the event of a material pollution incident:

- EPA (Environment Line) – 131 555;
- In the event of a spill in the harbour, VTIC – 4985 8292;
- Public Health Unit – 4924 6477 (diverts to John Hunter Hospital after hours);
- WorkCover – 131 050;
- Newcastle City Council – 4974 2000; and
- Fire and Rescue NSW – 000 (Call first if incident presents immediate threat to human health or property.

In addition, and in accordance with Condition 8.1, Schedule 2, of the Project Approval (06_0009), the Director-General will be notified of any incident with actual or potential significant off site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident. The Director-General will be provided with written details of the incident within seven days of the date on which the incident occurred.

4.2 Contractor Management

Contractors at NCIG are managed in accordance with the NCIG Contractor Management Procedure (HSEC.PRO.11.01). All contractors that conduct work for NCIG are required to follow a number of steps prior to commencing work, to conform to the provisions of the Work Health and Safety (WHS) Act 2011 and WHS Regulation 2011. A pre-requisite of all NCIG Contractors is to

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2 Manager – HSEC assumes role DoPE-approved Environmental Representative for the Project
complete an audit of their safety and environmental management systems. The audit is carried out by a third party safety consultant on behalf of NCIG and based on Australian Standard 4801 – Safety Management Systems and ISO14001 – Environmental Management Systems. Once contractors have met the minimum requirements of this audit, they are allowed to complete an NCIG-specific Level 1 (Health, Safety, Environment and Community) Induction.

Prior to commencing a task, all contractors must obtain a Permit to Work (PTW) from NCIG, including any relevant environmental permits (eg. Vegetation Clearance Permit, Sediment and Erosion Control Plan approval) and complete a job-specific Job Safety and Environmental Analysis (JSEA). These documents are to be reviewed and approved by an NCIG Supervisor or Contract owner.

The JSEA or SWMS must be prepared comprising the following steps:

1. Analysis of the task to be undertaken;
2. Identification of potential health, safety and environmental risks;
3. Assessment and analysis of these risks;
4. Identification of control measures to eliminate or reduce the risks to an acceptable level;
5. Implementation of control measures;
6. Planning for unexpected events; and
7. Reporting actual and potential environmental incidents to the Environmental Representative.

All contractors are to read, understand and sign on to the relevant JSEA or SWMS at the start of each work day. Any changes to the JSEA or SWMS are to be fully documented and counter-signed by all contractors.

All actual and potential environmental incidents must be reported to NCIG HSEC Department.

4.3 Environmental Management Measures

Identification of environmental aspects and impacts, conditions of NCIG’s Project Approval, EPL and other permits and legislation, and planning of environmental objectives and targets have identified the need for specific environmental management measures. The main environmental aspects are covered in a number of sub-plans listed below. Within each of these plans are a number of controls or procedures identified for effective management of these aspects.

- **Operation Dust and Air Quality Management Plan** – Operation activities that have the potential to generate dust or air quality impacts and a description of actions and
measures to be implemented to comply with the relevant dust and air quality criteria/guidelines are provided in Appendix E. This plan includes the Ambient Dust Monitoring Program as required by Condition 3.2 of the Project Approval (06_0009) which describes how ambient dust associated with the Project will be monitored.

- **Operation Noise Management Plan** – Operation activities that have the potential to generate noise and/or vibration impacts and a description of actions and measures to be implemented to comply with the relevant noise and vibration criteria/guidelines are provided in Appendix F.

- **Operation Water Management Plan** – Surface water and stormwater management measures for the site during operation, and measures to reduce the risk of sediment-laden stormwater entering adjacent areas including the Hunter River are provided in Appendix G.

- **Operation Spontaneous Combustion Management Plan** – Operation activities relating to coal stockpiling and storage that have propensity to spontaneously combust, and the measures to mitigate the potential for such an event to occur are provided in Appendix H.

- **Ecological and Land Management Plan** – Operational activities that have the potential to impact on local ecology, including endangered species, the way in which NCIG will manage its site to maintain local amenity and potential impacts on aboriginal heritage is provided in Appendix I.

- **Waste Management Plan** – Waste and materials generated on the NCIG site, including recycling and reuse of materials and how this is managed is provided in Appendix J.

- **Spill and Pollution Incident Response Management Plan** – The control, containment, clean up and notification of spill and pollution incidents is detailed in Appendix K. This plan also satisfies the PIRMP requirements of the POEO Act.

In addition to the above environmental management plans, NCIG has also considered environmental requirements for the procurement of products and services, eg. purchase of degradable and non-persistent chemicals where possible. Environmental requirements include:

- Pollution or contamination potential
- Energy efficiency
- Noise or air quality specifications
- Recycling or reuse potential
- Greenhouse Gas (GHG) or carbon intensity at production, where this information is easily
These considerations are consistent with a product life-cycle analysis, and products that rank favourably in this regard will be procured preferentially where feasible.

Separate to the abovementioned management plans, NCIG also has the potential to produce local impacts from lighting used on the terminal site. Condition 2.59, Schedule 2 of the Project Approval (06_0009) states that NCIG “shall ensure that all external lighting installed as part of the project is mounted, screened, and directed in such a manner so as not to create a nuisance to surrounding land uses. The lighting shall be the minimum level of illumination necessary, and be in general accordance with AS 4282 – 1997 Control of the Obtrusive Effects of Outdoor Lighting”. This applies to all forms of lighting used on the terminal site, both permanent and temporary, which have the potential for offsite impacts.

In accordance with Condition 1.10, Schedule 2 of the Project Approval (06_0009), NCIG will prepare and submit any management protocol, plan, or monitoring program required by the approval on a progressive basis. Where a management protocol, plan and monitoring program are required before carrying out any development or stage of development, the protocol/plans/programs will be prepared and submitted in relation to either discrete components of the Project or for a specified time period.

5. PERFORMANCE EVALUATION AND IMPROVEMENT

5.1 Environmental Monitoring

5.1.1 Environmental Monitoring Program

An environmental monitoring program has been implemented to monitor the performance of environmental management at NCIG, as well as comply with the Project Approval (06_0009), EPL and other statutory conditions. An overview of the operation environmental monitoring program is provided in Figure 6 and Table 2.

Environmental monitoring parameters required by the NCIG EPL/s, in accordance with the POEO Regulation, are made available on the NCIG website, including monitoring results, date of sampling/monitoring, criteria where applicable and report date.
### Table 2. NCIG Operation Environmental Monitoring Program

<table>
<thead>
<tr>
<th>MONITORING FOCUS</th>
<th>MONITORING SITES</th>
<th>FREQUENCY</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meteorology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature, relative humidity, net solar radiation rainfall, wind speed and direction and sigma theta (rate of change of wind direction).</td>
<td>Project automated meteorological station(^1).</td>
<td>Continuously monitored and the data averaged over 15 minute periods.</td>
<td>N/A.</td>
</tr>
<tr>
<td><strong>Erosion and Sediment Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural stability and effectiveness in controlling sediment migration.</td>
<td>Drainage, erosion and sediment control infrastructure, including operational sumps.</td>
<td>Monthly and following significant rainfall events (i.e. greater than 20 mm in 24 hours).</td>
<td>See OWMP.</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended and unattended noise monitoring.</td>
<td>Fern Bay, Stockton, Mayfield, Carrington per ONMP.</td>
<td>Six-monthly.</td>
<td>See ONMP.</td>
</tr>
<tr>
<td>Attended noise monitoring in case of complaint.</td>
<td>Reference locations proximal to the Project(^1).</td>
<td>During operations after a complaint is received.</td>
<td></td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dust monitoring.</td>
<td>DG1, DG2, DG3, DG4, DG5, DG6, DDG-C1, DDG-K1(^1)</td>
<td>Monthly</td>
<td>See ODAQMP.</td>
</tr>
<tr>
<td></td>
<td>HVAS1, HVAS2, HVAS-C1, HVAS-K2, HVAS-K3, HVAS-K4(^1).</td>
<td>Every 6 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BAM N, BAM E, BAM S and BAM W(^1).</td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional Port Waratah Coal Services (PWCS) monitoring sites.</td>
<td>Through regular consultation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OEH Lower Hunter Air Quality Monitoring Network</td>
<td>Continuous</td>
<td></td>
</tr>
</tbody>
</table>
### Surface Water

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sampling Sites</th>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH, electrical conductivity (EC), total dissolved solids (TDS), turbidity, temperature and reduction/oxidation potential.</td>
<td>Surface water monitoring sites</td>
<td>Monthly</td>
<td>See OWMP.</td>
</tr>
<tr>
<td>Water level.</td>
<td>Primary and secondary settling ponds</td>
<td>Following heavy rainfall (i.e. more than 20 mm of rainfall in a 24 hour period).</td>
<td></td>
</tr>
<tr>
<td>pH, Electrical Conductivity (EC), Turbidity, Dissolved Oxygen (DO), Aluminium, Arsenic (III), Boron, Cadmium, Chromium (III), Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Zinc, Total Recoverable Hydrocarbons C6-C9, Total Recoverable Hydrocarbons C10-C14, Total Recoverable Hydrocarbons C15-C28, Total Recoverable Hydrocarbons C29-C36, Anthracene, Benzo (a) pyrene, Fluoranthene, Naphthalene, Phenanthrene, Ammonia, Nitrate, Total Kjeldahl nitrogen, Total phosphorus, Chloride</td>
<td>Surface water sampling sites</td>
<td>Six-monthly.</td>
<td></td>
</tr>
</tbody>
</table>

### Groundwater

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sampling Sites</th>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium, Arsenic, Bromine, Cadmium, Conductivity, Copper, Cyanide, Iron, Manganese, Nickel, pH, Total PAHs, TPH C6-9, TPH C10-14, TPH C15-28, TPH C29-36, Zinc.</td>
<td>Groundwater sampling sites</td>
<td>Six-monthly.</td>
<td>See OWMP.</td>
</tr>
<tr>
<td>Groundwater level.</td>
<td></td>
<td>Six-monthly.</td>
<td></td>
</tr>
</tbody>
</table>

### Ecology

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sites</th>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green and Golden Bell Frog Population</td>
<td>Water bodies around the NCIG Rail Site</td>
<td>Minimum of 3 times during the breeding season</td>
<td>See ELMP.</td>
</tr>
<tr>
<td>Water birds, including migratory shorebirds</td>
<td>Water bodies around the NCIG Site</td>
<td>Monthly</td>
<td>See ELMP.</td>
</tr>
</tbody>
</table>

### Waste

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Streams</th>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste and Recycling Volumes</td>
<td>All operational waste streams</td>
<td>Monthly</td>
<td>See WMP.</td>
</tr>
</tbody>
</table>

### Resources

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Use</th>
<th>Frequency</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Usage</td>
<td>Potable water use and captured water use (NCIG Plant)</td>
<td>Weekly</td>
<td>See OWMP.</td>
</tr>
</tbody>
</table>
The location of monitoring sites is shown on Figure 6.

Dust deposition will be analysed in accordance with Australian standard AS/NZS 3580.10.1-2003 Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method (Standards Association of Australia 2003).

PM$_{10}$ will be monitored in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (Department of Environment and Conservation NSW 2006).

The location of surface water sampling sites is detailed in the OWMP (Appendix G).
Figure 6. Locations of NCIG Environmental Monitoring Sites.
5.1.2 Environmental Monitoring Database

Data obtained from operation environmental monitoring programs is handled as follows:

▪ Results are entered into the database by the HSEC Department;
▪ Data is compared with relevant criteria; and
▪ A non-conformance will be completed in the event of a recorded exceedance.

The OEMP is designed to facilitate review of relevant monitoring and operational activity data, identification and implementation of appropriate management measures and subsequent review.

5.1.3 Environmental Monitoring Assessment

In the event of an exceedance of the relevant environmental monitoring criteria, an assessment will be conducted by the HSEC Department to determine if the exceedance is due to NCIG operation activities (i.e. conduct a review of other non-NCIG activities in the area and if relevant, historical monitoring data). If the exceedance is determined to be the result of NCIG operation activities, the HSEC Department will implement the management strategy below.

5.2 Compliance Tracking

In accordance with Condition 5.1, Schedule 2, of the Project Approval (06_0009), the Compliance Tracking Program has been prepared and implemented to track the compliance of NCIG Operations with the conditions of the Project Approval (06_0009). Annual reviews of NCIG’s compliance status will be audited by the HSEC Department. In accordance with Condition 6.4, Schedule 2 of the Project Approval (06_0009), the Compliance Tracking Program is made available on the NCIG website.

An Independent Environmental Audit is conducted on a three-yearly basis (or as otherwise agreed by the Director General) in accordance with Condition 5.1(c), Schedule 2, of the Project Approval (06_0009). The Independent Environmental Audit is conducted by a suitably qualified independent person in accordance with international standard ISO 19011:2002 Guidelines for Quality and/or Environmental Management Systems Auditing (International Organization for Standardization 2002).

5.3 Certification and ‘Maintenance’ Audits

NCIG has created a management system to be compliant with relevant standards, including ISO14001:2015. Certification audits and maintenance audits are conducted by a certifying body to check compliance of the SDMP with this standard. Audits to prepare for accreditation are also conducted on occasion by third party consultants.
5.4 Internal Auditing

The HSEC Department will undertake regular auditing of environmental management within the SDMP, including this management plan and sub-plans. This auditing is conducted in accordance with the NCIG Audit and Inspection Procedure (HSEC.PRO.15.01) and the annual HSEC Audit and Inspection Schedule. Non-conformances will be recorded and appropriate actions taken to remedy.

5.5 Coordination

The monitoring and management of environmental factors on the NCIG site will be undertaken in a coordinated approach with the adjacent coal terminal operated by PWCS. The manner in which the coordination will be conducted is outlined by the Coordinated Environmental Monitoring and Management Procedure (Appendix L).

5.6 Incident Review

Environmental incidents relating to the environmental management of the NCIG site are to be managed in accordance with NCIG Hazard and Incident Management Procedure (HSEC.PRO.13.01) and the Trigger Action Response Procedure. This includes recording the incident on NCIG HSEC System, which is then forwarded to the Manager – HSEC and Environmental Advisor for action.

5.7 Complaints Handling

During NCIG operations the following complaints handling system will be maintained:

In accordance with Conditions 6.2, Schedule 2 of the Project Approval (06_0009), NCIG have established a telephone number, postal address and email address for community complaints and enquiries. Details are provided below:

- 24-hour complaints telephone hotline: 1800 016 304
- Postal address for written complaints: PO Box 644 Newcastle NSW 2300
- Email address for electronic complaints: enquiries@ncig.com.au

In accordance with Condition 6.2, Schedule 2 of the Project Approval (06_0009), the community are regularly informed of the phone, email and postal addresses via the NCIG website (www.ncig.com.au), newsletters and signage adjacent to the NCIG site.

In accordance with Conditions 6.3, Schedule 2 of the Project Approval (06_0009), NCIG record all complaints received in a Complaints Register.

In accordance with Condition 6.4 of the Project Approval (06_0009), NCIG has established and maintained a website for the provision of electronic information associated with the Project and
this OEMP has been uploaded to the website.

In addition, a NCIG newsletter prepared by NCIG is distributed to surrounding residents of the suburbs of Fern Bay, Stockton, Mayfield and Carrington on a regular basis to provide residents with general information on the Project and to notify residents of the Project operation commencement and ongoing activities. The newsletters typically include details (e.g. telephone number, postal address and email address) for registering community complaints and enquiries.

5.7.1 Complaint Register

All complaints are recorded in the Complaints Register including:

▪ The date and time, where relevant, of the complaint;
▪ The means by which the complaint was made (telephone, mail or email);
▪ Any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
▪ The nature of the complaint;
▪ A record of any operational or meteorological conditions that may have potentially contributed to the complaint; and
▪ Any consultation undertaken with PWCS as a result of the complaint as part of the Coordinated Environmental Monitoring and Management Protocol (provided in Appendix F).

5.7.2 Complaint Assessment Procedure

Within two working days of a complaint being registered, an initial response is provided to the complainant and a preliminary assessment will commence to determine likely causes of the complaint using relevant available information (i.e. climatic conditions, environmental monitoring results and current operation activities). Discussions will also be held with Port Waratah Coal Services, where required, to confirm the source of the complaints and share corrective actions.

5.7.3 Complaint Management and Review

If following the preliminary assessment, the complaint is determined to be due to exceedance of relevant Project Approval or EPL criteria, the Manager – HSEC will implement corrective actions as identified in Section 5.8.

The outcome of the complaints handling process is recorded in the Complaints Register, including:

▪ Any action(s) taken by NCIG in relation to the complaint, including any follow-up contact
with the complainant;

- If no action was taken by NCIG in relation to the complaint, the reason(s) why no action was taken; and

- Any action undertaken by PWCS as a result of the complaint as part of the Coordinated Environmental Monitoring and Management Protocol (provided in Appendix L).

Every effort is made to ensure that concerns are addressed in a manner that results in a mutually acceptable outcome.

5.8 Corrective Action

If corrective actions are identified as a result of monitoring activities, audit and inspection results, compliance tracking, community complaints or HSEC Plan progress reports, the HSEC Department or Manager – HSEC will determine appropriate management strategies and implementation of contingency measures in consultation with other departments. This same process is applied as an outcome of management review of environmental management measures, as discussed in Section 5.10. These will be in addition to those implemented as part of normal operational activities.

Corrective actions are also identified for environmental incidents. This process will be implemented in accordance with the NCIG Hazard and Incident Management Procedure (HSEC.PRO.13.01) and the Trigger Action Response Procedure.

5.9 Reporting

5.9.1 Notification

As identified in Section 4.1.1, government agencies, including the Director-General, will be notified of incidents of material environmental harm or potential significant offsite impacts on people or the biophysical environment. This includes legislative requirements to notify the EPA and other government agencies for material environmental harm incident (see NCIG Emergency Management Procedure – HSEC.PRO.14.01 and Spill and Pollution Incident Response Management Plan – HSEC.MP.13.04).

5.9.2 Annual Environmental Management Report

NCIG prepare an Annual Environmental Management Report (AEMR) that reviews the performance of the NCIG CET operations against this OEMP, as well as construction activities and compensatory habitat measures. The report provides an overview of environmental management actions and summarises monitoring results over the 12 month reporting period. The AEMR will be distributed to relevant government agencies and stakeholders, and copies provided to other interested parties if requested. A copy is made available on the NCIG website.
5.9.3 Independent Environmental Auditing

In accordance with Condition 5.1, Schedule 2, of the Project Approval (06_0009), a Compliance Tracking Program has been prepared and implemented to track the compliance of the Project with the conditions of the Project Approval (06_0009). Periodic reviews of the Project’s compliance status will be audited by the HSEC Department, as instructed by the Manager – HSEC. In accordance with Condition 6.4, Schedule 2 of the Project Approval (06_0009), the Compliance Tracking Program is made available on the NCIG website.

An Independent Environmental Audit is conducted on a 3-yearly basis (or as otherwise agreed by the Director General) in accordance with Condition 5.1(c), Schedule 2, of the Project Approval (06_0009). The Independent Environmental Audit is conducted by a suitably qualified independent person in accordance with international standard ISO 19011:2002 Guidelines for Quality and/or Environmental Management Systems Auditing (International Organization for Standardization 2002).

In accordance with Condition 5.1(d), Schedule 2 of the Project Approval (06_0009), a Non-Compliance Response Mechanism has been prepared as part of the Compliance Tracking Program. The Non-Compliance Response Mechanism will be implemented in the event that non-compliance with the conditions of the Project Approval (06_0009) is identified during the periodic reviews of the Project’s compliance status, Independent Environmental Audit or by the NCIG Manager – HSEC. The objective of the Non-Compliance Response Mechanism is to rectify any identified non-compliance. The NCIG Manager – HSEC will be responsible for the implementation of the Non-Compliance Response Mechanism.

5.9.4 Internal Reporting

The HSEC Department will prepare regular reports on environmental management measures and monitoring results. Weekly HSEC Reports are distributed to the business with monitoring results of key environmental parameters, eg. dust levels, water usage etc. Quarterly HSEC Reports are prepared for the Board of Directors, which is reviewed by the ELT. This report includes performance of the Sustainable Development Management Plan (SDMP), including environmental management measures and performance.

5.9.5 External Reporting

NCIG prepares other regular reports for external parties. These reports are:

- EPL Annual Return – annual
- National Pollutant Inventory (NPI) reporting – annual
- National Greenhouse Gas and Energy (NGER) reporting – annual
- Other reports required by Compensatory Habitat obligations – quarterly or annual
Where applicable, these reports are made available on the NCIG website.

5.10 General Review

Ongoing review and attainment of feedback in regard to environmental measures is undertaken to ensure that the SDMP is meeting its targets and objectives. Any improvements deemed necessary will be identified and SDMP documentation will be updated to reflect this.

5.10.1 Management Review

The ELT reviews progress and health of environmental management measures on a quarterly basis in line with the Quarterly HSEC Report prepared for the NCIG Board. In addition, Key Result Areas (KRAs) and objectives are set during the business planning process (see Section 3.3), to ensure that statements within the Sustainable Development Policy are being achieved. Information used to develop KRAs and objectives include:

- Legislative requirements;
- Performance against environmental objectives and targets in the HSEC Plan;
- Compliance assessment;
- Environmental monitoring results;
- Results of environmental auditing and trends of non-conformance;
- Monitoring of environmental statistics;
- Environmental incidents
- Corrective actions;
- Community complaints;
- Other current environmental issues and concerns;

The above is consistent with the NCIG Management Planning, Monitoring and Review Procedure (HSEC.15.02). As with general review of environmental management measures, improvements deemed necessary by management will be identified and SDMP documentation will updated to reflect this.
6. REFERENCES

- Department of Environment and Conservation NSW 2006, Approved methods for the sampling and analysis of air pollutants in New South Wales, Environment Protection Authority (NSW), Sydney.

- Department of Infrastructure, Planning and Natural Resources 2004, Guideline for the preparation of environmental management plans, Department of Infrastructure, Planning and Natural Resources, Sydney.

- International Organization for Standardization 2002, Guidelines for quality and/or environmental management systems auditing (ISO 19011:2003), International Organization
for Standardization, Geneva.


Appendix A – Sustainable Development Policy
Appendix B – OEMP Compliance with Project Approval 06_0009
Table 3. Project Approval (06_0009)

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>CONDITION DETAIL</th>
<th>SECTION OF OEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>Prior to the commencement of operation of the project, the Proponent shall develop and submit for the approval of the Director-General and the DEC, an Ambient Dust Monitoring Program, to outline how the ambient dust impacts of the project will be monitored. The Program shall include, but not necessarily be limited to:</td>
<td>ODAQMP</td>
</tr>
<tr>
<td></td>
<td>a) identification of an integrated air quality monitoring network, developed in consultation with the owner/operator of the existing Kooragang Coal Terminal;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) locations, frequencies and methods for monitoring total suspended particles, PM_{10} and deposited particulate matter;</td>
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</tr>
<tr>
<td></td>
<td>c) provision for the use of at least four hi-volume air samplers (HVAS), four dust depositional gauges and a meteorological station capable of monitoring wind direction and speed in accordance with condition 2.8 and condition 3.1 of this approval;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) investigation of the use of Tapered Element Oscillating Microbalance Samplers (TEOMS) as part of the integrated air quality monitoring network. Should the Proponent consider TEOMS not to be required, the Proponent may seek approval from both the Director-General and the DEC to exclude this requirement. In seeking such an exclusion, the Proponent’s reasons for the exclusion shall be provided and be fully justified;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e) provided that the use of TEOMS is proven to be justified (as outlined in d) above), the Proponent shall utilise real-time monitoring data to inform environmental management decisions associated with the project;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f) a framework for identifying actual and potential dust impacts, and for applying proactive and reactive mitigation and management measures to address those impacts;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>g) provision for independent review and auditing of the Program; and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>h) mechanisms for updating the Program as may be required from time to time.</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Following one full year of data collection in accordance with an approved Ambient Dust Monitoring Program (refer to condition 3.2), the Proponent shall undertake a model validation study to review TSP, PM_{10} and dust deposition levels to assess compliance with the dust impact predictions made in the documents referred to under condition 1.1 and with applicable ambient air quality goals. The model validation study shall be undertaken in accordance with Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005), and any specific requirements of the DEC.</td>
<td>ODAQMP</td>
</tr>
<tr>
<td>CONDITION</td>
<td>CONDITION DETAIL</td>
<td>SECTION OF OEMP</td>
</tr>
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<td>-----------</td>
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</tr>
<tr>
<td>3.4</td>
<td>Within 28 days of conducting the dust validation study referred to under condition 3.3 of this approval, the Proponent shall provide the Director-General and the DEC with a copy of the report. If the dust validation study identifies significant deviance from the predictions made in the documents referred to under condition 1.1 or any exceedance with ambient air quality goals, the Proponent shall detail what additional measures would be implemented to further mitigate dust impacts. The Proponent shall clearly indicate who would implement these measures, when these measures would be implemented, and how the effectiveness of these measures would be assessed and reported to the Director-General.</td>
<td>ODAQMP</td>
</tr>
<tr>
<td>3.5</td>
<td>The requirements of conditions 3.3 and 3.4 shall be repeated once one year of dust monitoring data is available after the project exceeds an export rate of 33 million tonnes of coal per annum.</td>
<td>ODAQMP</td>
</tr>
</tbody>
</table>
| 3.6       | Within 90 days of the commencement of operation of the project, or as otherwise agreed by the Director-General, and during a period in which the project is operating under normal operating conditions, the Proponent shall undertake a program to confirm the noise performance of the project. The noise program 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 2.13 of this approval.  
  b) methodologies, locations and frequencies for noise monitoring;  
  c) identification of monitoring sites at which pre- and post-project noise levels can be ascertained;  
  d) details of any complaints and enquiries received in relation to noise generated by the project within the first 90 days of operation;  
  e) an assessment of night-time use of audible alarm systems;  
  f) a statement of whether the Site is in compliance with noise limits outlined in condition 2.13; and  
  g) any additional noise mitigation measures and timetables for implementation.                                                                                                                                                                                                                                                                                                                                 | ONMP            |
| 3.7       | Within 28 days of conducting the noise monitoring referred to under condition 3.6 of this approval, the Proponent shall provide the Director-General and the DEC with a copy of the report. If the noise monitoring report identifies any non-compliance with the noise limits imposed under this approval (refer condition 2.13), the Proponent shall detail what additional measures would be implemented to ensure compliance, clearly indicating who would implement these measures, when these measures would be implemented, and how the effectiveness of these measures would be measured and reported to the Director-General.                                                                                                                                                                                                                   | ONMP            |
| 3.8       | The requirements of conditions 3.6 and 3.7 shall be repeated within 90 days of the project exceeding an export rate of 33 million tonnes of coal per annum.                                                                                                                                                                                                                                                                                                                                                                                                             | ONMP            |
Prior to the commencement of operation of the project, or within such period as otherwise agreed by the Director-General, the Proponent shall develop, in consultation with owner/operator of the existing Kooragang Coal Terminal, a Coordinated Environmental and Management Protocol to provide a framework for the coordinated and cooperative monitoring and management of environmental impacts from the developments. The Protocol shall include, but not necessarily be limited to:

a) procedures for access to, and provision of, monitoring data from each development, particularly in relation to dust and noise emissions;

The Proponent shall participate in any cumulative dust study that may be commissioned by the Department, in consultation with DEC. Any such study shall be focused on cumulative dust impacts from major port and industrial sources in the Lower Hunter Estuary on potentially affected residential and sensitive receptors, with specific reference to receptors in Fern Bay, Stockton, Mayfield and Carrington. The extent of the Proponent’s involvement in such a study shall be agreed with and to the satisfaction of the Director-General, and shall include, but not necessarily be limited to:

a) provision of monitoring data associated with the environmental performance of the project;

b) provision of management and auditing documentation associated with the project and relevant to the study;

c) access to the project and relevant technical and environmental experts associated with the project;

d) arrangements for any financial contributions to cover the reasonable expenses associated with the study; and

e) such other matters as the Proponent and the Director-General may agree.

Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints and enquiries for the life of the project (including construction and operation):

a) a telephone number on which complaints and enquiries about construction and operational activities at the Site may be registered;

b) a postal address to which written complaints and enquiries may be sent; and

c) an email address to which electronic complaints and enquiries 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. The information is also to be provided on the Proponent’s website.
<table>
<thead>
<tr>
<th>CONDITION</th>
<th>CONDITION DETAIL</th>
<th>SECTION OF OEMP</th>
</tr>
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</table>
| 6.3       | The Proponent shall record details of all complaints received through the means listed under condition 6.2 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)  record of operational and meteorological condition contributing to the complaint;  
  f)  any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact made with the complainant; and  
  g)  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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | OEMP            |
| 7.5       | Prior to the commencement of operation of the project, the Proponent shall prepare and submit for the approval of the Director-General an **Operation Environment Management Plan** (OEMP) to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with the Department’s **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 operation including an indication of stages of operation, where relevant;  
  b)  statutory and other obligations that the Proponent is required to fulfil during operation 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 operations 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 operation; and  
    iii)  measures to monitor and control noise emissions during operation.  
  d)  a description of the roles and responsibilities of all relevant employees involved in the operation of the project;                                                                                                                                                                                                                                                                                                                                                                           | OEMP            |
### Condition 7.6

As part of the Operation Environmental Management Plan for the project required under condition 7.5 of this approval, the Proponent shall prepare and implement the following:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition Detail</th>
<th>Section of OEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>e)</td>
<td>the additional studies listed under condition 7.6 of this approval; and</td>
<td>ONMP, ODAQMP, OWMP</td>
</tr>
<tr>
<td>f)</td>
<td>complaints handling procedures during operation.</td>
<td>OEMP</td>
</tr>
</tbody>
</table>

#### a) Dust Management Plan
- To outline measures to minimise and manage any impacts from the operation of the project on local air quality.  
  - Section: ODAQMP

#### b) Noise Management Plan
- To outline monitoring, management procedures and measures to minimise total operational noise emissions from the project.  
  - Section: ONMP

#### c) Water Management Plan
- To outline the water management system for the Site.  
  - Section: OWMP

#### d) Spontaneous Combustion Management Protocol
- To outline measures to minimise and manage the spontaneous combustion of the coal stockpiles.  
  - Section: OSCMP