

# Infrastructure Approval

## Section 5.19 of the *Environmental Planning & Assessment Act 1979*

I grant approval to the application for carrying out the specified development associated with the Critical State Significant Infrastructure (CSSI) development referred to in Schedule 1, subject to the conditions in Schedules 2 to 4.

These conditions are required to:

- prevent, minimise 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 development.

**Minister for Planning and Public Spaces**

Sydney

2019

Red type represents April 2020 modification – MOD 1

### SCHEDULE 1

<b>Application Number:</b>	SSI 9471
<b>Proponent:</b>	Australian Industrial Energy
<b>Approval Authority:</b>	Minister for Planning and Public Spaces
<b>Land:</b>	The land defined in Appendix 1
<b>Development:</b>	Port Kembla Gas Terminal
<b>Critical State Significant Infrastructure</b>	Development of the Port Kembla Gas Terminal as described in schedule 5, clause 10 of <i>State Environmental Planning Policy (State and Regional Development) 2011</i>

## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>3</b>
<b>ADMINISTRATIVE CONDITIONS</b>	<b>5</b>
Obligation to minimise harm to the environment	5
Terms of approval	5
Lapse of approval	5
Limits on Operations	5
Notification	5
Structural adequacy	5
Pipeline Construction and Operation	6
Demolition	6
Protection of public infrastructure	6
Operation of plant and equipment	6
<b>SPECIFIC ENVIRONMENTAL CONDITIONS</b>	<b>7</b>
Soil and Water Management	7
Spoil Management	8
Traffic	9
Heritage	10
Biodiversity	10
Hazards and Risk	10
Amenity	12
Waste	14
Decommissioning and Rehabilitation	14
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>15</b>
Environmental Management	15
Incident Notification	16
Non-Compliance notification	16
Reporting	16
Independent Environmental Audit	16
Access to information	17
<b>APPENDIX 1 – SCHEDULE OF LAND</b>	<b>17</b>
<b>APPENDIX 2 – DEVELOPMENT LAYOUT PLANS</b>	<b>19</b>

## DEFINITIONS

BCA	Building Code of Australia
BCT	NSW Biodiversity Conservation Trust
BCD	<b>Biodiversity and Conservation Division with the Department</b>
Calendar year	A period of 12 months commencing on 1 January
Conditions of this approval	Conditions contained in schedules 2 to 4 inclusive
Construction	All physical works associated with the development, including but not limited to demolition and removal of buildings or works, erection or installation of buildings and infrastructure, road upgrades, and the carrying out of works, but excluding pre-construction minor works
Commencement of Operations	Operations start when the first shipment of LNG is transferred to the FSRU
Council	Wollongong City Council
Decommissioning	The demolition and/or removal of buildings, infrastructure and works installed for the development
Department Development	Department of Planning, <b>Industry</b> and Environment The development described in the EIS as modified by the conditions of this approval
Disposal Area	The disposal area in the Outer Harbour of Port Kembla listed in Appendix 1 and shown in Appendix 2
DPIE Water	<b>Water Group within the Department</b>
DPI Fisheries	<b>NSW Department of Primary Industries - Fisheries</b>
EIS	<b>The Environmental Impact Statement titled <i>Port Kembla Gas Terminal Volume 1 Environmental Impact Statement</i> dated November 2018 and associated:</b> <ul style="list-style-type: none"> <li>• <b>submissions report titled <i>Port Kembla Gas Terminal Submissions Report</i> dated February 2019;</b></li> <li>• <b>biodiversity assessment titled <i>Australian Industrial Energy Port Kembla Gas Terminal Biodiversity Development Assessment Report</i>, dated February 2019;</b></li> <li>• <b>letter from AIE dated 19 February 2019;</b></li> <li>• <b>letter from GHD, <i>Port Kembla Gas Terminal Marine Growth Protection System</i>, dated 19 February 2019; and</b></li> <li>• <b>emails from AIE dated 26 February 2019 titled <i>Total Residual Chlorine, Other Technology Alternatives, and Scenarios for Marine Diesel</i>.</b></li> </ul> <b>as modified by:</b> <ul style="list-style-type: none"> <li>• <b>the modification report titled <i>Port Kembla Gas Terminal Proposed Modification Environmental Assessment</i> dated November 2019, and associated submissions report dated January 2020</b></li> </ul>
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the POEO Act
Feasible	Means what is possible and practical in the circumstances
FSRU	Floating Storage and Regassification Unit
Gas Pipeline	The gas pipeline located on the land listed in Appendix 1 and shown In Appendix 2
Heavy vehicle	A vehicle that has a gross vehicle mass (GVM) or aggregate trailer mass (ATM) of more than 4.5 tonnes and a combination that includes a vehicle with a GVM or ATM of more than 4.5 tonnes (as defined under the Heavy Vehicle National Law (NSW))
Heritage item	An Aboriginal object or an Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i> , or a place, building, work, relic, moveable object, tree or precinct of heritage significance, that is listed under any of the following: the State Heritage Register under the <i>Heritage Act 1977</i> , a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i> , or anything identified as a heritage item under the conditions of this approval
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
LNG	Liquified Natural Gas
LNG carrier	A ship that is designed for the transport of LNG in refrigerated tanks
Material harm	Is unauthorised harm that: <ul style="list-style-type: none"> <li>• involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or</li> </ul>

	<ul style="list-style-type: none"> <li>• results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)</li> </ul>
Maximise	Implement all reasonable and feasible measures to achieve the specified outcome
Minimise	Implement all reasonable and feasible measures to reduce the impacts of the development
Minister Mitigation	Minister for Planning and Public Spaces (or delegate) Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Non-compliance	An occurrence, set of circumstances, or development that is a breach of this approval
NSW Ports	Port Kembla Operations Pty Limited
OEH	<del>Office of Environment and Heritage</del>
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
Pre-construction minor works	Includes the following activities: <ul style="list-style-type: none"> <li>• survey works;</li> <li>• establishing a temporary site office;</li> <li>• installation of environmental impact mitigation measures, including the installation of monitoring equipment, erosion and sediment controls, and fencing;</li> <li>• minor clearing or translocation of native vegetation within the approved disturbance footprint for the pre-construction minor works.</li> </ul>
Proponent	Australian Industrial Energy, or any person carrying out any development to which this approval applies
Reasonable	Means applying judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, ensuring it is safe, stable and non-polluting
RMS	Roads and Maritime Services
Site	All land to which the development applies as listed in Appendix 1 and shown in Appendix 2

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## **SCHEDULE 2 ADMINISTRATIVE CONDITIONS**

### **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all reasonable and feasible measures to prevent, and if prevention is not reasonable or feasible, minimise any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this approval.

### **TERMS OF APPROVAL**

1. The Proponent must carry out the development:
  - (a) generally in accordance with the EIS; and
  - (b) in accordance with the conditions of this approval.

*Note: The general layout of the development is shown in Appendix 2.*
2. If there is any inconsistency between the documents in condition 2 above, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this approval will prevail to the extent of any inconsistency.
3. The Proponent must comply with any reasonable requirement/s of the Planning Secretary arising from the Department's assessment of:
  - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval (including any stages of these documents);
  - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this approval; and
  - (c) the implementation of any actions or measures contained in these documents.

### **LAPSE OF APPROVAL**

4. This approval will lapse if the Proponent does not physically commence the development within 5 years of the date on which it is granted.

### **LIMITS ON OPERATIONS**

5. The Proponent must not import more than 52 shipments of liquefied natural gas from LNG carriers in any calendar year.
6. The gas pipeline must not be operated at a pressure exceeding 12 megapascals (MPaG).
7. Unless otherwise authorised by Commonwealth law, the Proponent must not operate the FSRU using marine diesel oil for more than 72 hours in any calendar year while berthed at the site, and must maintain records of the hours that marine diesel oil is used to power the FSRU to track compliance against this condition.

### **NOTIFICATION**

8. The Proponent must notify the Department in writing of the date of commencement of:
  - (a) pre-construction minor works;
  - (b) construction of the development;
  - (c) commissioning of the pipeline;
  - (d) commencement of operations;
  - (e) the decommissioning of the development and rehabilitation of the site.

### **STRUCTURAL ADEQUACY**

9. The Proponent must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

*Notes:*

- Under Part 6 of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and

- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

#### **PIPELINE CONSTRUCTION AND OPERATION**

10. The Proponent must design and construct the gas pipeline in accordance with the relevant Australian Standards, in particular *AS2885 Pipelines – Gas and Liquid Petroleum*, or its latest version.

#### **DEMOLITION**

11. The Proponent must ensure that all demolition work is carried out in accordance with *AS 2601-2001: The Demolition of Structures*, or its latest version.

#### **PROTECTION OF PUBLIC INFRASTRUCTURE**

12. Unless the Proponent and the applicable authority agree otherwise, the Proponent must:
  - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

#### **OPERATION OF PLANT AND EQUIPMENT**

13. The Proponent must ensure that all plant and equipment used on site, or to monitor the performance of the development is:
    - (a) maintained in a proper and efficient condition; and
    - (b) operated in a proper and efficient manner.
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## SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

### SOIL AND WATER MANAGEMENT

#### Water Pollution

1. Unless an environment protection licence authorises otherwise, the Proponent must comply with Section 120 of the POEO Act.

*Notes:*

*Section 120 of the POEO Act makes it an offence to pollute any waters.*

*The EPA has recommended the following limits for water pollutants should apply for the development: an equivalent suspended sediment of no more than 50 mg/L above background turbidity levels during the construction stage;*

*No more than 20 ug/L of Total Residual Chlorine and a temperature of no less than 7o C below ambient water temperature for water discharges from the FSRU.*

#### Aquatic Habitat

2. The Proponent must design and construct the water intake on the FSRU to minimise entrainment of aquatic organisms and plankton.

#### Discharge Limits

- 2A. The water discharge rate from the FSRU from the regasification process must not exceed 13,000 cubic metres per hour.
- 2B. The average annual water discharge rate from the FSRU from the regasification process must not exceed 8,125 cubic metres per hour.

#### Water Quality Verification and Monitoring Program

3. Prior to the commencement of operations, the Proponent must prepare a Water Quality Verification and Monitoring Program, in consultation with the EPA and DPI Fisheries and to the satisfaction of the Planning Secretary. The verification program must:
  - (a) describe the water quality monitoring that would be undertaken to:
    - verify the assumptions and parameters used to model water discharges, including intake and ambient water quality variables;
    - confirm whether discharges comply with a total residual chlorine (TRC) concentration of no more than 20 ug/L and temperature limit of no less than 7 degrees Celsius below ambient water temperature, under the full range of operating conditions and during all seasons;
    - determine acute toxicity risks in the immediate area around the discharge point from sodium hypochlorite by-products generated by the antifouling system;
    - verify the TRC concentrations and temperature differential at the edge of the near field mixing zone comply with the guideline trigger values assessed in the EIS and that the impacts from water discharges from the FSRU are no greater than predicted in the EIS;
    - determine the impacts on marine biota from the water intake;
  - (b) assess the suitability of in-situ TRC monitoring to achieve a detection level below 20 ug/L;
  - (c) assess toxicity risks associated with the full range of sodium hypochlorite by-products;
  - (d) model the potential cumulative temperature impacts on Port Kembla Harbour, using a calibrated thermal plume model and validated model predictions based on the results of the monitoring program;
  - (e) verify that impacts from water discharges from the FSRU are no greater than predicted in the EIS;
  - (f) if required, recommend any modification to the proposed discharge limit(s) in the EPL for TRC and temperature based on the results of the verification program;
  - (g) if required, identify contingency measures that will be implemented to address any exceedances of predicted cold water impacts or TRC concentrations, residual risk of acute toxicity or chemical by-products or measures to reduce the entrainment of marine biota in the water intakes, including the timing for implementation of these measures;
  - (h) evaluate the effectiveness of the monitoring program and make recommendations for ongoing discharge and ambient water quality monitoring and management, including trigger levels for investigating and responding to any potential or actual adverse impacts associated with discharges on water quality and the ecology of Port Kembla Harbour; and
  - (i) include routine and milestone reporting procedures for the results of the verification program, including a final report to be prepared in consultation with EPA and DPI Fisheries within 18 months of the commencement of operations, unless otherwise agreed by the Secretary.
4. The Proponent must implement the approved Water Quality Verification and Monitoring Program

### **Soil Erosion**

5. The Proponent must minimise any soil erosion associated with the construction of the development in accordance with the relevant requirements in the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual, or its latest version.

### **Acid Sulphate Soils**

6. The Proponent must ensure that any construction activities in identified areas of acid sulphate soil risk are undertaken in accordance with *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998).

### **SPOIL MANAGEMENT**

7. The Proponent must not transport more than 360,000 cubic metres of spoil to the disposal area by road and must maintain records of the volume of spoil transported by road to track compliance against this condition.

### **Emplacement Cell Design Objectives**

8. Emplacement cells must be designed and constructed to:
  - (a) prevent dispersal of sediments;
  - (b) minimise the potential for contaminant mobilisation;
  - (c) prevent acid generation from emplaced materials;
  - (d) withstand dumping of dredge/excavated material, tidal movements and extreme weather events; and
  - (e) ensure that contaminated materials are not used for cell bunding and that the potential for acute and chronic toxicity impacts to marine life that might colonise the outer bunds is minimised.

### **Emplacement Cell Report**

9. Prior to the commencement of dredging, disposal and emplacement activities, the Proponent must prepare an Emplacement Cell Report to the satisfaction of the Planning Secretary. This report must be prepared in consultation with the EPA, NSW Ports, **DPiE Water**, the Port Authority of NSW and an EPA accredited site auditor, and must:
  - (a) be prepared by a suitably qualified and experienced expert/s approved by the Planning Secretary;
  - (b) include details of the emplacement cell design and construction methodology, including the final shape, depth and capping;
  - (c) demonstrate that the design would achieve the performance objectives in condition 8 of this schedule, including a description of the measures to be implemented to achieve this outcome;
  - (d) includes details of the stormwater drainage design for managing runoff and tidal flows from and into stormwater systems discharging into the disposal area, including the Salt Creek and Darcy Road drains;
  - (e) describe the contingency measures that would be implemented in the event of a failure or deficiency; and
  - (f) include details of the process and timing for transferring responsibility for the long-term monitoring and maintenance of the emplacement cells to NSW Ports or another entity.

### **Emplacement Cell Audit**

10. The Proponent must engage a suitably qualified and experienced person to audit the construction of the emplacement cells and the emplacement of dredged sediments at the completion of each of the following stages:
  - (a) the dredging and relocation of existing spoil within the disposal area;
  - (b) construction of bunds within and around the disposal area;
  - (c) emplacement of dredged and excavated spoil in the disposal area; and
  - (d) the emplacement cell capping.

The auditor must provide the Planning Secretary with a report within one month of each audit confirming that the cell construction and sediment emplacement are in accordance with the conditions of this approval and the Emplacement Cell Report required under condition 9 of this approval.

### **Spoil Management Plan**

11. Prior to the commencement of construction, the proponent must prepare a Spoil Management Plan to the satisfaction of the Planning Secretary and in consultation with the EPA, **DPiE Water**, NSW Ports, Port Authority of NSW and, an EPA accredited contaminated site auditor. The plan must be consistent with the Emplacement Cell Report and include:
  - (a) a Contaminated Spoil Protocol that includes:

- procedures for identifying and managing unexpected finds of contaminated or asbestos containing materials along the pipeline route and at Berth 101;
  - a strategy for addressing any contamination that has been encountered, if required (including the remediation and/or removal of contaminated soil or groundwater); and
  - details on how environmental and health risks will be mitigated and managed; and
- (b) a Dredge and Excavation Management Plan that:
- includes an investigation of all reasonable and feasible measures to reduce the road haulage of spoil;
  - describes all activities to be undertaken during dredging, excavation and disposal works;
  - describes in detail the location and depth of disposal areas during all stages of construction, including the final form of the emplaced material;
  - includes procedures for handling, transporting, storing and disposing of dredge and excavated material, including:
    - potentially acid forming material;
    - contaminated material;
    - asbestos containing materials; and
  - includes a description of measures that would be implemented to:
    - minimise the generation and dispersion of sediments during dredging and disposal;
    - minimise soil erosion and discharge of sediment and other pollutants to lands and/or Port Kembla harbour;
    - monitor and manage odours and air emissions during handling of sediments or from stored material prior to emplacement within the disposal area; and
  - includes contingency measures in the event of a failure of the silt curtains; and
- (c) a Water Quality Monitoring Plan that includes:
- a description of the water quality monitoring that would be undertaken to monitor turbidity and pollutant concentrations surrounding dredging and disposal works, including real-time turbidity monitoring;
  - a broader program to monitor harbour-wide water quality trends and the ecological health of Port Kembla Harbour;
  - objectives and performance criteria, including trigger levels for investigating any potential or actual adverse impacts associated with construction activities on water quality and the ecology of Port Kembla Harbour;
  - a plan to respond to any exceedances of the trigger levels and/or performance criteria, and minimise any adverse water quality impacts of the development; and
  - reporting procedures for the results of the monitoring program.
12. The Proponent must implement the approved Spoil Management Plan for the development.
13. At the completion of any dredging, excavation and disposal works, the Proponent must engage a site auditor accredited by the EPA to issue a Section A Site Audit Statement confirming the suitability of the site for its intended use.
14. The Proponent must notify the Department and the EPA when responsibility for the emplacement cells is transferred to NSW Ports, or another entity approved by the Department, and provide evidence that NSW Ports or another entity has accepted that responsibility.

## TRAFFIC

### Construction Traffic Management Plan

15. Prior to the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must prepare a Construction Traffic Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:
- (a) be prepared in consultation with RMS, NSW Ports and Council;
  - (b) include details of the transport route to be used for all construction traffic;
  - (c) include details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction works, including:
    - facilitating the use of barges to transfer spoil to the disposal site;
    - temporary traffic controls, including detours and signage;
    - ensure loaded vehicles entering or leaving the site have their loads covered or contained;
    - minimise dirt being tracked on the public road network from development-related traffic;
  - (d) includes a driver's code of conduct that addresses:
    - travelling speeds;
    - driver fatigue;
    - procedures to ensure that drivers adhere to the designated transport route/s; and
    - procedures to ensure that drivers implement safe driving practices;

16. The Proponent must implement the approved Construction Traffic Management Plan for the development.

## HERITAGE

### Protection of Heritage Items

17. The Proponent must ensure the development does not cause any direct or indirect impacts on heritage items located outside the approved development footprint.

### Unexpected Finds Protocol – Heritage

18. Prior to commencement of construction, the Proponent must prepare an Unexpected Finds Protocol for managing heritage items identified during construction of the development, in consultation with BCD and the Illawarra Local Aboriginal Land Council, to the satisfaction of the Planning Secretary.

### Discovery of Human Remains

19. If human remains are discovered on site, then all work surrounding the area must cease, and the area must be secured. The Proponent must notify BCD as soon as possible following the discovery, and work must not recommence in the area until this is authorised by BCD.

## BIODIVERSITY

### Biodiversity Offsets

20. Prior to the commencement of construction, unless otherwise agreed by the Planning Secretary, the Proponent must retire biodiversity credits of a number and class specified in Table 1 and Table 2 below in consultation with BCD and to the satisfaction of BCT.

The retirement of these credits must be carried out in accordance with the *NSW Biodiversity Offsets Scheme* and can be achieved by:

- (a) acquiring or retiring 'biodiversity credits' within the meaning of the *Biodiversity Conservation Act 2016*;
- (b) making payments into an offset fund that has been developed by the NSW Government; or
- (c) funding a biodiversity conservation action that benefits the threatened entity impacted by the development, consistent with the 'Ancillary Rules: Biodiversity conservation actions'.

Table 1: Ecosystem Credit Requirements

<b>Vegetation Community</b>	<b>PCT ID</b>	<b>Credits Required</b>
Woollybutt – White Stringybark – Forest Red Gum grassy woodland	1326	3

Table 2: Species Credit Requirements

<b>Species</b>	<b>Credits Required</b>
Southern Myotis ( <i>Myotis macropus</i> )	2
Green and Golden Bell Frog ( <i>Litoria aurea</i> )	1

## HAZARDS AND RISK

### Final Hazard Studies

21. Prior to the commencement of construction of the gas pipeline and commencement of operations, **unless otherwise agreed by the Secretary**, the Proponent must prepare and submit to the satisfaction of the Planning Secretary a:
- (a) Fire Safety Study for the development covering all relevant aspects of the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines'* and the New South Wales Government's *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*. The Fire Safety Study must be developed in consultation with Fire and Rescue NSW and the Port Authority of NSW and must include:
    - consequence analysis (including appropriate consequence diagrams) for all potential fire and explosion scenarios on the FSRU throughout its operation, including but not limited to, fire or explosion from escalation events;
    - consequence analysis (including appropriate consequence diagrams) for all potential fire and explosion scenarios when an LNG Carrier is entering or exiting the Inner Harbour or Outer Harbour of Port Kembla and during transfer operations when alongside the FSRU;

- consequence analysis (including appropriate consequence diagrams) for all potential fire and explosion scenarios at Berth 101 and the gas pipeline including, but not limited to, incidents arising from equipment and operations when odorant is added to natural gas;
  - details of all fire engineering controls and measures including but not limited to:
    - all relevant fire and gas detection and protection systems required under class society rules for the FSRU;
    - all relevant fire and gas detection and protection systems for the onshore operation;
  - details of the roles and duties of various parties if a fire, explosion or spillage occur, particularly occur within the harbour area; and
  - details and outcomes of the review of the Port Kembla firefighting service in relation to berth firefighting capacity and Fire Fighting Tugs (FFT).
- (b) Hazard and Operability Study (HAZOP) for the development. The study must:
- **be prepared in consultation with the Port Authority of NSW;**
  - be prepared by a suitably qualified and experienced person/s who is independent of the development and has been approved by the Planning Secretary;
  - be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'*;
  - be accompanied by a program for the implementation of all recommendations made in the report;
  - include safety related recommendations for the final design of the development. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented; and
  - where the detailed design of certain sections within the FSRU is not available, a Package Unit HAZOP must be conducted. This must also consider the tie-in and the flow-on effect for the remainder of the development.
- (c) Final Hazard Analysis of the development based on its final design, consistent with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'. The Final Hazard Analysis must be prepared in consultation with SafeWork NSW **and the Port Authority of NSW** and must:
- re-evaluate and confirm all relevant data and assumptions of the Preliminary Hazard Analysis, and provide details on any differences between the Preliminary Hazard Analysis and Final Hazard Analysis;
  - re-evaluate and confirm all control measures proposed for the prevention and mitigation of incidents;
  - include Safety Integrity Level (SIL) allocation and verification studies;
  - demonstrate the adequacy of the safety systems included in the final design;
  - re-evaluate the risk from the development based on the outcomes of the SIL allocation and verification report for the development;
  - include a risk assessment of the following:
    - the gas conditioning operation, including but not limited to addition of odorant to natural gas;
    - all potential escalation events;
    - cold venting operations;
    - the risk to the biophysical environment; and
    - the potential for propagation risk from and to other berths storing/receiving/transferring explosives or other dangerous goods;
  - provide details of measures that would be implemented to minimise the risk to the surrounding land, including negotiated arrangements with other stakeholders to implement appropriate risk reduction measures; **and**
  - **be undertaken based on recent site specific and local meteorological data;**
- (d) Construction Safety Plan, consistent with most recent Australian Standard AS 2885.1, Pipelines – Gas and liquid petroleum (Part 1: Design and construction). The plan must specifically address all safety measures related to construction, testing and commissioning; and
- (e) A Pipeline Safety Management Study, prepared in accordance with the Australian Standard AS 2885 - 2007, Pipelines – Gas and liquid petroleum. The study must be prepared in consultation with all relevant stakeholders including, but not limited to, Jemena.

22. The Proponent must design and operate the development in accordance with the approved Final Hazard Analysis.

### Safety Plans

23. Prior to the commencement of operations, the Proponent must prepare and submit to the satisfaction of the Planning Secretary:
- (a) an Emergency Plan and detailed emergency procedures for the development prepared in consultation with Safework NSW, Fire and Rescue NSW and the Port Authority of NSW. This plan must:

- be consistent with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'*;
  - include consideration of the safety of all people outside of the site that may be at risk from the development;
  - include a cold venting protocol; and
  - include details of the roles and responsibilities of key personnel and relevant agencies if an incident occurs; and
- (b) a Safety Management System that must be prepared in consultation with SafeWork NSW and must:
- be prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*;
  - cover all development operations, and must clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures;
  - include an inspection, testing and preventive maintenance program that would be implemented and maintained to ensure the reliability and availability of the key safety critical equipment is, at a minimum, consistent with the data estimated in the Final Hazard Analysis; and
  - includes a security plan developed in consultation with the Terrorism Protection Unit and the Major Hazard Facilities Unit of the Counter Terrorism and Special Tactics Command of the NSW Police Force.
24. Safety Management System records must be kept on-site and must be available for inspection at the request of the Planning Secretary.
25. The Proponent must implement the approved Emergency Plan and Safety Management System for the development.

#### **Post-Startup Compliance Report**

26. Three months after the commencement of operations, the Proponent must submit to the Planning Secretary, a report detailing compliance with that:
- (a) the Emergency Plan required under Condition 23(a) is effectively in place and that at least one emergency exercise has been conducted;
  - (b) actions have taken to implement the recommendations and safety-related control measures in the studies/plans/systems;
  - (c) the Safety Management System required under Condition 23(b) has been fully implemented and that records required by the system are being kept.

#### **AMENITY**

##### **Construction Hours**

27. Unless the Secretary agrees otherwise, the Proponent may only undertake construction activities on site between:
- (a) 7 am to 6 pm Monday to Friday;
  - (b) 8 am to 1 pm Saturdays; and
  - (c) at no time on Sundays and NSW public holidays.

The following construction activities may be undertaken outside these hours without the approval of the Secretary:

- (a) the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons;
- (b) emergency work to avoid the loss of life, property and/or material harm to the environment;
- (c) construction works that cause LAeq (15 mins) noise levels that are:
  - no more than 5 dB(A) above the rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009); and
  - no more than the noise management levels specified in Table 3 of the *Interim Construction noise Guideline* (DECC, 2009) at other sensitive land uses; and
  - continuous or impulsive vibration values, measured at the most affected residence, are no more than those for human exposure to vibration, specified in Table 2.2 of *Assessing vibration: a technical guideline* (DEC, 2006); and
  - intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of *Assessing vibration: a technical guideline* (DEC, 2006); or
- (d) where a negotiated agreement has been reached with affected receivers;

## Noise and Vibration

28. The Proponent must:
- (a) minimise the noise of the development, including any associated traffic noise;
  - (b) ensure that the construction noise generated by the development is managed in accordance with the best practice requirements outlined in the *Interim Construction Noise Guideline* (DECC, 2009), or its latest version; and
  - (c) implement all reasonable feasible mitigation measures to achieve the following construction vibration goals:
    - For structural damage vibration, the vibration limits set out in the German Standard *DIN 4150 Part 3 – 1999 Structural Vibration in Buildings – Effects on Structures*; or
    - For human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guidelines (DEC 2006).

## Lighting

29. The Proponent must:
- (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
  - (b) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*, or its latest version; and
  - (c) ensure the visual appearance of all ancillary infrastructure (including paint colours, specifications and screening) blends in as far as possible with the surrounding landscape.

## Air

30. The Proponent must ensure that no offensive odours are emitted from the development, as defined under the POEO Act.
31. The Proponent must minimise and/or prevent the:
- (a) dust emissions of the development, including wind-blown and traffic generated dust;
  - (b) surface disturbance of the development; and
  - (c) greenhouse gas emissions of the development.
32. The Proponent must ensure that air emissions from the development comply with the requirements of any EPL issued for the development.

## Air Quality Verification Program

- 32A. Prior to the commencement of operations, the Proponent must prepare an air quality verification program plan in consultation with the EPA and to the satisfaction of the Planning Secretary. The verification program must:
- (a) be undertaken in accordance with the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW* (Approved Methods), unless otherwise agreed by the EPA;
  - (b) identify how the assumptions and parameters used in the EIS air quality assessment will be verified;
  - (c) confirm whether point source emissions from the site and predicted ground level concentrations are consistent with the predictions in the EIS using operational data;
  - (d) include routine and milestone reporting procedures for the results of the verification program, including a final report to be prepared in consultation with EPA within 6 months of the commencement of operations, unless otherwise agreed by the Secretary; and
  - (e) if required, identify contingency measures that will be implemented to address any exceedances of predicted ground level concentrations and impacts on sensitive receivers, including the timing for implementation of these measures.

- 32B. The Proponent must implement the approved Air Quality Verification Program.

## Air Quality Management Plan

33. Prior to commencement of construction, unless otherwise agreed by the Secretary, the Proponent must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA;
  - (b) describe the measures that would be implemented to ensure compliance with the conditions of this approval and EPL including:
    - objectives and performance criteria, including trigger levels for investigating any potential or actual adverse impacts associated with air emissions;
    - proactive and reactive management measures for air emissions;
    - a plan to respond to any exceedances of the trigger levels and/or performance criteria, and minimise any adverse air quality impacts of the development

- (c) include an air quality monitoring program that includes:
  - a detailed description of the air quality monitoring that would be undertaken;
  - real-time dust monitoring during construction and point source discharge monitoring from the FSRU during operations;
  - a gas leak detection and repair program; and
  - reporting procedures for the results of the monitoring program.

34. The Proponent must implement the approved Air Quality Management Plan for the development.

**Meteorology**

35. Prior to commencement of construction, the Proponent must ensure that there is a suitable meteorological station operating in the vicinity of the site. The meteorological station must be maintained so as to be capable of continuously monitoring the following parameters: air temperature, wind direction, wind speed, rainfall, relative humidity, and any requirement specified in an EPL. Unless a suitable alternative is approved by the Secretary following consultation with the EPA, the meteorological station must be capable of monitoring weather conditions in accordance with:
- (a) AM-1 Guide to Siting of Sampling Units (AS 2922-1987);
  - (b) AM-2 Guide for Horizontal Measurement of Wind for Air Quality Applications (AS 2923-1987); and
  - (c) AM-4 On-Site Meteorological Monitoring Program Guidance for Regulatory Modelling Applications.

**WASTE**

36. The Proponent must:
- (a) minimise the waste generated by the development;
  - (b) classify all waste generated on site in accordance with the *Waste Classification Guidelines* (NSW EPA 2014), or its latest version;
  - (c) store and handle all waste generated on site in accordance with its classification; and
  - (d) ensure all waste is disposed of off-site at appropriately licenced facilities.

**DECOMMISSIONING AND REHABILITATION**

37. Within 18 months of the cessation of operations, unless the Planning Secretary agrees otherwise, the Proponent must rehabilitate the site in consultation with the NSW Ports and to the satisfaction of the Planning Secretary. This rehabilitation must comply with the objectives in Table 3.

Table 3: Rehabilitation Objectives

<b>Feature</b>	<b>Objective</b>
Site	<ul style="list-style-type: none"> <li>• Safe, stable and non-polluting</li> <li>• Remediate any contaminated land disturbed or caused by the development</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>• To be decommissioned and removed unless NSW Ports agrees otherwise.</li> </ul>
On-land emplacement areas	<ul style="list-style-type: none"> <li>• Remove all excavated material from on-land emplacement areas</li> </ul>
Land use	<ul style="list-style-type: none"> <li>• Retain use as a useable berth to the satisfaction of NSW Ports</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Ensure public safety</li> </ul>

**Progressive Rehabilitation**

38. The Proponent must:
- (a) rehabilitate the site progressively, as soon as reasonably practicable following disturbance;
  - (b) minimise the disturbance area at any time; and
  - (c) employ interim rehabilitation strategies to minimise dust generation, soil erosion and weed incursion on parts of the site that cannot yet be permanently rehabilitated;

## SCHEDULE 4 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

### ENVIRONMENTAL MANAGEMENT

#### Environmental Management Strategy

1. Prior to the commencement of construction, the Proponent must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary. This strategy must:
  - (a) provide the strategic framework for environmental management of the development;
  - (b) identify the statutory approvals that apply to the development;
  - (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (d) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the development being carried out;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (e) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring to be carried out in relation to the development.
2. The Proponent must implement the approved Environmental Management Strategy for the development.

#### Updating & Staging of Strategies, Plans or Programs

3. To ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development, the Proponent may submit revised strategies, plans or programs required under this approval at any time. With the agreement of the Planning Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis.

The Planning Secretary may approve a revised strategy, plan or program required under this approval, or the staged submission of any of these documents, at any time. With the agreement of the Planning Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval.

#### Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

#### Revision of Strategies Plans and Programs

4. Within 3 months, unless otherwise agreed with the Planning Secretary, of:
  - (a) the submission of an incident report under condition 5 below;
  - (b) the submission of an audit report under condition 9 below; and
  - (c) the approval of any modification to the conditions of this approval; or
  - (d) a direction of the Planning Secretary under condition 4 of schedule 2;

the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Planning Secretary.

Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Planning Secretary for approval, unless otherwise agreed with the Planning Secretary.

*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.*

## INCIDENT NOTIFICATION

5. The Department must be notified in writing to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au) immediately after the Proponent becomes aware of an incident on site. The notification must identify the development, including the application number, and set out the location and nature of the incident.

## NON-COMPLIANCE NOTIFICATION

6. The Department must be notified in writing to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au) within 7 days after the Proponent becomes aware of any non-compliance. The notification must identify the development, including the application number, set out the condition of approval that the development is non-compliant with, the way in which it does not comply, the reasons for the non-compliance (if known) and what actions have been taken, or will be taken, to address the non-compliance.

## REPORTING

### Compliance Reporting

7. The Proponent must provide regular compliance reporting to the Department on the development in accordance with the relevant *Compliance Reporting* requirements (DPE 2018).

### Regular Reporting

8. The Proponent must provide regular reporting on the environmental performance of the development on its website in accordance with the reporting requirements in any strategies, plans or programs approved under the conditions of this approval.

## INDEPENDENT ENVIRONMENTAL AUDIT

9. Twelve months after the commencement of operations and every 3 years thereafter, unless the Planning Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
  - (a) be conducted by a suitably qualified lead auditor and suitably qualified, experienced and independent team of experts in any field specified by the Planning Secretary, whose appointment has been endorsed by the Planning Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this approval, and any relevant EPL (including any assessment, plan or program required under these approvals);
  - (d) include a comprehensive Hazard Audit of the development in accordance with the Department's publication *Hazardous Industry Planning Advisory paper No. 5, 'Hazard Audit Guidelines'*. This audit must also:
    - verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of key safety critical equipment;
    - include checking of the Management of Change (MOC) records and verification that the MOC process has been implemented appropriately;
    - confirm that the operation is consistent with the information provided in the Final Hazard Analysis; and
    - verify that certificates issued by DNV-GL for the FSRU and all equipment and systems on board are up to date;
  - (e) review the adequacy of any strategies, plans or programs required under the abovementioned approvals; and
  - (f) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under the abovementioned approvals; and
  - (g) be conducted and reported to the satisfaction of the Planning Secretary.

*Note: This audit must be undertaken in accordance with the Independent Audit requirements (DPE 2018).*

10. Within 12 weeks of commissioning this audit, or as otherwise agreed by the Planning Secretary, the Proponent must submit a copy of the audit report to the Planning Secretary, together with its response to any recommendations contained in the audit report and a timetable for the implementation of these recommendations as required.
11. The Proponent must implement these recommendations, to the satisfaction of the Planning Secretary.

## ACCESS TO INFORMATION

12. From the commencement of development under this approval, the Proponent shall:
- (a) Make copies of the following information publicly available on its website:
    - the EIS;
    - current statutory approvals for the development;
    - approved strategies, plans or programs required under the conditions of this approval;
    - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs;
    - a summary of complaints, which is to be updated monthly;
    - any independent environmental audit, and the Proponent's response to the recommendations in any audit;
    - any other matter required by the Planning Secretary; and
  - (b) keep this information up to date.
-

## APPENDIX 1 – SCHEDULE OF LAND

<i>Site</i>	<i>Lot</i>	<i>Deposited Plan (DP)</i>
Pipeline	1	1125445
	22	1128396
	12	1182111
	12	1182111
	10	1182111
	12	1182111
	102	1120801
	12	1182111
	1	606434
	501	1035674
	500	1035674
	1	606434
	64	1188514
	3	837554
	6	837554
	2	837554
	103	801243
	1	606430
	1	203783
	1	785374
	3	606430
	2	570107
	1	785374
1	606430	
Disposal Area	6	1236743
	2	1182823
	105	1013971
Berth 101	8	1154760
	22	1128396
	70	1182824

*Note: The site will also be taken to include any crown land contained within the site including road and rail reserves*

## APPENDIX 2 – DEVELOPMENT LAYOUT PLANS



Figure 1: General Development Layout