

STATUS OF THIS DOCUMENT

This document has been produced by the Office of the Appeals Convenor as an electronic version of the original Statement for the proposal listed below as signed by the Minister and held by this Office. Whilst every effort is made to ensure its accuracy, no warranty is given as to the accuracy or completeness of this document.

The State of Western Australia and its agents and employees disclaim liability, whether in negligence or otherwise, for any loss or damage resulting from reliance on the accuracy or completeness of this document.

Copyright in this document is reserved to the Crown in right of the State of Western Australia. Reproduction except in accordance with copyright law is prohibited.

Published on: 11 July 2011

Statement No. 870

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**TECHNICAL AMMONIUM NITRATE PRODUCTION FACILITY,
BURRUP PENINSULA, SHIRE OF ROEBOURNE**

Proposal: The proposal is for the construction and operation of a technical ammonium nitrate production facility (TANPF) on Site D within the King Bay/Hearson Cove Industrial Estate on the Burrup Peninsula. The proposal is located approximately 13 kilometres north-west of Karratha.

The proposal is further documented in Schedule 1 of this statement.

Proponent: Burrup Nitrates Pty Ltd

Proponent Address: Level 8, 225 St Georges Terrace, PERTH WA 6000

Assessment Number: 1764

Report of the Environmental Protection Authority: 1379

Appeal Determination: Appeal numbers 5 to 11 of 2011

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

1 Proposal Implementation

1-1 The proponent shall implement the proposal as documented and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Nomination and Contact Details

- 2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.
- 2-2 The proponent shall notify the Chief Executive Officer of the Office of the Environmental Protection Authority (CEO) of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

3 Time Limit of Authorisation

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void five years after the date of this statement if the proposal to which this statement relates is not substantially commenced.
- 3-2 The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.
- 4-2 The proponent shall submit to the CEO the compliance assessment plan required by condition 4-1 at least 6 months prior to the first compliance report required by condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

- 1. the frequency of compliance reporting;
 - 2. the approach and timing of compliance assessments;
 - 3. the retention of compliance assessments;
 - 4. the method of reporting of potential non-compliances and corrective actions taken;
 - 5. the table of contents of compliance assessment reports; and
 - 6. public availability of compliance assessment reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO.
- 4-5 The proponent shall advise the CEO of any potential non-compliance within seven days of that non-compliance being known.
- 4-6 The proponent shall submit to the CEO the first compliance assessment report fifteen months from the date of issue of this Statement addressing the twelve month period from the date of issue of this Statement and then annually from the date of submission of the first compliance report. The compliance assessment report shall:
1. be endorsed by the proponent's Managing Director or a person delegated to sign on the Managing Director's behalf;
 2. include a statement as to whether the proponent has complied with the conditions;
 3. identify all potential non-compliances and describe corrective and preventative actions taken;
 4. be made publicly available in accordance with the approved compliance assessment plan; and
 5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Air Quality

- 5-1 The proponent shall adopt and implement best practice pollution control technology as determined by the Chief Executive Officer of the Department of Environment and Conservation (DEC) on advice of the CEO to minimise all relevant emissions from the TANPF ammonium nitrate prilling plant.
- 5-2 Prior to construction, the proponent shall prepare and implement an ambient air monitoring programme to the satisfaction of the CEO on the advice of the Chief Executive Officer of the DEC.

6 Rehabilitation

- 6-1 The proponent shall undertake rehabilitation to achieve the following outcomes:
1. The project area shall be non-polluting and shall be constructed so that its final shape, stability, surface drainage, resistance to erosion and ability to support local native vegetation are comparable to natural landforms within the local area, as demonstrated by a methodology acceptable to the CEO;
 2. Native vegetation areas disturbed through implementation of the proposal, shall be progressively rehabilitated with vegetation composed of plant

species native to the Burrup Peninsula from propagating material of local provenance (as agreed by the CEO in consultation with the DEC);

3. Areas not currently supporting native vegetation shall be rehabilitated to the original land use or a use approved by the CEO;
 4. The percentage cover of living vegetation in all rehabilitation areas shall be comparable with that of nearby undisturbed land as demonstrated by a methodology acceptable to the CEO;
 5. No new species of weeds (including both declared weeds and environmental weeds) shall be introduced into the area as a result of the implementation of the proposal; and
 6. The coverage of weeds (including both declared weeds and environmental weeds) within the rehabilitation areas shall not exceed that identified in baseline monitoring undertaken prior to the commencement of operations, or exceed that existent on comparable, nearby land which has not been disturbed during implementation of the proposal.
- 6-2 Rehabilitation activities shall continue until such time as the requirements of condition 6-1 are demonstrated by inspections and reports to have been met for a minimum of five years, to the satisfaction of the CEO on advice of the DEC.

7 Fauna

- 7-1 The proponent shall employ such structures and apparatus as are necessary and agreed by the DEC to deter birds from entering the contaminated water pond, clean water pond, and sewage wastewater treatment station evaporation pond.
- 7-2 During construction of the TANPF the proponent shall ensure that the following requirements are met:
1. Fauna refuges are to be placed in the trenches and other construction related voids at intervals not exceeding 50 metres;
 2. The proponent shall employ at least two “fauna-clearing people” that are appropriately licensed by the DEC to remove fauna from the trenches and other construction related voids;
 3. Inspection and clearing of fauna from trenches and other construction related voids by fauna clearing people shall occur at least twice daily and not more than half an hour prior to backfilling of trenches and other construction related voids, with the first daily inspection and clearing to be completed no later than 3.5 hours after sunrise, and the second inspection and clearing to undertaken daily between the hours of 3:00 pm and 6:00 pm;

4. In the event of rainfall, the proponent shall, following the clearing of fauna from the trenches and other construction related voids, pump out any pooled water in the open trenches and other construction related voids (with the exception of groundwater) and discharge it via a mesh (to dissipate energy) to adjacent vegetated area, having regard for the DEC's draft guideline on the treatment and management of acid sulfate soils and water in acid sulfate soil landscapes (DEC, 2009) and any subsequent revisions; and
5. Within 14 days following completion of the construction activities requiring the use of open trenches and other construction related voids, the proponent shall provide a report on fauna found, both dead and alive, within the TANPF site boundary to the CEO.

8 Groundwater

- 8-1 The proponent shall undertake detailed hydrogeological studies commencing at least 12 months prior to the commencement of construction to quantify groundwater quality, groundwater flow directions, and the depth to groundwater beneath the TANPF site and in surrounding areas.
- 8-2 The proponent shall develop appropriate management measures for dewatering to the satisfaction of the CEO on advice of the DEC and the Department of Water in the event that the information gathered from the hydrogeological studies required by condition 8-1 indicates that dewatering would be required during construction.
- 8-3 The proponent shall design, construct, and locate groundwater monitoring bores to the satisfaction of the CEO on advice of the DEC and the Department of Water, having regard for the outcomes of the hydrogeological studies required by condition 8-1 and the Department of Water's Water Quality Protection Note 30 on Groundwater Monitoring Bores.
- 8-4 The proponent shall sample/monitor all groundwater bores required by Condition 8-3 every six months and shall set groundwater monitoring trigger values at a value of 10% above the baseline contaminant concentrations obtained from the hydrogeological studies required by condition 8-1.
- 8-5 In the event that monitoring required by condition 8-4 indicates an exceedance of trigger levels:
 1. The proponent shall report such findings to the CEO within 7 days of the exceedance being identified;
 2. The proponent shall provide evidence which allows determination of the cause of the exceedance;
 3. If determined by the CEO to be project attributable, the proponent shall submit actions to be taken to address the exceedance within 7 days of the determination being made to the CEO;

4. The proponent shall implement actions to address the exceedance and shall continue until such time as the CEO determines that the remedial actions may cease; and
 5. The proponent shall submit bi-annually, or at a frequency defined to the satisfaction of the CEO, the results of monitoring required by condition 8-4 to the CEO, until such time as the CEO determines that reporting may cease.
- 8-6 The proponent shall make the monitoring reports required by condition 8-5(5) publicly available in a manner approved by the CEO.

9 Acid Sulphate Soils

- 9-1 The proponent shall undertake intrusive acid sulphate soils investigations prior to the commencement of construction.
- 9-2 In the event that acid sulphate soils are disturbed during construction of the TANPF, the proponent shall treat and manage acid sulphate soils in accordance with the requirements of the DEC's draft guideline on the treatment and management of acid sulfate soils and water in acid sulfate soil landscapes (DEC, 2009) and any subsequent revisions.

10 Decommissioning

- 10-1 Prior to undertaking ground-disturbing activities, the proponent shall:
1. describe the rationale for the siting and design of plant and infrastructure as relevant to environmental protection;
 2. prepare a conceptual plan of the final landform at closure;
 3. prepare a plan for a care and maintenance phase; and
 4. prepare an initial plan for the management of noxious materials following closure.
- 10-2 At least six months prior to the anticipated date of closure, the proponent shall meet the following decommissioning criteria:
1. removal or, if agreed in writing by the appropriate regulatory authority, retention of plant and infrastructure agreed in consultation with relevant stakeholders; and
 2. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

Note: Closure is defined as production has ceased and, plant and infrastructure removed, and contaminated areas remediated.

Notes

1. The Minister for Environment will determine any dispute between the proponent and the Office of the Environmental Protection Authority over the fulfilment of the requirements of the conditions.
2. The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

References

1. Department of Environment and Conservation (DEC) (2009). *DRAFT Treatment and management of acid sulfate soils and water in acid sulfate soil landscapes*. Department of Environment and Conservation, Government of Western Australia, Acid Sulfate Soils Guideline Series, January 2009.

[signed 6 July 2011]

**HON BILL MARMION MLA
MINISTER FOR ENVIRONMENT; WATER**

Schedule 1

The Proposal (Assessment No. 1764)

The proposal involves the construction and operation of a technical ammonium nitrate production facility (TANPF) on Site D within the King Bay/Hearson Cove Industrial Estate on the Burrup Peninsula. The proposal is located approximately 13 kilometres (km) north-west of Karratha (Figure 1). The TANPF would be located to the east and immediately adjacent to the Burrup Fertilisers Pty Ltd (BFPL) ammonia plant, and would occupy 35 hectares (ha) of the 79 ha within Site D (Figure 2). A conceptual plant layout is shown in Figure 3. The main characteristics of the proposal are summarised in Table 1 below. A detailed description of the proposal is provided in Section 5 of the PER (Burrup Nitrates Pty Ltd, 2010).

Table 1: Summary of Key Proposal Characteristics

Element	Description
General	
Project life	20+ years.
Technical ammonium nitrate production facility (TANPF) capacity	350,000 tonnes of technical ammonium nitrate (TAN) per annum.
Area of project lease	Site D - 79 hectares.
Area of disturbance	35 hectares.
Main process units	
Nitric acid plant	Capacity - 760 tonnes per day.
Ammonium nitrate solution plant	Capacity - 965 tonnes per day.
TAN prilling plant	Capacity - 915 tonnes per day.
Storage, loading, and transport	
Liquid ammonia pipeline between the TANPF and the adjacent Burrup Fertilisers Pty Ltd (BFPL) ammonia plant	710 metres long.
Bagged TAN storage building	Capacity of 1,800 tonnes.
Bulk TAN storage building	Capacity of 12,000 tonnes.
TAN bagging facility	
Truck bulk loading system	
Nitric acid buffer storage	Two tanks with total capacity of 3,000 cubic metres.
Ammonium nitrate solution storage	One tank with a capacity of 500 tonnes.
Wastewater discharge pipeline	Connecting the TANPF to the Water Corporation facility.
Inputs	
Power requirement	8.5 MW of which 5 MW will be sourced from the adjacent BFPL ammonia plant and approximately 3.5 MW will be generated by excess steam from the nitric acid plant.

Table 1: Summary of Key Proposal Characteristics (cont'd)

Element	Description
Inputs (cont'd)	
Potable water	2 cubic metres per hour from the Water Corporation.
Seawater	456 cubic metres per hour from the Water Corporation.
Outputs	
Nitrogen oxides (NO _x)	Up to 135 t/yr. Nitric acid plant stack - up to 4.2 g/s. Nitric acid plant storage tanks - Vents A & B - up to 0.04 g/s each vent.
Nitrous oxide (N ₂ O)	Up to 163.7 t/yr, 5.5 g/s.
Carbon monoxide (CO)	Up to 41 t/yr, 1.3 g/s.
Methane (CH ₄)	Up to 17.8 t/yr, 0.6 g/s.
Ammonia (NH ₃)	Ammonium nitrate prilling plant "common stack" - Refer to Condition 5. Nitric acid plant stack - up to 0.02 g/s.
Particulate matter [as total suspended particulates (TSP)]	Ammonium nitrate prilling plant "common stack" - Refer to Condition 5.
Sulphur dioxide (SO ₂)	Trace.
Carbon dioxide (CO ₂) [produced]	Up to 532.6 t/yr, 17.8 g/s.
Total greenhouse gas emissions	Approximately 84,451 tonnes of CO _{2-e} per year.
Greenhouse gas intensity	Approximately 0.241 tonnes of CO _{2-e} per tonne of TAN.
Wastewater	Up to 3,104 ML of water per year consisting of up to 3000 ML of sea water blowdown per year and up to 104 ML of purified process condensate per year discharged into the Water Corporation's multi user brine return line (MUBRL). Up to 24.6 ML of water per year consisting of air conditioning condensate and rainwater from roofs and the parking area will be sent to the clean water pond for evaporation. Up to 9.75 ML of water per year containing impurities will be sent to the contaminated water pond for evaporation.
Solid waste	Up to 120 kilograms per day (organic matter from the off-specification prills).

Abbreviations

CO_{2-e} carbon dioxide equivalents

g/s grams per second

ML megalitres (10⁶ litres)

t/yr tonnes per year

MW megawatts (10⁶ watts)

References

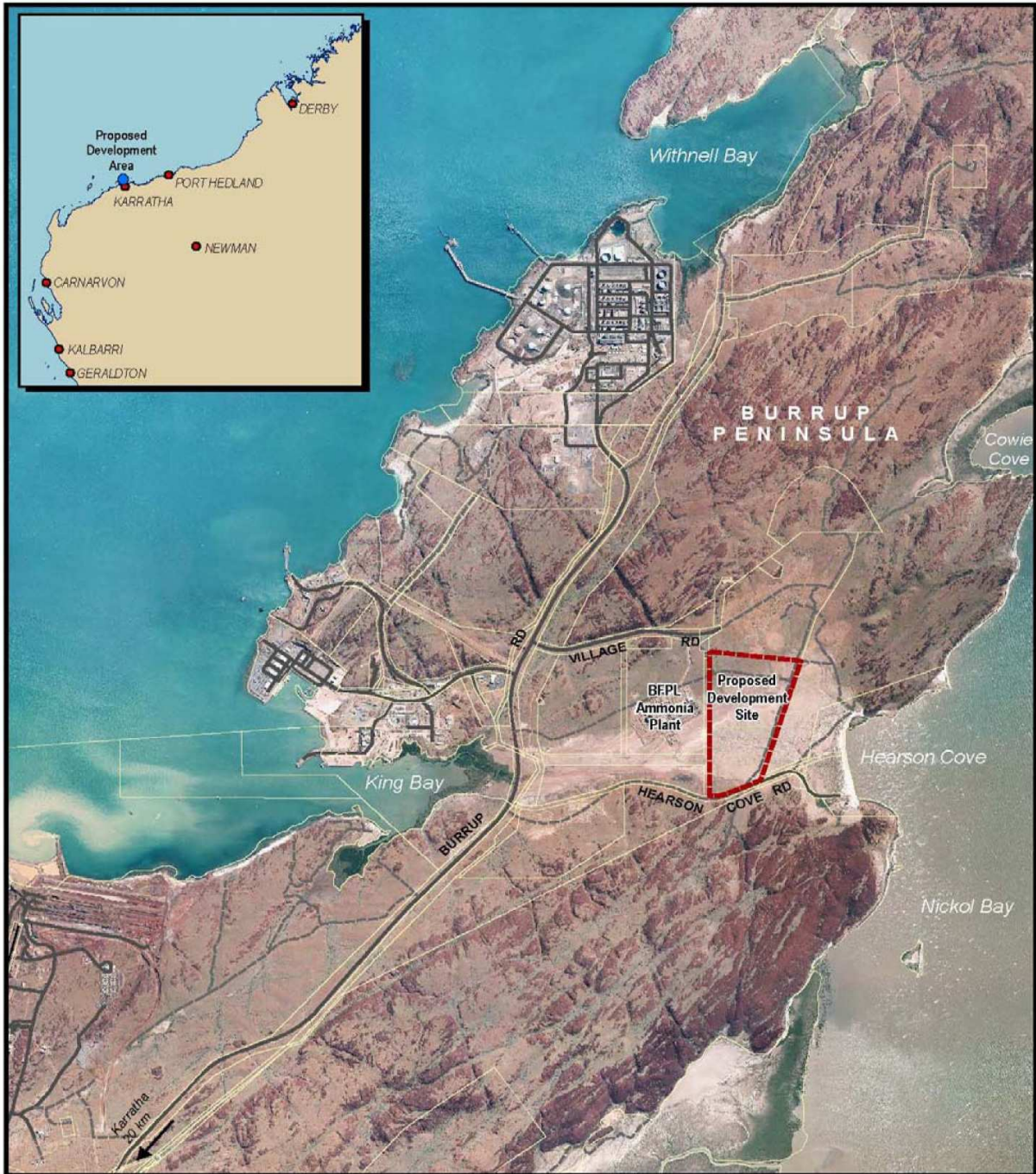
1. Burrup Nitrates Pty Ltd (2010). *Technical Ammonium Nitrate Production Facility Public Environmental Review for Burrup Nitrates Pty Ltd*. January 2010.

Figures (attached)

Figure 1: Regional location (Source: Figure 1.1 from Burrup Nitrates Pty Ltd, 2010).

Figure 2: Location plan (Source: Figure 4.2 from Burrup Nitrates Pty Ltd, 2010).

Figure 3: Conceptual plant layout (Source: Figure 5.5 from Burrup Nitrates Pty Ltd, 2010).



Legend
 Site D Boundary

Figure 1.1
Location of TANPF

Client:	Burrup Nitrates Pty Ltd
Project:	PER
Drawing No:	0086269p_GIS01_PER Suffix No: R0
Date:	21/10/2009 Drawing size: A4
Drawn by:	DD Reviewed by: BC
Source:	Base information LANDGATE
Scale:	1:50 000

Environmental Resources Management Australia Pty Ltd
 8th Floor, 172 St Georges Tce, Perth, WA, 6000
 Telephone +61 9 321 5200

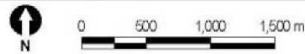
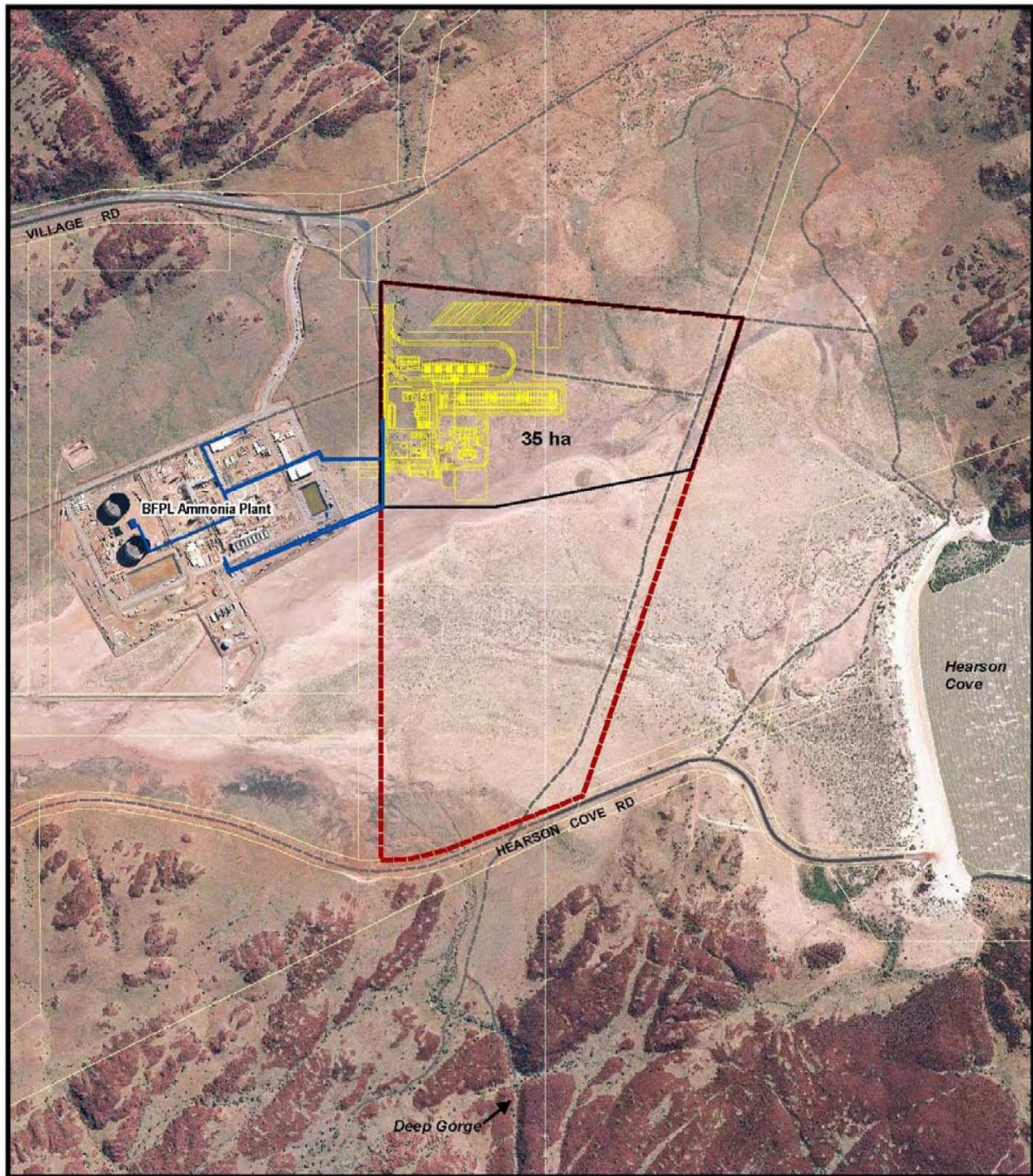


Figure 1: Regional location (Source: Figure 1.1 from Burrup Nitrates Pty Ltd, 2010)



Legend

- Site D Boundary
- Area of Disturbance (35 ha permanent footprint)
- Schematic TANPF Layout
- Pipeline

Client:	Burrup Nitrates Pty Ltd
Project:	PER
Drawing No:	0086269p_GIS03_PER Suffix No: RD
Date:	13/10/2009 Drawing size: A4
Drawn by:	DD Reviewed by: BC
Source:	Base information LANDGATE
Scale:	1:20 000

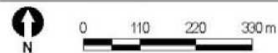


Figure 4.2

Location of the Proposed TANPF

Environmental Resources Management Australia Pty Ltd
 6th Floor, 172 St Georges Tce, Perth, WA, 6000
 Telephone +61 9 321 5200



Figure 2: Location plan (Source: Figure 4.2 from Burrup Nitrates Pty Ltd, 2010)

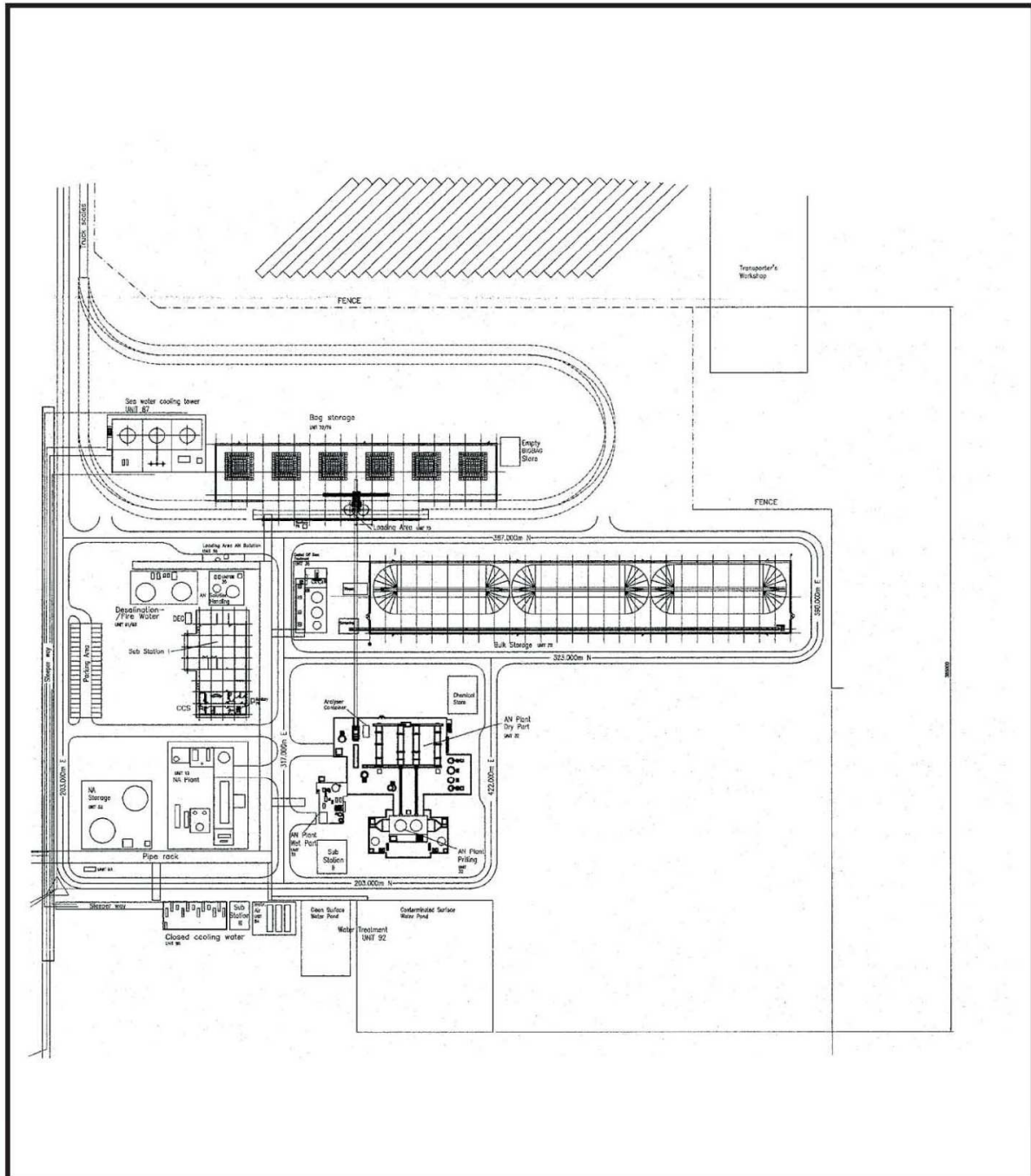


Figure 5.5

Client:	Burrup Nitrates Pty Ltd	Proposed Plant Layout	
Project:	PER		
Drawing No:	0086269p_01_QRA_R1	Environmental Resources Management Australia Pty Ltd 8th Floor, 172 St Georges Terrace, Perth, WA 6000 Telephone +61 8 9321 5200	
Date:	22/12/2009		Drawing size: A4
Drawn by:	DD		Reviewed by: BC
Source:	-		
Scale:	Not to Scale		



Figure 3: Conceptual plant layout (Source: Figure 5.5 from Burrup Nitrates Pty Ltd)

Attachment 1 to Ministerial Statement 870

Change to proposal under s45C of the *Environmental Protection Act 1986*

Proposal: Burrup Technical Ammonium Nitrate Production Facility

Proponent: Yara Pilbara Nitrates Pty Ltd

Changes: Removal of 'Wastewater' from the key proposal characteristics table.

Key Characteristics Table: This table replaces the Key Proposal Characteristics Table in Schedule 1 to Statement 870

Element	Description	Description of approved change to proposal
General		
Project life	20+ years	20+ years
Technical ammonium nitrate production facility (TANPF) capacity	350,000 tonnes of technical ammonium nitrate (TAN) per annum.	350,000 tonnes of technical ammonium nitrate (TAN) per annum.
Area of project lease	Site D – 79 hectares.	Site D – 79 hectares.
Area of disturbance	35 hectares.	35 hectares.
Main process units		
Nitric acid plant	Capacity – 760 tonnes per day.	Capacity – 760 tonnes per day.
Ammonium nitrate solution plant	Capacity – 965 tonnes per day.	Capacity – 965 tonnes per day.
TAN prilling plant	Capacity – 915 tonnes per day.	Capacity – 915 tonnes per day.
Storage, loading, and transport		
Liquid ammonium pipeline between the TANPF and the adjacent Burrup Fertilisers Pty Ltd (BFPL) ammonia plant	710 metres long.	710 metres long.
Bagged TAN storage building	Capacity of 1,800 tonnes.	Capacity of 1,800 tonnes.
Bulk TAN storage building	Capacity of 12,000 tonnes.	Capacity of 12,000 tonnes.
TAN bagging facility		
Truck bulk loading system		
Nitric acid buffer storage	Two tanks with total capacity of 3,000 cubic metres.	Two tanks with total capacity of 3,000 cubic metres.
Ammonium nitrate solution storage	One tank with a capacity of 500 tonnes.	One tank with a capacity of 500 tonnes.
Wastewater discharge pipeline	Connecting the TANPF to the Water Corporation facility.	Connecting the TANPF to the Water Corporation facility.

Element	Description	Description of approved change to proposal
Inputs		
Power requirement	8.5 MW of which 5 MW will be sourced from the adjacent BFPL ammonia plant and approximately 3.5 MW will be generated by excess steam from the nitric acid plant.	8.5 MW of which 5 MW will be sourced from the adjacent BFPL ammonia plant and approximately 3.5 MW will be generated by excess steam from the nitric acid plant.
Potable water	2 cubic metres per hour from the Water Corporation.	2 cubic metres per hour from the Water Corporation.
Seawater	456 cubic metres per hour from the Water Corporation.	456 cubic metres per hour from the Water Corporation.
Outputs		
Nitrogen oxides (NO _x)	Up to 135 t/yr. Nitric acid plant stack – up to 4.2 g/s. Nitric acid plant storage tanks – Vents A & B – up to 0.04 g/s each vent.	Up to 135 t/yr. Nitric acid plant stack – up to 4.2 g/s. Nitric acid plant storage tanks – Vents A & B – up to 0.04 g/s each vent.
Nitrous oxide (N ₂ O)	Up to 163.7 t/yr, 5.5 g/s.	Up to 163.7 t/yr, 5.5 g/s.
Carbon monoxide (CO)	Up to 41 t/yr, 1.3 g/s.	Up to 41 t/yr, 1.3 g/s.
Methane (CH ₄)	Up to 17.8 t/yr, 0.6 g/s.	Up to 17.8 t/yr, 0.6 g/s.
Ammonia (NH ₄)	Ammonium nitrate prilling plant “common stack” – Refer to Condition 5. Nitric acid plant stack – up to 0.02 g/s.	Ammonium nitrate prilling plant “common stack” – Refer to Condition 5. Nitric acid plant stack – up to 0.02 g/s.
Particulate matter [as total suspended particulates (TSP)]	Ammonium nitrate prilling plant “common stack” – Refer to Condition 5.	Ammonium nitrate prilling plant “common stack” – Refer to Condition 5.
Sulphur dioxide (SO ₂)	Trace.	Trace.
Carbon dioxide (CO ₂) [produced]	Up to 532.6 t/yr, 17.8 g/s.	Up to 532.6 t/yr, 17.8 g/s.
Total greenhouse gas emissions	Approximately 84,451 tonnes of CO _{2-e} per year.	Approximately 84,451 tonnes of CO _{2-e} per year.
Greenhouse gas intensity	Approximately 0.241 tonnes of CO _{2-e} per tonne of TAN.	Approximately 0.241 tonnes of CO _{2-e} per tonne of TAN.
Wastewater	Up to 3,104 ML of water per year consisting of up to 3000 ML of sea water blowdown per year and up to 104 ML of purified process condensate per year discharged into the Water Corporation’s multi user brine return line (MUBRL). Up to 24.6 ML of water per year consisting of air conditioning condensate and rainwater from roofs and the parking area will be sent to	Removed as managed under Part V of the EP Act 1986.

Element	Description	Description of approved change to proposal
	the clean water pond for evaporation. Up to 9.75 ML of water per year containing impurities will be sent to the contaminated water pond for evaporation.	
Solid waste	Up to 120 kilograms per day (organic matter from the off-specification prills).	Up to 120 kilograms per day (organic matter from the off-specification prills).

Abbreviations

CO_{2-e} carbon dioxide equivalents t/yr tonnes per year
g/s grams per second MW megawatts (10⁶ watts)
ML megalitres (10⁶ litres)

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

[Signed 9 July 2013]

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority