Yara Pilbara Nitrates

2019 Compliance Assessment Report

Ministerial Statement 870

Technical Ammonium Nitrate Production Facility

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Document Custodian	Environmental Superintendent
Document Approver	Plant Manager

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Confidential and commercial sensitive information

Yara Pilbara considers that the information contained in this report (the Information) comprises, confidential and commercially sensitive information about its business operations, particularly in relation to its propriety systems, procedures and processes at its plant and operations.

Yara Pilbara is concerned that disclosure of this confidential and commercially sensitive information may cause it to suffer loss and damage, including in relation to its dealings with suppliers and/or contracting parties.

Accordingly, Yara Pilbara requests that it be given 15 business days' notice prior to:

a) any public disclosure or publication of the information; or

b) any release of any Information or the substance of the Information or MHF Status to a third party, including but not limited to a proposed release pursuant to a request made under the Freedom of Information Act 1992 (WA).

Proponent Declaration

Yara Pilbara Fertilisers Pty Ltd is pleased to submit this Compliance Assessment Report as per condition 4-6 of Ministerial Statement 870.

I, Chris Rijksen, Plant Manager declare that I am authorised on behalf of Yara Pilbara Nitrates Pty Ltd (being the person responsible for the proposal) to submit this form and that the information contained in this form is true and not misleading.

Signature: ..... Date: 3-10-2019

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1 Introduction

1.1 Purpose

This Compliance Assessment Report (CAR) outlines the compliance status of Yara Pilbara Nitrates Pty Ltd (YPN) against the conditions of Ministerial Statement 870 (MS870) for the period 8 July 2018 to 7 July 2019.

This CAR has been prepared to meet the requirements of Condition 4-6 of MS870, which requires the proponent, YPN, to submit a compliance report to the Department of Water and Environmental Regulation (DWER) annually.

1.2 Project Details

The Technical Ammonium Nitrate Production Facility (TANPF) has a production capacity of 350,000 tonnes per annum (TPA) or 915 tonnes per day (TPD) of Technical Ammonium Nitrate (TAN). The facility comprises three (3) major process units, each producing a separate product in the manufacturing process:

1. Nitric Acid Plant to convert ammonia and atmospheric air into nitric acid (NA). The NA unit has a capacity of 760 TPD as 100% weight. The main feedstock, ammonia, is delivered from the adjacent ammonia plant.
2. Ammonium Nitrate (AN) Solution Plant to convert ammonia and NA into AN solution. This AN wet section has a capacity of 965 TPD in balance with NA production capacity.
3. TAN Prilling Plant to convert AN solution into TAN prills (final product). This is a dry section for production of TAN prills (0.7 and 0.8 kg/l density) with a capacity of 915 TPD. Surplus AN solution is sold as liquid.

The facility also has storage, loading and transport facilities, including an incoming liquid ammonia pipeline, bulk and bagged TAN storage, bulk loading system, bagging unit and truck loading.

1.3 Current Status

During the reporting period the TANPF operated between the 12th of May and 4th of July 2019. The TANPF was shut down for most of the reporting period due to works associated with the TAN Recovery Project. Operations are anticipated to restart in February 2020.

2 Methodology

Yara undertook an internal assessment of compliance against MS870 using the following checklists:

- the DWER (formerly OEPA) audit table for MS870; and
- audit tables prepared by Sustainability in previous third-party audits for each management plan or procedure required under MS870.

The assessment was performed at the TANPF and involved reviewing documents and records, a site inspection and interviews with YPN's personnel where applicable.

2.1 Terminology

The "status" field of the audit table describes the implementation of actions and compliance with MS870. Although the Chief Executive Officer of DWER makes the final determination of compliance, it is necessary to update this field each reporting period, as the project progresses. DWER has prepared updated guidance related to the preparation of compliance audits, including generic expressions that are used to identify the status of each action (Table 1).

Table 1: Compliance Status Terms

Status	Status Abbreviation	Description
Compliant	C	Implementation of the proposal has been carried out in accordance with requirements of the audit element.
Completed	CLD	A requirement with a finite period of application has been satisfactorily completed.
Not required at this stage	NR	The requirements of the audit element were not triggered during the reporting period.
Potentially non-compliant	PNC	Possible or likely failure to meet the requirements of the audit element.
Non-compliant	NC	Implementation of the proposal has not been carried out in accordance with requirements of the audit element.
In process	IP	Where an audit element requires a management or monitoring plan be submitted to the DWER or another government agency for approval, that submission has been made and no further information or changes have been requested by the DWER or the other government agency and assessment by the DWER or other government agency for approval is still pending.

Source: Adapted from Section 2.8 of DWER's Post Assessment Guideline (PAG 1) Preparing an Audit Table

3 Compliance

3.1 Statement of Compliance

The results of the audit of MS870 are shown in the DWER Audit Table (Appendix 1). A total of 27 items were audited.

The audit found the following:

- 14 elements were found to be compliant;
- 8 elements were found to be completed;
- 4 elements were found to be not required at this stage; and
- 1 element was assessed as being potentially non-compliant.

As per the "DWER Statement of Compliance Guidelines", each non-compliance and potential non-compliance is presented in the "Post Assessment Form 2" format in Section 3.2.

3.1.1 Proposal and Proponent Details

Proposal Title	*Technical Ammonium Nitrate Production Facility, Burrup Peninsula*
Statement Number	*Statement Number 870*
Proponent Name	*Yara Pilbara Nitrates Pty Ltd*
Proponent's Australian Company Number (where relevant)	*127 391 422*

3.1.2 Statement of Compliance Details

Reporting Period				*8 July 2018 to 7 July 2019*			
Implementation phase(s) during reporting period (please tick ✓ relevant phase(s))							
Pre-construction		Construction		Operation	✓	Decommissioning	
Audit Table for Statement addressed in this Statement of Compliance is provided at:						*Appendix 1*	
Were all implementation conditions and/or procedures of the Statement complied with within the reporting period? (please tick ✓ the appropriate box)							
No		✓		Yes			

3.2 Details of Non-Compliance or Potential Non-Compliance

3.2.1 PNC #1

Which implementation condition or procedure was non-compliant or potentially non-compliant?
870:M5-2 Air Quality Monitoring Programme: Prior to construction prepare and implement an ambient air quality monitoring programme to the satisfaction of the CEO on the advice of the Chief Executive Officer of the DEC.
Was the implementation condition or procedure non-compliant or potentially non-compliant?
Potentially non-compliant
On what date(s) did the non-compliance or potential non-compliance occur (if applicable)?
NA
Was this non-compliance or potential non-compliance reported to the Chief Executive Officer, DWER?
☑ Yes ☐ Reported to OEPA verbally Date _____ X Reported to OEPA in writing Date 06/10/2017 ☐ No
What are the details of the non-compliance or potential non-compliance and where relevant, the extent of and impacts associated with the non-compliance or potential non-compliance?
For the reporting period 8 July 2018 to 7 July 2019 air quality monitoring was not implemented as noted in the TANPF Air Quality Management Plan (AQMP) Doc. No. 0086269 February 2013 (as approved by the CEO DWER). However, air quality monitoring was undertaken during the assessment period as outlined below.
What is the precise location where the non-compliance or potential non-compliance occurred (if applicable)? (please provide this information as a map or GIS co-ordinates)
NA
What was the cause(s) of the non-compliance or potential non-compliance?

The transition from construction phase (completed in February 2016) for the TANPF to commissioning/operation of the TANPF required a change in the air quality monitoring (AQM) being undertaken in order to monitor operational outputs. As noted in the 2017 and 2018 CAR's for this condition (600-200-CAR-YPN-0038 and 650-200-CAR-YPN-0039) a request for variation to the required implementation of the AQMP was approved by OEPA on 22 December 2016, with the intention that post construction air quality monitoring would be carried out as described within the "Operational Monitoring" section in the approved Plan. At the same time the operating licence was in process and there was a requirement to include AQM as part of the Operational Environmental Management Plan (OEMP). Air quality monitoring has subsequently been implemented in line with the Air Quality Management arrangements approved by Department of Environment and Energy (DoEE) as part of the OEMP. In November 2018, the DWER advised Yara Pilbara Nitrates Pty Ltd that it would need to undertake a comparison analysis of the AQMP and the OEMP to determine whether the air quality monitoring requirements and objectives of the AQMP were met by the monitoring undertaken in accordance with the DoEE approved OEMP and submit a report on the analysis by 10 January 2019. In January 2019, Yara Pilbara Nitrates Pty Ltd submitted the required report to the DWER and indicated that the air quality monitoring requirements and objectives of the AQMP were met by the monitoring undertaken in accordance with the OEMP. The report also recommended that the AQMP be revoked and that Yara Pilbara Nitrates Pty Ltd should request the CEO of the DWER to approve the implementation of the OEMP which was updated in June 2018 to reflect the amended version of Licence L7997/2002/11. In April 2019, Yara Pilbara Nitrates Pty Ltd advised the DWER that it would submit the updated OEMP once it has been approved by the DoEE and requested that it approves the implementation of the OEMP's air quality management measures. However, due to the ongoing uncertainties associated with the Licence Appeal and the Section 46 inquiry, the updated OEMP is yet to be submitted to the DoEE and therefore has not been approved by the DWER. Due to the absence of the required approvals, the EPA considers that the currently approved AQMP is still applicable with respect to prescribing the required air quality management arrangements for the TANPF. It is noted that as a result of the Section 46 enquiry into Condition 5 of MS870, draft revised Condition 5-2 (if accepted by the Minister for Environment) will require that a standalone AQMP be submitted to the CEO within 12 months of the implementation of those conditions.
What remedial and/or corrective action(s), if any, were taken or are proposed to be taken in response to the non-compliance or potential non-compliance?
The OEMP including air quality monitoring has been approved by the DoEE and air quality monitoring has been implemented as noted in the plan. Review and amendment of documentation to meet the requirements of the draft revised Condition 5-2 of MS870 is underway.
What measures, if any, were in place to prevent the non-compliance or potential non-compliance before it occurred? What, if any, amendments have been made to those measures to prevent re-occurrence?
Monitoring has continued since issue of the Operating Licence with the first monitoring report against compliance with the OEMP (and AQMP) submitted to the DoEE on 6th October 2018.

Please provide information/documentation collected and recorded in relation to this implementation condition or procedure:

- in the reporting period addressed in this Statement of Compliance; and
- as outlined in the approved Compliance Assessment Plan for the Statement addressed in this Statement of Compliance.

(the above information may be provided as an attachment to this Statement of Compliance)

4 Conclusion

YPN has been found to be compliant with all conditions of MS870, except condition M5-2, which was assessed as being potentially non-compliant.

Air quality monitoring has been conducted in accordance with arrangements approved by DoEE under EPBC Act approval for the project. A comparison analysis of the AQMP and the OEMP submitted to the DWER in January 2019 indicated that the air quality requirements and objectives of the AQMP were met by the monitoring undertaken in accordance with the OEMP. However, a potential non-compliance has been identified as the implementation of the OEMP in place of the AQMP to meet air quality monitoring requirements has not been formally approved by the CEO of the DWER.

YPN have commenced review and amendment of the documentation to meet the requirements of the draft revised Condition 5-2 of MS870.

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Appendix 1 – DWER Audit Table

NOTES
- Phases that apply in this table = **Pre-Construction, Construction, Pre-Commissioning, Operation, Decommissioning, Overall (several phases).**
- This audit table is a summary of the requirements applying to this Project. Refer to MS870 issued under Part IV of the *EP Act* for details/precise wording of audit elements.
- Code prefixes: M = Minister's condition and P = Proponent's commitment.
- Abbreviations: Min Env = Minister for the Environment;
- Compliance Status: C = Compliant, CLD = Completed, NR = Not required at this stage, PNC = Potentially non-compliant, NC = Non-compliant. Please note the terms NA = Not Audited and VR = Verification Required are only for OEPA use. IP = In Process may only be used by the proponent in circumstances outlined in Section 2.8 of the *Post Assessment Guideline for Preparing an Audit Table*.
- Acronyms list: YPN = Yara Pilbara Nitrates Pty Ltd; CAR = Compliance Assessment Report; DWER = Department of Water and Environmental Regulation; CEO = Chief Executive Officer of DWER; N/A = not applicable; OEPA = Office of the Environmental Protection Authority (now DWER); DEP = Department of Environmental Protection (now DWER); DEPWRC = Department of Environmental Protection Water and Rivers Commission (now DWER); FESA = Fire and Emergency Services Authority of Western Australia.

Table 2: MS870 DWER Audit Table

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
Ministerial Statement 870 Conditions								
870:M1-1	Proposal Implementation	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.	Proposal to be implemented in accordance with Schedule 1 of Statement No. 870 (updated as Attachment 2 of MS870), including the key proposal characteristics.	Ministerial Statement 870 (as amended) (Attachment 2 - 07/06/2017) [1] Appendix 2.	Overall	Ongoing	C	There has been no change to the extent of the development envelope or the disturbance footprint during the reporting period. Both remain within the delineation coordinates confirmed by DWER in Attachment 2 of MS870 [1]. During the reporting period the TANPF was only operational for a short period between the 12th of May and 4th of July 2019. Total production during this operational period was 37,557 MT of Technical Ammonia Nitrate (TAN).
870:M2-1	Proponent Nomination and Contact Details	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.	Provide written notification including the details of the name and address of the new proponent.	Ministerial Statement 870 (as amended) (Attachment 2 - 07/06/2017) [1]	Overall	Ongoing	C	The proponent for the initial issue of MS870 (6 July 2011) was Burrup Nitrates Pty Ltd. The proponent for MS870 has been updated to Yara Pilbara Nitrates Pty Ltd, as noted in Attachment 1 (9 July 2013) and Attachment 2 (7 June 2017) of MS870. The registered proponent contact details are Yara Pilbara Nitrates Pty Ltd Level 5, 182 St Georges Terrace, Perth, WA 6000, as noted in correspondence from DWER 21 September 2017, pertaining to the 'Notice of Compliance Audit of Ministerial Statement 870', and noted in the findings of the 2017 CAR (600-200-ACR-YPN-0005).
870:M2-2	Proponent Nomination and Contact Details	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.	Provide written notification to the CEO of any change in proponent details.	Ministerial Statement 870 (as amended) (Attachment 2 - 07/06/2017) [1]	Overall	Within 30 days of such change	NR	No change within reporting period.
870:M3-1	Time Limit of Authorisation	The authorization 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.	Provide written notification to the CEO that the proposal has been substantially commenced within 5 years of the date of MS870.	N/A	Overall	Before 7 July 2016	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
870:M3-2	Time Limit of Authorisation	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.	Provide written notification to the CEO that the proposal has been substantially commenced within 5 years of the date of MS870.	N/A	Overall	Before 7 July 2016	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.
870:M4-1	Compliance Reporting	The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.	Prepare and maintain a Compliance Assessment Plan (CAP) and an audit table in accordance with the 'Post Assessment Guideline for Preparing an Audit Table'. Written correspondence to/from CEO.	Yara Pilbara Nitrates Compliance Assessment Plan Ministerial Statement 870 Technical Ammonia Nitrate Plant Rev. 02 (Ref: 250-200-CAR-YPN-0001) [2] Ministerial Statement 870 (as amended) (09/07/2013 and 07/06/2017) [1]	Overall	Ongoing	C	A revised version of the CAP, that includes the changes to MS870 and reflects the current status of the TANPF, has been prepared and was submitted to DWER on 10th January 2019, Transmittal 0197 (Ref: 650-200-CAR-YPN-0039.2).
870:M4-2	Compliance Reporting	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.	Submit the CAP to CEO. The CAP includes: 1. frequency of CAR, 2.approach and timing of compliance assessments, 3.retention of compliance assessments, 4. methods of reporting non-compliances and corrective actions reporting, 5. Table of contents of CAR and 6. Public availability of CAR.	Approved CAP. CAR's available on proponent's website.	Pre-construction	Six (6) months prior to the first CAR by condition 4-6 (by 8 April 2012) or prior to implementation, whichever is sooner	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.
870:M4-3	Compliance Reporting	The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.	Undertake assessment according to the approved CAP.	CAR.	Overall	CAR annually by 8 October	C	Compliance has been assessed annually, as evidenced by annual CARs: • TAN Plant MS870 Compliance Assessment Report 2012 • TAN Plant MS870 Compliance Assessment Report 2013 • TAN Plant MS870 Compliance Assessment Report 2014 • TAN Plant MS870 Compliance Assessment Report 2015 • TAN Plant MS870 Compliance Assessment Report 2016 • TAN Plant MS870 Compliance Assessment Report 2017 • TAN Plant MS870 Compliance Assessment Report 2018 All CARs are publicly available via the link noted in response to M4-4 below.
870:M4-4	Compliance Reporting	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.	Retain electronic and hardcopies of Compliance Assessment Reports for the life of the Project, maintained as per PROPOSAL´s Document Control Management System requirements being retrieved if required.	CAR and records available at the request of CEO.	Overall	When required by CEO	C	Annual CARs are retained by YPN and are publicly available online via the link below: https://www.yara.com.au/about-yara/about-yara-australia/pilbara/yara-pilbara-nitrates/

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
870:M4-5	Compliance Reporting	The proponent shall advise the CEO of any potential non-compliance within seven days of that non-compliance being known.	Notify in writing.	CAR	Overall	Within 7 days of non-compliance being known	C	No potential non-compliances, except for the PNC against M5-2 that was previously reported in the 2018 CAR, have been identified.
870:M4-6	Compliance Reporting	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.	Submit the CAR to CEO in accordance with CAP. The CAR shall: 1. be endorsed by the proponent's Managing Director or a person delegated; 2. include a statement of compliance with conditions; 3. identify all potential non-compliances and describe corrective measures; 4. Be made publicly available; and 5. Proposed changes.	CAR Uploaded on to proponent's website.	Overall	The first CAR due to be submitted 8 October 2012. Then, annually on or before 8 October each year.	C	CARs have been submitted annually to the CEO since the initial CAR in October 2012 as noted in response to M4-3 above. During the current reporting period CAR 2019 was submitted to the CEO (DWER) on the 4th October 2019. In accordance with M4-6 CARs: 1. are endorsed by the YPN Plant Manager; 2. include a statement of compliance; 3. identify all potential non-compliances; 4. are retained by YPN and are publicly available on the company website (see M4-4); 5. indicate any proposed changes to the CAP.
870:M5-1	Air Quality	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 TAN Plant Ammonium Nitrate Prilling Plant.	Adopt and implement EFMA - Best Available Techniques for Pollution Prevention and Control in the European Fertilizer Industry, Booklet No. 6 of 8: Production of Ammonium Nitrate and Calcium Ammonium Nitrate, 2000 (EFMA, 2000b) from the Common Stack (other sources) for the AN Plant. DWER have incorporated stack emission concentration figures in the Licence that commensurate with the use of best practice pollution control technology. Air Dispersion Modelling Study. Written correspondence.	CAR. Ektimo Stack Test Results [8] CEMS Data [9]	Overall	Ongoing	C	Following a site visit to the TANPF by DWER in March 2018, the Director General of DWER confirmed in correspondence to the Minister for Environment that 'contemporary best practice pollution control technology has been incorporated into the TANPF'. (DWERME0135/18) Stack test results (Attachment 8) and CEMS data (Attachment 9) from the 12th of May to the 4th of July 2019 operational period are also well below DWER licence limits. These licence limits are set to reflect the use of best practice pollution control technology (Attachments 8 and 9).
870:M5-2	Air Quality	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	Prepare a Construction/Operation Air Quality Management Plan (AQMP) for Minister approval. Implement the AQMP Plan. Written correspondence.	CAR. Air Quality report. Operational Environmental Management Plan [10]	Overall	Ongoing	PNC	For the reporting period 8 July 2018 to 7 July 2019 air quality monitoring was not implemented as noted in the TANPF Air Quality Management Plan (AQMP) Doc. No. 0086269 February 2013 (as approved by the CEO DWER). It was however implemented in accordance with arrangements approved by DoEE under EPBC Act approval for the project. A comparison analysis of the AQMP and the OEMP submitted to the DWER in January 2019 indicated that the air quality requirements and objectives of the AQMP were met by the monitoring undertaken in accordance with the OEMP. However, a potential non-compliance has been identified as the implementation of the OEMP in place of

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
								the AQMP to meet air quality monitoring requirements has not been formally approved by the CEO of the DWER.
870:M6-1	Rehabilitation	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.	Prepare a Construction Terrestrial Vegetation and Flora Management (CTVFM) Plan for MINISTER approval. Implement the CTVFM Plan. Prepare a Construction Weed Management (CWM) Plan for MINISTER approval. Implement the CWM Plan. Written correspondence.	CAR. Operational Environmental Management Plan [10] Copy of Environmental Inspection checklist (completed) [12]	Overall	Ongoing	C	There has been no change in circumstances with regard to rehabilitation, and there has been no progressive rehabilitation required as all areas related to establishing the TANPF remain in use. With the completion of construction and transition into operations, an Operational Environmental Management Plan has been prepared that includes an objective to minimise adverse impacts to vegetation communities with performance targets related to not introducing any new species of weeds to the TANPF and not spreading any existing weeds within the TANPF (refer to Section 14.2.3 of Attachment 10). Weed surveys have been conducted by an independent botanist in December 2016 and April 2017. The April survey was completed as a report in September 2017 (refer to Attachment 11). One new weed (two plants) was recorded in the April 2017 survey. These plants were removed. Weeds are monitored as part of the routine environmental inspections (refer to Attachment 12). The reported presence of weeds triggers weed spraying as a control, as noted in the attached example inspection (question 18).
870:M6-2	Rehabilitation	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.	CAR. Operational Environmental Management Plan [10] Written Correspondence.	N/A	Post-decommissioning	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.	NR	There has been no change in circumstances with regard to rehabilitation, and there has been no progressive rehabilitation required as all areas related to establishing the TANPF remain in use.
870:M7-1	Fauna	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	Employ structures and apparatus to deter birds from entering the contaminated and clean ponds. Seek advice from DEC.	CAR. Bird deterrent methodology – as agreed by DPaW [13] [14] Copy of Environmental Inspection checklist (completed) [12]	Overall	Ongoing	C	Bird deterrent systems have previously been assessed by Department of Parks and Wildlife (now DBCA) and the preferred option agreed for implementation (Attachment 13- DBCA Approved Bird Deterrent Systems and Attachment 14 - Approval Correspondence).

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
				DWER 2018 MS870 CAR response [15] Yara Response DWER inquiry 2018 MS870 CAR [16]				All ponds at the time of this audit had bird deterrent wires in place at approximate 5m spacings as per configuration agreed with DBCA. The only exception to this was Pond 5 which is currently undergoing repair works. The previous audit submitted in October 2018 identified a potential non-compliance for Ministerial condition 7-1. In response to this potential non-compliance DWER required YPN to submit a report confirming approved bird deterrents have been reinstated (Attachment 15) which was submitted confirming the installation on the 10th of January 2019 (Attachment 16).
870:M7-2	Fauna	During construction of the TAN Plant 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 sulphate soils and water in acid sulphate 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 TAN Plant site boundary to the CEO.	Implement the Construction Terrestrial Fauna Management (CTFM) Plan for MINISTER approval. Report on Fauna Found.	N/A	Pre-construction Construction	Ongoing Fauna Found Report Within 14 days	CLD	As noted in previous CAR (2018), construction was completed in February 2016, well outside this reporting period. No further construction works have been conducted during this reporting period that resulted in excavation of trenches or construction-related voids.
870:M8-1	Groundwater	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	Undertake Hydrogeological Studies.	N/A	Pre-construction	Ongoing	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
		groundwater beneath the TAN Plant site and in surrounding areas.						
870:M8-2	Groundwater	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	Prepare the Construction Water Quality Management Plan for MINISTER approval, including if required, dewatering management. Written correspondence.	N/A	Pre-construction	Ongoing	CLD	As noted in the previous CAR (2017), construction was completed February 2016 and no construction activities required dewatering. There have been no further construction activities which would require groundwater dewatering.
870:M8-3	Groundwater	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.	Written correspondence.	CAR. Groundwater monitoring report [5]	Overall	After outcomes of the hydrogeological studies	CLD	MW1 – MW5 have been installed on the TANPF site as approved by DWER. Monitoring of MW1 – MW5 is ongoing as per M8-4 below with reporting to DWER 6 monthly, refer to M8-4 below.
870:M8-4	Groundwater	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.	Implement Environmental Monitoring Procedure.	CAR. Groundwater monitoring reports, records [3] [4] [5] [6] [7]	Overall	Every six months	C	During the reporting period groundwater monitoring was conducted twice, in September 2018 and March 2019. Both sets of results were compared to the groundwater monitoring trigger values and were reported to DWER in accordance with Condition M8-5. The 11th September 2018 sampling results were received on 28th September and reported to DWER on 3rd October 2018 (Attachments 3 and 4). The 19th and 21st March 2019 sampling results were received on 28th and 29th March and reported to DWER on 4th April 2019 (Attachments 5, 6 and 7).
870:M8-5	Groundwater	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.	Implement Environmental Monitoring Procedure. Written correspondence.	CAR. Groundwater monitoring report, records [4] [6] [7] A copy of correspondence to CEO advising of any exceedance [3] [5] A copy of correspondence to Auditor submitting Detailed Site Investigation (DSI) [18]	Overall	Within 7 days of the exceedance. Monitoring results biannually, or a frequency defined by CEO	C	See Condition M8-4 above. The reports provided to DWER contain the relevant information required by MS8-4 including: - Details of groundwater monitoring results including exceedances - Evidence which allows determination of the cause of exceedance (reference to unplanned release events reported under Section 72 of the EP Act) There have been 30 new monitoring wells installed during the reporting period as noted below: • MW8-MW32 • DS5A, DS6A, DS9 • MW5A, MW5B The location of monitoring wells is shown in Attachment 17. The additional wells have been installed in response to a 2017 spill of liquid ammonium nitrate solution (ANsol) to the north of Pond 4

Audit Code	Subject	Requirement (extracted directly from MS870)	How	Evidence	Phase	Timeframe	Status	Further Information
								and a contaminant leakage from Pond 2 (both reported under Section 72). Golders has been contracted to conduct a Detailed Site Investigations (DSI) [18] which is currently being reviewed by the auditor, an Ecological Risk Assessment and Remediation Option Assessment is also currently underway.
870:M8-6	Groundwater	The proponent shall make the monitoring reports required by condition 8-5(5) publicly available in a manner approved by the CEO.	Monitoring reports publicly available as approved by CEO.	Link to publicly available reports.	Overall	Biannually, or a frequency defined by CEO	C	Groundwater Monitoring Reports for the monitoring period are publicly available at the following location: https://www.yara.com.au/about-yara/about-yara-australia/pilbara/yara-pilbara-nitrates/
870:M9-1	Acid Sulphate Soils	The proponent shall undertake intrusive acid sulphate soils investigations prior to the commencement of construction.	Undertake intrusive acid sulphate investigations.	Acid Sulphate Investigation Report.	Pre-construction	Ongoing	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.
870:M9-2	Acid Sulphate Soils	In the event that acid sulphate soils are disturbed during construction of the TAN Plant, 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 sulphate soils and water in acid sulphate soil landscapes (DEC, 2009) and any subsequent revisions.	Preparation of Acid Sulphate Soils (ASS) Management Plan, if required.	ASS Reports.	Construction	After ASS are disturbed	NR	Noted as not required (NR) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017 Circumstances have not changed during this reporting period, and no acid sulphate soils have been disturbed.
870:M10-1	Decommissioning	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.	Preparation of Decommissioning Plan.	Decommissioning Report.	De-commissioning	Prior to undertaking ground-disturbing activities	CLD	Noted as closed (CLD) in the DWER Compliance Audit Report 1379 (Ref: CA01-2013-0018-) dated 21 September 2017.
870:M10-2	Decommissioning	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.	Implementation of Decommissioning Plan.	Decommissioning reports. A copy of correspondence.	De-commissioning	At least six months prior to date of closure	NR	The TAN Plant is anticipated to operate for a period in excess of 20 years.

Appendix 2 – Schedule 1 Compliance Assessment

Schedule 1 of MS870 describes the key proposal characteristics of the approved TANPF, outlines the authorised extent of production and delineates the authorised development envelope and disturbance footprint associated with construction of the plant. The Schedule has been amended via a Section 45C change to the proposal on 7 June 2017. Modifications made to the Compliance Assessment of Key Characteristics Table (as shown in Table 5) were:

- decrease the development envelope (area of project lease) from 79 to 48.77 hectares (ha);
- decrease the disturbance footprint from 35 to 33.11 ha;
- remove bagged and bulk TAN storage capacity; and
- update figures 1 and 2 and delineation coordinates.

Condition M1-1 of MS870 requires that the TAN Plant shall be implemented as documented and described in Schedule 1 of MS870. Table 5 documents the assessment of compliance against the key characteristics of the TAN Plant.

Table 3: Compliance Assessment of Schedule 1

Requirement		Status	Further Information
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.		C	The TANPF has been implemented in accordance with all elements of Schedule 1.
Element	Authorised Extent		
General			
Technical ammonium nitrate production facility (TANPF) capacity	350,000 tons of technical ammonium nitrate (TAN) per annum.	C	TANPF has not been in operation for much of the reporting period, operating between the 12th of May and the 4th of July 2019. Total production during this operational period was 37,557 metric tons of Technical Ammonia Nitrate (TAN).
Development Envelope	48.77 ha	C	Development envelope area revised to reflect the actual finished boundary of the TANPF.
Disturbance Footprint	33.11 ha	C	Disturbance footprint revised to reflect the final area disturbed within the development envelope, i.e. 33.11 ha.
Main Process Units			
Nitric acid Plant	Capacity – 760 tonnes per day.	C	TANPF has not been in operation for the majority of the reporting period as turn around and maintenance was ongoing. Performance will be closely
Ammonium nitrate solution Plant	Capacity – 965 tonnes per day.	C	
TAN prilling Plant	Capacity – 915 tonnes per day.	C	

Requirement		Status	Further Information
			monitored during operations and verified during the next CAR period.
Storage, loading, and transport			
Liquid ammonia pipeline between the TAN Plant and the adjacent YARA Pilbara Fertilisers Pty Ltd (YPFPL)	710 meters long.	C	
Wastewater discharge pipeline	Connecting the TAN Plant to the Water Corporation facility	C	
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.	C	TANPF has not been in operation for the majority of the reporting period. Performance will be closely monitored during operations and verified during the next CAR period.
Nitrous oxide (N_2O)	Up to 163.7 t/yr, 5.5 g/s.	C	
Carbon monoxide (CO)	Up to 41 t/yr, 1.3 g/s.	C	
Methane (CH_4)	Up to 17.8 t/yr, 0.6 g/s.	C	
Ammonia (NH_3)	Ammonium nitrate prilling plant “common stack” - Refer to Condition 5. Nitric acid Plant stack - up to 0.02 g/s.	C	
Particulate matter [as total suspended particulates (TSP)]	Ammonium nitrate prilling plant “common stack” - Refer to Condition 5.	C	
Sulphur dioxide (SO_2)	Trace.	C	
Carbon dioxide (CO_2) [produced]	Up to 532.6 t/yr, 17.8 g/s.	C	
Total greenhouse gas emissions	Approximately 84,451 tonnes of CO_2-e per year.	C	
Greenhouse gas intensity	Approximately 0.241 tonnes of CO2-e per tonne of TAN.	C	
Solid waste	Up to 120 kilograms per day (organic matter from the off-specification prills).	C	

Appendix 3 – Register of Documents and Records Reviewed

[1] MS870 Technical Ammonium Nitrate Production Facility (6 July 2011) + Attachment 2 to Ministerial Statement 870 (7 June 2017)

[2] Yara Pilbara Nitrates Compliance Assessment Plan Ministerial Statement 870 Technical Ammonia Nitrate Plant Revision (Ref: 250-200-CAR-YPN-0001) - Email submission 10th of January 2019

[3] Transmittal No. 0181 from YPN to DWER submitting groundwater monitoring results September 2018 (4th October 2018)

[4] Report of Examination (Groundwater monitoring) from ChemCentre (received 28th September 2018)

[5] Transmittal No. 0181 from YPN to DWER submitting groundwater monitoring results March 2019 (4th April 2019)

[6] Report of Examination (Groundwater monitoring) from ChemCentre (received 28th March 2019)

[7] Report of Examination (Groundwater monitoring) from ChemCentre (received 29th March 2019)

[8] Ektimo Emission Testing Report- Common Stack 25th of June 2019

[9] Nitric Acid Stack CEMS Data for operational period 12th of May to the 4th of July 2019

[10] YARA 650-200-PLN-YPN-0001 Operations Environmental Management Plan

[11] YARA Technical Ammonium Nitrate (TAN) Plant – Burrup Peninsula – Weed Survey (September 2017)

[12] Environmental Inspection Form - YPN 12th April 2019

[13] YARA Bird Deterrent Systems Assessment Report

[14] Email Correspondence - DPAW Bird Deterrent System approval 25th June 2015

[15] 2018 MS870 DWER Response 20th November 2018

[16] Yara Response to MS870 DWER Response 10th January 2019

[17] Groundwater Monitoring Location 2019

[18] YPN Letter to Auditor DSI Submission, 25th June 2019