



Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V

Once completed, please submit this form either via email to info-der@dwer.wa.gov.au, or to the below postal address:

Department of Water and Environmental Regulation
Locked Bag 33 Cloisters Square
PERTH WA 6850

Section A – Licence Details			
Licence number:	L9224/2019/1	Licence file number:	DER2019/000563
Licence holder:	Yara Pilbara Fertilisers Pty Ltd		
Trading as:			
ACN:	095 441 151		
Registered address:	Level 10, 233 Adelaide PERTH WA 6000		
Reporting period:	01 / 01 / 2022 to 31 / 12 / 2022		

Section B – Statement of Compliance with Licence Conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
<input type="checkbox"/> Yes – please complete: <ul style="list-style-type: none">• section C;• section D if required; and• sign the declaration in Section F.
<input checked="" type="checkbox"/> No – please complete: <ul style="list-style-type: none">• section C;• section D if required;• section E; and• sign the declaration at Section F.

Section C – Statement of Actual Production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed Premises Category	Actual Production Quantity
31: chemical manufacturing	684,221 T Ammonia
85: sewage facility	2,889 m ³

Section D – Statement of Actual Part 2 Waste Discharge Quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed Premises Category	Actual Part 2 Waste Discharge Quantity

Section D – Statement of Actual Part 2 Waste Discharge Quantity	
NA	NA

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	14	Date(s) of non-compliance:	January 2022
Details of non-compliance:			
As per the CEMS Code data availability should be greater than or equal to 90 percent, based on the calendar month. The Package Boiler did not comply with this requirement, achieving 88% availability in January.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact.			
Cause (or suspected cause) of non-compliance:			
In January the Package Boiler CEMS comms failed intermittently between the 09/01/2022 05:00 and 15/01/2022 09:00. The connection was lost and re-established five (5) times (offline for 89 hours total).			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The vendor was able to resolve the comms issue for the Package Boiler CEMS on the 19 th of January. Compliance was maintained for the rest of the reporting period.			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally	Date: / /		
<input type="checkbox"/> Reported to DWER in writing	Date: / /		

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	14	Date(s) of non-compliance:	April 2022
Details of non-compliance:			
As per the CEMS Code data availability should be greater than or equal to 90 percent, based on the calendar month. The Primary Reformer did not comply with this requirement, achieving 87% availability in April.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact.			
Cause (or suspected cause) of non-compliance:			
In April the Primary Reformer CEMS unit was not online after a prolonged shutdown. The unit was offline for 84 hours during the 632 hours of operations for the month.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
YPF's start-up procedure was updated to ensure the CEMS units are operational, daily checks are also required. The Primary Reformer maintained compliance for most of the reporting period.			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	6	Date(s) of non-compliance:	Ongoing (recurring)
Details of non-compliance:			
Primary Reformer NO _x (as NO ₂) emissions exceed the Licence limit of 180 mg/m ³ once every 26-32 hours (266 hours total for 2022).			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact is expected.			
Cause (or suspected cause) of non-compliance:			
A recurring exceedance for the Primary Reformer was first identified when the CEMS unit was installed. It was identified that the NO _x (as NO ₂) emissions are exceeding the Licence limit of 180 mg/m ³ once every 26-32 hours. Further analysis has shown that these high NO _x readings are correlating with a recurring production process step (mol sieve regeneration) that was not otherwise observable without CEMS installed. The peaks in NO _x above the Licence limit occurs for approximately 90 minutes per event. DWER was first notified of this recurring exceedance on the 8 th of September 2020.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>Yara has investigated various options to reduce NO_x emissions either through plant optimisation or capital improvements. Through these investigations and process optimisation trials, a reduction in NO_x emissions has been realised by:</p> <ul style="list-style-type: none"> • Reducing the rate of pressure decrease at the beginning of the molecular sieve regeneration process to slow the rate at which absorbed NH₃ is liberated from the sieve; • Shortening the in-service time of the molecular sieve regeneration; • Adjusting the oxygen balance to increase waste gas combustion performance within the Primary Reformer; and • Replacement of a faulty valve that was found to be affecting both sieves during the molecular sieve regeneration process. <p>Whilst the above process optimisations have improved NO_x emission performance; Yara identified that an upgrade to the Ammonia Recovery Unit (ARU) was necessary to optimise NH₃ recovery and reduce NO_x emissions. The upgrade will be undertaken in Q2 2023. This will include replacement of the ARU's Ammonia Recovery Chamber (ARC) and associated packing. It is expected that the more efficient ARC will improve efficiency of the ARU resulting in less NH₃ in the gas stream and ultimately lower NO_x from the combusted waste gas in the Primary Reformer.</p>			
Was this non-compliance previously reported to DWER?			

Section E – Details of Non-Compliance with Licence Condition	
<input type="checkbox"/> No	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 10/02/2022, 10/03/2022, 07/04/2022, 17/05/2022, 13/06/2022, 30/08/2022, 24/10/2022, 31/10/2022, 07/11/2022, 14/11/2022, 21/11/2022, 19/12/2022, 23/12/2022, 29/12/2022, 04/01/2023

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	6	Date(s) of non-compliance:	14/01/2022 17:00-20:00 21/01/2022 15:00-21:00 22/01/2022 14:00-15:00 & 17:00-21:00 23/01/2023 19:00-21:00 24/01/2023 11:00-13:00 & 21:00-1:00 23/02/2023 13:00-17:00 25/02/2023 04:00 27/02/2023 02:00-05:00 28/02/2023 16:00-17:00 06/03/2023 20:00-21:00 08/03/2023 20:00
Details of non-compliance:			
Primary Reformer NO _x (as NO ₂) emissions exceed the Licence limit of 180 mg/m ³ : <ul style="list-style-type: none"> • 14/01/2022 4 hours 242.42 mg/m³ (max) • 21/01/2022 7 hours 210.55 mg/m³ (max) • 22/01/2022 7 hours 300.9 mg/m³ (max) • 23/01/2023 3 hours 306.43 mg/m³ (max) • 24/01/2023 7 hours 288.25 mg/m³ (max) • 23/02/2023 5 hours 245.05 mg/m³ (max) • 25/02/2023 1 hour 203.86 mg/m³ • 27/02/2023 4 hours 329.42 mg/m³ (max) • 28/02/2023 2 hours 206 mg/m³ (max) • 06/03/2023 2 hours 231.02 mg/m³ (max) • 08/03/2023 1 hour 182.42 mg/m³ 			
What was the actual (or suspected) environmental impact of the non-compliance?			
NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact is expected			
Cause (or suspected cause) of non-compliance:			
The underlying cause for these non-compliances is high temperatures in the ARU caused by high cooling water temperatures. The root cause of the ongoing ARU issues is that YPF was operating with significantly reduced cooling capacity (6-7 out of 9 cells) due to the sea water cooling tower failure.			

Section E – Details of Non-Compliance with Licence Condition	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
The rebuild of the cooling tower was completed in June 2022. No further exceedances have occurred since then (due to this issue).	
Was this non-compliance previously reported to DWER?	
<input type="checkbox"/> No	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date: / /
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 10/02/2022, 10/03/2022, 07/04/2022

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	6	Date(s) of non-compliance:	23/04/2022 4:00-8:00
Details of non-compliance:			
Primary Reformer NO _x (as NO ₂) emissions exceeded the Licence limit of 180 mg/m ³ for 5 hours (max 182.93 mg/m ³).			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact			
Cause (or suspected cause) of non-compliance:			
On the 11 th of April the plant restarted and issues were detected with the molecular sieve performance (regeneration times had increased). After investigation it was noticed that a valve was passing Syngas to the Primary Reformer as a waste gas during the regeneration cycle. This caused the cycle to increase from 90 minutes to 5 hours.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Plant was shut-down and issue rectified.			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally	Date: / /		
<input type="checkbox"/> Reported to DWER in writing	Date:		

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	10	Date(s) of non-compliance:	13/04/2022 – 28/04/2022
Details of non-compliance:			
As per licence L9224/2019/1 Table 7, Note 1 NO _x (as NO ₂) concentrations must be corrected to STP at 3% O ₂ on a dry basis. The O ₂ meter for the Primary Reformer CEMS unit failed and was offline for 15 days.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact. An average O ₂ concentration was used to calculate corrected values.			
Cause (or suspected cause) of non-compliance:			
Equipment failure.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The O ₂ analyser was noted as being offline 12 days after failure. Processes were updated to ensure a daily check is undertaken to ensure all CEMS meters are online.			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	16	Date(s) of non-compliance:	01/01/2022-15/02/2022
Details of non-compliance:			
W4 electrical conductivity meter unable to provide continuous readings (erroneous).			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact. Spot samples were taken to ensure compliance with licence limits.			
Cause (or suspected cause) of non-compliance:			
Failure of EC probe.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Meter replaced and continuous readings recommenced on the 15th of February 2022			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	16	Date(s) of non-compliance:	02/03/2022-18/03/2022
Details of non-compliance:			
W4 electrical conductivity meter unable to provide continuous readings (erroneous).			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact. Spot samples were taken to ensure compliance with licence limits.			
Cause (or suspected cause) of non-compliance:			
Failure of EC probe.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Meter recalibrated and continuous readings recommenced after shutdown (1 st April 2022).			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	16	Date(s) of non-compliance:	12/10/2022 - 18/10/2022
Details of non-compliance:			
W4 sea water in-field analyser failed to return continuous readings for temperature, conductivity and pH.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact. Daily spot samples taken to ensure compliance with licence limit requirements. No spot sample taken for temperature for the 13/10/2022.			
Cause (or suspected cause) of non-compliance:			
In-field analyser failed to relay data. Investigation identified this to be due to a disruption of the wireless signal caused by the placement of a series of sea containers and scaffolding.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Immediate removal of sea containers and scaffolding, which then re-established the signal. Site plans up-dated to reflect criticality of maintaining line of sight between the W4 analyzer and wireless signal router.			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> No			
<input type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input type="checkbox"/> Reported to DWER in writing		Date: / /	

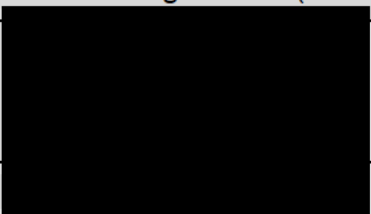
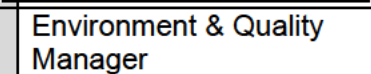
Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	16	Date(s) of non-compliance:	18/05/2023-26/05/2023
Details of non-compliance:			
Western Sedimentation Basin (WSB) valve passing water. Attempts were made to isolate the discharge point but failed. Daily sampling commenced 26 th of May to the 5 th of July. No samples taken on the 18 th to the 22 nd of May and 24 th to the 25 th of May.			
What was the actual (or suspected) environmental impact of the non-compliance?			
NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact expected. Water going to basins was from rainfall.			
Cause (or suspected cause) of non-compliance:			
Failure of valve. Unable to plug outlet due to heavy rain and WSB being full to capacity.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Valve repaired and closed 5 ^h July 2022.			
Was this non-compliance previously reported to DWER?			
<input type="checkbox"/> No			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally	Date: / /		
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 19/07/2022 & 26/07/2022		

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the Licence holder was non-compliant at a time during the reporting period.			
Condition no:	8	Date(s) of non-compliance:	23-24/06/2022 26/06-05/07/2022
Details of non-compliance:			
Western Sedimentation Basin (W2) Total Suspended Solids (TSS) exceedances.			
What was the actual (or suspected) environmental impact of the non-compliance? NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact expected.			
Cause (or suspected cause) of non-compliance:			
Failure of W2's outlet valve caused a continuous release from the basin from the 18 th of May to 5 th of July. By the 23 rd of June water levels were low. Low water levels within the basin and continuous water flow caused sediment at the bottom of the basin to become agitated, resulting in an elevated level of TSS			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Valve repaired and closed 5 ^h July 2022.			
Was this non-compliance previously reported to DWER?			
<input type="checkbox"/> No			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date: / /	
<input checked="" type="checkbox"/> Reported to DWER in writing		Date: 19/07/2022 & 26/07/2022	

Section F – Declaration

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular¹.

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.

Signature ² :		Signature:	
Name: (printed)		Name: (printed)	
Position:	Environment & Quality Manager	Position:	
Date:	28/03/2023	Date:	
Seal (if signing under seal):			

¹ It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

² AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.