



## Annual Audit Compliance Report Form

*Environmental Protection Act 1986, Part V Division 3*

Once completed, please submit this form either via email to [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au), or to the below postal address:

Department of Water and Environmental Regulation  
Locked Bag 10  
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L6217/1983/15	Licence file number:	2012/007237-7~2
Licence holder name:	Alcoa of Australia Limited		
Trading as:	Alcoa of Australia Limited		
ACN:	004 879 298		
Registered business address:	181-205 Davy Street BOORAGOON WA 6154		
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"><li>• section C;</li><li>• section D (if required); and</li><li>• sign the declaration in Section F.</li></ul>
<input checked="" type="checkbox"/> No – please complete: <ul style="list-style-type: none"><li>• section C;</li><li>• section D (if required);</li><li>• section E; and</li><li>• sign the declaration in Section F.</li></ul>

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
<i>*Refer to Attachment 1 for supporting documentation for the below quantities</i>	
Category 46 – Bauxite refinery	2,614,411 tonnes of refined alumina
Category 52 – Electric Power Generation	649,337 MWhr total or average 74MW per day of power generated using natural gas
Category 64 – Class II or III putrescible landfill site	250 Tonnes to Class II landfill
Category 67 – Fuel burning	39,341 kg/hr (natural gas with Sulphur content less than or more than 0.25%)

<b>Section D – Statement of actual Part 2 waste discharge quantity</b>	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
<b>Prescribed premises category</b>	<b>Actual Part 2 waste discharge quantity</b>
<i>*Refer to Attachment 1 for supporting documentation for the below quantities</i>	
Category 46 - Bauxite refinery	5,018,838 tonnes of bauxite residue (tailings)



Section E – Details of non-compliance with licence condition			
Condition no:	A23(b)	Date(s) of non-compliance:	28/02/2022 20/05/2022
Details of non-compliance:			
<p>Alcoa has approval from DWER to use USEPA SW-846 Test Method 0011 (<b>Method 0011</b>) for aldehydes and ketones sampling on the Calciner 1-3 Low Volume Vent Stack (<b>LVV Stack</b>) as required by Condition A23(b), Appendix A Table 14 of the licence.</p> <p>Alcoa has engaged a stack emission testing company, who are accredited by the National Association of Testing Authorities, to perform the aldehydes and ketones sampling on the LVV Stack.</p> <p>During Q1 and Q2 2022, the stack emission testing company attempted to use Method 0011 for aldehydes and ketones sampling on the LVV Stack during normal operating conditions. Due to the stack gas velocity and differential pressure being below the minimum requirements, it was not possible to undertake isokinetic sampling in accordance with Method 0011.</p> <p>To obtain a representative sample, the stack emission testing company undertook anisokinetic sampling for aldehydes and ketones at the LVV Stack, and otherwise followed Method 0011. The stack emission testing company considered that anisokinetic sampling was an appropriate deviation from Method 0011 to collect representative samples given the low velocity at the sampling point for the LVV Stack.</p>			
What was the actual (or suspected) environmental impact of the non-compliance?			
<p><b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>			
There is no environmental impact from this event.			
Cause (or suspected cause) of non-compliance:			
The LVV Stack was under normal operating conditions but had a stack gas velocity and differential pressure, which were below the minimum requirements for Method 0011. This made isokinetic sampling under Method 0011 not possible.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
<p>After completing an internal review of the options presented by the stack sampling company for continued sampling compliance of the LVV, Alcoa submitted a method deviation request for approval to DWER on 30/06/2022. The method deviation request was to formally continue sampling the LVV anisokinetically for Method 0011.</p> <p>This was approved by DWER on 6/07/2022 and will be considered in the next Licence amendment during risk-based review.</p>			
Was this non-compliance previously reported to DWER?			
<input checked="" type="checkbox"/> Yes, and			
<input type="checkbox"/> Reported to DWER verbally		Date:	
<input checked="" type="checkbox"/> Reported to DWER in writing		Date: 30/06/2022	



### 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:	A25(a)	Date(s) of non-compliance:	Q3 2022
---------------	--------	----------------------------	---------

Details of non-compliance:

Condition A25(a) requires stack emissions monitoring of the Liquor Burner to be completed as per Appendix A Table 15. This involves quarterly stack emissions sampling for a range of parameters. Condition A25(b) requires the results of this sampling to be reported to DWER, which is achieved in the submission of the Annual Environment Report (AER) by March of the following year.

During Quarter 3, 2022, the parameter of 'odour concentration' in Appendix A Table 15 for the Liquor Burner was not able to be sampled due to a combination of laboratory and equipment availability issues. This resulted in the odour sampling required by Condition A25(a) unable to be taken for the Liquor Burner in Quarter 3 2022 and results unavailable to be presented in the AER. All other parameters required in Appendix A Table 15 were able to be sampled at the Liquor Burner for the Quarter 3 2022 period. The missed sample was noted in the 2022 AER.

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.

There is no environmental impact from this event.

Cause (or suspected cause) of non-compliance:

Unexpected odour laboratory access issues meant odour sampling was not able to be completed with the rest of the sampling campaign in early July 2022.

After the odour laboratory access issues were resolved, the Liquor Burner was unable to be sampled because it was offline from the 12 July until the end of Quarter 3 2022 due to an unplanned failure.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Alcoa secured an alternative odour laboratory contract to ensure compliance sampling could be completed ongoing.

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

Date:

Reported to DWER in writing

Date: 11/10/2022



**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:	A25(b)	Date(s) of non-compliance:	Q3 2022
---------------	--------	----------------------------	---------

Details of non-compliance:

Condition A25(a) requires stack emissions monitoring of the Liquor Burner to be completed as per Appendix A Table 15. This involves quarterly stack emissions sampling for a range of parameters. Condition A25(b) requires the results of this sampling to be reported to DWER, which is achieved in the submission of the Annual Environment Report (AER) by March of the following year.

During Quarter 3, 2022, the parameter of 'odour concentration' in Appendix A Table 15 for the Liquor Burner was not able to be sampled due to a combination of laboratory and equipment availability issues. This resulted in the odour sampling required by Condition A25(a) unable to be taken for the Liquor Burner in Quarter 3 2022 and results unavailable to be presented in the AER. All other parameters required in Appendix A Table 15 were able to be sampled at the Liquor Burner for the Quarter 3 2022 period. The missed sample was noted in the 2022 AER.

(This non-compliance relates to the same event as condition A25(a) set out above)

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.

There is no environmental impact from this event.

Cause (or suspected cause) of non-compliance:

Unexpected odour laboratory access issues meant odour sampling was not able to be completed with the rest of the sampling campaign in early July 2022.

After the odour laboratory access issues were resolved, the Liquor Burner was unable to be sampled because it was offline from the 12 July until the end of Quarter 3 2022 due to an unplanned failure.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

Alcoa secured an alternative odour laboratory contract to ensure compliance sampling could be completed ongoing.

Was this non-compliance previously reported to DWER?

Yes, and

Reported to DWER verbally

Date:

Reported to DWER in writing

Date: 11/10/2022



**Section E – Details of non-compliance with licence condition**

Condition no:	A27	Date(s) of non-compliance:	7/09/2022 8/09/2022 14/09/2022
---------------	-----	----------------------------	--------------------------------------

Details of non-compliance:

Table 8 of Condition A27 of the Licence specifies limits for emission sources, which includes particulates limit 80 mg/m<sup>3</sup> for the Calciners. Condition A28 provides for exemptions of the Calciner particulates limit referred to in Table 8 of Condition A27, during events specified in Appendix A Table 16 if the corresponding action is completed for each event. This includes an exemption for dust concentration meter correlation in Appendix A Table 16 section (v).

During dust concentration meter (DCM) correlation studies, which occur annually, Alcoa intentionally exceeds the particulates limit to confirm the DCM is reading accurately at all emission levels. To rely on the exemption contained in Condition A28 and Appendix A Table 16, the action required is to provide prior notification to DWER that a DCM correlation study is to be undertaken.

In this instance, a notification letter was created but was not sent to DWER for the Calciner 4 DCM correlation study, which commenced on 6/09/2022. This was an administrative oversight by Alcoa and was identified during an internal annual audit process. Notification of exceedance of a limit was reported to DWER on 10/02/2023 when Alcoa became aware of the error as per reporting requirements in Condition G5. The correlation studies for the other three calciners at the refinery were notified to DWER during 2022 in accordance with Condition A28 and Appendix A Table 16 section (v).

Table 1 shows the dates and time periods over which the particulates limit was exceeded.

Table 1: Summary of Calciner 4 particulates exceedances during DCM Correlation

Date	Time stack monitoring result recorded over 80mg/m <sup>3</sup> (hourly averaged results)	Time DCM reading over 80mg/m <sup>3</sup> (60 consecutive minutes)	Number of consecutive minutes DCM reading was over 80mg/m <sup>3</sup>
7/09/2022	NA	8:53 to 9:57	65 minutes
7/09/2022	10:40 to 11:44	10:00 to 11:57	113 minutes
7/09/2022	12:15 to 13:19 13:30 to 14:34	12:00 to 13:57	118 minutes
8/09/2022	10:10 to 11:14	NA	NA
14/09/2022	NA	8:41 to 9:55	75 minutes
14/09/2022	10:00 to 11:04 11:31 to 12:35	9:59 to 11:55	117 minutes
14/09/2022	12:55 to 13:59	11:59 to 13:55	113 minutes

The exceedances were all intentional as part of the DCM correlation study and would have been exempt in accordance with conditions A27 and A28 of the Licence but for the administrative oversight. The samples taken that exceed the limit were collected while the calciner was in a 'temporary modified operating state' and were not part of the quarterly monitoring program.

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.

There is no environmental impact from this event.

Section E – Details of non-compliance with licence condition	
Cause (or suspected cause) of non-compliance:	
Administrative error.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
There are no corrective actions required to mitigate impacts, as there were no known environmental impacts. Alcoa has identified two procedural improvements that will be implemented to prevent a reoccurrence of the administrative oversight which led to the missed notification.	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date:
<input checked="" type="checkbox"/> Reported to DWER in writing	Date: 10/02/2023



**Section E – Details of non-compliance with licence condition**

Condition no:	A29(a)	Date(s) of non-compliance:	7/09/2022 14/09/2022
---------------	--------	----------------------------	-------------------------

**Details of non-compliance:**

Table 8 of Condition A27 of the Licence specifies limits for emission sources, which includes particulates limit 80 mg/m<sup>3</sup> for the Calciners. Condition A28 provides for exemptions of the Calciner particulates limit referred to in Table 8 of Condition A27, during events specified in Appendix A Table 16 if the corresponding action is completed for each event. This includes an exemption for dust concentration meter correlation in Appendix A Table 16 section (v).

During dust concentration meter (DCM) correlation studies, which occur annually, Alcoa intentionally exceeds the particulates limit in order to confirm the DCM is reading accurately at all emission levels. To rely on the exemption contained in Condition A28 and Appendix A Table 16, the action required is to provide prior notification to DWER that a DCM correlation study is to be undertaken.

In this instance, a notification letter was created but was not sent to DWER for the Calciner 4 DCM correlation study, which commenced on 6/09/2022. This was an administrative oversight by Alcoa and was identified during an internal annual audit process.

The correlation studies for the other three calciners at the refinery were notified to DWER during 2022 in accordance with Condition A28 and Appendix A Table 16 section (v).

Table 1 shows the dates and time periods over which the particulates limit was exceeded.

**Table 1: Summary of Calciner 4 particulates exceedances during DCM Correlation**

Date	Time stack monitoring result recorded over 80mg/m <sup>3</sup> (hourly averaged results)	Time DCM reading over 80mg/m <sup>3</sup> (60 consecutive minutes)	Number of consecutive minutes DCM reading was over 80mg/m <sup>3</sup>
7/09/2022	NA	8:53 to 9:57	65 minutes
7/09/2022	10:40 to 11:44	10:00 to 11:57	113 minutes
7/09/2022	12:15 to 13:19 13:30 to 14:34	12:00 to 13:57	118 minutes
8/09/2022	10:10 to 11:14	NA	NA
14/09/2022	NA	8:41 to 9:55	75 minutes
14/09/2022	10:00 to 11:04 11:31 to 12:35	9:59 to 11:55	117 minutes
14/09/2022	12:55 to 13:59	11:59 to 13:55	113 minutes

The exceedances were all intentional as part of the DCM correlation study and would have been exempt in accordance with conditions A27 and A28 of the Licence but for the administrative oversight.

Given the exemption contained in condition A28 is unavailable for this event, Alcoa acknowledges that it also has not complied with condition A29(a) because the calciner recorded a dust concentration that exceeded the particulate limit for more than 60 minutes.

(This non-compliance relates to the same event as condition A27 set out above)



Section E – Details of non-compliance with licence condition	
<p>What was the actual (or suspected) environmental impact of the non-compliance?  <b>NOTE</b> – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.</p>	
<p>There is no environmental impact from this event.</p>	
<p>Cause (or suspected cause) of non-compliance:</p>	
<p>Administrative error.</p>	
<p>Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:</p>	
<p>There are no corrective actions required to mitigate impacts, as there were no known environmental impacts. Alcoa has identified two procedural improvements that will be implemented to prevent a reoccurrence of the administrative oversight which led to the missed notification.</p>	
<p>Was this non-compliance previously reported to DWER?</p>	
<p><input checked="" type="checkbox"/> Yes, and</p>	
<p><input type="checkbox"/> Reported to DWER verbally</p>	<p>Date:</p>
<p><input checked="" type="checkbox"/> Reported to DWER in writing</p>	<p>Date: 10/02/2023</p>

**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 particular<sup>1</sup>.

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

Signature <sup>2</sup> :		Signature:	
Name: (printed)		Name: (printed)	
Position:	Vice President Operations	Position:	Australia Controller
Date:	22/03/2023	Date:	22/03/2023
Seal (if signing under seal):			

<sup>1</sup> 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.

<sup>2</sup> 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.