

Government of Western Australia Department of Water and Environmental Regulation

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, 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:	L4533/1967/15	Licence file number:	DER2015/00597	
Licence holder name:	Cockburn Cement Limited			
Trading as:	Cockburn Cement Limited			
ACN:	008 673 470			
Registered business address:	Level 4, 151 Pirie Street, Adelaide. SA 5000			
Reporting period:	01 / 01 / 2024	to 31 / 12 / 3	2024	

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)

- ☐ Yes please complete:
 - section C;
 - · section D (if required); and
 - sign the declaration in Section F.
- \boxtimes No please complete:
 - section C;
 - section D (if required);
 - section E; and
 - · sign the declaration in 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
Category 43 – Cement or Lime Manufacturing	<2,400,000 tonnes
Category 12 – Screening etc. of Material	<1,000,000 tonnes
Category 61A – Solid Waste Facility	<5,000 tonnes
Category 63 – Class I Inert Landfill	<247,500 tonnes

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
Not applicable	Not applicable

Section E – Details of non-compliance with licence condition						
Condition no:	7			s) of non- liance:	January, February, March	
Details of non-compliance:						
As detailed in mo	onthly repo	orts to DWER the foll	owing a	are provided.		
Kiln		Parameter		Month	Data Availability	
6		TRS		January	86%	
		O, O ₂ , SO ₂ , TRS,		February	87%	
6	Flow, No	O_x , SO_2 , TRS , CO , O_2		March	74%	
0		PM, Flow		Maich	86%	
What was the ac	tual (or su	spected) environme	ntal imp	act of the non-c		
	,	•	•		cation of where the non-	
compliance took p		or alagramo to provido	ii ioigi it i	ino trio prodico lo	oddon or whore the hori	
No evidence of a	any enviror	nmental impact.				
Cause (or suspe	cted cause	e) of non-compliance):			
Kiln 6 CEMS						
January: Data logging error – TRS analyser experienced UV lamp issue in December 2023, requiring replacement using spare unit. UV lamp issue recurred in January 2024 with no spare unit available resulting in reduced data availability.						
February: Manual onsite maintenance – line blockages.						
March: Line blockages obstructing the sample line.						
	Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:					
Maintenance of CEMS is completed by an external service provider. Changes in tracking of daily checks of CEMS to better pick up blockages have been implemented and review for stock holdings of critical spares.						
Was this non-compliance previously reported to DWER?						
Yes, and	⊠ Yes, and					
Reported	to DWER verbally			Date: / /		
□ Reported	d to DWER in writing			Date: 28/02/24, 28/03/24, 28/04/24		

Section E – Deta	ils of non-compliance wi	th licence conditio	า
Please use a separ at a time during the	ate page for each condition verting period.	vith which the licence I	nolder was non-compliant
Condition no:	13	Date(s) of non- compliance:	Q2 2024
Details of non-comp	oliance:		
Kiln 5 stack test wa	s missed during Q2 due to lo	w usage.	
	al (or suspected) environment h maps or diagrams to provide in e.	•	•
No evidence of env	ironmental impact.		
Cause (or suspecte	ed cause) of non-compliance:		
	a campaign basis throughou stack tester availability.	t 2024, which resulted	in challenges in aligning
Action taken to mitinon-compliance:	gate any adverse effects of n	on-compliance and pr	event recurrence of the
	liaise with stack tester to schoerations.	edule stack testing eve	ents based on any
Was this non-comp	liance previously reported to	DWER?	
Yes, and			
☐ Reported to	DWER verbally	Date: / /	
⊠ Reported to	DWER in writing	Date: 26/09/24	

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:				Date(s) of non- compliance: 18/05/ 15/08/		24, 19/05/24 and 24
Details of non-compl	iance:					
CCL provided notification and Augustine investigation and exceedances and the item in the AACR for	gust based on pre and data validation ere were no actua	liminary a n, all repo I non-com	nd raw dat rted excee pliances w	ta extracted edances wer vith conditior	from the e found n 14. CC	e CEMS. Upon not to have been
Date	Parameter	Monitor	Reading	Monitoring	g Limit	Kiln Status
40/05/04 4:00 DM	DMAO		<u>/m³)</u>	(mg/m	า°)	KUNOFF
18/05/24 1:00 PM	PM10		.23	50		KILN OFF
18/05/24 2:00 PM 18/05/24 4:00 PM	PM10 PM10		.55 .23	50		KILN OFF KILN OFF
18/05/24 5:00 PM	PM10		. <u>23</u> .55	50 50		KILN OFF
19/05/24 11:00 AM	PM10		.34	50		KILN OFF
19/05/24 12:00 PM	PM10		.57	50		KILN OFF
19/05/24 2:00 PM	PM10		.45	50		KILN OFF
19/05/24 3:00 PM	PM10		6.26	50		KILN OFF
19/05/24 4:00 PM	PM10		.25	50		KILN OFF
19/05/24 5:00 PM	PM10		.45	50		KILN OFF
15/08/24 1:00 PM	PM10		6.6	50		KILN ON
What was the actual NOTE – please attach compliance took place.	maps or diagrams to	o provide ii	nsight into t		•	
No actual non-compliance and no environmental impact						
Cause (or suspected	Cause (or suspected cause) of non-compliance:					
CCL provided notification in May and August 2024 of various K6 CEMS PM emissions exceedances. These notifications were based on preliminary and unverified data extracted from the CEMS. During the end of month data interrogation and validation process carried out by the CEMS service and maintenance provider, these events were found to have occurred during times of CEMS maintenance and/or with the Kiln offline and therefore did not relate to actual exceedances. There were no actual non-compliances with condition 14.						
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:						
Maintenance of CEMS is completed by an external service provider. CCL is requiring cross check of maintenance activity occurring during the period of any suggested exceedance as part of the process for determining investigation and reporting.						
Was this non-compliance previously reported to DWER?						
⊠ Yes, and						
☐ Reported to D	WER verbally		Date:	/ /		
□ Reported to DWER in writing Date: 20/05/24 and 16/08/24						

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:

Date(s) of non-compliance:

N/A

Details of non-compliance:

CCL received a total of 292 community interactions relating to its Munster site of which 279 were complaints and 13 general enquiries. Of the complaints, 262 (94%) were related to odour, followed by 16 (5.6%) related to dust and 1 (0.4%) by other concerns. Given these complaints and potential perceptions in respect of odour, CCL includes this item out of an abundance of caution, but does not consider that there has been any unreasonable interference with health, welfare, convenience, comfort or amenity that would constitute any non-compliance with condition 18C.

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 actual non-compliance and no environmental impact

Cause (or suspected cause) of non-compliance:

For the reasons set out above, CCL does not consider there has been any non-compliance with condition 18C and includes this item out of an abundance of caution, in view of the nature of complaints received.

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

CCL has developed a modification to the existing lime manufacturing process called "feed diversion". Feed diversion involves diverting the shellsand into a lower and hotter section of the preheater tower, so that as the odorous compounds are released from the shellsand they are in a hotter environment where the odorous compounds are thermally destroyed.

Over the summer of 2023-24, as CCL did not have approval to run feed diversion trials or use feed diversion as part of its business-as-usual process, CCL ran trials of a different odour reduction option, which involved a reduced feed rate during periods where the local residential community was down wind of the Munster Plant.

In about August 2024, CCL proactively sought approval from DWER to conduct additional feed diversion trials at the Munster Plant. The purpose of these additional trials is to further review the effectiveness of feed diversion as an odour reduction solution in light of DWER's feedback and to compare it with potential alternative solutions. On 16 December 2024, DWER approved CCL's application for an amended licence. Among other things, the amended licence authorises CCL to undertake further feed diversion trials and imposes on CCL monitoring and reporting requirements.

The 2024-25 Feed Diversion Trials commenced in around December 2024. CCL is being assisted in the 2024-25 Feed Diversion Trials by Ektimo (which will assist in undertaking stack testing and conducting field surveys) and Katestone (which is an external expert which will assist with data analysis). After the 2024-25 Feed Diversion Trials finish, CCL will provide a Feed Diversion Monitoring Report to DWER.

Section E – Details of non-compliance with licence condition

In addition to feed diversion, CCL has considered other methods of addressing the emission of odour from the Munster Plant. These include the following:

- thermal oxidation, which involves the installation of a piece of equipment called a regenerative thermal oxidiser to incinerate odour-causing particles found in the kiln exhaust emissions;
- increasing stack flow rate, which involves modification of the exhaust stack aimed at improving dispersion of the odour-causing particles in the emissions from the lime kiln;
- bioscrubbing, which is a process that involves scrubbing the raw gas via absorption using a
 gas scrubber, with the clean air then emitted and the scrubbing water passed through a
 biological reactor; and
- activated carbon-based odour filtration, which is a physical adsorption process that involves passing raw gas through activated carbon.

CCL intends to compare the results of the 2024-25 Feed Diversion Trials with other alternative options, including those outlined above, as part of its work to identify the best mix of odour solutions.

An update about the 2024-25 Feed Diversion Trials was made available to members of the local community including via CCL's website and via CCL's mailing list. As part of the 2024-25 Feed Diversion Trial, CCL is seeking to monitor the local community's experience of odour. Any feedback received from the local community will be cross-referenced against technical data from the trial. CCL has also held meetings with the local community to raise community awareness about the 2024-25 Feed Diversion Trials

CCL will continue to receive, investigate and deal with complaints in accordance with the conditions of its licence.

Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
Reported to DWER verbally	Date: / /	
□ Reported to DWER in writing	Date: 16/12/2024 (new Licence)	

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:

Date(s) of noncompliance:

January, February, May,
June, July, December

Details of non-compliance:

There were 2 instances when the TAFE OSIRIS monitor did not meet the monthly data availability as set out below. The October instance was due to a battery fault requiring replacement. The November instance was due to instrument downtime to carry out its scheduled annual maintenance service.

Month	Location	Data Availability %	Comments
October	TAFE	87	Battery fault, replaced
November	TAFE	89.5	Annual service

The BAM units had a range of times with availability below 90% as set out below:

Month	Locatio n	Data Availability %	Reason
January	West	0	Battery stolen.
F-1	North B	78	Instrument fault (flow error)
February	West	23	Stolen battery replaced
May	East	80	Instrument fault (flow error)
June	North B	42	Intermittent power interruption resulting in instrument instability
lidy	North B	70	Intermittent instrument fault. Intermittent power
July	North	85	interruption resulting in instrument instability
Decemb er	South	8	Instrument fault (flow error)

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 evidence of environmental impact.

Cause (or suspected cause) of non-compliance:

The North B power disruptions relate to growth of native trees above the solar panels, and an action to relocate the solar panels is included.

BAM unit response and reporting actions are undertaken using raw data at the time of the event.

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

CCL is implementing the following actions:

1. Storage of spare batteries for faster turnaround upon future battery failure.

Section E – Details of non-compliance	e with licence condition		
2. Relocate North B solar panels for impro	oved power generation and related instrument stability.		
3. Review data validation process and reporting.			
Was this non-compliance previously reported to DWER?			
☐ Reported to DWER verbally	Date:		
□ Reported to DWER in writing	Date: 28/02/24, 28/03/24, 24/06/24, 28/08/24, 28/01/25		

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:

Date(s) of non-compliance:

January, February, March,
May, June, August,
October, November,
December

Details of non-compliance:

Ambient Monitoring Network exceedances:

7 tillblette tilletinletinlig i vettrette execedanicee.					
Monitoring Location	Date	Monitor Reading (μg/m³)	Monitoring Location	Date	Monitor Reading (μg/m³)
BAM East	9/1/24	56	BAM South	10/10/24	63
BAM North	9/1/24	53	BAM West	10/10/24	57
BAM North	21/1/24	53	BAM South	15/11/24	77
BAM East	25/1/24	74	BAM East	15/11/24	55
BAM North	25/1/24	83	BAM South	16/11/24	77
BAM North	4/2/24	58	BAM South	25/11/24	293
BAM South	19/2/24	51	BAM North	25/11/24	82
BAM South	23/2/24	51	BAM East	25/11/24	109
OSIRIS TAFE	16/2/24	51	BAM South	05/12/24	72
OSIRIS Britannia	16/2/24	53	BAM South	6/12/24	64
OSIRIS Coogee	16/2/24	53	BAM South	16/12/24	51
BAM South	2/3/24	65	BAM East	18/12/24	79
BAM North	18/3/24	62	BAM West	18/12/24	52
BAM West	29/4/24	51	BAM North	18/12/24	65
BAM South	08/5/24	73	BAM South	19/12/24	67
BAM South	9/5/24	62	BAM South	19/12/24	58
BAM South	22/5/24	51	BAM South	23/12/24	69
BAM South	23/5/24	59	BAM South	24/12/24	125
BAM South	20/6/24	65	BAM East	24/12/24	81
			BAM North	24/12/24	54

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 evidence of environmental impact.

Cause (or suspected cause) of non-compliance:

Analysis of the last 3 years of data shows a cyclic pattern to incidents, driven by increased fugitive dust exceedances during summer. Reduction of the coal stockpile along with improved stockpile management and monitoring by operations has resulted in reduced incidents and a safer work environment. Installation of the LKD sprinkler system along with optimised operation of the system has also contributed to dust management site improvements.

Count of atmospheric releases is mainly made up by BAM unit exceedances being 32 in 2022, 30 in 2023 and 32 in 2024. CCL continued to actively manage fugitive emissions during 2024 with use of new predictive weather information and preparation for dusty days by operations. A portion of the exceedances are contributed by dust from off-site sources. Understanding this is the case, there remains a range of Management Actions to further improve control of fugitive

Section E – Details of non-compliance with licence condition

dust emissions from site, as set out below.

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

Where appropriate, the management actions stipulated by Table 14 of the licence were undertaken. Over the last 12-months the placement of sprinklers in the field has been improved and an increased use of dust suppressant encouraged.

Retraining of personnel on reporting obligations under EP Licence has taken place and will continue to take place to ensure regulatory notifications are identified, investigated and reported within required timeframes.

A two-phase dust response improvement plan is taking place to review the dust response management actions and streamline and automate the administration and reporting through an electronic platform. The program aims to better assess and improve operational actions performed to provide clearer escalation action response across the monitoring units. The platform uses site air quality information and weather intelligence to provide a predictive response plan which reduces reactive operational effort.

Phase 1 involves the setup of the platform by enabling data transfer of the relevant BAM and OSIRIS units, weather and process information input allowing predictive response measures to be assessed and alerted to operations. The development of automated investigation reports for dust, odour and noise are also in progress. Phase 1 has mostly been completed.

Phase 2 will involve a detailed data assessment of the air quality units that may re-configure the trigger action response plan in collaboration with operations to ensure actions are practical and effective. Phase 2 includes setting up streamlined actions reporting and subsequent capability to automatically generate monthly reports and operator training.

Was this non-compliance previously reported to DWER?		
⊠ Yes, and		
☐ Reported to DWER verbally	Date: / /	
⊠ Reported to DWER in writing	Date: 10/1/24, 31/1/24, 5/2/24, 20/2/24, 26/2/24, 5/3/24, 19/3/24, 9/05/24, 10/5/24, 23/5/24, 24/5/24, 21/6/24, 11/10/24, 18/11/24, 26/11/24, 6/12/24, 9/12/24, 17/12/24, 19/12/24, 20/12/24, 24/12/24 and 27/12/24	

Section E – Deta	ils of n	on-compliance wi	th licence conditio	n	
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:			Date(s) of non- compliance:	February, April, July, August, September, October, November, December.	
Details of non-comp	pliance:				
Groundwater monit	oring wa	as not undertaken in a	accordance with Table	: 17.	
Date		Monitoring Bore	Reason		
February – April		12		equipment malfunction	
July		F	Access restrictions		
August – Decembe	r	12		ing in equipment blockage.	
October		MB1	Well obstructed at		
No evidence of environmental impact. Cause (or suspected cause) of non-compliance: CCL undertakes a comprehensive Groundwater Monitoring Program which includes monthly, quarterly and annual requirements of its extensive monitoring network. Three monitoring bores were not available for scheduled monitoring due to equipment malfunction, structural obstruction and site access restrictions at the time of monitoring. Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance: Contractual KPIs to be incorporated into Service Agreement with ground water monitoring service provider to include back up monitoring equipment, escalation of issues whilst on site to allow for immediate rectification.					
CCL is also working with Drilling contractor to establish best option to redrill casing.					
Was this non-compliance previously reported to DWER? Yes, and					
Reported to	DWER v	verbally	Date: / /		
☐ Reported to	□ Reported to DWER in writing □ Date: 28/2/24, 28/3/24, 28/4/24, 28/7/24, 28/8/24, 28/9/24, 28/10/24, 28/11/24, 28/12/2				

Section E – Details of non-compliance with licence condition					
Condition no:	42	Date(s) of non-compliance:	Per table		

Details of non-compliance:

A system review identified eleven community complaints which were determined to not have been responded to within the prescribed timeframe.

System NC Reference	Reported Date	Reported Time	Response Completion Summary	CCL AACR Review of 72hr & 10-day compliance window	AACR Time Compliance Gap
CC-005778	19/01/24	18:40	72 Hour response complete 10 Days response required	Non-compliant > 72hrs	0d, 6hrs, 16min
CC-005791	25/01/24	22:27	72 Hour response complete 10 Days response required	Non-compliant > 72hrs	0d, 13hrs, 25min
CC-005825	17/02/24	14:27	72 Hour response complete 10 Days response required	Non-compliant > 72hrs	0d, 0hrs, 59min
CC-006117	18/08/24	14:02	72 Hour response complete No further response required	Non-compliant > 72hrs	0d, 0hrs, 1min
CC-006147	12/09/24	13:22	72 Hour response complete 10 Days response required	Non-compliant > 10 day	4d, 0hrs, 44min
CC-006148	16/09/24	14:00	72 Hour response complete 10 Days response required	Non-compliant > 10 day	0d, 0hr, 14min
CC-006225	25/10/24	11:40	72 Hour response complete No further response required	Non-compliant > 72hrs	0d, 3hr, 3min
CC-006226	25/10/24	12:09	72 Hour response complete No further response required	Non-compliant > 72hrs	0d, 2hr, 27min
CC-006224	25/10/24	09:42	72 Hour response complete No further response required	Non-compliant > 72hrs	0d, 3hr, 57min
CC-006301	8/12/24	10:59	72 Hour response complete 10 Days response required	Non-compliant > 10 day	0d, 3hr, 11min
CC-006299	8/12/24	10:55	72 Hour response complete 10 Days response required	Non-compliant > 10 day	0d, 3hr, 17min

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 evidence of environmental impact.

Cause (or suspected cause) of non-compliance:

Community complaints were not responded to due to manual systems and human error.

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

Training to reduce the system use error and development of automated reporting through specialised dust management software which greatly reduces the time taken to generate investigation reports relating to dust and odour complaints. Automated 72-hr and 10-day

compliance checker as part of the centralised database makes tracking and reporting response time much easier.				
Was this non-compliance previously reported to DWER?				
☐ Reported to DWER verbally	Date: / /			
□ Reported to DWER in writing	Date: 28/2/24, 28/3/24, 28/9/24, 28/10/24, 28/11/24, 28/12/24, 28/1/25			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.				

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:	44			(s) of non- pliance:	16/02/24, 10/05/24	16/02/24, 29/04/24 and 10/05/24	
Details of non-comp	oliance:						
Four (4) ambient monitoring exceedances not reported within prescribed timeframe:							
Monitoring Location	Date	Monitor Read (μg/m³)	ling	Monitoring Location	Date	Monitor Reading (µg/m³)	
*OSIRIS TAFE	16/2/24	51		BAM South	05/12/24	72	
*OSIRIS Britannia	16/2/24	53		BAM South	6/12/24	64	
*OSIRIS Coogee	16/2/24	53		BAM South	16/12/24	51	
*BAM West	29/4/24	51		BAM North	18/12/24	65	
The Condition 45_CEMS Data Availability_May 2024 monthly report submitted on 28/06/24, shows CEMS PM exceedances in the 12:00 to 13:00 period on 10/05/24 of the K5 1-minute data set. These values are related to onsite maintenance carried out by the CEMS service provider while the Kiln was in maintenance mode. These 1 minute data exceedances were not identified at the time and therefore not discussed at the time of reporting. These values are not reflective of an emission exceedance and the entry for 10/5/24 is provided for completeness, but does not represent an actual non-compliance.							
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 evidence of any environmental impact.							
Cause (or suspected cause) of non-compliance:							
Ambient monitoring exceedances not reported within prescribed timeframe due to procedural error.							
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:							
Retraining of personnel on reporting obligations under EP Licence to ensure regulatory notifications are identified, investigated and reported within required timeframes.							
Improvement to system for predicting, responding and reporting licence limit exceedances.							
Was this non-compliance previously reported to DWER?							
☐ Yes, and							
Reported to DWER verbally			Date	e: / /			
Reported to DWER in writing							

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. Signature²: Name: (printed) Position: Date: 30 March 2025 | 6:18 PM ACPTATE: 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.