



Environmental Protection Act 1986

**Hon Stephen Dawson MLC
Minister for Environment**

MINISTER'S APPEAL DETERMINATION

APPEALS IN OBJECTION TO AMENDMENT OF LICENCE L4533/1967/15 AND L4533/1967/16 – COCKBURN CEMENT LIMITED, ROCKINGHAM ROAD, MUNSTER

Purpose of this document

This document sets out the Minister's decision on appeals lodged under sections 102(2) and 102(3)(b) of the *Environmental Protection Act 1986* in objection to the former Department of Environment Regulation's (DER) two separate amendments of the above licence. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at www.appealsconvenor.wa.gov.au.

Appellants:	City of Cockburn (020/16) Mr K Bhusal (001/17); and Cockburn Cement Limited (002/17)
Licence Holder:	Cockburn Cement Limited
Premises:	Cement or lime manufacturing premises in Rockingham Road, Munster
Minister's Decision:	The Minister allowed in part the appeals.
Date of Decision:	5 December 2018

REASONS FOR MINISTER'S DECISION

This decision relates to three appeals in objection to two separate decisions on the amendment of a licence issued by the former Department of Environment Regulation (DER) to Cockburn Cement Limited (CCL) in relation to its premises in Munster, approximately 20 kilometres south-east of Fremantle. The Munster premises are licensed for cement or lime manufacturing.

Pursuant to section 106(1)(b) of the *Environmental Protection Act 1986* (the Act), the Minister obtained reports from DER on the matters raised in the appeals. The Minister was advised that the Office of the Appeals Convenor discussed the appeal with representatives of the City of Cockburn (the City), and separately met with Mr Bhusal and representatives of CCL, as well as officers of the Department of Water and Environmental Regulation (DWER), which assumed the functions of DER on 1 July 2017.

The Minister also received a report from the Appeals Convenor. The Appeals Convenor's report sets out the further background and other matters relevant to the appeals. This report contains some redactions consistent with a decision of the Information Commissioner under the *Freedom of Information Act 1992* dated 29 December 2017.

The Minister noted that appeals under section 102 of the Act are in the nature of merits appeals. As such, it is the Minister's role to review the available information, and form his own opinion as to the correct and preferable decision based on the substantial merits of the matters before him. It is not the Minister's role to make determinations on questions of law. In this regard, CCL's appeal questioned whether, in amending the licence, DER adhered to certain statutory requirements, including provision of adequate notice within the meaning of section 59B of the Act. The Minister did not comment on these matters, except to note that CCL also exercised its right of appeal in respect to the amendments, and the substantive issues raised in that regard, as well as the others appeals, were the primary focus of his consideration.

The following is the Minister's consideration of the key matters raised in the appeals. In short, the Minister allowed the appeals in the manner set out in the Appendix. For any grounds of appeal not included in the Appendix, those grounds of appeal are dismissed.

Dust and particulates

Dust from the premises has been the subject of contention in the local community for a number of years. Since the installation of baghouses to kilns 5 and 6 in 2012 and 2013 respectively, point source particulate emissions from the stacks have significantly reduced. In this regard, the risk assessment carried out by DER stated that monitoring results indicate that particulates emitted from kiln stacks are low, typically half the licence limit of 50 mg/m³.

Despite the improvements to stack emissions, DER considered that dust from fugitive sources at the premises (such as exposed stockpiles, graded roads etc) may be a source of dust in the community and warranted further investigation. DER noted that monitoring in the community shows that ambient concentrations of particulates sized 10 micrometres (PM₁₀) or less have exceeded recommended national health guidelines on several occasions in the last few years. While these results reflect dust levels at a particular site, and are not specifically attributable to CCL, DER considered that the level of risk was such that CCL should be required to install five new dust monitors on the boundary of the premises to assist identifying its contribution to overall dust levels in the community.

CCL challenged the requirement, submitting that there is insufficient evidence that its premises are the source of dust recorded in the ambient monitoring location, that new monitoring will duplicate existing monitoring, and will be expensive to set up and maintain.

Mr Bhusal sought for the monitoring requirements to be strengthened, such that new locations be added near sensitive receptors and that monitoring stations be equipped to provide real-time data which is made available to the public on the CCL website.

On the information available to him, the Minister considered there was merit in DER's decision to require the installation of boundary dust monitors at the site. The Minister came to this conclusion noting that while there has been a reduction in emissions from the stacks at the premises, monitoring in the community suggests exceedances of health criteria have occurred, and given the proximity of the premises to residential areas, it is important to fully understand the role the premises plays in ambient dust levels to identify what (if any) additional controls are required.

In relation to the location of the monitors, the Minister concurred with DER's assessment that they are best located on or near the boundary of the premises, so that recorded levels can be more definitively related to CCL's activities.

The Minister acknowledged the implementation of this monitoring will come at a cost to CCL: however, as DER advised, the new requirements will provide better information specific to CCL's premises, leading to a better understanding of CCL's contribution to dust in the community. In these circumstances, the Minister was of the view that it is appropriate for the boundary monitoring to remain, subject to the amendments recommended by the department.

Odour

The risk assessment conducted by DER found that odour from the premises posed a high risk to amenity for people outside the premises, particularly residential areas in an arc north-west to north-east of the plant. The risk was identified as being at its highest in summer, when residential areas within this area are typically downwind of the premises. DER did not identify any risks to human health from odour emissions, and characterised the level of risk by reference to amenity impacts alone.

As a result of its assessment, DER applied a new limit on carbon monoxide (CO) concentrations in the stacks of kilns 5 and 6 (the only kilns presently operational).

DER also made a number of changes to monitoring requirements, including installation of continuous emissions monitoring systems (CEMS) for new parameters; weekly monitoring of CO and total reduced sulfur (TRS) compounds pending installation of CEMS; and a requirement to conduct field odour surveys following the implementation of CEMS.

Both Mr Bhusal and CCL raised objections to these conditions, which are detailed in the Appeals Convenor's report.

Before coming to the specific issues raised by the appeals, the Minister noted that odour has been a concern in the community for a number of years. It is also apparent that, based on complaints data, meteorology, and odour surveys, operations at CCL's premises are a contributor, if not the primary contributor, to the impacts that have been observed.

The question of odour from the premises was considered by the Legislative Council's Standing Committee on Environment and Public Affairs between 2010 and 2011. Odour has also been the subject of previous appeal decisions, and conditions applied to the licence between 2010 and 2015 included requirements for CCL to undertake additional investigations to ascertain the cause and sources of odour emissions, with the aim of identifying measures to reduce impacts to amenity.

While the Minister noted the reduction in complaints following the placement of kilns 3 and 4 into care and maintenance in 2014, it is apparent that odour emissions continue to impact on amenity. The Minister said this an unsatisfactory state of affairs given the number of investigations that have been undertaken and the length of time odour has been identified as of concern.

By its appeal, CCL objected to the limit applied by DER on CO concentrations in kilns 5 and 6. DER inserted this limit based on the view that the limits would require CCL to manage combustion processes, and this in turn would address odour emissions.

Noting the Appeals Convenor's advice in respect to this issue, the appeal grounds, and further advice from the department, the Minister concurred with the Appeals Convenor that there is currently insufficient evidence to support a limit on CO concentrations to control

odour in the community. Previous studies indicate that there were occasions where the proposed CO limits were exceeded, but little or no odour was observed; and there were occasions where the limits were met, but significant odours were observed.

It follows that CO concentration limits have not been demonstrated as being effective in controlling unreasonable odour emissions from the premises, and the Minister directed that they be deleted from the licence.

In addition to adding the CO limit, DER also amended a previous condition prohibiting odour emissions from the two kiln stacks unreasonably interfering with the health, welfare, convenience, comfort or amenity of any person who is not on the premises. Noting that the stacks are the primary source of odour, the Minister decided to reinstate the requirement in full.

Notwithstanding the above changes, the Minister expressed concern that despite previous investigations, neither CCL nor DWER is able to advise the community as to the source and causes of odour impacting on amenity. To address this, the Minister requested additional advice from the Appeals Convenor on the types of investigations that might be undertaken to better understand odour emissions from the premises, with a view to identifying appropriate limits or process controls.

Through this process, the Appeals Convenor convened meetings with representatives of both CCL and DWER, including site visits to the Munster and Woodman Point premises. This culminated in November 2018 with CCL submitting an investigation plan it intended to implement this summer, with a view to determining the source and cause of odour, and identifying solutions as soon as possible.

While the Minister acknowledged CCL's commitment to resolve this issue, he shared the frustration held by many in the local community that a resolution has not been found before now, and that this needs to be rectified as a matter of priority.

To achieve this outcome before the summer of 2019/20, the Minister determined to allow the appeals in respect to odour through the implementation of the following:

1. A new condition is added to the licence requiring CCL to undertake (at its own expense) comprehensive investigations into the source and cause of odour from the active kilns over this summer and autumn, with a view to identifying what emission or process controls can be applied to address odour emissions.
2. A peer-reviewed report on the outcomes of the investigations and proposed solutions is to be submitted to DWER by no later than 1 July 2019.

It was the Minister's expectation that in giving effect to the decision, the department will engage with the community and provide information on the determination and requirements of the licence conditions. The Minister also requested CCL to continue engaging with the community on the investigation, actions and measures taken to address odour emissions over the summer period and into the future.

The Minister expects the results of the investigation, including details of the proposed solutions, to be shared with the community in an open forum no later than September 2019. Any changes to the licence required as an outcome of the investigation can be incorporated through an amendment before the end of 2019.

The Minister also expected that DWER will maintain appropriate regulatory oversight of the premises this summer and continue to keep the community informed.

In relation to the other issues raised in appeals in respect to odour, the requirement for the installation of CEMS for new parameters should be deferred for 18 months from the date this

decision takes effect, such that the focus of CCL and DWER is on the investigations this summer. It is open to DWER to reassess the need for additional monitoring as part of its review of the outcomes of these investigations.

In relation to weekly testing of certain parameters required prior to the installation of CEMS, the Minister considered it was appropriate for this program to continue in addition to stack testing undertaken as part of the odour investigations referenced above. The Minister therefore dismissed this element of CCL's appeal.

Groundwater

By this ground of appeal, CCL submitted that the requirement to install further monitoring bores and conduct monitoring is premature, unreasonable and disproportionate in the context of current work undertaken by the Contaminated Sites branch of DWER.

While CCL acknowledged gaps in current groundwater monitoring, it submitted that these gaps will be addressed by a Sampling and Analysis Quality Plan (SAQP) that has been developed in accordance with guidelines for Assessment and Management of Contaminated Sites. CCL also submitted that as the risk assessment for infiltration of groundwater was determined by DER as 'moderate', immediate corrective actions are not required, and the licence can be reviewed with regard to requirements following the SAQP process.

In applying the new monitoring requirements, DER noted that the current monitoring network is inadequate to determine the likelihood of groundwater contamination and the potential for off-site migration, noting that no groundwater monitoring bores are located downgradient of the coal stockpiles or artificial wetlands. The Minister noted the Appeals Convenor's advice that the imposition of conditions 38 and 39 to install and monitor bores at specified locations was supported on the available evidence.

The question as to whether the SAQP fulfils the requirements of condition 38 is considered to be a matter for the department to determine. This determination will be based on the question as to whether current gaps in knowledge about potential impacts to groundwater can be resolved using the results of the monitoring and methodologies proposed in the SAQP.

To provide time for this consideration to occur, the Minister allowed this ground of CCL's appeal in the manner recommended by the Appeals Convenor, namely, to extend the installation time to within six months of the date of this decision. This should allow CCL sufficient time to liaise with DWER on the adequacy (or otherwise) of the network established under the SAQP and to request DWER's concurrence to adjusting locations leading up to the expiration of the licence, if agreed.

Licence duration

As noted above, the City of Cockburn sought for the 20 year extension to the term of the licence (from 2016 to 2036) be amended to a maximum of five years. The City made this claim on a number of grounds, including that by extending the licence duration, opportunities for public input into the content of conditions applying to the premises is significantly reduced, and that given the history of the premises, such a curtailment of public input should not be approved.

The decision to extend the duration of the licence was made in June 2016 by the then DER. The decision reflected a policy position supporting longer duration licences to improve environmental regulation, through reducing regulatory burdens on both the industry and the department that occur through more regular licence renewal processes.

In its response to the City's appeal, CCL agreed that the extension of the licence duration allows redirection of resources from administration to improved environmental outcomes and compliance, allows regulatory changes to be implemented as required and creates greater certainty to facilitate investment in improved facilities and technology for better environmental outcomes.

While the Minister noted the rationale for the extension of the licence duration, in the context of the uncertainties identified with respect to dust, odour and groundwater, as well as the high level of community interest in the management of the site, he considered there is merit in the duration of the licence being reduced. Noting the issues raised in appeals with respect to odour, and noting the investigations endorsed for the coming summer, the Minister considered there is merit in a significant reduction in the term of the licence by 15 years. The licence will now expire on 30 June 2021.

This change will provide time for the outcomes of investigations into ongoing uncertainties to be assessed, thereby providing CCL and the community an opportunity to have input into the condition setting in the new licence. Importantly, any person has the right to appeal the conditions of a new licence: this means that there will be an opportunity for CCL and the community to provide input into conditions at the expiration of the current licence, which would not necessarily be the case if the duration was not amended.

Consistent with the decision in respect to odour, nothing in this decision prevents DWER from making amendments to the licence before the new expiry date should new limits, process controls, or other controls be identified through any new investigations.

Other conditions

Both Mr Bhusal and CCL raised objections to a range of other conditions of the amended licence. The Minister considered these issues, and determined the appeals in the manner set out in the Appendix. The Minister otherwise dismissed all other grounds of appeal.

Other matters

The appeals also raised issues that are unrelated to the amendment of the licence, or which are otherwise outside the scope of the appeal. These are noted in the Appeals Convenor's report, and the Minister concurred with her advice in relation to those matters.

The Minister specifically noted that Mr Bhusal provided an additional submission to the Appeals Convenor late in the appeals investigation. This submission was lodged following the outcome of the application for access to certain information that was redacted from DER's Decision Report under clause 4 of Schedule 1 of the *Freedom of Information Act 1992*. On the advice of the Appeals Convenor, some of the content of this additional submission raised new grounds of appeal, and were therefore not the subject of consideration by the Appeals Convenor. The Minister noted that these submissions have now been forwarded to DWER for its direct action and consideration, as required.

Conclusion

For the reasons set out above, the Minister allowed the appeals to the extent that the licence is amended in the manner set out in the Appendix. The Minister otherwise dismissed the appeals.

On the two key issues raised in respect to dust and odour emissions, the Minister considered that the risk assessment conducted by DER was generally appropriate. On dust, while emissions from the stacks has significantly improved since the installation of baghouses, dust levels in the community can sometimes exceed relevant health guidelines. The Minister

therefore endorsed DER's decision to require additional boundary monitoring to ascertain what contribution CCL makes to overall dust levels.

In relation to impacts to amenity from odour, the Minister considered it very disappointing that neither the proponent nor the regulator can confirm the source and cause of these emissions, despite many years of community concern. This must be rectified as a matter of urgency, and to that end, the Minister made numerous changes to the licence to require investigations to take place this summer, such that controls can be identified before the following summer. To ensure the community has further input into the licence within a reasonable time, the term of the licence was reduced by approximately 15 years to 30 June 2021.

The Minister also set out his clear expectation in relation to the need for a high level of community engagement from both CCL and DWER. The Minister expects that this occurs over the coming months and continues to occur until well after the investigation on odour source and causes is completed. The Minister noted that with the increased level of engagement, the level of community trust in CCL as a responsible operator and DWER as a credible regulator can be improved.

DWER will give effect to this decision under section 110 of the Act as soon as practicable.

Appendix attached.

Note: this decision is published pursuant to the terms of section 110 of the *Environmental Protection Act 1986* and regulation 8 of the *Environmental Protection Regulations 1987*.

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**COCKBURN CEMENT LTD, MUNSTER
LIST OF CHANGES TO LICENCE ARISING FROM
APPEALS 020/16 AND 001–002/17**

Dust

- Amend the date for the completion of installation of ambient monitoring system in condition 23 in the manner recommended by the Department of Water and Environmental Regulation (the department), namely to be no later than 10 months from the date this appeal decision takes effect.
- Amend requirement to undertake a correlation curve annually for all particulate matter monitors in the manner recommended by the department, namely that the requirement will not be triggered unless emissions increase above 50 per cent of the emission limit.
- Amend Table 5 in the manner recommended by the department, by deleting “BAM” from the column “equipment specifications”.
- Amend requirements relating to manufacturer’s warranty for ambient dust monitoring equipment in the manner recommended by the department, namely by deleting condition 24 and replacing it with:
 - “Following the installation of the ambient monitors required by condition 23, CCL must:
 - (a) maintain the ambient monitors to the manufacturer’s specifications; and
 - (b) ensure that the ambient monitors are maintained by persons that are suitably qualified and trained”.
- Amend Tables 11 and 12 so that the parameter assigned to monitor AM5 is changed from “TSP” to “PM₁₀”, as recommended by the department.
- Amend condition 27 to specify that the licence holder must “visually inspect” rather than “investigate” a detected exceedance.

Odour

- Include requirement prohibiting odour emissions from all sources at the premises unreasonably interfering with amenity etc of people outside the premises (i.e. the prohibition applies to odour from all sources, including specified sources).
- Delete limits for carbon monoxide (CO) concentrations in kilns 5 and 6.
- Insert a new condition requiring CCL to, at its expense:
 - undertake comprehensive investigations into the source and cause of odour from the active kilns over this summer and autumn, with a view to identifying what emission or process controls can be applied to address odour emissions;
 - a peer-reviewed report on the outcomes of the investigations and proposed solutions is to be submitted to DWER by no later than 1 July 2019.
- In relation to continuous emissions monitoring systems (CEMS):
 - amend the licence to set the date for completion of the installation of any new CEMS to be a date 18 months from the date this appeal decision takes effect; and
 - delete condition 9 and replace it with the following text as recommended by the department:
 - “Following the installation of the CEMS required by condition 8, the licensee must:

- operate and maintain the CEMS to the manufacturer's specifications and the CEMS Code; and
- ensure that the CEMS will be maintained by persons that are suitably qualified and trained.”
- Retain weekly stack testing of CO, total reduced sulfur and volatile organic compounds prior to the installation of CEMS, but only for the period November to April each year, with quarterly testing of these parameters for the balance of each year.
- Amend the licence to require the preparation and submission of an odour survey plan at least three months prior to the completion of installation of CEMS, as recommended by the department.
- Amend the licence as it relates to the sulfur content of coal in the manner recommended by the department.

Groundwater and stormwater

- Amend the licence to require installation of groundwater monitoring bores to a date six months from the date this decision takes effect (to allow CCL sufficient time to demonstrate the adequacy (or otherwise) of the network established under the SAQP and adjust locations if required).
- Amend condition 34 by deleting the existing text in the parentheses and replacing it with “excluding stormwater from the employee and contractor carpark, and associated roads and driveways”.

Complaints management

- Amend condition 42(b) to require CCL to respond to a complainant in writing where the complainant has:
 - requested a written response; and
 - provided CCL with an address to receive the response (that is, a physical address or email address).

Reporting requirements

- Delete condition 44, as recommended by the department.
- Amend condition 46 in the manner recommended by the department, namely:
 - to ensure the requirement does not commence until after the relevant monitoring equipment is required to be installed; and
 - the date for submitting the previous month's data is amended to the 28th day of the month.

Licence duration

- The duration of the licence is amended, such that the licence expires on 30 June 2021.

For all appeal grounds not relating to the above, those grounds of appeal are dismissed.