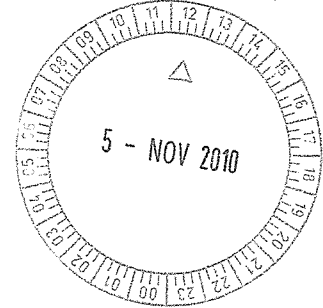


PUBLIC



Francis Logan  
 Member of the Legislative Assembly – District of Cockburn  
 230 Cockburn Gateway Shopping Centre, Cnr Beeliar Dr & Wentworth Pde,  
 SUCCESS WA 6164  
 PO Box 3483, SUCCESS WA 6964  
 Telephone: 08 9414 3266 Facsimile: 08 9414 3299



Ms Linda Omar,  
 Committee Clerk,  
 Standing Committee on Environment and Public Affairs Committee,  
 Legislative Council,  
 Parliament House,  
 Perth WA 6000

Dear Chair and Committee Members,

1/11/10

**Inquiry into Cockburn Cement Ltd, Munster**

I make this submission to your Enquiry both as the Legislative Assembly Member for the district of Cockburn and on behalf of thousands of constituents who are suffering in many different ways from the activities of the lime and cement operations in my electorate at Munster.

Before addressing the Committee's four points of examination, may I firstly make it clear that whilst there are issues relating to dust emanating from the operations of Cockburn Cement Ltd (hereafter referred to as CCL) going back over many years, the increase in rate and volume of emissions, which have led to the referral to your Committee, have a history that can be traced to October/November 2008. From this date on, CCL operations have impacted on more properties and people than at any other time, certainly since I have been the Member for Cockburn from February 2001. I am at a loss to understand why there has been such an increase in the volume of dust emissions and how these particles are travelling greater distances than ever experienced before 2008. I hope the work of the Committee can extricate from the company CCL and the supposed regulator, the Department of Environment and Conservation, (DEC) some answers that might explain the sudden upsurge in scale of emission output, as neither of these organisations can or will provide a response to this allegation.

I ask that the Committee acknowledge the statements I have made relating to the timing of the emission outfall from CCL and examine if it is related to the following:

- The change in energy mix by CCL from 80% gas 20% coal usage to 80% coal 20% gas, which occurred around the 2008 period. CCL now stockpiles and burns 35,000 tonnes of Collie coal, due supposedly, to the availability and price of gas.
- The increase in demand for lime as a result of the jump in the price of gold and the general lift in demand for resources that need quicklime for processing since the impact of the global financial crisis in September 2008.

- A possible change in attitude by the management of CCL to its environmental and corporate obligations following the election of a Liberal/National government in September 2008.

## **Background**

Adelaide Brighton Pty Ltd, the parent company of CCL, is the largest producer of lime and cement products in Australia and the Munster operations is the single biggest lime plant in the world. There are 6 kilns on the site at Munster. Kilns numbered 1 to 4 are clinker kilns used for the production of rock type clinker, which is taken to the CCL Kwinana operations to be ground into powdered cement product. Kiln 1 has been closed for a number of years. Kiln 2 is to be shut down in December 2010 according to CCL. Kilns 5 and 6 are lime kilns.

The impact of CCL on the properties and health of residents who live in suburbs surrounding the Munster cement and lime operations can be summarised as follows:

- Dust and lime particles; these are always two compounds, a grey light gritty dust that on occasions looks like cement, but is in fact ground up shell sand, the by-product of the mining and processing operations of Owen Anchorage sand mining and pure white dust particles which sometimes deposit themselves as a sheen of dust and at other times as pinpoints of dust, the size of a nib from a ball-point pen, this is burnt lime.

The particle emissions from CCL are mostly from the flue stacks of the lime kilns, numbered 5 and 6. They arise as a result of the type of filter technology in place on the flue output side of the kilns. The filters are Electro-static Participators (ESP's) and CCL argue that these are standard equipment used in lime kilns around the world. They forget to add that Munster kilns 5 and 6 are the biggest lime kilns in the world and other lime plants do not have suburban housing on their boundaries. The ESP's are basically electro-charged magnet plates through which the flue gases pass. Molecules of iron in the lime dust and shell sand particles emerging from the kilns attract to the magnetised plates. As the plates become covered with lime and sand, they are struck with automated hammers which release the particles to drop down into collection bins. This is a very basic, old technology, supplanted in many mineral processing plants with the more sophisticated, effective and expensive bag house filter systems.

- Odours; there are two source points of odours from CCL operations, a sulphurous smell which occurs as a result of water injection into the flue stack of kiln 6 in an attempt to reduce dust emissions. The flue stack temperature at the point of water injection is still 300 deg C, this immediately vapourises a lot of the water and creates odour. CCL has been trying to modify this sulphurous smell recently by adding a masking agent to the injection process. Residents complain the odour is now more like a cheap toilet deodorant. The second point source of odour, which may also add to the sulphurous smell, is the coal stockpiles. Collie coal has a low combustibility

point and as a result of inappropriate stockpiling, CCL has admitted that it had 71 coal fires between January 2010 and June. The company acknowledges the stockpiles do release gases, to what amount they add to the odours is yet to be determined.

- Noise; depending on the direction and speed of the wind, noise from the CCL plant normally impacts on residents who are relatively close to the boundary fence line. The types of noise attributed to CCL is loud banging which probably from the hammers in the electro-static precipitator filters, alarms from reversing trucks which continues all night, the shunting of trains and the whining from electric motors or fans when powering up or down. On still nights, these noises travel well beyond the Kwinana Air Buffer Zone, the planning boundary which is supposed to separate residents and industry.

### **Response to the Committee's Terms of Reference**

1. Health, environmental, dust, odour and other concerns arising out of the operation of the Cockburn Cement Ltd plant, Munster.

Health: Until the significant change to the CCL emissions beginning in 2008, health complaints directly attributable to the plant were relatively rare. Since the increase in dust and odour output and the distance over which these compounds are experienced, the level of health complaints have increased and the coincidence of similar symptoms have become disturbing to the point where I have had to raise the issue on three occasions in the Legislative Assembly.

Health complaints can be summarised as follows:

Odour; residents in some areas such as Meave, on the hillside of Beeliar, have experienced shortness of breath, the triggering of asthma attacks and nausea due to the intensity of the odours emanating from CCL. In one case, a woman in Yangebup has advised me that she will be selling her property and moving from the area as she has only one lung and the odours are having a severe affect on her in the home. These types of health symptoms are also felt by residents in and around the lower part of Beeliar in an area originally known as Stanford Gardens. Recently, however, breathing complaints and people waking up with headaches specifically after a long night of CCL odours, have emerged in an area further from the plant in and around Barrington Street, Spearwood.

Dust; the most common health complaints which residents directly attribute to CCL dust emissions are soreness of the eyes, blocked noses, sore nasal and throat passages and most disturbingly, scabs in the nasal passages of children which often turns to bleeding from the nose. Many residents are also convinced that the dust outfalls from CCL stacks are causing them breathing difficulties and the onset of allergies. Most health complaints relating to dust are raised by residents who live in the Stanford Garden area of Beeliar, which is the suburb closest to the CCL plant. Increasingly, there are health issues being raised by residents from

the Meave area of Beeliar and as far away as Yangebup and all attribute their problems to dust from CCL.

Environmental Impacts: The CCL operations in Munster emit a range of chemical compounds that in large volumes can have a deleterious impact on the environment.

As a cement and lime manufacturer, CCL emits massive volumes of CO<sub>2</sub>, the gas primarily responsible for the “greenhouse effect” that is creating global warming. This release of CO<sub>2</sub> is unavoidable in the process of transforming shellsand and limestone into quicklime and cement clinker. However, the ‘carbon footprint’ of CCL has significantly increased since it switched from primarily natural gas as an energy source to primarily coal.

A question the Committee may wish to raise, is whilst the DEC Licence Conditions for the CCL operations allows the company to burn both gas and coal, why was the switch from 80% gas to 80% coal not questioned, commented on or challenged by the regulator? If a new player was to enter the cement and lime market here in Western Australia with a proposal to power their plant by 80% coal DEC would probably reject their application. It is strange that such a large operations can make a fuel switch that has a dramatic impact on the State carbon footprint without comment by the environmental regulator.

Other chemicals that are emitted by CCL are listed in the Licence Conditions published by the DEC. They range from the deadly organic compounds such as dioxins and furans, to heavy metals, mercury, arsenic, lead, cadmium etc, acid gases such as hydrogen fluoride and the oxides, sulphur and nitrogen to the known carcinogens, volatile organic compounds VOC’s and Poly-aromatic Hydrocarbons PAH’s. Issues relating to the levels of chromium emitted in the flue gas stream and possible impacts on the health of residents have been also raised recently.

Dust, Odour and Other Concerns: I have addressed the background to why dust and odour emissions are created by the CCL Munster operations and I have addressed the health implications of these outputs on the residents of my electorate. I now wish to pass on to Committee members the views of my constituents who have to live with these pollutants.

A familiar defence used by CCL in justifying its dust and odour impact on surrounding homes and properties is “we were here first” and “the Council (City of Cockburn) should never allowed homes to be built so close to the plant”. This argument overlooks the fact that the DEC licence conditions, which are a “licence to pollute” only apply to the boundaries of the CCL operations and the Kwinana Air Buffer Zone, the planning boundary created to delineate housing from industry, is totally irrelevant to the outfall of odour and dust from the chimney stacks. The City of Cockburn and the West Australian Planning Committee (WAPC) allowed housing to be built up to the edges of the buffer zone because land outside this zone should not be impacted on by industry. Further, at a time when the development

applications for the new suburbs surrounding the plant were before the Council and the WAPC, CCL, to my knowledge, never put in objections or appealed the decisions.

The complaints by CCL about residents building their homes so close to the Munster plant, is a source of bitterness and anger for most constituents. To them, it appears that CCL is saying “this is all your fault”. The very people whose lives are being made into a living hell are being blamed for having homes in the suburbs surrounding the lime operations.

For those who have bought house sites or have built in the ocean facing part of Meave estate, Beeliar, the ‘blame the victim’ attitude by CCL is all the more distasteful. Meave is some 1.5 to 2 km away from the lime plant. The site is elevated and nearly at the same height as the chimney stacks. Residents face the full impact of odour from CCL, particularly when the south-west wind blows. At times, residents tell me they struggle to breathe due to the severity of the odour. Personally, I have experienced the odour intensity after a tip-off from a constituent. In turn, I asked a local journalist to come and experience the odours. Both of us felt we could not breathe properly due to the overwhelming impact of the odour. To live with this level of smell that seriously affects your capacity to breathe is beyond belief.

The cost of the house sites in this part of Beeliar range from \$350,000 up to \$480,000. When you add the price of the substantial homes that are being built to take advantage of the glorious views, houses will be valued at \$1 million or more. The Committee can therefore understand the anger and emotion of the new residents who have paid out large sums of money for their dream homes, being unable to open their windows due to the odour; being unable or unwilling to let their children play outside because of their fear of what is in the flue gases; being unable to have friend or family over for a barbeque on the week-end and share their fabulous new house, because they can’t sit outside.

This is the real impact of what CCL is doing to the people of Cockburn. And for the company to publicly blame these residents for building their homes, well away from the CCL boundary and air buffer zone is the most bitter part of moving to the area.

The impact of the burnt lime and shellsand dust private property is evident in all the suburbs I have mentioned above. It is now possible to identify where a resident lives in the electorate of Cockburn based on the duco of their cars. Those living in the Stanford Gardens area of Beeliar who do not have their cars continuously garaged are recognisable because the roof, bonnet and boot lid of their vehicles look like they have been sun bleached, regardless of the age of the car. Burnt lime drops and dust etch their way into the paint and glass of vehicles. After deposition, the burnt lime hardens and is impossible to remove without professional duco buffing. If left, the dust burns off the top layers of paint leaving usually the surrounding edge of the bonnet or boot with some paint, making the car look as though it has been left many years in the sun. This happens to cars regardless of their age.

This same burning of metal by the CCL dust emissions is evident on those houses that have zincalume or colorbond roofs. Burnt lime and shellsand build-up deposition on roofs and gutters is highly visible after a fall-out from CCL flue stacks. The Committee will receive many pictures of the evidence to support this claim. Please find attached some picture that my

office has taken and received as evidence. The impact of this dust on metal roofs is outlined in a report that was carried out for a constituent of mine Mr Vince Gandossi. (see attached).

You will see from Mr Gandossi's report that the pitting and holes made in his colorbond roof could only have been created by deposition of a lime based substance. When examined in the context of the extent of dust deposition on his roof and the fact that dust of this type emanates from the flue stacks of a nearby lime kiln flue stack, I would suggest that the Committee can only form the opinion that his damage is the result of the operations of CCL Munster.

A number of residents in the Stanford Garden estate, have solar panels installed on their roofs. The impact of dust emissions from CCL on panels is dramatic and has been admitted by the company. Mr Joseph Piu, a resident of this area, who the Committee will hear from, has highlighted in the local and State media how CCL have virtually blanked out his solar panels with the volume of dust deposited on his roof. Over 70 years old, Mr Piu has to regularly climb onto his roof to wash his solar panels down, by hand, before the dust calcifies and is impossible to remove. He was filmed by Channel 7 undertaking this task and had his efforts recorded in the Sunday Times. CCL in a letter of response to Mr Piu admitted they were responsible for the dust and in writing refused to clean off their material. They have since been to Mr Piu's house and cleaned his panels.....once!

There are numerous other instances of how the emissions of burnt lime and shellsand from CCL is damaging the property of local residents. Tiled roof pitting, vintage car duco damage, swimming pool discolouration, damage to outdoor table and chair settings, glass pitting, and recently, allegations that dogs, sheep and goats have died suddenly, many from the same liver damage.

These impacts are experienced mostly by residents who live a significant distance from the boundaries of CCL and well beyond the Kwinana Air Buffer Zone, leading to the continuous outcry; "why is this company allowed to do this to us? We are not living in a buffer zone, we have a legal right to enjoy our property free from nuisance and damage"

## 2. The adequacy of action to address the above concerns.

CCL: The company has claimed on numerous occasions that it is doing all it can to reduce the impact of its operations on surrounding properties. They point to dust suppression activities, such as better management of stockpiles, their quarry operations, the enclosure of conveyor belt systems, better watering procedures of their internal roads and truck movements, they even point to the introduction of the flue stack water injection process, as an example of the efforts they have taken to reduce dust emissions, even though the later change has led to the odour problems besetting the suburbs.

None of these actions have really addressed the main point sources of burnt lime and shellsand emissions, which are the kiln stacks numbers 5 and 6.

After my election to represent the district of Cockburn in February 2001, I raised the issue of dust emissions with CCL and the possible solution to be found in a Bag House Filter System. I raised the bag house system after my experiences as an Organiser for the Australian

Manufacturing Workers Union on the Alcoa refinery sites of Western Australia. The 'Liquor Burner Incident' at Worsley refinery, which dragged on for many years, was resolved by the installation of a bag house filter system. Alcoa had initially denied that there was a problem with the liquor burner and that the illnesses suffered by employees and residents were not real, they were imagined symptoms. Following the visit of an expert in chemical sensitivity illnesses from the US, Alcoa was forced to admit it had a problem and the solution was to install the bag house filter. Like the CCL operations, the liquor burner at Wagerup is a super intensive rotating kiln, that operates at extremely high temperatures.

It was as a result of dealing with the issue at Wagerup on behalf of my union members that I suggested to CCL that a bag house filter may resolve the dust problems. In 2001, I was advised by CCL site management that they had spoke to engineers and it was impossible to install a bag house filter into a lime kiln operations. My response at the time was that I found highly unusual advice given the similarities between a liquor burner and lime kiln.

The bag house system concept remained dormant until 2006, when as Minister for Mining and Industry, I was approached by CCL for comments about a possible expansion of the Munster operations, which involved the construction of a new kiln 7, comparable in size to the existing kiln 6. My response was immediately negative and I told the company that given that they could not control emissions from their existing plants, why would I support an expansion? Their response was that if the expansion was approved, they would also install bag house filters to eradicate all dust and odour emissions from their operations. At this point I challenged the company over this claim, reminding them that 5 years earlier, they had told me that installing such a system was not possible.

This year, after protests, media attention, Parliamentary scrutiny and general condemnation, CCL has announced that the board of Adelaide Brighton had approved the expenditure of \$23 million for the installation of a bag house filter system for kiln 6.

**This action is inadequate! The odour and dust emissions for the CCL plant at Munster will only be resolved by the installation of bag house filters for both lime kilns 5 and 6.**

DEC: I acknowledge that public servants in Western Australia are hard working people, mostly on very low salaries, doing in many cases, difficult jobs where they interact with the general public. I do, however, hold the Kwinana branch of the DEC in very low esteem, particularly over their regulation of the activities of CCL at Munster.

Regulation of this arm of the Adelaide Brighton empire is at best intermittent and at worst woeful. It is not the issue of resourcing of the Department, which is trotted out regularly by political observers. It is simply an issue of commitment to protect the community and persistence in following up on complaints and the conditions that regulate the operations of CCL. These binding obligations are lacking in the work the DEC, both in the Kwinana branch and senior management level. The DEC seem to be oblivious to the fact that the world's biggest lime kilns are present only kilometres up the road from their office, immediately adjacent to the suburbs of Perth and there are continuous complaints being

lodged about emissions from the plant. Why is this giant operation of CCL not dealt with by the DEC in a manner relevant to its size and impact?

Dust and chemical monitoring by the DEC is left to the company. Of the three air monitoring devices used to collect flue stack emission samples two are operated by a contractor to CCL and the other by the Kwinana Industries Council, the employer representative body in Kwinana. The DEC does not have its own monitoring stations in place to record outputs from CCL. To overcome this perceived lack of independent scrutiny, the City of Cockburn has recently purchased and installed their own dust monitoring stations around the CCL site. They will record dust outfalls and test the particles for traceability purposes. This action by the local Council tells a great deal about the lack of confidence most people in Cockburn have in the DEC.

My office has over the years received many complaints from constituents about the response and lack of action by the Kwinana DEC following telephone calls about CCL dust fallouts. Whilst recording of complaints has improved this year, in the past residents have been unable to get the DEC to answer the phone, return calls or give any reassurance that they will follow up on complaints.

An example of my opening statement about the commitment of the Department to regulate the CCL operations seriously, was made clear to me at a meeting that Minister Faragher's office arranged for me with the Kwinana branch of the DEC on the 15<sup>th</sup> March 2010. After outlining residents complaints about the rate and intensity of CCL emissions, a question was put to Colin Scrimshaw, the DEC officer responsible for regulating the Munster operations. He was asked if there was evidence of an increase in dust emissions from the monitoring of CCL flue stacks that correlated with the number of complaints the DEC had been receiving. His response, to the astonishment of many in the room, was that the DEC did not have any current data on CCL emissions and that he had been very busy drafting the new licence conditions for the operations and didn't have time to follow up on this data. This data just happens to be a condition of the company's licence to operate and the subject of all complaints against CCL.

### 3. The Process of issuing and amending licences.

Licence No 4533/1967/14 is the EPA environmental conditions licence for the prescribed premises of CCL in Munster.

If the Committee examines the proposed licence currently under consideration by the DEC and the Minister following a period of public submissions, it will see the following, which is my major complaint about the efficacy and enforceability of this document:

- a) The obligations on CCL to comply with the conditions of the licence are simply that if exceedances of limits occur, "the licensee shall advise the Director in writing within 24 hours of becoming aware of an exceedance of limits of condition 7c and not undertaking the actions specified in condition 8";



- b) The emission to air condition stipulates that the licensee shall ensure that the particulate concentration does not exceed the limits specified. But the limits of 0.15g/m<sup>3</sup> are an acceptance that the plant can legally emit bunt lime and shellsand with all the corresponding damage to property and health of surrounding residents. When read in conjunction with what the company has to do when it exceeds these limits (in a above) regulation and enforcement becomes impossible and meaningless.
- c) CCL is required to keep a record of complaints about the impact of emissions but only provide an audit of all these issues and problems to the DEC Director once a year;
- d) At table 5 of the licence, the company is bound to source test its flue stacks, for example for dust emissions (the core of complaints by residents) bi-annually, at least 5 months apart. The ability for the DEC to then prove a case of breach of particulate limits comes down to CCL's own figures taken twice a year!
- e) All other conditions in the licence seem to bind the company to report its activities, rather than comply with strict conditions.

It is a matter for wonder and amazement that the biggest lime kilns in the world, located in what is now suburbia of a capital city in Australia, can be so lightly regulated by an Environmental Department. I just cannot believe that this would be allowed in any other part of the world, including in so called third world countries.

The conditions proposed by the DEC in the new licence for CCL are unenforceable in a court of law and the company knows this.

The requirement to report to Directors and the DEC is meaningless when one of its own officer states publicly that they don't regularly collate data from CCL stacks or examine it.

The very fact that the DEC allows the licensee to collect emission particulate information without any independent verification by the Department is evidence that it will not regulate this company seriously or be willing to enforce its paltry conditions.

#### 4. Any other relevant matter.

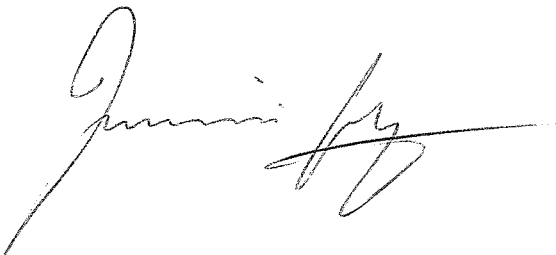
All matters of concern to me and my constituents of Cockburn have been raised in the above submission. I do, however, put one last point to the Committee:

**The impact of dust and odour emissions from the operations of Cockburn Cement Ltd on the property and health of residents in the surrounding suburbs can be resolved by the installation of a Bag House Filter System that will accept the flue gases from kilns 5 and 6, the largest lime kilns in the world. Adelaide Brighton Pty Ltd, the parent company, knows this to be true and have advised me that the reason they will not install such a filter or filters for both kilns is because of cost to the company. The estimated expenditure for increasing the scale of the bag house filter to accommodate kiln 5 or to build another independent filter system for kiln 5 is likely to take the total cost for addressing the odour and dust emissions for both lime kilns to between \$40 million and \$50 million.**

**The expenditure that CCL must make to fix Kilns 5 and 6, has to be viewed in the context of the life of the plant. Through the Cement Works State Agreement Act, CCL has access to another 25 years of shellsand from Owen Anchorage outer sandbanks. The supply of the base product for the manufacturing of lime is therefore assured over the next two decades. The demand for an increased investment by Adelaide Brighton in environmental technology to eradicate their impact on residents is therefore totally justified. This outcome must be made a condition of the environmental licence by the Government. It must be made very clear to the board of Adelaide Brighton, that if it wants to continue to operate the lime kilns at its Munster operations, then bag house filters must be installed.**

I wish the Committee well in its deliberations,

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Francis Logan', with a long horizontal flourish extending to the right.

Hon Francis Logan MLA