Monday 3 March 2025, 6-8pm Port Adelaide Enfield Town Hall, Nile Street Port Adelaide



## Minutes

### 1. In attendance

Stephanie Hensgen	Independent Facilitator
Alison Derry	Resident Representative
Bradley Prosser	City of Port Adelaide Enfield
Brett Peterson	Resident Representative
Cr Peter McGregor	City of Port Adelaide Enfield
Craig Mackenzie	Adelaide Brighton Cement
David Vaughan	EPA
Debra Stoeckel	Resident Representative
Donna Hilton	Resident Representative
Johan Revalk	Adelaide Brighton Cement
Joseph Mazzone	EPA
Lauren Heinjus	Adelaide Brighton Cement
Matt Dixon (guest presenter)	Adelaide Brighton Cement
Peter Baker	Adelaide Brighton Cement
Shane Stoeckel	Resident Representative
Tony Bazeley	Port Adelaide Residents' Environmental Protection Group
Tracey Neldner	EPA

An additional 12 (non-GLG representative) residents were in attendance in the gallery.

### 2. Welcome and Introductions

#### 2.1. Welcome and housekeeping

Stephanie, the new facilitator, welcomed the members of the CLG and the non-GLG residents in the gallery, requesting members to introduce themselves, including their names and roles.

#### 2.2. Apologies

None.

#### 2.3. Minutes of previous meeting

The minutes from the 16 December 2024 meeting were reviewed and accepted without amendments.

#### 2.4. Agenda run-through

Stephanie provided a run through of the agenda and emphasised that the main focus of the meeting was to hear from and ask questions of Adbri about Refuse Derived Fuels. Given the importance of the matter to the community, there may be a need to extend the meeting and/or defer later items to accommodate sufficient opportunity for the community to ask questions.

#### 3. Actions Arising (5 mins)

Refer action table



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### 4. Presentation: Refuse Derived Fuel

#### 4.1. Presentation by Adbri

Matt Dixon from Adbri presented on RDF usage, safety, and environmental impacts including:

- An overview of the multiple layers of protection employed by the facility to ensure safe combustion
- The use of cement clinker kilns as a globally accepted method for safe destruction of waste that is strongly regulated, including examples operated by the company across the world
- A detailed run-through of the process of combustion and the design of the cement clinker kiln
- Details of the emission profile spectrum from incomplete to complete combustion
- The use of in-built lime scrubbing as a high-temperature cleaning process
- Details of the multi-use physical filtration process and its effectiveness
- The preparation and supply of fuel by Alternative Fuel Company (AFC), including regulation, auditing and controls in place to ensure quality and safety
- The continuous process control safe emission validation and emission profile

Matt responded to questions raised at the December 2024 meeting:

Q: How do we make RDF? What is in it?

A: It's a Process Engineered Fuel made by a combination of crushing, grinding, screening and selective removal. Comprised of Construction & Demolition and Commercial & Industrial materials that are destined for landfill. No more than 20% plastics

Q: How does AFC control quality and what are the input sources (C&D, C&I, MSW)? A: EMP, RPP, visual checks, non-conformance penalties, worker OH&S, daily sampling & testing at both sites.

Q: Can AFC speak to CLG?

A: Not at this session where focus is on how cement kilns safely consume alternative fuels

- Q: Concerns less C&D and now more C&I?
- A: Current inputs are 30-50% C&D, 50-70% C&I
- Q: How much do we burn?

A: Licensed for 32 tph, but our process capacity on an average day is 22 tph. 2024 average was 19.9 tph.

- Q: Does it include recyclables?
- A: No

Q: Red lid bins in public places identify that they are burnt as fuel. Why is this allowed to happen? A: It is not, any evidence of this AFC and ABC would like to be made aware.



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Q: Always told there are no nappies in RDF?

A: Correct, none.

Q: How has use of RDF changed emissions over time?

A: For all emissions of interest that we measure, no impact vs statistical variability, except for one of our greatest emissions of concern, NOx, which falls as we consume more RDF.

Q: Effect on CO2, SO2, NGER/NPI, metals?

A: Reduction in net CO2, no impact on SO2, NGER/NPI improvement, no change to metals.

Q: Effect on dust?

A: No impact on stack dust, as RDF usage increases our plant output drops for overall neutral impact on particulate emissions.

Q: How do we monitor and control emissions?

A: Continuous monitoring of particulates and combustion conditions to ensure safe and complete combustion. Bi-annual comprehensive triplicate testing as verification (6 x days testing per year).

Q: How do we know what's emitted is safe?

A: Scientifically proven, globally ratified by UN, locally regulated, locally tested every 6 months and for every process change that introduces risk.

#### Q: Why is burning plastic allowable?

A: Because combustion in a cement kiln produces a safe emission profile. To our knowledge, we are the only cement kiln out of +2000 internationally with a plastic limit for the purpose of environmental safety. A select few have plastic limits for purpose of supplier feedstock compliance or for biological vs geological carbon accounting.

#### Q: Examination of illness cluster in the area?

A: We have no knowledge of this cluster, our emission profile results are shared with the EPA and publicly. These show no evidence of increased impact due to RDF consumption.

#### Q: Will burning of nappies and plastics have toxic fallout?

A: UoA studies show incineration is toxic. We do not allow nappies. Plastic has no increase to emission profile when used in a cement kiln.

#### Q: Understanding EPA regulation?

A: From our discussions nationally and internationally, SA EPA uses some of the most conservative measures to regulate our Birkenhead Alternative Fuel process. Eg, % plastic, GLC modelling assumptions, risk-based approvals.

#### Q: SO2 levels vs RDF rate?

A: Increases to RDF rate have had no effect on SO2 levels due to the scrubbing and filtration affect. Good combustion conditions has the greatest impact on SO2.

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#### Q: NOx vs fuel types?

A: NOx bucks the trend vs other emissions of concerns. It typically increases as fuel grade increases: RDF, Coal, Oil, Natural Gas, and finally Hydrogen being the highest risk to NOx. Switch from NG to RDF has proven to reduce our NOx emissions.

Q: PFAS levels in plastic feedstock, how do we test and monitor PFAS levels, how to we clean out PFAS. A: We do not accept PFAS contaminated materials into our fuel supply facility.

Q: Similar plant locations in CRH/world close to residents using high AF?A: Three examples provided within our 50 plants. Many more around the globe operated by our competitors

#### Q: What's the benefit of using RDF?

A: Supports the waste hierarchy, enabler for recycling, reduces Birkenhead's emission profile on a riskbased measure (due to large NOx reduction), reduces SA's CO2e emissions by a factor of 1.3.

Q: Why aren't we using green fuel (hydrogen, electricity, etc)?

A: Hydrogen is not commercially available in quantity or price for large scale industry. Use would likely increase our NOx to unacceptable levels. Electricity is far more expensive than thermal fuels and becoming more intermittent which does not suit high temperature industrial processes. Adbri is supporting research in areas of hydrogen and electrification.

#### 4.2. Questions and clarifications

Stephanie called for questions from CLG members, followed by questions from the gallery. The following questions were raised and answered.

Q: Is the RDF sorted off site?

A: Correct. The RDF is provided to the site ready to consume.

Q: Are there any risks to the community associated with burning RDF at high temperatures? Is it 100% fool-proof and what is the main by-product if something goes wrong?

A: The multi-stage processing provides protection in addition to the combustion process itself, which ensures complete destruction of RDF at temperatures above 800°C. During a trip, the fuel supply is instantly cut off, but the system remains at high temperatures with airflow, which provides continued scrubbing and filtration. Dust emissions are more due to the general processing – grinding raw materials. The primary purpose of the dust collector is to catch those raw materials and that's where the dust is generated.

Q: What happens if there is a trip in the system? How is the dust managed during such events? A: When the plant trips due to an issue with the burner management system, the shutoff system provides a safeguard in relation to emissions. But, we can't fully control the dust emissions and we are working through how we improve that.

Q: Concerned that burning material is undermining recycling efforts and ongoing research and development into what can and can't be recycled. Residents have received information recyclable



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materials from recycling bins (eg hospital, football grounds) are being transferred into the C&I stream, thus being included in RDF? How is this controlled to prevent the use of materials that are being placed in good faith into recycling bins? Doesn't Adbri have an obligation to ensure that controls are in place to make sure this doesn't happen?

A: Adbri relies on an environmental management plan from its fuel suppliers to ensure that RDF is sourced from C&I streams. Any detected non-compliant loads from a safety perspective are rejected and sent to landfill, with penalties for suppliers. However pre-sorting of materials is done by the supplier before it arrives to site. If there are issues in relation to the source of the materials, this needs to be investigated. REFER ACTION TABLE.

Q: For other plants around the world with similar proximity to populations, how does their EPA compare

A: Not 100% sure but the EU does have a more holistic view with RDF fitting into certain categories that become accepted in cement factories throughout Europe and fuel suppliers have to adhere to those standards. However, in our situation we have one supplier to one user compared with hundreds of suppliers to hundreds of users in Europe, which requires a higher level of control.

#### Q: How often does Adbri test for plastic content?

A: Plastic content is tested several times a week, moisture and ash are tested daily. Also have 20 years of historical data so we understand the expected result very well eg a high moisture content can be a red flag because it could indicate something has changed in the system. The indicator testing gives us confidence in the content of the fuel.

Q: When you are talking about elements of interest – sulfur, chlorides, fluorides, and the process of classifying those to clinker, if there is a clinker dust event does this present a risk?

A: Not at all as the elements are bound into the crystal structure/lattice of the clinker – they are broken down to their elemental forms at those temperatures.

#### Q: How do you test for dioxins?

A: Yes dioxin testing is part of the testing regime every 6 months – at the top of the flue – and is reported to the National Pollutant Inventory. Dioxins form at the 300-600deg mark so they can be an issue in naturally occurring bushfires etc. Because the RDF process is above this temperature, this lowers the risk.

#### Q: Was the recent outage connected to the RDF burning operations?

A: No, it was caused by the burner management system, which controls the fuel input and when it detects an issue or a fault it shuts fuel off to the process.

#### Q: There is often a strong smell in the area – what generates this?

A: With RDF, anything that is odorous is destroyed at those temperatures, so odour is not leaving the combustion vessel. The EPA is confident that the source of the odour is not RDF and is associated with Adbri and is aware of many other sources of odour in the area that could be contributing to what the community is experiencing. The difficult thing with measuring odour is that it varies in perception from one person to another considerably. It is difficult to get to the bottom of odour sources. Historically sources of odour in the area have been related to bitumen production, fuel storage and sewer vents.



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The EPA is aware that these sources have improved over time in response to EPA controls but they aren't all at a point where they are 100% where they should be.

Q: RDF may be accepted by the industry but not necessarily by communities and neighbours. In relation to sulphur dioxide, emissions levels reported by Adbri to the National Inventory are high and have increased over time. What is happening here?

A: Most sulphur input is via raw materials and because we don't use coal (80% of cement kilns around the world use coal), our input is comparatively lower and naturally on a very low baseline because we use gas. From a technical perspective, sulphur emissions are driven by good combustion, having plenty of oxygen and passing it under the flame. Based on EPA reporting limits, Adbri are at low levels.

Q: Does sulphur dioxide smell?

A: No, that is Hydrogen sulphide.

Q: Is the current rate of RDF 55%? What are the plans for this rate going forward?

A: Current peak rate is 55% yes but last year the average was 40%. This year it is likely to be 45%. Adbri has a licence to go to 32 tonne an hour so the plan is to stick to this.

Q: Supports investment in electrification and hope that Adbri would more seriously consider this as the way to reduce emissions.

A: Excited about the future of electrification and yes it does need funding. There are a lot of advantages so watch this space.

### 5. Incident reporting

Peter Baker provided an update into the May 2024 and February 2025 events and acknowledged that the clean up was slower than it should have been. Additional resources have been put into the team to remedy this. Peter invited anybody here tonight with outstanding concerns to meet with him after the meeting tonight.

Peter advised that the burner management system will trip the whole plant as a safety measure, and Adbri needs to do better in relation to the limestone that is emitted during an event like this. It is not something that can be fixed straight away – it is a plant issue that we have had forever. We are aware that we need to do better in this regard.

Peter advised that the most recent power outage was caused by an 11kv cable installed over a beam 35 years ago. Over time vibration has worn through the cable and as it broke through, the power went off, shutting off all the fans. Again, these dust emissions are not good enough and there is pressure from the new CEO to address this.

Q: When the power goes out on a weekend, are there limited staff on weekends to manage this? A: No. the teams are consistent across all shifts – seven people on each of four operating teams. Two in the control room monitoring the cement mills and the kiln, and the other five are spread across the site. There is a set of protocols that are followed to ensure systems are shut down as quickly as

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possible. The last event took 4mins to control. Currently looking at different emergency mechanisms to put in place that would improve this further.

Q: Can we have updates and be regularly informed about the measures that Adbri are looking at and implementing to better understand what process are being put in place to control the limestone dust. A: Yes. 100% committed to that. Peter's commitment is to the community to do it a lot better than we have in the past. There will be projects that get prioritised to address this as part of the EIP as part of that commitment.

Q: In relation to solar panels – how many reports were there and how many still require resolution. This information used to be provided and is an example of the community's frustration that these are not yet resolved and they do not feel like the system is working. Emails are still going to CLG members about unresolved matter. Can we get a commitment from Adbri to resolve these issues within the next two months.

A: Don't have the exact numbers but can find out. Adbri will follow up with those in the gallery (and others) in relation to outstanding issues and report back to the group. Peter is happy to commit to investigating all outstanding complaints.

Q: Can the CEO visit the community and/or the CLG in the context of being a better neighbour going forward?

A: Will discuss with CEO.

Q: Need a consistent approach to communication – it has to be better if this is going to work.

A: We will address this as part of our process planning meeting.

Q: How long did the event go for in February? The EPA report says 4-5 minutes but it was longer than that.

A: Talking about the emission event not the extent of the trip, which was longer.

Q: There was an expectation that people signing up for communications would get an alert about community events.

A: The alert system as part of the EIP commitment relates to emissions events.

### 6. Quarterly Report

The Quarterly Report was presented but not discussed due to time constraints. Stephanie did however check with CLG members if there were any major issues they wanted to raise in relation to the report, to which there were none.

### 7. Environmental Improvement Plan update

Peter Baker provided an update on various ongoing and completed projects aimed at reducing dust and emissions including upgrades to dust collectors, installation of wind curtains, and enhanced monitoring systems. These included:

• Communication alerts for emission events put in place (revisit as part of planning session).



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- Clinker shed action plan to mitigate dust emissions ongoing and remediation plan is being developed at the moment.
- Dust emission mitigations for dust collection system. All have had remediation works and/or bag replacements now except for the ones sitting in sheds and we are now in a much better position than previously.
- The bag leak protection system has commenced and expect completion on time.
- Installation of pipework for CS5 awaiting for a part to complete but there is a potential to bring completion forward notwithstanding.
- Installation of upgrades in major shut will be next year.
- Modifications to CS2 water spray ongoing work that has commenced.

Project 1 Communication alerts

- Letterbox flyer & website update informing residents can sign up to receive text or email alerts about operational and environmental completed
- Alert system now operational

Project 2 RDF- Information

- December 2024 CLG meeting to gather questions about RDF
- March 2025 CLG meeting RDF presentation

Project 3 Clinker shed- Develop & implement action plan to mitigate dust emissions

- Ongoing repairs and sealing, including replacement of a section of roof sheeting
- Structural assessment noted no major re-cladding was considered necessary for the walls of the clinker shed; also noted the need for maintenance of eves and ridge flashings

Project 4- Action plan to implement dust emission mitigation actions from specified dust collectors

- Inskip Dust & Fume inspected dust collectors rectification work in progress
- CS1/CS2 and CR2/CR3 dust collectors rebagged.

Project 8 – Modifications to CS2 water sprays

• Engineering scope of work completed

Project 12 – Heat exchanger repair

• Completed during shutdown

Project 13 – Complete short-term assessments to improve 4A stack particulates

- Stack test of different process streams completed
- Trialling a reduction in 4A Conditioning tower bottom temperature during 4A Raw Mill stoppage periods.
- Trialling a process control strategy to minimise occurrences of clinker cooler over pressurisation
- Trial new rapper in 1 field of 4A ESP- ordered- waiting delivery
- Discussions with Redecam (cooler bag filter design /manufacturer) gathering data



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Project 16 – reducing fugitive dust from receival hopper

- Due for September 2026 but (subject to design and approvals) the aim is to prioritise this for completion by the end of 2025
- Additional action added to address the open exposed stockpiles raised as an issue by the community previously to set up automated water sprinklers to manage
- Plantings proposed (bamboo) as a trial for stopping wind collecting dust

Project 18 – Install CCTV cameras – visual of key emission sources

- Complete
- Clinker shed; Kiln4 cooler bag filter; 4A stack; RDF in load building monitored 24/7 in control room

Project 19 – AQ Monitoring Network

- New monitors- BAM PM10/PM10 / PM2.5- installed in 2 locations in community (ABC Dog Park & Walton Street)
- Have met with EPA about locations
- Comprehensive review of current particulate monitoring system is under way

Project 20 – Dust Dashboard Update with data from new monitors

- Website has been updated
- Good alignment with EPA monitors

Project 21 – Planting of trees to improve visual amenity

- 30 trees on Victoria road
- 100 trees in Schroder Park

Plant and equipment overhaul and repairs also included:

- Inspection found 4A ESP field six collection hopper air lock was not fully closing, potentially allowing re entrainment of dust from field 5 discharge this has been rectified. Early indication is that this will reduce the average 4A stack particulate level.
- Re bagging of Dust Collectors including:
  - o Northern Clinker Gantry,
  - Clinker cooler bag filter,
  - o Clinker conveyor dust collectors CR1/CR2, and CS1/CS2

Full audit has been completed to all 140 self-closing doors, with 57 remedial actions required and these are being worked through at the moment.

Peter has requested a project specialist with the key role of EIP project delivery.



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Q: Why is the TSP monitoring not included on the website. Suggest that it be published as a comparison over time.

A: Need to adjust the dashboard to take into account the dust from Adbri vs other sources, which may take some time. Will take on notice.

Q: Where will the NOx data be published?

A: It will be a temporary (12-month) monitoring campaign to align with EPA requirements. Not currently reported.

REFER ACTION IN RELATION TO INFORMATION ABOUT THE MONITORING NETWORK.

Q: Can we have a summary of the EIP progress?A: Plan for the next meeting is to provide slides and plans to address the EIP actions.

Q: Monitoring at the dog park – is this temporary? A: Yes – on rental as a test of the technology as a trial. The intent is to make it permanent into the future.

### 8. Other updates

No other updated were provided, most having been addressed earlier in the meeting.

### 9. Other business

Stephanie outlined

#### 9.1. CLG planning and roles

#### 9.2. Next meeting

The next meeting was set as Monday 2 June 2025.

### 10. Thank you and close

Stephanie thanked Matt Dixon for his presentation, together with the CLG members and the gallery for their participation, reminding residents to provide their details to Peter Baker if they required follow up in relation to solar panels.



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## **Action List**

Action		Deadline	Responsible	Status
<b>25.006</b> March 2025	Investigate concerns raised by residents that recyclable materials are being transferred into the C&I waste stream prior to transfer to Adbri as fuel	June 2025	David Vaughan, EPA	OPEN
<b>25.005</b> March 2025	Follow up on unresolved solar panel complaints and report back to CLG	June 2025	Peter Baker, Adbri	OPEN
<b>25.004</b> March 2025	Provide an update of Adbri's incident response process	June 2025	Peter Baker, Adbri	OPEN
<b>25.003</b> March 2025	Hold a planning and process meeting of the CLG to align on operational and functional matters	June 2025	Stephanie Hensgen	OPEN
<b>25.002</b> March 2025	Provide an update on the monitoring framework, including what, why and where monitoring is undertaken and where data is reported (inclusive of TSP monitoring data)	June 2025	Peter Baker, Adbri	OPEN
<b>25.001</b> March 2025	Provide a detailed report against the EIP	June 2025	Peter Baker, Adbri	OPEN
<b>24.006</b> December 2024	Review catchment area	March 2025	Stephanie Hensgen	<b>OPEN</b> To be included on May Planning Session agenda
<b>24.005</b> December 2024	Provide presentation on Refuse Derived Fuels	March 2025	Matt Dixon	<b>CLOSED</b> March 2025: presentation provided



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<b>24.004</b> December 2024	Update on nitrous oxide 12-month monitoring station	June 2025	Peter Baker	OPEN March 2025: A potential location has been identified for the 12-month monitoring station Further update to be provided to June 2025 meeting
<b>24.003</b> December 2024	Identify and communicate safe methods of removing clinker dust	June 2025	Adbri	<b>CLOSED</b> March 2025: Advice on the removal of clinker dust is provided by specialist cleaning services, which are managed through Adbri. Any concerns are to be directed to Adbri for assessment
<b>24.002</b> December 2024	Communicate new alert system to catchment area	March 2025	Adbri	<b>OPEN</b> To be included on May Planning Session agenda
<b>24.001</b> December 2024	Implement resident charter	June 2025	Stephanie	<b>OPEN</b> To be included on May Planning Session agenda