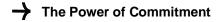


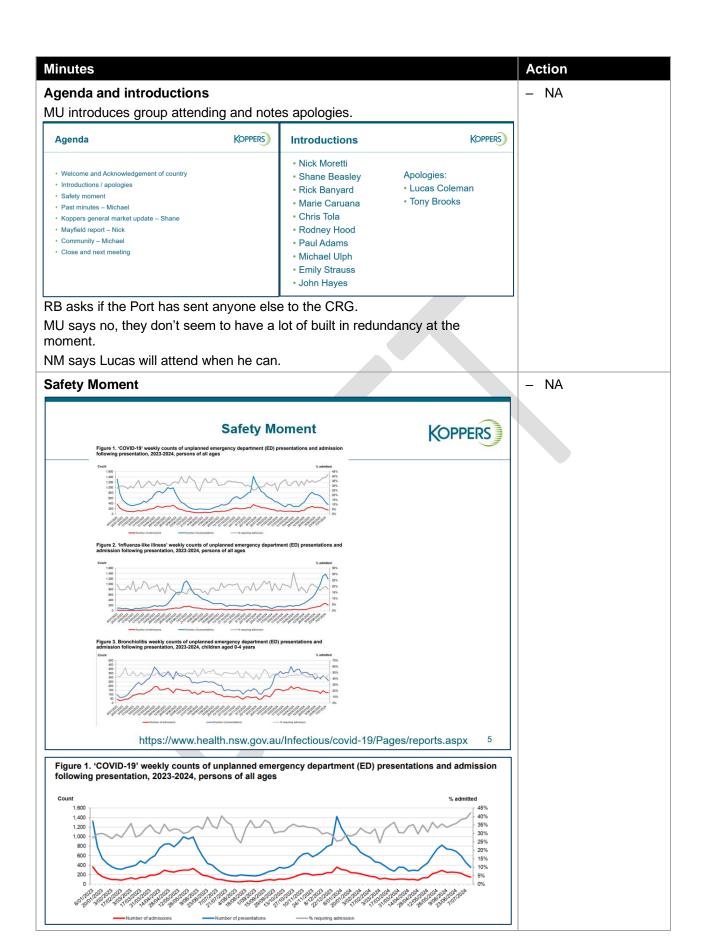
Minutes

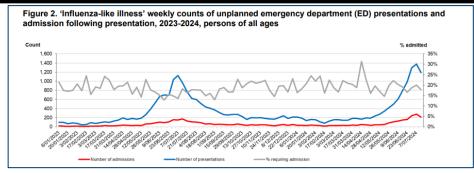
23 July 2024

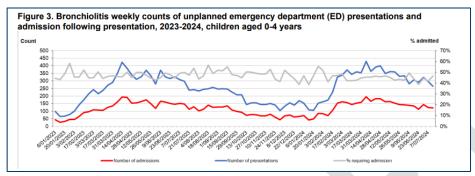
Project name	Koppers Community Reference Group	From	Emily Strauss
Subject	CRG Meeting #15	Tel	1800 066 243
Date / Time	15:35–17:15 23 July 2024	Project no.	12554413
Attendees	Nick Moretti (Koppers) Shane Beasley (Koppers) Rick Banyard (Mayfield Group) Marie Caruana (First Chance) Chris Tola (Community member, on line) Rodney Hood (Pacific Hydraulics) Paul Adams (Major Projects Group, on line) Michael Ulph (GHD) Emily Strauss (GHD, minutes, online) John Hayes (Mayfield Group)	Apologies	Tony Brooks (Mits Group) Lucas Coleman (Port of Newcastle)
Guests	NA		
Objective	Community Reference Group	Copy to	All CRG

Minutes	Action
Acknowledgement of Country MU provides an Acknowledgement of Country.	– NA
KOPPERS	
Acknowledgement of Country	
Meeting officially started at 3:35	









MU shares safety moment of the number of people presenting with various illnesses such as Covid, influenza-like illnesses and bronchiolitis. The data is from the NSW health department. All three of the recorded illnesses were higher earlier in the year. The red line is the number of admissions to hospital due to illness. The blue line is the number of presentations of each illness and grey line is the percentage requiring admission, provided on the right-hand side.

SB says about 45%.

MU says as per the graph, flu was higher recently and is now tapering off. The URL at the bottom of the graph provides the link to the data, which is updated fairly regularly.

SB says that they have had more cases of Covid recently than in the two years of the actual pandemic.

NM will provide further detail during the Mayfield report.

JH asks if this data is from the flu questionnaire he completes every Monday.

MU says this is from the NSW General Practice health records, but may include data from the guestionnaire that JH is referring to.

JH receives a questionnaire every Monday from Craig Dalton about flu and Covid which takes him less than a minute to complete. JH to provide a details for these minutes (See Appendix).

RB says that ten days ago on a weekday night there were 122 patients in emergency care in John Hunter Hospital with 30 ambulances outside waiting to unload.

MU asks if they were Covid or flu cases.

RB says he is unsure, but there were 122 people actually being treated in the emergency unit.

JH says that in 12 months he attends approximately 50 meetings a year and many presenters will also put something up on the screen with a graph and say "you can't see it". Presenters shouldn't do this; they need to ensure their graphs are readable. Instead of this, MU should have put each of the three slides on a separate page or provided a printed copy to pass around so that they can be easily read. MU is one of 25 to 30 presenters who do something similar.

linutes		Action
IU says he'll take that as constructive criticism b		d
peak to the graphs and described what they dep		
H says that he had to ask what the colours were	representing. They should	
e on three pages instead.		_
IU says the graphs will be available in the minute orward.	es and he'll apply this going	9
		NIA
leeting minutes :B moves last minutes, NM seconds last minutes		– NA
<u>, </u>) .	_ NA
oppers report (Shane Beasley)		- NA
Vannava vanavt	KOPPERS	
Koppers report	NOT LIO	
General market update		
 Long term outlook for aluminium growth still str 	CODE	
 Greater focus from industry on meeting those ta 		
percentage of recycling.	3	
Hydro trying to develop new non-carbon-based	technology. Many	
years away.	to produce	
 Number of large investments in the Middle East anodes there to reduce reliance on Chinese sup 	-	
 Lots of interest from battery anode material ma 		
carbon producers to work with us on looking at	our ECP material.	
Big focus on Europe/US developing the own cap		
and reducing reliance on Chinese supply. Conce		
stage China may place restrictions on exporting	Key materials.	
B says the aluminium market has a strong long- precasting around meeting sustainable objectives f aluminium has been bouncing around and the p and May. The price has now come down about 10 tome recalibration recently.	s around the world. The pri orice went up around April	
B and Richard Lyons visited Rio Tinto in Brisbar	ne about two weeks ago,	
hich is one of Kopper's biggest customers. Rio f		
uminium industry is still very strong. Regionally, nelters is being able to compete on a world scal ey pay for power and their power contracts.		ney
io Tinto's New Zealand smelter has been questi	onable. In the last five year	rs
nearly closed, then it had a reprieve for a few ye 20-year power deal which these days is unhear be Boyne smelter in Gladstone.		
H says 20 years is amazing.		
io are confident they will also get a long-term po	wer deal, although maybe	it
on't be 20 years. They are also confident that a ached for Tomago, however, Bell Bay is differer		
3 says the outlook in Australia is therefore positi	s	
ery good for Koppers who obviously need smelte		
I asks about Bell Bay and the recent droughts in sulted in low water levels.		
B says that Rio didn't mention water concerns in	/ is	
concern. Overall, this is good for Koppers becau		
ranting to talk about longer term contracts. When Idustry, about 10 years was a normal length for a		
ommon to receive a long-term contract in Austra		
oout two years after the GFC and during Covid.	This thinking changed and	

now no one is as willing to commit to a long-term contract, but now they are starting to look towards longer term contracts again.

Koppers is about to sign a long contract of 3 years with an additional 2 year option making a total of 5 years as an interim contact looking towards a longer-term contract. The outlook is therefore pretty positive from a local industry perspective.

Everyone is belt-tightening at the moment. Koppers is having conversations with Rio about considering dropping inventory levels for their raw materials because of working capital costs and financial pressure. Although Koppers is seeing a bit of this happening, the outlook is positive overall.

Non-carbon-based technology is rising. Hydro is looking at a different technology from everyone else. Companies like Rio, Alcoa and the Canadian government have been looking at something called ELYSIS technology for the last four or five years or so. However this conversation has gone a bit quiet. SB attended a global conference in February and March in the US but this technology didn't get mentioned at all, which is unusual. But they came out with an announcement about a month ago about their pilot plant and how that technology is progressing well. But this new technology is very small scale and is only producing approximately 10,000 tonnes of aluminium a year. This amount is only approximately 0.08 of a % of what one smelter can do in Middle East. This technology is therefore nowhere near being commercially viable.

JH asks if SB is referring to green aluminium.

SB says this is not exactly green aluminium. If you have 100% hydropower and don't have your own carbon plant and you're buying anodes then you can claim that you're making green aluminium. This new technology is not green aluminium but rather this is next step of that process. This is aluminium that would be produced with no carbon at all whereas green aluminium is just dependent on where energy is sourced from and if it's carbon neutral. You can buy green aluminium at a premium now. This is what companies are doing to get around it because producing green aluminium is just dependent on where you source your power from.

MU says this is only a pilot plant and therefore the aluminium generated is only a fraction of what is needed and is not commercial in scale.

SB says that a Russian Aluminium conglomerate has a pilot plant and it produces 6,000 to 8,000 tonnes. SB was at a conference in China in 2012 about the future of aluminium and how they had invented nanotechnology which would be rolled out. Getting any technology in the aluminium industry to a commercial scale is a challenge. This is unlikely to be produced in our lifetime, it's still far off.

MU asks what this technology is based on.

SB says it is based on ceramics, but this still presents issues because nothing lasts forever, eventually this material would wear too. There would be refit costs and you wouldn't be able to refit an existing smelter with this technology. It would only really make sense for this to be rolled out into new smelters on greenfield sites. In addition to this, there are lots of smelters which are relatively new and it cost billions of dollars to establish a new one. Companies won't walk away from these smelters unless they have to at some point down the line. Companies will not be willing to close their relatively new assets and then replace them with ceramic.

SB says the ceramic route is one option. The Hydro technology is completely new and different with a completely different chemical process underpinning it. For SB, if a company like Hydro, who have been in the industry a long time and are pretty switched on, are giving up then they are obviously not confident that this new technology will ever become commercial. It's hard to know, in five years' time the whole industry may change and become completely different.

JH says that another component of this discussion is that hydrogen will come in as a significant player in the industry at some point. This is happening a lot slower than people thought it would.

SB says that hydrogen will have a role to play in steel making but not so much in the aluminium industry. It's a point of discussion at these global conferences. Aluminium still wants to grow but aluminium still needs carbon. Carbon is slowly getting constricted as everyone slowly moves forward towards 2050. It will happen at some stage, but it is very hard to predict. An anode is basically like petroleum coke, which comes from the petroleum industry. SB attended a conference last year which projected that next year will be the peak in petroleum investment and then it will taper off permanently due to more EVs coming to market. People won't be buying petrol cars and won't be requiring fuel. As this happens, investment in petroleum will drop and taper off to whatever level it settles at.

The other part of the equation for the anode is coal tar pitch. There will be less and less steel making based around coke, meaning there will be less coal tar. There will still be steel globally but it will not be the volume that we are seeing now. Lots of competing industries rely on both of those as well so it will be interesting to watch over the next 20-30 years. They will be forced to come up with new technology at some stage.

RB says that shipping will have big impact on this process. It looks like Ammonia will be the next thing that ships move to instead of fossil fuels. Ammonia will absorb a huge amount of hydrogen production and real-world demand for ammonia will make a difference. This will impact the hydrogen that there is.

SB says that he attended a shipping conference last year and the people who are behind ammonia production and who are saying it is a great thing are ignoring the fact that somebody will need to invest in infrastructure to support the adoption of ammonia. This infrastructure would need to be in every port to support this. This is similar to when they tried to get everyone to adopt low sulphur fuel which was difficult because the infrastructure needed to support this was not available in every port which presented challenges. Who will make the commitment and invest in ammonia infrastructure in every port first? Should it be local government or the shipping industry? The technology is there, and the decision makes sense, but who will jump first? Currently there is not ammonia infrastructure at every port, which will be an interesting problem to solve as it is adopted.

Koppers are talking to a number of shipping companies about their own shipping needs. In the global market, ships that can carry pitch are getting quite old. In terms of the useable lifespan of what they can do, they are approaching the second half of this lifespan. Koppers is talking to shipping companies who are basically thinking that if they are going to build these ships then they want a 10-15 year contract. Koppers is trying to tie this into their own contracts with their customers. They have discussed this with Rio Tinto and maybe they dual-invest. SB has seen some designs which have sails. The technology is similar to what they use for F1 racing yachts.

MU says this is similar to hydro-foil.

SB says they are putting sails back on boats. Lots of ships have capacity to put gas in and they are building engine rooms that are big enough that they can put ammonia in later on if they choose to. The shipping industry knows what needs to be done, it's just about being able to do it.

RB says that the shipping industry is busy building ammonia tankers and there is a lot happening in this space.

SB says that if they want a boat in 4 or 5 years, then they would have to sign a contract for it in the next 18 months. There is lots going on in the green side of things and sustainability.



SB says the battery work is ongoing. They have a potential customer in America who may be interested in using their new product. Progress is slow. You read all the time about cheap nasty batteries out of China, which are on the news for causing house fires. Koppers are looking at EV makers, but this industry is very slow to do anything new. Initial testing has been very positive but there are several steps to testing and proving that the technology works on a large scale over a long period of time before it can reach a large, commercial scale. Conglomerate Australia, which is comprised of several companies and universities, is involved and they are doing collaborative research which is going well. They are now at a stage where they are going to Queensland University to do testing in industrial sized batteries. They will hopefully get results next year.

Koppers may also become involved in a new CRC which has gone through its first round of government approvals. The current CRC was about technology side of things and getting it to Australia. The new CRC will be about grid design, the workforce that would be required to support the industry and how we can actually use it. There are a lot of questions to unpack. Will this new battery technology include recycling batteries and if they can make something useable by recycling anode materials? Koppers will be involved in this and will be looking at coating, recycling anode materials and seeing what products could be developed and then be put back into the industry.

JH asks if it is called CPRO.

SB says yes, CPRO is the name they are using for their enhanced carbon pitch (ECP) which they currently make in Denmark. CPRO is a water borne solution that the battery makers can use to coat their anodes with and there would be no need for any solvents, which are horrible. A particularly nasty solvent is NFP. Europe wants to ban the use of this solvent completely. This new product will take away the need for the use of any solvents. Many new startups want to start off by using this new product and eliminate the need to work with solvents at all. This would take the need to try and catch that solvent at the end and then try to recycle it which is a very capital-intensive process requiring a lot of specialist equipment. The byproduct of CPRO is that it produces water vapour at the end.

MU suggested that at the next meeting perhaps tell us who is involved in the current CRC.

SB says that Queensland University and Melbourne University are involved in the current CRC. The new CRC will include a few more universities as well as between 60-70 companies. The new CRC would be more industry focused. Koppers probably wouldn't be as involved in the new one as they are in the current one which has more of a technical and research focus on actually making the battery and setting up a battery industry. They have approximately 30 million dollars of investment and government would then match that.

MU says that he expects the funding goes towards supporting PhD students to undertake the research.

SB says that Queensland University has a great facility where they can actually build batteries and this is where the next step of testing will happen, maybe in Q3 or Q4 of this year.

NM asked if anyone has heard about the pitch experiment which has been going on for the past 75 years at Queensland University. It is one of the longest running laboratory experiments in the world. Essentially, they took a glass funnel with a cork at the bottom of it and poured in some liquid pitch. They let the pitch go cold and took the cork away and put it on a stand. Only 8 drops have come out in 75 years. There is a livestream called 'the ninth drop' which is awaiting the next drop. Pitch flows at room temperature but it's so slow that it can't be seen by the human eye. NM saw it in 1988 in the Brisbane Expo, which is after he started working at Koppers. Eight drops have come out so far.

RB says the EPA would be in tears.

JH says speaking about PhDs working on it makes him think of something he saw the other day. There are big battery factories in China that have as many as 26,000 people working at them in research and development. They increased the number from 16,000 to 26,000.

SB says there are 132 different electric vehicle companies in China. EVs make up a significant percentage of cars on the road there. EV cars there have different coloured number plates there which led SB to think that there must be about 20 different companies but actually there are 132 different EV companies.

JH says this is because there is a tariff barrier to protect the automobile industry. Australia doesn't have a tariff, it makes it easier for EVs to be brought here as opposed to other places which have tariffs in place.

SB says their contact in Rio Tinto has bought an electric vehicle.

CT says he has just watched 44 seconds of 'the ninth drop' livestream.

NM says that the last drop was a couple of years ago.

SB says CT should tune back in six years or so when the next drop is due.

MU says that the proportion of EVs being sold is doubling every year. Tesla is the bestselling vehicle now, beating the Ray 4 hybrid.

RH says there are big government incentives. There are big savings to be made and eventually the floodgates will open. He has had to adopt some policies on them as employees are making the decision to go through with them. There are significant savings of up to \$10,000 to \$15,000 off a vehicle.

JH says he recently test drove the Suzuki hybrid which doesn't plug in. It has a petrol engine and uses regenerative braking as a power source. Suzuki said to JH that they will keep dropping prices so that it generates more discussion amongst people. You can also do a trade in. They are not coming out of China, but rather Japan.

MU says that because the ACT government and City of Newcastle have used electric vehicles in their fleets, they are creating a second-hand market which brings the costs down for people further.

RB says that when he was a child they would take the battery out of your car, pull it all apart and pretty much build a new battery.

Mayfield report



- · Emergency vent opening 11 July
- Evaluating 2nd ship charter 'Jastella'
- Looking for long term contract Chinese Co. in Indonesia
- · Solar panels up and running -

Mayfield update

NM provides the Mayfield update

NM they have had some Covid a few months ago. At one point, they had 6 people off work at the same time isolating, but Covid seems to have gone away now and isn't currently a problem. They keep RAT kits onsite to be used by all employees. NM checks it every few days and there has been no consumption of RATs in last three weeks but prior to that there was a fair bit of consumption. NM went overseas on holiday recently and got Covid most likely on the plane. He felt sick and did a Covid test which was positive, but unfortunately, he had been in contact with a few people already by then. After that, a few people got Covid at work. Only one person on a particular crew didn't have it, so other people had to stay late and come in early et cetera to maintain that crew. No one is currently off sick with Covid. NM's mother's rest home had a run of Covid here in Mayfield, but they seem to be through it now.

CT asks SB for an update about the market in India.

SB says that India is pushing heavily into the pitch industry, they have previously had a strong domestic focus because the steel industry there produces a lot of coal tar which gets used up domestically by their aluminium industry.

India is trying to export more to one company in particular, JW Steel, who are a big steel company. India is trying to get into the pitch market in the Middle East. They do a lot of battery work already in India.

Koppers' assumption is that India will try to get into the pitch market in the Middle East up until the battery industry takes off and then India will move into that market instead, because this is a higher value market.

The Middle East want to sign long term contracts like the contracts that they have currently with their Chinese suppliers. This has definitely spooked the Chinese market because India is undercutting pricing. Pitch pricing tends to be very commodity based and is also limited to a price range for export for the world class smelters, which is the market that Koppers operates in. India is undercutting that severely. There are a few players in the Middle East who may be willing to try that which will then force China to drop prices or China will have to look at other markets.

Koppers is watching closely. So far it has been fairly easy for China to approach Koppers' customers here. Currently the logistics are not doable. They will continue to watch India. India does not have a great name in the Middle East because of a previous situation about ten years ago where Koppers and a company in India were supposed to dual supply a 1.2 million tonne smelter in Qatar. Koppers had the startup supply but when it came to dual supply, the domestic market took off and the company didn't meet the contract requirement for the first shipment because they sold too much product locally. The company said they weren't ready yet. As a result, the Middle East gave their half of the contract to a Japanese company, JFE, instead. India will

struggle to get back in due to a lot of remembered pain about that situation and reputational damage.

The Middle East talks, they have very strong connections internally. India would need to do damage control because companies in the Middle East will remember this previous situation. India is very well positioned to export to the Middle East because their supplies are situated on the west coast of India. India is also supplying smelters in Africa such as Mozambique.

NM provides an update on an emergency vent opening which happened on 11 July 2024. All of their tanks have a relief valve which may open as a result of too much pressure inside the tank. If pressure gets too high, then the emergency vent will open and there may be a vapour emission. In their EPL, it says they have to report any vent openings that last longer than 32 seconds. This total event lasted for 2 minutes 50 seconds, but it was not a continuous event and the vent opened and shut several times within this time period. Each opening of the vent happened for less than 32 seconds, but cumulatively over the 2 minutes 50 seconds, the vent was open for 32 seconds.

As such, NM notified EPA via email which is the required process. Their EPA officer thanked them and asked for an investigation report to be prepared and sent through. NM sent through the investigation report this afternoon.

Koppers is worried because they recently got a fine from a ship loading event, which was discussed at the previous CRG. The EPA gave them a fine and also released a media release that made Koppers look terrible which was very disheartening. What happened on the 11 July 2024 was that they were loading a ship with carbon black feedstock which is like a creosote oil. After the loading, the pipeline, which is about 2 km long, was full of this oil. They use a contraption called a 'pig', which is a steel frame with rubber cones on it. It is inserted into the pipe and pushed with compressed air and it cleans the pipe and pushes the oil in the pipe back to the plant and pushes the liquid into a tank. There are two pieces of pipe, one from the wharf to the intermediate compound. It's a ten-inch pipe. The little pig goes through that. Then a larger pig goes through a 12-inch pipe that goes from the compound to the plant.

Normally, the operator will have the big pig in the pipe ready, but he didn't. When they took the little pig out the big pig wasn't there to stop the air, which rushed through to the tank which increased the pressure, and they had a pressure event.

Koppers compiled a report to explain how the event happened as well as the corrective actions they applied. They will modify the procedure going forward to make it clearer what sequence events have to happen in. They are worried about what the EPA's reaction will be given how aggressive they are at the moment. Koppers received no odour complaints as a result of this pressure event.

Coincidentally, NM was in the office preparing the report for this incident and saw four EPA cars drive very slowly down Woodstock Street. The cars did a Uturn and then left. All four cars had a passenger but no-one got out of the car. It was four hatchbacks, all with EPA branding. Woodstock Street is a private road within their licensed premises. The EPA probably does have the power to come onto their site, but they should have the courtesy of letting NM know, which they did not do. The EPA recently visited with a group of new recruits. about 8 or 9 of them, who have been with the EPA for less than 12 months. The EPA were taking these new recruits onto various licensed premises including Koppers to show them around. Koppers did a plant tour for them. This was after the media release, NM was tempted to show them the article that included a picture that is not of the Koppers site. Possibly the purpose of this drive-by was also to show new recruits around but the timing was very coincidental. They didn't tell NM they were coming down Woodstock Street. Koppers have sent in their report about the pressure event and now they will have to wait and see what happens next.

MU says that in terms of the letter of the law in their license, there hasn't been an emission lasting 32 seconds or more, because in terms of that condition, the emission did not last for a consecutive 32 seconds.

SB says that technically they didn't have to report it but because of the cumulative time that the event lasted, they felt they did have to report it because cumulatively it had exceeded what was in their license.

NM says they will wait and see what transpires next about this.

JH says he is on another panel for a company who have also had issues with pressure events and ammonia emissions. This company told JH that if the pressure valve doesn't release then the tank will explode which is why the pressure vent is there in the first place. JH asked this company at the time why they could not construct their plumbing in such a way that the pressure relief valve opens into another contained tank or something like that. Five or ten years later, this company ended up doing something very similar so that emissions don't release into the air. JH asks why Koppers can't also connect the pressure vent to a separate tank or some kind of upside-down funnel so that there is no emission into the air.

NM says it is a question for the engineers.

RB asks about an outlet for the valves.

NM says that there is an outlet for the valves to go into a fume bay to treat it. But it wouldn't be easy thing to do because they have 66 tanks.

JH says that even doing this partly would be a better solution because then Koppers wouldn't have to be kicked in the shins by the EPA when these pressure events do occur.

NM says that in the last five years they have changed and improved a lot. They now have equipment to monitor the pressure in the tanks and they now have alarms on their lids to indicate when pressure rises. They have improved their operational practices a lot. They also have set up training for their employees. This has reduced how many times the lids now open. This is now a rare occurrence, which happens maybe once or twice a year. It used to be a weekly occurrence. But this 11 July event did happen, so they have put their hands up and reported the event. They will have to see what happens next.

RB asks when they have to report the event by.

NM says he reported it a few hours after it had happened.

RB and JH were at another organisation's meeting and the community was told at a meeting that this organisation doesn't worry about reporting a license breach immediately after it has occurred, they just note any license breaches that occurred throughout the year in their annual return.

NM says that the license for that organisation may be different from the Koppers' license. It's all about the specific wording. Koppers needs to notify immediately as per the wording in their license and they also note any license breaches in their annual return.

RB says the community group was horrified when they were told that this other organisation just puts it in their annual return and doesn't report it immediately. RB suspects that they soften the wording when they put it into their annual return

NM says the EPA would probably be angry if the event happened long ago and wasn't reported immediately and they instead read about it many months later in the annual return. The EPA could potentially vary their license to make it so that this organisation has to report the event immediately.

RB is not sure what the license for this organisation actually says but when someone at this meeting asked the question, that was the answer they were given and this organisation maintains that they just list all their events from the year in one annual return at the end of the year. By the time annual review is done, there may have been four or five breaches from throughout the year and it may not be worthwhile for the EPA to action the breach at the end of the reporting period. It would be easy for this organisation to simply downplay the

wording in their annual return to reduce the severity of the event. By the end of the year when the EPA reads the return it may not be worth the EPA investigating it.

NM wonders who actually reads those annual returns. They never receive any feedback on them.

RB says that PWCS had similar event whereby there was a minor dust emission from their operations which they then cleaned up. It was a very minor quantity that was actually released. They were given a \$15,000 fine and insulting words in the media.

MU says NM can provide an update on this situation next time

JH asks if NM has met Tony Chappell, the new head of the EPA. When JH met him he seemed like a reasonable person. But JH isn't sure what he's really like and if he's driving the EPA down a very hard line.

MU says he's very switched on and that he used to work at AGL.

JH says he reports directly to Penny Sharp.

CT asks about any odour reports from the 11 July event. He notes that NM says there were no odour report received directly. He asks if the EPA received any complaints about the event if they would immediately inform Koppers.

NM says the EPA will inform them right away if they receive any complaints because they want to investigate such complaints.

SB says they did not pick up anything on their boundary monitors as a result of this event.

NM says they have one ship currently on time charter, which is the Asphalt Transporter. They also use another vessel called the Jastella which does some work for them too. Currently this ship is carrying the other ship that they loaded the CBF onto. It will be in Japan on 29 July where it will discharge the CBF.

Currently they are evaluating that ship for use for four different materials. They will be making a decision soon about renting that ship for a full 365 days a year so that it is exclusively theirs. SB has been talking to Rio about looking after all of their requirements for pitch for all of their aluminium smelters, excluding New Zealand. If this goes ahead then they would need a new ship for additional logistics, this will give them a competitive advantage because they would be able to supply a delivered product.

SB says they have been talking for many years about securing a long-term contract with a Chinese company in Indonesia. They have done a number of trial cargoes with this company. They are willing to sign a long-term contract. At the moment, Koppers can basically guarantee that they can replace the volume lost as a result of the closure of the Whyalla steelworks. From a business as usual point of view, they can get enough tar to replace that. Originally, they were considering doing all of Australia and New Zealand for Rio, but that would push Koppers to their limit for their plant. That would leave no room for error such as a maintenance outage, adverse weather conditions or something outside their control. Then they would not be able to meet the supply requirements. They don't want that much risk, they can comfortably supply 100% of the Australian side of things.

Rio has gone away to consider it. From an operational standpoint and security of supply perspective, they are happy with that. Rio has their own logistics and they have their own contracts with China who supply partially to Australia and to all of New Zealand. They will need to consider if they can deploy the spare logistics they have that they then won't be using for Australia to other parts of their business, such as their Canadian smelters. They are close to signing and finalising the contract. It depends on what Rio wants to do.

Koppers is happy to keep going as usual or take on all of their Australian operations, which is also dependent on what China wants to do. This will future-proof Koppers. Koppers are also talking to BlueScope, they have another year to go on that contract. They are looking for another long-term

contract to put in place. BlueScope is playing hard ball, as with most companies at the moment, to maximise returns. This has been difficult to negotiate so far but realistically it wouldn't make sense for BlueScope to put that coal tar into Asia instead. Asia is looking to move coal tar and is not looking to buy more. BlueScope says that they have some interest.

NM says they have installed 100 kW solar panels which are generating 6,000 kWh to 7,000 kWh a month since March This is a very small amount compared to Kopper's overall consumption. They spend up to \$100,000 a month on electricity.

JH asks if this is new because he was not at the previous meeting.

NM says this is relatively new and is very small scale. Koppers currently uses all of the electricity that the panels are making. The electricity is directed to one of their switchboards and it is immediately consumed. The purpose of this exercise was to learn more about integrating a renewable power supply and seeing how it would work in practice. The process has gone quite smoothly. The panels are currently located on a roof of a shed out back. Koppers are looking to expand this supply and add more panels later. They can conceivably quadruple their solar capacity.

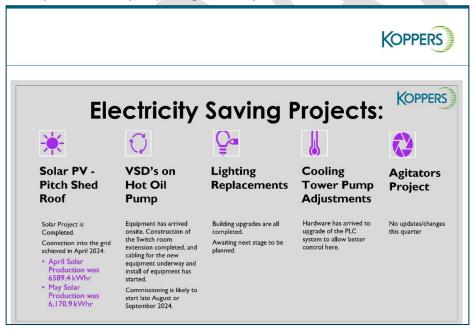
JH asking if they are exporting the solar that they producing, if they are exporting it and if they have a battery.

NM says that they consume what they make immediately, they do not export to the grid and they have no battery.

RB asks about the price and if it is the same at all hours of the day.

NM says it is tiered however he hasn't looked in a while. There is peak and offpeak.

RB says that all the power they are generating is then coming off of their bill. NM says it is currently displacing what they would otherwise use.



NM discusses other onsite energy saving initiatives. They use hot oil and use it to heat their pipes and their tanks which have pitch in them. They use steam heating for naphthalene, but pitch needs more than that to keep it warm. They use a proprietary oil from a petroleum company. It's a heating oil. The oil is heated on a heater and is then pumped all around the plant on a big loop. It comes back and is heated again, it's a constant loop. They have been using constant pumps, running at 100%, but they don't need to run the pumps at 100% all the time. They now want to run the pumps variably using variable speed drive (VSD) so that they can run the pumps at whatever speed they need to, which saves a lot of energy. It has a one-year payback so it was a no-

brainer. It has been a long project. They will be commissioning this project in late August or September this year.

Koppers are also doing lighting replacements and are doing some work on the hardware in their cooling towers to upgrade their control system and they are looking at their agitators. Currently the agitators run all the time, but they don't need to run them all the time. This is a lower priority.

SB says they have other VSDs too around the plant, these are just the biggest ones for now. Some of these have long lead times and are very specialised.

MU says these are all great ways to save energy and these improvements will be advantageous over time. It's not about just looking to add more solar panel capacity, it's also about knowing when and where you can turn things off.

NM says Koppers has had an energy saving plan since about 2006. David Blyth started it when he had his own company and now works at GHD. He is assisting with energy improvements. Koppers is using 33% less energy since 2006. But in the case with similar things, it was easy to pick the low hanging fruit at first but now the bites are getting progressively smaller.

JH says that these initiatives should be put in Koppers' quarterly newsletter so that people can read about it because this is what the community will be interested in. They should also tell people that they have saved 33% of energy since 2006. Koppers doesn't need to itemise all the earlier projects but they should tell people about these current projects.

Community

MU says that they haven't put out a newsletter yet because they are looking to get more information for some things and have more things to discuss from a business perspective. The community also cares about other aspects too like energy efficiency and would like to see this list of energy improvements Koppers is looking at implementing.



RB says this is what he is interested in seeing in the newsletter, particularly in terms of the solar panels. He sees so many businesses without panels, it is an inefficient use of energy especially considering the type and volume of tools that some of these companies are running. He can't think of any panel beaters in the Newcastle area that have solar panels on them. This is a no brainer, they should all be using them. These sorts of businesses don't even need batteries that last overnight. Other than maybe some security lighting, these businesses switch off their lights at the end of the day and go home.

SB says it all comes down to the commercial payback. If Koppers was presented with this option on a purely commercial payback perspective, then they wouldn't do it because the payback is too long and takes something like ten years. This isn't a commercially good offer, but this isn't why Koppers is doing it. They feel there is a moral obligation. From a small business perspective, it just wouldn't be viable from a capital perspective as well as how long it would take to get the money back.

RB says there is so much misinformation and rumours such as how panels only have a ten-year lifespan as well as how they're apparently not recyclable, which just isn't true. The system that RB has taken off the house he has moved into was 17 years old, producing greater than its nameplate output at 17 years old. There was no die down in its capabilities at all. RB has given this system on to someone else to use because it's not dead. Solar panels are recyclable: a large number of the solar panels that are getting collected now are being put into containers and being sent to Africa. To say that they're filling up landfills just isn't true. A lot of the information being shared is not true.

MU says that NM has emphasized that the solar panels they have installed are only producing a small fraction of the energy that they are using. They will be explaining this clearly in the newsletter so that Koppers can't be accused of greenwashing. A lot of the other initiatives they are implementing are saving energy and they will also be presented in the newsletter.

SB says they could put solar farm next door but it is about utilising things efficiently. They are having conversations about thermal storage. Things like on an industrial scale will make a huge difference. They are still looking at things like that down the track.

RB says that although Koppers are not using solar on a large scale yet, sharing their use of solar panels with others will help encourage other places to do the same thing. There are so many businesses in Steel River. A little bit of enthusiasm to get them to put panels on would go a long way. Koppers is still using panels on a small scale and working through what the payback will be.

JH says it's still a story worth telling.

RB says it will encourage others to do the same. He is on his fourth solar system, the only thing he didn't do was put to batteries in. He is not paying for electricity at all. His battery lasts the night even using his appliances and heating/cooling as he normally would. He is even giving a sizable amount back to the grid despite the fact that he is 100% using this energy. Even on cloudy days, the battery still survives until the morning.

NM asks what RB gets back for it when he gives back to the grid.

RB says they should give you half back, but it is 5 cents only.

JH gets 16 cents back.

SB says that AGL is trying to charge you if you try to put it back during off peak times.

JH says it's not as bad as it sounds, and this is only if you put back too much.

MU says you can use it up and not give it back in that case.

RB says you can if you've got a minimal system. RB is an advocate for it and tells other people to do the same. He has a dashboard on his computer that allows him to track his production and usage. He was doing some welding and you could see it show up on the graph.

NM says they recently participated in the First Chance trivia night which was a fundraising event. Koppers sponsored one of the prizes which was a two-night winery getaway.



Slide shows Cassie (Koppers - right) and Nicole (First Chance - left).

As part of the Global Koppers "Preserve the Earth" campaign, Koppers Mayfield planted some trees at Mayfield Public School. This is their nearest school, located only 1.2 km away. They sourced the trees, provided the people and held a BBQ. They had some money left over and used it to buy a garden table for the school.



Slide shows cheque for \$760 to be used for the table for the school.

Koppers will be participating in a golf day on 11 August. Koppers will sponsor a hole which costs about \$1,040. They are sending a group of four employees to play. They did this last year as well. Because they are shift workers, a lot of them play golf on their days off throughout the week.

MC was in hospital and didn't attend, but it's always a good night. NM says they raised \$11,000.

MC says that the funding will be used to keep the 'little ones' play groups funded for another year in Hamilton and in Raymond Terrace.

The school days was a good event. NM says it was challenging to organise. Principals are always hard to get in touch with because they're so busy.

Minutes Action MU invites closing comments from the group **KOPPERS** Community Around the room CT sent an email around saying he has been nominated for the Hunter Environment Advisory Group, for the EPA, which is the former NCCC. CT has been approaching community groups around the valley to hear concerns to pass onto the committee. They haven't worked out yet how they will do it yet, but comments will be sent around so that the whole committee will be prepared for comments received. CT has been invited to the Upper Hunter Mining Dialogue to their environment and sustainability committee. In terms of offshore wind, CT is on the board of National Surfing Reserves. A number of the surfing reserves will be impacted by offshore wind farms. They are trying to get the impacts to surfing as well as beach use amenity properly assessed in the Environmental Impact Statement (EIS). Currently, the EIS does not assess beach amenity and impacts to surfing. At a recent community meeting in Wollongong, CT heard someone say that offshore wind will 'stop the sun from rising'. Clearly, more education and information is needed. They are trying to arrange some university funding to get a PhD completed on the topic. Research is yet to be done on this topic as there is no hard evidence yet. MU asks if the National Surfing Reserves organisation would fund this research. CT says no, a university would fund this research. This is a long process, it takes between 5 to 7 years for just the feasibility study to be done. They are trying to have this research done as part of the EIS process which in theory would encourage a PhD to be undertaken. PA provides an update on his demolition business which is doing well. They are doing a demolition of a power station in Queensland with more work planned for the Hunter Valley. Their portable building business is going well. Their main progress has been in their Major Projects Foundation which is also going well. They currently have a dozen divers is Micronesia. This was originally May and June. This has been extended to July and August. This will complete their work in Micronesia. They already completed their work last year at the Marshall Islands nuclear jet site in Bikini Island. They documented 14 ships there and are about to finish documenting 25 ships in Micronesia. They have made good progress and secured funding from their American billionaire sponsor which will cover three more years of core funding. Their next program will be in the Solomon Islands and in Papua New Guinea. SB asks what they document, is it location and condition? PA says they take photos to record the condition of each wreck. They take between 20,000 to 150,000 photos of each wreck based on size. For the USSR Saratoga, an aircraft carrier, they took 180,000 photos due to the size of the wreck. They then input these pictures into a computer. They did this for the Saratoga in October and November last year but the computer is still processing until August. Once the photos have been processed, the computer will make a 3D model of the vessel. When you dive down to the wrecks, you

only have about 30 m of visibility. The Saratoga is 280 ft long and you can't see the whole thing in one go but with the 3D model you can see whole ship and see the present-day condition of the entire vessel. They will overlay the

original drawings and identify the fuel tanks. They then do a structural assessment to see which tanks can hold oil still and see which ones have been ruptured.

The wrecks in the Marshall Islands are damaged from a nuclear explosion. Five out of fourteen of them will need remediation. The rest of them already have burst tanks or have leakage that has already occurred. They have been documenting the last 12 wrecks in Micronesia. They did the other 13 last month. Once they have those they will establish a remediation plan. They have brought together the Japanese government, US government and Australian government in same room to discuss next steps. They have support from the US Navy and the US Coast Guard, who is actually the first responder for Micronesia. They are making good progress.

MC says First Chance is business as usual. A lot of staff are on the road going from one appointment to another and are very busy. First Chance is a finalist in the local business awards, in the specialist category.

RB has no update to provide.

RH says things are going well. They are budgeting for 15% growth this year. They have an opportunity for the business to take off but they are trying to hang on to it. They have an acquisition underway, which is nearly finalised. This is their third acquisition in the last six years.

JH asks if they are buying or selling.

RH says they are buying and they think it will be a good value add to their current business model. As long as coal keeps firing, they are in a good spot.

MU asks for the elevator pitch on what the business does.

RH says they manufacture hydraulics and design hydraulic systems. They have a manufacturing division which is starting to develop. They also service the hydraulics and manufacture things from steel. The work is very mining-centric, both open cut and underground. They want to diversify and get into more mining that is not necessarily coal.

SB don't get into nickel mining.

RH says that at the moment coal is good for them. They have a good foundation now and can start to invest in things. They don't have to buy things second hand now so they can start to acquire value at a faster pace.

JH recently went to the Hunter Community Alliance foundation meeting in April. This was a big meeting held in the Great Hall of Newcastle University. It was attended by approximately 900 people with both State and Federal politicians present. Chris Bowen was the most senior person present. The HCA will go ahead with its asks that it made of the politicians. There is a lot of work in progress.

There are various groups working around issues such as homelessness and the need for affordable and social housing. There is another group who is working on environmental issues. They are requesting the establishment of new facilities at the Tighes Hill TAFE which will allow for training for people displaced by the closing of the coal industry. This is a work in progress. Another element is working with the unions of Hunter Jobs Alliance who are asking for significant state and federal funding to establish a transition authority.

There will be five transition authorities at the moment at the state level, however, these will be bureaucrats reporting to each other and not doing actual work. This is also not funded well. The whole model is bad. There needs to be a greater focus on the regions, including the Hunter. It needs significant funding which is coming out of mining royalties which are being paid by the mining company and not actually being passed on to anybody. That money is being accumulated but not being spent anywhere – the total is something like \$130 million dollars. There needs to be representation from workers, unions and the government. It was a great meeting with over 800 people in attendance.

RB wrote an opinion piece with JH about how the coal decline is not going to happen as quickly as what people think. In the opinion piece, they made the prediction that they believe coal will only be reduced by 25% by 2050. The current record levels observed now will continue for a while. Recently JH and RB revisited that document. The conclusion they came to was that the level of coal output from Newcastle by 2050 will be the same as what it is now. This is due to several reasons. They developed 23 or 24 key reasons as to why they believe this. These reasons include mining approvals, cleanups, quality of coal, and the prices in other parts of the world. There will certainly be a big downturn in some parts of the world, but this is not the case when you home in on Newcastle. One of the catalysts for building a container terminal at Newcastle was the theory that the containers would come in and replace the coal that was going out. But this won't be the case because coal will still be going ahead at full speed.

JH will send through the health survey he does each week because Koppers can potentially use it, see Appendix A. It's very easy to use. JH gets an email every Monday and it takes him less than a minute to complete it. JH says they can also provide a copy of the two opinion pieces, see Appendix B.

SB asks if it's the same questions every week.

JH says it is and that is also prefills your answers from the previous week. There are about eight questions.

RB says the NSW Government is currently doing a freight review headed by Dr Schott. The freight review is open to submissions. There have been approximately 150 submissions in total. From the perspective of Novocastrians, a huge number of the submissions point very strongly to Newcastle being an important geographic and economic region for the whole of the state. Virtually all the regional councils that put in submissions were in support of the Port of Newcastle becoming a container terminal as quickly as possible. RB is sure the outcome and recommendation of this review will be very positive regarding the Port of Newcastle. Newcastle was the focal point of so many submissions about road, rail and other things.

SB says this will be terrific for Koppers because they have issues with delays such as the line flooding between Newcastle and Sydney, IT outages et cetera. When issues happen then everything has to go into storage. There are high costs associated with that. It also impacts and frustrates their customers.

RB says Port Botany is going down the tube. The Port of Melbourne is walking over them. Port of Melbourne is exporting a huge proportion of freight out of NSW. They virtually have a monopoly on everything south of Wagga.

SB says every time things go wrong, all of their stuff gets put into storage which is very expensive, and frustrating considering it's usually not Koppers' fault.

JH asks who is to blame.

SB says it's usually DP World or Patrick's fault.

JH asks if these are the contractors responsible for shifting the containers.

SB says he's had to do so much apologising to their customers this year as a result of all of these issues. The shipments get loaded on time, gets to Sydney on time and then doesn't go on a boat for whatever reason.

Minutes	Action
KOPPERS	
QUESTIONS??	
MU closed meeting at 5:15 pm	– NA
Next Meeting	NM to send out invite for next CRG
KOPPERS	mivile for flext of C
Close and next meeting	
The CRG will reconvene in three months.	
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Appendix A Flu tracker

Please click on the link below to complete your survey for the week of Monday, 22 July 2024 to Sunday, 28 July 2024:

https://www.flutracking.net/Survey/239cfb49-8c71-40a3-88ae-8a6d9fa755f7/202431

Interested in last week's results? The latest report is available here:

https://info.flutracking.net/reports/australia-reports/

Need to update your profile? You can request an update link by clicking here:

https://www.flutracking.net/Profile/239cfb49-8c71-40a3-88ae-8a6d9fa755f7

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