

July 2020 Community submission responses

Chunxing's responses to those new issues identified from the July 2020 round of consultation are provided below. These responses relate only to those issues raised that are new and additional to previously raised issues from the January/ February consultation round, as requested by EPA, and do not address those issues directed at EPA or others in the process.

Table 1: Responses to July submissions

Issue #	Issue	Chunxing response
Submission # 249322		
1	<p>There are a number of references in this submission to other 'lead smelters' in Australia and overseas, with reference to emission impacts in nearby communities.</p>	<p>Chunxing is not a 'lead smelter'. It is a secondary lead facility which uses a smelting furnace for approximately half of its lead recovery, and a low temperature melting furnace for the remainder, an approach unique to Chunxing.</p> <p>The Chunxing facility is not comparable to primary lead smelters here or overseas, in terms of its scale, input material and levels of emission. As discussed in previous documentation, the Port Pire primary lead smelter (the Australian example often referred to in submissions) emits more than 3,500 times more lead to the air than Chunxing's Hazelwood North modelling indicates.</p>
2	<p>Extensive scientific evidence within Australia and Internationally demonstrate that Lead smelters release fine particles of lead into the atmosphere from both stack emissions and fugitive dusts.</p> <p>The submission refers to lead dust being "remobilised and redistributed over time", inferring contamination of land at various distances.</p>	<p>There are references in the submission to 'super fine' particles, inferring that they are not covered by the Hazelwood North modelling. All particle sizes are included in modelling – for example PM_{2.5} (particles 2.5 microns or less) is modelled to be just 1% of EPA SEPP(AQM) 1-hour standards, and 1% of 24-hour ambient air quality standards.</p> <p>The Human Health Risk Assessment (HHRA) considered the risk of land deposition pathways and concluded:</p> <p>"Multiple pathway exposures: Risks to human health associated with chronic exposures to pollutants, bound to particulates, that may deposit to surfaces and taken up into produce for home consumption relevant to all surrounding areas, including all rural residential and low- density residential properties, are negligible."</p> <p>Any deposition to land of airborne emissions has been shown in the WAA (p.164), using deliberately highly conservative assumptions over the plant's lifetime, to be negligible. Such a theoretical worst case is 15,000 times lower than Contaminated Land NEPM's soil investigation criteria for lead for the most sensitive land use: a childcare or kindergarten facility.</p>
3	Wagga Wagga plant:	The <i>Enirgi Battery Recycling Facility State Significant Development Assessment (SSD 6619)</i> report by the

Issue #	Issue	Chunxing response
	<p>The EPA assessment of the proposed expansion (of the Wagga Wagga ULAB facility) identified two key risks areas: human health impacts and plant explosion/ hazards. In assessing these key risks and these impacts the report concluded a key control was the 5 km buffer zone.</p>	<p>NSW Department of Planning and Environment explored the risk of plant explosion and determined, via a Preliminary Hazard Assessment (PHA) “that the proposal is not considered to be a hazardous development” (p.26), on the grounds of the assessment of explosion risk.</p> <p>This is not surprising; while fires can occur in a range of industrial and residential settings, ULABs themselves are not a particular fire risk – there are no flammable components to their chemistry.</p> <p>The same NSW Government assessment notes in its evaluation on p.37: “No public submissions were received during the exhibition of the EIS, likely due to the isolated nature of the facility which is located approximately <u>1.2km from the nearest residence</u>” (emphasis added).</p> <p>As covered in the WAA and Addendum, the “5km buffer” of the Wagga Wagga facility to the nearest residence is incorrect.</p>
4	<p>The response in the S22 requests by Chunxing was to continue to exclude in providing an emergency management plan (page 77 WAA amendment) or addressing other valid major loss of containment scenarios are not required in the WAA design stage.</p>	<p>As stated on p.77 of the Addendum, and agreed with EPA, an Emergency Management Plan (EmMP) will be developed as part of detailed engineering design, which is a later stage beyond the WAA process.</p>
5	<p>Fugitive dust emissions: The revised Chunxing modelling required by the EPA now include fugitive dusts and Chunxing indicate this has not significantly altered modelling results.</p>	<p>Agreed. The Addendum’s further modelling shows that fugitive emissions + original stack emissions = original stack emissions. The addition of fugitives has not altered modelling results <u>at all</u>. This is because the fugitive emissions are managed well beyond North American best practice (since such USA facilities are highlighted in this submission).</p> <p>Using lead as an example, the fugitive emissions are modelled to be 0.0000010 kg/hr, with a worst case ground level concentration of 0.000000005 mg/m³. This is 600,000 times below the Design Criteria (EPA standard) and 20,000 times below natural background in Australia.</p> <p>The fugitive emissions component of total emissions from the Chunxing Hazelwood plant are negligible to the point of being trivial.</p>
	<p>Lead blood levels of workers (China plant data): This indicates that lead dusts are present and despite the protection nominated in the S22 responses, lead exposure is occurring at levels, which are harmful to adults.</p> <p>.. this workplace exposure can be reasonably concluded to be a pathway to cause to lead</p>	<p>Lead-facing industries, including this one, have a regulatory regime for monitoring lead levels in the blood of workers, and rotating ‘factory floor’ roles with admin roles to enable levels to remain below regulatory worker health requirements at all times, as required of all lead-facing industries in Australia (via SafeWork and state-based WorkSafe controls).</p>

Issue #	Issue	Chunxing response
	exposure into the Latrobe Valley community (via workers clothes worn home).	As stated in the WAA, strict onsite controls exist where workers must shower and change into work clothes at the start of a shift, then shower and change at the conclusion of a shift. Work clothes are not worn home at all. There is no such pathway.
6	<p>Human health risk assessment report (HHRA): A brief review of the 48 references used in this report indicates that it used health for risks and the most recent was one (1) reference from 2018, (regarding a NSW tunnel atmosphere) and 28 (the majority) more than 10 years old (including two from 1991 nearly 30 years ago) – is this appropriate, comprehensive or best practice??</p> <p>A more concerning example is the report references the ATSDR toxicological profile on Chromium (2012) but not the recent and most critical heavy metal toxicological profile on Lead (2019) - why this omission?</p> <p>There also appears an omission of the report of the comprehensive and independent report by the National Medical and Research Council on the Evidence on the effects of lead on human health human completed in May 2015? Is this NHMRC lead report irrelevant to a health risk assessment of the proposed ULAB facility in Gippsland?</p>	<p>The HHRA has been undertaken on the basis of current guidance and information relevant to the characterisation of toxicity. This includes the use of references from a range of sources, with reviews relating to toxicity over various dates. The quantitative values adopted for lead are consistent with current Australian guidance on lead in air and lead in drinking water (reviewed by NHMRC in 2018 – noting that they also provided the 2015 review on lead). The HHRA has not included a detailed toxicity summary for each metal, or lead, but the work that has been done has considered the current reviews conducted in Australia (by NHMRC) and in the US to determine if the quantitative values remain relevant. The values adopted remain relevant and in line with the current Australian guidance on lead.</p>
7	<p>... ULAB materials have well documented transportation risks by battery manufacturers of fire*, explosion.. This statement references <i>Fire Hazard Assessment of Lead Acid Battery Chemistry, NFPA Research Foundation 2019</i>.</p>	<p>The submission confuses fire risk of a lead acid battery (or its manufacture), with fire risk associated with a ULAB (spent battery).</p> <p>While fires can occur in a range of industrial and residential settings, ULABs themselves are not a particular fire risk – there are no flammable components to their chemistry. This is a different story with lithium ion batteries.</p> <p>The reference quoted is for batteries, not ULABs. The fire risk for lead acid batteries relates to when they are being charged; this produces H₂ gas in small quantities which can be problematic in confined spaces. ULAB processing does not involve charging batteries.</p> <p>Such risks in transport or any other context of the Hazelwood proposal are irrelevant.</p>
8	<p>The estimate of truck movements involving hazardous lead waste slag removal is not nominated, nor volume of vehicles associated with hazardous chemicals (i.e. other heavy metals such as antimony often added for mechanical strength and improved electrical properties) for refining or processing on this site. The plant will also transport refined lead ingots from the plant by trucks for export.</p>	<p>Incorrect.</p> <p>The WAA (p.128, Table 38) estimates Hazelwood plant daily truck movements with respect to all of these inputs and outputs of the plant.</p>
9	<p>State and interstate heavy truck transport of hazardous SLAB's or the site hazardous waste</p>	<p>ULABs are transported by EPA permitted vehicles all the time, following strict cradle to grave tracking and</p>

Issue #	Issue	Chunxing response
	removal represent a new and significant additional risk to the Latrobe City Council residents and business sharing the same transport corridors.	compliance requirements for prescribed industrial waste transport. This occurs right now on Latrobe Valley roads, on behalf of ULABs generated in Latrobe Valley as well as materials coming in and out for existing Latrobe Valley industries.
10	This project (NUOVOpb) successfully completed the scaling up of operational organic solvent ULAB recycling technologies (24/7) in early 2019. No comparison to this EU published project exists in the S22 response to best practice.	This is a solvent based non-thermal extraction process similar to what AquaMetals are doing, which has not progressed to the commercial feasibility stage. Consideration of such technologies ignores the fact that they can only extract lead paste, leaving the other half of the ULAB lead component requiring a smelting process. Such technologies have been assessed extensively throughout the WAA and Addendum as incomplete, not practical and not feasible for Chunxing's consideration.
11	EPA standards for lead are outdated – the United States NAQS (2012) limit of 0.15ug/m ³ is referenced as over 3-fold lower than Vic's limit.	<p>Appropriate standards for lead are a matter for EPA. However, Chunxing has provided modelling results on an ambient basis to allow comparison with any standard, including NAAQS.</p> <p>The annual average ground level concentration modelled for lead was 0.0011 µg /m³, just 0.75% of the US EPA's NAAQS (0.15 µg/m³) or 133 times below it, at their worst case point anywhere in the study area.</p> <p>Chunxing's design is focused on exceeding current EPA requirements for lead emissions by a significant margin. We welcome more stringent standards for lead.</p>
12	(The EPA SEPP(AQM) Design Criteria limit of 3 µg/m ³) is 6x times the old Victorian 1998 NAQS maximum lead air quality limit. I can find no reasoning or findings of fact that are available from the EPA to the public that explain why this very high ground design lead air concentration limits is nominated, or how this design limit ensures achievement the comprehensive independent assessment of the scientific evidence of the effects of lead on human health by the NMHRC that resulted in a new lead public health exposure standard in 2015.	<p>This comment compares the 1-hour average SEPP(AQM) Design Criteria limit of 3µg/m³ with a totally different standard, the 12-month average ambient air quality standard (SEPP(AAQ) or NEPM), which is 0.5µg/m³. The averaging period is critical to understanding each standard. SEPP design criteria are arguably <u>more stringent</u> than ambient standards, because that 3µg/m³ must be met for <u>any hour</u> in the five year study period – that's 43,800 individual hourly measurements. A 12-month averaging period using a much lower standard, because it is trying to assess not a maximum 'spike' but a consistent level over a longer period.</p> <p>Consequently the submission incorrectly compares two completely different standards.</p> <p>Chunxing have modelled against both hourly (and shorter) averages (Design Criteria) and 12-month averages (ambient standards). For lead, the worst case modelled concentrations are >300 times below for the former and >450 times below for the latter, as shown in Table 8 of the Addendum.</p>

Issue #	Issue	Chunxing response
13	These various regulatory air concentration lead limits occurring in different units and their application by the Chunxing and the Victorian EPA do not assist in transparency to the wider stakeholders to understand the suitability of proposed limits and compare and contrast these to other regulators. I suggest this potentially obscures the nature of lead exposure risks for all stakeholders.	<p>Chunxing has no say in how standards are expressed with regards to air quality.</p> <p>The Addendum went to great lengths to make these comparisons clearer for community, by converting them all to equivalent concepts and units. The resultant comparison table and graphs on p.93 and 94 of the Addendum makes the nature of lead exposure risks abundantly clear. The Human Health Risk Assessment provides additional reassurance.</p>

Submission # 249462

"The data provided in the Works Approval Application is inadequate for the following reasons:

14	The proposal is based on replicating a plant in China. However, it has not been possible to visit the operating plant to date and, given the restrictions related to the COVID-19 pandemic it will not be possible to see the plant in operation for the foreseeable future. Voices of the Valley has had a concern about independent verification of the plant data since the plant was proposed in 2019 and none of the additional studies has allayed our concern.	<p>The Addendum has provided a completely different set of data, at a detailed sub-plant level, for air emissions performance of the China plant, as part of commissioning plant #2 in 2017. This data provides a strong level of verification of the collated recent years of quarterly monitoring data.</p> <p>Chunxing will be held by commissioning and licence to uphold these emission levels – if they prove not producible in practice the plant will not be permitted to operate.</p>
15	The Air Quality Study and the Human Health Risk Assessment carried out in response to Section 22 requests for further information are both based on the meteorological data and modelling data that formed the basis of the initial Works Approval Application. Subsequent work has provided more detailed analysis of the basic data but no critical analysis questioning the model. The HHRA was only about risks of physical illness, whereas Voices of the Valley and others calling for consideration of the implications for the Latrobe Health Innovation Zone have also been concerned about mental health in the Latrobe Valley population.	<p>The model used and all of its conditions of use are in accordance with EPA's requirements. There is no specific model or unique approach taken by Chunxing.</p> <p>The HHRA has been undertaken on the basis of current guidance and information relevant to the characterisation of toxicity, as was requested by EPA.</p>

Submission # 251257

16	I am not encouraged by page ii where changes to the document have highlighted an increase in the lead emissions, and a decrease in the amount captured.	There is no increase in lead emissions nor is there a decrease in the amount of lead captured. Page ii is an erratum of changes to the original WAA document of a minor nature, subsequent to the new work of the Addendum. These changes are provided for completeness, rather than significance.
17	As a point source the stacks are by Chunxing numbers of 0.04 g/min and total flow of 2718 m ³ /min are emitting at a concentration of 15 ug/m ³ yearly average or 72 ug/m ³ yearly average if you only consider the main stack. Dilution is not an effective long term solution for environmental protection.	<p>Ambient standards, like Design Criteria, are measures of <u>ground level</u> concentration (GLC), determined from atmospheric dispersion of the stack emission. You are calculating numbers at the stack emission point, which is 30m above ground.</p> <p>This is how air quality assessment is mandated by EPA and is standard practice throughout the world. Licensed emission levels are expressed as g/min</p>

Issue #	Issue	Chunxing response
		emissions out of the stack however, which must be demonstrated through stack testing.
18	Spikes above average emission.	The modelling encompasses the lowest, average and highest emission taken from 3 years of China plant monitoring data. Further, the Addendum's sensitivity analysis investigates how operational variation might affect emissions. All results are substantially below EPA standards.
19	I am not encouraged by the statement in page 106 of the response which says that lead does not accumulate in the body I believe this is incorrect according to many studies, lead will be absorbed and even also released but residual lead will remain after exposure, which will subsequently accumulate with time	<p>The statement on p.106 of the Addendum says: "Lead is absorbed and released in bodily processes in an equilibrium with exposure. If a person is withdrawn from the place of exposure blood levels reduce. Lead is not continually accumulative but at all times workers' blood levels must remain below critical adult concentrations, as required by WorkSafe."</p> <p>This statement is correct: blood levels, if they are present in measurable levels at all, increase with exposure to a lead source and decrease once that exposure is removed, until equilibrium is reached.</p>

Submission # 251297

20	The proponent on page xiv, makes a statement that "the most appropriated treatment of the background emission levels of Latrobe Valley is to ignore it" this totally unacceptable that they state this, all current pollutants are extremely important when a proposed smelter that adds emissions is concerned. Any process that has the ability to acerbate a current problem should be treated with caution. Not just disregarded.	<p>The actual statement on p. xiv of the Addendum is: "The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed Chunxing facility's estimated emissions is to ignore it, because the inclusion of the background data modelled (in any of its forms) simply masks the contribution from the facility, enabling no reasonable assessment to be made."</p> <p>This statement is correct. The dot points prior to this statement, Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels – the issue is far from disregarded.</p>
21	Page xv, the statement that "no risk to the health of workers or visitors" How can this be so, if the workers have regular blood level checks, washing of trucks, smelting process failures and emission control problems, no one can make that statement. SEE 2.2.4.4, here they state they have alarms, monitoring and sensors, due the fact that system failures occur due to plant irregularities. There's no risk in driving to the shops either I guess. I firmly reject such a statement. Answer me this: If this smelter is so safe why does Chunxing need to find an Industrial 2-Zone location to build this at all?	<p>The Human Health Risk Assessment statement is based on detailed and specialist health risk assessment methodology, and is based on dispersed emissions levels as ground level concentrations anywhere in the study area, which includes the site and its neighbours.</p> <p>Blood levels for those process workers handling lead-based materials are monitored according to strict WorkSafe regulations, which includes regular blood monitoring and rotation of duties. There are many system failures and irregularities considered in the WAA, including modelling scenarios of emissions from total failure of pollution control equipment. These are quantified to be well below short term exposure limits (STELs) and would be very limited in duration if they occurred at all.</p>

Issue #	Issue	Chunxing response
		EPA requires a facility such as this to be located in an INZ2 zone, according to 1518: Recommended Separation Distances for Industrial Residual Air Emissions – Guideline.
22	Page 14, Point 19 Back- Calculation. Here is a statement that in laymen’s terms says that we really don’t know what is going to come out of the stack until we run it! - Too late its already built and we have to suffer the ongoing consequences.	<p>No it does not say this ‘in layman’s terms’. Control efficiencies for pollution control equipment are normally supplied by the manufacturer and accepted without question. Because there is detailed commissioning data from China plant #2 available, at multiple points in the process (at the same time), this allows <u>proof</u> of control efficiency of such equipment, using the standard engineering approach of a mass balance. The ‘back-calculation’ can be done because there is an actual measurement at the entry point of the control equipment and at the exit point: ‘out’ minus ‘in’ divided by how much went in (x100) = % controlled.</p> <p>This is a level of certainty beyond what is normally available for consideration at the WAA stage. Regardless, it means nothing until it is proven to operate during commissioning.</p>
23	The Vic EPA’s regulation levels are near 20 years old, way behind other progressive countries of the world such as the USA (0.15 ug/m3) who have greatly reduced the levels acceptable. So Chunxing are able to operate at over 3 times the acceptable level of the USA.	<p>Incorrect, Chunxing lead emissions are not “3 times the acceptable level of the USA.”</p> <p>The annual average ground level concentration modelled for lead was 0.0011 µg /m³, just 0.75% of the US EPA’s NAAQS (0.15 µg/m³) or 133 times below it, at their worst case point anywhere in the study area.</p> <p>Chunxing’s design is focused on exceeding current EPA requirements for lead emissions by a significant margin. We welcome more stringent standards for lead.</p>
24	Page 36. I find the word “infinitesimal” arrogant, inaccurate and highly insensitive to me and the community at large. Followed up by yet another glorious “100 times below” statement that cannot be verified by an Australian.	<p>At more than 100 times below the most stringent standards in the world and similarly lower than the natural background in the air, supported by an independent health risk assessment conclusion that there is “no risk to the health of residents”, infinitesimal would appear to be an accurate word choice.</p> <p>We apologise if this appears arrogant or highly insensitive.</p> <p>A number of “Australians” will ultimately be responsible for verifying this level of performance at commissioning, including the EPA. If this level of emissions performance is not met, no operating licence will be granted.</p>
25	Page 41. Exemption from licensing. I would certainly hope that the EPA who is there to protect us and the environment will 100% guarantee that a licence will be required at commissioning. Otherwise it will be open slather for Chunxing to	There has never been a suggestion that a licence wouldn’t be required, and that emissions to air wouldn’t be part of this.

Issue #	Issue	Chunxing response
	spew out whatever they like under the guise of “Commissioning”.	<p>The statement on p.41 reads: “Chunxing would be likely to apply for exemption from licensing of this fugitives stack at the commissioning stage”. This relates to the fugitives stack only, because the fugitive emissions are modelled to be 2,000 below the stack emissions of lead, which are already more than 300 times below EPA standards and an order of magnitude below natural background levels in Australia. Most other secondary lead facilities do not collect fugitive emissions at all but simply vent them straight to atmosphere. Chunxing will collect them under negative pressure, put them through both baghouse and scrubber pollution control and send through a stack – this is the heaviest control possible and the most protective of the environment.</p> <p>The reference to applying for an ‘exemption’, for the fugitives stack only, is because the emission levels are estimated to be 6,000 times below this very exemption level, set by EPA as a cut off for the need to regulate (an individual stack).</p>
26	Page 91. Table 19 Key Themes. They have only responded to the “key themes”. Only 10? All issues should be answered not just a nice round number 10.	<p>There were ‘key themes’ in many of the submissions so, rather than large scale repetition, we decided to isolate key themes and address these in detail first. We then took all substantive submissions and responded to every point beyond these key themes. In all our responses cover 55 pages. All significant issues were answered.</p>
27	Page 14 Enrisky Document 4.1 Here Enrisky, state as I have said before about CEMS, “data from modelling and estimates” to guess emission fallout. No system can give real time lead emission outputs.	<p>CEMS data is not used in air quality modelling at all – CEMS is predominantly used for process control because it only covers the most critical components of flue gases such as particulates, SOx and NOx. Stack testing results across three years (from the China reference plant) for a wide range of pollutants is used as emission inputs into the model.</p>
28	Page 32 Auburn Environmental document. “Chunxing would likely to apply for an exemption from licensing of this stack at the commissioning stage”. This is totally unacceptable during commissioning; they can emit what ever they wish to atmosphere under the guise of commissioning without monitoring by a reputable source. ONE dose of lead is unacceptable. This does not instil any confidence in their technology.	<p>The reference to applying for an ‘exemption’, for the fugitives stack only, is because the emission levels are estimated to be 6,000 times below this very exemption level, set by EPA as a cut off for the need to regulate (an individual stack).</p> <p>The statement “they can emit whatever they wish to atmosphere under the guise of commissioning without monitoring by a reputable source” is patently untrue. Commissioning requires independent stack testing under operating conditions. Any application for exemption (for the fugitives stack only) would only be made after testing evidence was gathered confirming that negligible levels were in fact coming out of that stack. EPA may decide not to grant such an exemption.</p>
Submission # 251580		
29	The HHRA states:	<p>There is no inconsistency between the HHRA’s findings and the original WAA. The latter provided</p>

Issue #	Issue	Chunxing response
	<p>"The assessment of potential acute and chronic inhalation exposures in these areas has concluded that there are no risks to the health of workers or visitors. This conclusion relates to lead exposures as well as exposure to all pollutants."</p> <p>This is in direct contrast to Chunxing Corporations reporting of worker blood levels in their original application. In the original Chunxing WAA (pg145) it is reported that:</p> <p>"Actual recent blood testing results from 'on-floor' workers at the China plant show the lowest of 154 staff measured was 8.4 and the highest was 29.9, with the average at 23.7."</p> <p>SafeWork guidelines (2019) state that regulatory limits to blood lead levels are 20ug/dL for men and 5ug/dL for women of reproductive age. Chunxing's workers currently have lead blood levels that EXCEED Australian regulations.</p>	<p>blood lead levels from workers in the China plant. There are some mitigating factors in correlating these numbers directly with what might occur with workers from the Hazelwood North plant:</p> <ul style="list-style-type: none"> - Hazelwood North will be a 16-fold smaller operation. - China's urban centres are densely populated with a history of air pollution issues (predominantly from vehicular transport). Measurable blood lead levels may exist in the community (and therefore those workers) unrelated to ULAB recycling - The nature of blood lead level management in lead-risk industries, as required by WorkSafe (and related regulators in China) is that regulatory levels are set, testing protocols are put in place, and if levels in blood of workers approach a threshold they are moved to a non-lead facing task until such time as these levels return to a regulator- specified acceptable level. In other words, the blood levels of workers reflect what the regulatory levels are. <p>The China plant operates to Chinese laws not Victoria's – in the same way that the Hazelwood plant would operate within Victorian laws (not China's). The Chinese limit at the time of their blood testing results was 30 µg/dL.</p> <p>In terms of Victorian laws for lead workers, 30 µg/dL was the limit at the time of writing of the WAA (5 Dec 2019) and remained correct until 5 June 2020, when this level was reduced further, from 30 µg/dL to 20 µg/dL (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work). For reference though, NSW still retains 30 µg/dL now, which it will not reduce until July 1 2021 (https://www.safework.nsw.gov.au/notify-safework/lead-notifications) so these changes are both recent and not yet consistent throughout Australia.</p> <p>The WorkSafe Vic limit that applied up until 4 June 2020 (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work) was 30 µg/dL.</p> <p>Blood levels of staff in China are unrelated to what Australia's standards are – they relate to levels required in China, which they comply with.</p> <p>Any Victorian operation must comply with blood lead management requirements of WorkSafe Victoria, which Hazelwood North will. This is now 20 µg/dL.</p>

Submission # 251585

30	I am not encouraged by page ii where changes to the document have highlighted an increase in the	There is no increase in lead emissions nor is there a decrease in the amount of lead captured. Page ii is an
----	--	--

Issue #	Issue	Chunxing response
	lead emissions, and a decrease in the amount captured.	erratum of changes to the original WAA document of a minor nature, subsequent to the new work of the Addendum. These changes are provided for completeness, rather than significance.
31	Page xiv discusses background levels of PM 2.5 particles in Latrobe Valley and the recycling plants' contribution to this. They state that the recycling plants' particle emissions are so low that if you include the background data it obscures them, and so the best way forward is to ignore the background data completely so that you can clearly see the emissions from the recycling plant. Although it may be accurate that their PM 2.5 contribution is low, I think it is a mistake to equate this with being unimportant.	The dot points prior to this statement, Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels – the issue is far from disregarded or unimportant.
32	.. they have not provided evidence about how day to day spikes may affect the immediate vicinity	<p>There seems to be a view that there is the modelling data provided and then there is something else, called "day to day spikes" in this submission. This is false.</p> <p>The modelling data provided is based <u>hourly</u> averages for some pollutants and as small as <u>3-minute</u> averages for others. The data extracted from the model and used in all documentation and further analyses, such as the independently developed human health risk assessment, is the single worst hour (or 3-minute period) in 5 years of modelled emissions.</p> <p>In other words the results supplied by Chunxing are not just "day to day spikes", they are <u>the</u> definitive 'spike' in 5 years of different weather scenarios.</p>
33	This does not just involve the residences but the local livestock which is grazed nearby, and is in fact more vulnerable to ingesting lead that may be present in the soil or the surrounding foliage.	The HHRA states: "Multiple pathway exposures: Risks to human health associated with chronic exposures to pollutants, bound to particulates, that may deposit to surfaces and taken up into produce for home consumption relevant to all surrounding areas, including all rural residential and low- density residential properties, are negligible."
34	There is evidence which shows that even in areas where lead-based industries have been regulated for decades, and where lead emissions are active but under current regulation, problems persist due to emissions despite these regulations being complied with	<p>This comment refers to a link about Port Pirie's lead emissions. Such comparisons are highly inaccurate and fail to recognise massive differences of scale.</p> <p>The Chunxing facility is not comparable to primary lead smelters here or overseas, in terms of its scale, input material and levels of emission. As discussed in previous documentation, Port Pire primary lead smelter (the Australian example often referred to in submissions) emits more than 3,500 times more lead to the air than Chunxing's Hazelwood North modelling indicates.</p> <p>As a further example provided in the WAA and many community forums, the only other secondary lead facility in Victoria is Hydromet at Laverton. They are</p>

Issue #	Issue	Chunxing response
		<p>also 'regulated' currently, but their allowable emission level for lead is 160 times higher than Chunxing's modelled emissions.</p>
35	<p>However, I re-visited page 164 of the WAA myself and as seen in the excerpt below their modelling does acknowledge that emissions can be deposited in the soil up to 2kms from the recycling plant.</p>	<p>The modelling does not acknowledge that "emissions can be deposited in the soil up to 2kms from the recycling plant."</p> <p>As discussed in responses to this issue in the Addendum, a 'back of the envelope' calculation was provided in response to community concerns about deposition of lead on land. This is a valid scientific approach to communicating risk, as long as the numbers chosen to calculate from err heavily on the conservative side, to cover for any inaccuracy by over-estimating risk. This is exactly the approach taken on p.164 of the WAA.</p> <p>The text of the WAA 'assumes' some pollutant deposition parameters for the purpose of this highly conservative and simple calculation. A detailed scientific approach was taken by the author of the HHRA, which concluded the same thing: that there is negligible impact to surfaces from deposition of lead.</p>
36	<p>Appendix 20 (Hazelwood plant layout with doors) shows two large areas which are labelled as "buffer, reserve for future development". If these two areas were used for future expansion then it could potentially triple the size of the plant...</p> <p>... I expect that there will be a concrete response from the company about their intention for future expansion.</p>	<p>Right at the front of the WAA, on p.3, Chunxing answer the EPA proforma question "Is there a plan for future expansion within the next two years?" with "No".</p> <p>Chunxing have also stated, in every public and private meeting, that they have no plans for expansion of the proposed 50,000 tpa ULAB plant. Any future expansion would have to be the subject of an entirely new works approval process.</p> <p>Because Chunxing's process produces by-products of commercial value, including raw materials for battery manufacture, there is always a possibility of establishing value-additions to the ULAB plant. The Wagga Wagga facility, for example, as recently as in the last few months, have applied to NSW Government for approval of a battery <u>manufacturing</u> plant on their ULAB processing site.</p>
Submission # 251619		
37	<p>From going over the response documents, of critical concern is that figures quoted by Chunxing are estimates. As an absolute minimum, and considering the company already operates a Lead Smelter, it should be mandated that the proposed operator must supply data which is a precise, material and measurable.</p>	<p>The term "emission estimate" is a scientific term that describes the estimation of emissions from a source that does not currently exist. The USEPA, the world's pre-eminent body on air emission calculation, explains (from: https://www3.epa.gov/ttn/chief/ap42/c00s00.pdf):</p> <p>"Emission estimates are important for developing emission control strategies, determining applicability of permitting and control programs, ascertaining the effects of sources and appropriate mitigation strategies, and a number of other related applications</p>

Issue #	Issue	Chunxing response
		<p>by an array of users, including federal, state, and local agencies, consultants, and industry.”</p> <p>The data used in modelling the Hazelwood North emissions is “precise, material and measurable”, because it is based on an operating full-scale reference plant that actually exists. This is far more accurate than what is usually available for assessment in a WAA – usually there is no reference plant at all so reliance is on supplier performance guarantees, references to other operators in an industry, generic emission factors or via the use of the EPA standard value itself.</p>
38	For Chunxing to be permitted to forecast the pollution potential of the plant is inconceivable.	There is no other way to show emission impacts from a plant that does not exist than to ‘forecast’ it; in the case of this proposal this is based on information from the operations of a real plant.
Submission # 251640		
39	Page ii – Section 4.4 alteration – lead slag to landfill changes from 0.2-0.6%Pb to 0.4-1.0%Pb – what has caused the change in figures and what impact does this have on the land fill requirements?	<p>Since the submission of the WAA we undertook more testing on the slag from the China plant, so have reflected the wider range of results in the Addendum. The original WAA suggested that it was on the fringe between Category B and Category A prescribed industrial waste, both of which have management options.</p>
40	Page iii – The polishing effect changed from 90% of scrubber inlet to 75% of scrubber inlet. – what has caused this change in performance of the scrubber polishing effect? Assuming this means the scrubber droplets are less effective, does this mean the particulate matter will be higher in the outlet gas stream, and potentially higher in the emissions?	<p>The change has been made in light of new data identified - China plant #2 commissioning data - which was used in the Addendum to verify quarterly monitoring emissions data. Because this plant commissioning data had test results across multiple areas of the plant at the same time, we were able to deduce actual performance of all scrubbers and baghouses, because we had measurements taken prior to these control devices and after them, as stack emissions.</p> <p>It is important to note that emissions data used throughout by Chunxing was based on stack measurements, without specification of performance of individual pollution control equipment prior to the stack. Consequently there is no change to operational effectiveness of equipment – the commissioning data simply gave us better evidence to apportion the controlling effect more accurately between devices like baghouses and scrubbers.</p> <p>There is no change whatsoever to emissions and ground level concentrations reported in the WAA. The additional work in the Addendum simply provides a more detailed level of verification that a) those emission estimates are reliable and b) what the mass flow of pollutants are at individual stages within the process.</p>
41	Page viii – 389 kg/year from the stack on those figures – that still seems to be a lot of lead going	You are quoting the emissions of the much larger China plant, not the Hazelwood plant. 389 kg/year is

Issue #	Issue	Chunxing response
	outside into the environment? Is that a concern to the EPA?	not accurate for the China plant because it is a batch process, and there would be in the order of 60 days a year when the plant is non-operational, for example due to maintenance (as would be the case with Hazelwood)
42	<p>Baghouse performance or efficiencies rely on different factors such as;</p> <ul style="list-style-type: none"> • Pressure drop • Gas flow • Air/cloth ratio • Concentration/density of dust • Drag across filter • Temperature <p>Unless these factors are the same as the China plant, the assumption of control efficiencies of the baghouse are flawed. Highly unlikely this is the same. Too many differences in rates and plant</p>	<p>All of the parameters mentioned have been used to calculate baghouse and scrubber performance, using as inputs those exactly designed for the Hazelwood plant, by an external pollution control equipment expert. This peer review has concluded that these pieces of equipment can comfortably perform to the level of pollution control specified.</p> <p>See Addendum p.38, 2.2.3.1 Assessment of the efficacy of the pollution control equipment design and Appendix 15.</p> <p>Moreover, because the China plant is modular in 3-furnace sets, each served by their own scrubbers/baghouses, the similarity between a single China plant furnace set and the Hazelwood plant is striking. Figure 13 of the Addendum shows that their emissions are in the same order of magnitude. Explaining this level of commonality is the one of the main themes throughout Section 2 of the Addendum.</p>
43	Page 12 point 7 – mass rates = concentration x flow rate is stated in point 4. In point 7 it states “Mass rates are the most important information coming out of the mass balance, because they hold true regardless of changing flow rates, – If flow rates change the mass rate must change or the concentration inversely to maintain the same mass rate. A change in flow or concentration must affect the process efficiency and control. Is the EPA looking at this assumption?	This statement was attempting to demonstrate the error that can be made when comparing concentrations and trying to add them together. The point being made is that absolute masses moving within a system over a given time are consistent and can be added together. Concentrations (mg/m ³ for example) on the other hand are useless without accompanying flow rate data (m ³ /min) – these two parameters go up and down inversely with each other but mass rates are absolute.
44	Page 13 point 8 – States “Flue gas rate coming into the baghouse assuming it is the same as the flue gas flow rate measured at the cooling system measurement point.” – The flow rate should be determined by the induced draft fan and construction of the plant and the flow rate must be different the further the point is away from the induced draft fan. This assumption seems to be incorrect. Can the EPA check this assumption?	This explanation relates to operational measurements of the China plant during commissioning. The distance in ductwork between where the measurements (of all parameters including flows rates) were taken (at the cooling system exit point) and the next component (the baghouses) is short. Hence the assumption that flow rates would be approximately the same at both is reasonable.
45	Plant layout – Shows future expansion areas! – Is the EPA aware of this plant expanding in size and what are the requirements on this organisation regarding EPA approvals if this is the case?	<p>Right at the front of the WAA, on p.3, Chunxing answer the EPA proforma question “Is there a plan for future expansion within the next two years?” with “No”.</p> <p>Chunxing have also stated, in every public and private meeting, that they have no plans for expansion of the proposed 50,000 tpa ULAB plant.</p> <p>Any future expansion would have to be the subject of an entirely new works approval process.</p>

Issue #	Issue	Chunxing response
		<p>Because Chunxing's process produces by-products of commercial value, including raw materials for battery manufacture, there is always a possibility of establishing value-additions to the ULAB plant. The Wagga Wagga facility, for example, as recently as in the last few months, have applied to NSW Government for approval of a battery <u>manufacturing</u> plant on their ULAB processing site.</p>
Submission # 251650		
46	<p>The integrity of the China reference plant's emissions still remain a concern. This concern is verified by reading Appendix 48 - Air Quality Impact Assessment Report (Reissued WAA Appendix G) of the Addendum to the WAA. Appendix No. 48 states that Rev 2 has been had been released due to an error that was found in the process calculations for the original stack testing reports. It was found that the Chinese plant was operating at only 300T/day raw throughput at the time the 2017 stack sampling was conducted, and therefore had to be scaled differently to be representative of the Australian sized pant. This validates the issues and concerns that have been raised regarding the integrity and validation of the emissions data obtained from the China reference plant for predicting the Hazelwood North's plant emissions.</p>	<p>This point is incorrect.</p> <p><u>Prior to</u> acceptance of the final WAA, we noticed an error (our Australian-side error in interpretation, not a China plant data error) where we had not adjusted our calculation from China plant throughput to Hazelwood plant throughput for 2017, where only one of the two plants was operating in China.</p> <p>We have been transparent with all of our documentation so, to avoid confusion for EPA (who had seen a Rev 1 draft of the Air Quality Impact Assessment, which the public had not because it was not a final released WAA document at that stage), we annotated Rev 2 with this explanation.</p> <p>This has no implication or relevance whatsoever to questions about integrity of China plant emissions data.</p>
Submission # 251653		
47	<p>There is overwhelming concern around the validity, accuracy and independence of the air emission data provided. While effort was made to utilise the 'mass balance' approach as an alternative to the questioned 1/16th approach- this does not negate or answer the concern about the emission data itself. Of note, no extra information has been supplied to validate or update the data in the Addendum.</p>	<p>This statement is incorrect.</p> <p>An entirely new dataset, available on the public record, was identified and used to verify quarterly emissions monitoring data originally used in estimating the Hazelwood plant's emissions. This dataset is the commissioning of China plant #2, in late 2017. Such new data was very detailed, because it measured emissions at different points within the China #2 plant, as well as at the stack outlet. This allowed a much richer level of understanding of the emissions performance of individual plant components.</p> <p>This new data verified our original scaling approach remarkably well.</p>
48	<p>In reference to my concern about overall exposure of pollution in the Latrobe Valley- it is noted that in Appendix 48- Chunxing has chosen not to include background air emissions for the Latrobe Valley in the air quality impact assessment. This does not allow for estimating the community's complete exposure to pollution- which is relevant to understand the risks associated with this.</p>	<p>Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels – the issue is far from disregarded.</p>
49	<p>Exemption of the fugitives stack:</p>	<p>What an 'exemption' is and what it is for have been completely misunderstood.</p>

Issue #	Issue	Chunxing response
	<p>In reference to community concerns- this statement of intention shows a complete disregard for community engagement, community fears and the ongoing need for greater transparency.</p>	<p>The WAA outlines on p.71: “The Environment Protection (Scheduled Premises) Regulations 2017 (‘the Scheduled Premises Regulations’), Part 3, Regulation 10, contain mass emission rate criteria for various pollutants, below which a general exemption from Works Approval can be applied.”</p> <p>There are <u>two stacks</u> as part of the Hazelwood plant: the main flue gas stack, and the stack that collects all fugitive emission vent points throughout the plant, puts them through pollution control equipment and exhausts them at a similar height to the main stack. As explained in a number of parts of the Addendum and its appendices, the fugitive stack emissions are massively lower than the main stack’s emissions.</p> <p>The reference to applying for an ‘exemption’, for the fugitives stack only, is because the emission levels are estimated to be 6,000 times below this very exemption level, set by EPA as a cut off for the need to regulate (an individual stack).</p> <p>Commissioning requires independent stack testing under operating conditions. Any application for exemption (for the fugitives stack only) would only be made after testing evidence was gathered confirming that negligible levels were in fact coming out of that stack. EPA may decide not to grant such an exemption.</p> <p>The main stack will be licensed, have licence discharge limits and will require monitoring against that limit, specifically for lead and other pollutants. If EPA would like the fugitives stack licensed and monitored as well, for assurance sake, then we would do that as part of licence requirements.</p>
50	<p>(The HHRA) is direct contrast with Chunxing Corporations original application where worker lead blood levels are reported to be an average of 23.7ug/dL. While the Human Health Risk Assessment was created to inform broader community risks- the conclusion that no risks exist to workers appears to contradict the fact that worker blood levels exceed SafeWork guidelines (2019). It is incongruent for the emissions data to show one outcome- while real life data results show another.</p>	<p>There is no inconsistency between the HHRA’s findings and the original WAA.</p> <p>The Human Health Risk Assessment statement is based on detailed and specialist health risk assessment methodology, and is based on dispersed emissions levels as ground level concentrations anywhere in the study area, which includes the site and its neighbours.</p> <p>The WAA provided blood lead levels from workers in the China plant. There are some mitigating factors in correlating these numbers directly with what might occur with workers from the Hazelwood North plant:</p> <ul style="list-style-type: none"> - Hazelwood North will be a 16-fold smaller operation. - China’s urban centres are densely populated with a history of air pollution issues (predominantly from vehicular transport). Measurable blood lead levels may exist in the

Issue #	Issue	Chunxing response
		<p>community (and therefore those workers) unrelated to ULAB recycling</p> <ul style="list-style-type: none"> - The nature of blood lead level management in lead-risk industries, as required by WorkSafe (and related regulators in China) is that regulatory levels are set, testing protocols are put in place, and if levels in blood of workers approach a threshold they are moved to a non-lead facing task until such time as these levels return to a regulator- specified acceptable level. In other words, the blood levels of workers reflect what the regulatory levels are. <p>The China plant operates to Chinese laws not Victoria's – in the same way that the Hazelwood plant would operate within Victorian laws (not China's). The Chinese limit at the time of their blood testing results was 30 µg/dL.</p> <p>In terms of Victorian laws for lead workers, 30 µg/dL was the limit at the time of writing of the WAA (5 Dec 2019) and remained correct until 5 June 2020, when this level was reduced further, from 30 µg/dL to 20 µg/dL (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work). For reference though, NSW still retains 30 µg/dL now, which it will not reduce until July 1 2021 (https://www.safework.nsw.gov.au/notify-safework/lead-notifications) so these changes are both recent and not yet consistent throughout Australia.</p> <p>The WorkSafe Vic limit that applied up until 4 June 2020 (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work) was 30 µg/dL.</p> <p>Blood levels of staff in China are unrelated to what Australia's standards are – they relate to levels required in China, which they comply with.</p> <p>Any Victorian operation must comply with blood lead management requirements of WorkSafe Victoria, which Hazelwood North will. This is now 20 µg/dL.</p>
51	<p>I also noted that The Human Health Assessment uses emission data for the Latrobe Valley which includes the 2014 mine fire and years when industries that no longer operate were in the region- this will have skewed the data and the percentage of total emissions that the Chunxing plant will contribute.</p>	<p>The HHRA uses all worst case maximum emissions data from the WAA and Addendum.</p> <p>Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels. The year chosen for this extensive analysis of background was 2016, the most recent year of the dataset.</p>
52	<p>The Human Health Risk Assessment concludes that the lead recycling facility poses a 'negligible' risk to the broader community and the children at the Hazelwood North Primary School. I am assuming that "negligible" refers to no</p>	<p>The HHRA says of the closest residences (noting that the primary school is further away): "In relation to those residential areas located closest to the site:</p>

Issue #	Issue	Chunxing response
	contamination of soil, no lead air content and that children in the immediate proximity to the facility will not experience ANY exposure to lead.	The assessment of potential acute inhalation and chronic inhalation and multi-pathway exposures in the residential and rural residential areas has concluded that there are no risks to the health of residents. "
Submission # 251753		
53	Initially there were 2 Scrubbers in Series in the flue gas system, now there are 2 in parallel with these 2 in series as a maintenance measure. So is this now the new "World's Best Practice". Why did they not do this from the start, either they do not know what they are doing, or they knew, but did not want to spend the extra money to make the emission and the community safer. Chunxing's China plant also burnt the plastic separators therefore releasing further Dioxin emissions, yet they are not planning to burn them here, no doubt due to the EPA requiring this.	<p>The scrubber design has not changed from the originally submitted WAA.</p> <p>There has always been two scrubbers in series, as well as a slave set of two scrubbers in series (making four in all for the smelter flue gas line).</p> <p>Chunxing's China plant did put separators into their furnace, and their monitoring of dioxin emissions shows they were within their own limits and the most stringent standard in the world, the EU IED.</p> <p>We made the decision not to do this as part of assessing what best practice should – we felt that removing the risk of dioxin emissions (which may form from halogenated plastics in the feedstock) was prudent.</p> <p>As a result of this decision and discussion with the engineers from the China plant, they decided to stop burning these separators as well.</p> <p>The EPA had no input into our decision regarding the Hazelwood plant's management of separators. We made this decision within the first couple of months of working on the WAA.</p>
54	Chunxing have lacked transparency - The proponent fails to mention the 1,000 tonnes per year of plastic separators to be sent to landfill	<p>Table 36 on p.123 of the WAA includes an entry describing plastic separators, how much are produced, and that they would be sent to landfill. Section 12.4.2.2 <i>Plastic separators</i>, on p.125 of the WAA, describes this in text as well.</p> <p>Chunxing have been transparent at every stage of the WAA.</p>
55	The proponents made no mention of fugitive dust that would leave the plant in their earlier literature? Where they hoping this was not going to be asked about?	<p>This statement is incorrect.</p> <p>The assessment of air quality best practice (Section 8.4 of the original WAA) describes the nature of fugitive emissions control, which is a fully enclosed plant under negative pressure.</p> <p>The EPA asked for further detail to confirm both the type of fugitive controls and indicative data for levels of fugitive emissions. This is covered in vast detail in the Addendum.</p> <p>The EPA WAA process is highly variable in the level of detail it seeks from one application to the next, depending on the nature of each proposal and other factors. The original WAA took the view that since</p>

Issue #	Issue	Chunxing response
		<p>fugitive emissions were managed in a negative pressure plant, collected in a vent system, treated in pollution control equipment and exhausted at massively lower levels than the already low flue gas stack levels, it was self-evident that they were insignificant compared to flue gas considerations.</p> <p>The EPA were not satisfied without the extra detail, which we have provided at length.</p>
56	<p>Similarly, the plastic Separators that have to be disposed of in land fill; other ULAB Smelters treat these separators to minimize the toxicity before disposal – will Chunxing?</p>	<p>Page 116 of the Addendum states regarding separators: “Waste separators emanating from the Chunxing process are typically <<1% Pb due to the cleaning techniques used by Chunxing in their battery breaking/ separation process, which is more advanced than their competitors.</p> <p>A current spot-test (carried out at the China plant) came back as 0.012% Pb and 3mg/L as TCLP. Consequently we remain comfortable with the WAA’s indicative waste characterisation of Cat B or Cat C. Therefore this waste stream is manageable within the existing waste management classification and management system in Victoria. Ultimately, correct classification of this wastestream will be an operational issue, to be demonstrated through actual testing. The purpose of the WAA is to identify likely classification and demonstrate that the waste can be managed within the Victorian waste management framework</p> <p>Another ULAB facility provided a submission in the previous consultation round which said with respect to separators: “This waste is likely to be >5% Pb content and TCLP leach >20mg/L for Pb.”</p>
57	<p>The plant should be required to have a standby electrical system big enough to maintain all the emission control systems without lag to maintain the systems integrity; this should be installed from new as a minimum level of environmental protection. ULAB recycling is a high- risk industry regarding explosions, fires and malfunctions which could cause catastrophic damage to multiple surrounding towns.</p>	<p>The Hazelwood plant has a very large standby generator (1,000kW).</p> <p>ULAB recycling is not a “high-risk industry regarding explosions”. While fires can occur in a range of industrial and residential settings, ULABs themselves are not a particular fire risk – there are no flammable components to their chemistry. This is a different story with lithium ion batteries.</p>
58	<p>This figure only references the emissions SO₂, dust and lead and not the full list of pollutants. Other sections of Addendum to the WAA also only reference these three pollutants and not the full range of pollutants – e.g. Table S1 page xi. This limited list of three pollutants is referenced in other sections of the WAA. For example: Table 7, page 34.</p>	<p>The Commissioning data only looked at particulates, SO_x and Pb because these are the primary pollutants of interest in ULAB thermal processes. This data has been supplied purely to verify the use and validity of China quarterly monitoring data. The latter measures all pollutants which have been estimated and reported throughout the WAA.</p>
59	<p>The proponent’s response to some issues identified is “to ignore it”.</p>	<p>The actual statement on p. xiv of the Addendum is: “The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed</p>

Issue #	Issue	Chunxing response
	<p>This approach is used in a number of areas with the WAA, for example: Addendum to WAA - Page xiv - The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed Chunxing facility's estimated emissions is to ignore it. This approach however does not provide the total level of emissions that the community will be exposed to.</p>	<p>Chunxing facility's estimated emissions is to ignore it, because the inclusion of the background data modelled (in any of its forms) simply masks the contribution from the facility, enabling no reasonable assessment to be made."</p> <p>This statement is correct. The dot points prior to this statement, Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels – the issue is far from disregarded.</p> <p>We have not 'ignored' background in data submitted – it has been in the WAA and supporting data from the beginning. The point that we made was simply that if you want to know what the emissions are from the Hazelwood plant, which is the purpose of the Air section of the WAA, you must take out the existing background (for particulates) or else you can't see Chunxing contribution at all, because it is so much smaller than background.</p>
60	<p>Appendix 22 – Section 8 Air emissions – page 92 – The proponent states: "While Chunxing understands the nature of the six-tenths rule in applying scales of cost for engineering equipment, construction and projects, we do not believe there is any evidence that justify its application to industrial emissions performance of different scales of identical plant"- that is: in summary, ignore it!</p>	<p>The sixth-tenths rule applied to emissions is provided in Section 8.3.3.1 of the revised Air Section (Appendix 22 to the Addendum), as requested by EPA.</p> <p>We wanted to be clear that we didn't believe it had any logical merit being applied to emissions performance of two scales of plant. Given we have modelled that scenario in the section above, we obviously didn't ignore it.</p>
61	<p>Table 42 of the original WAA provides a high level risk assessment of potential plant upset conditions. Risk number 14 in Table 42, relates to lead exposure to workers beyond safe limits and defines that: "Actual recent blood testing results from 'on-floor' workers at the China plant show the lowest of 154 staff measured was 8.4 and the highest was 29.9, with the average at 23.7. All results were below the 30 µg/dL regulatory level, which was recently lowered from 50 µg/dL dL in Australia". The above statement is incorrect, as defined on pages 145 and 146 of the December 2019 WAA.</p>	<p>This statement was correct. The previous regulatory level in Australia was recently changed from 50 µg/dL to 30 µg/dL (though I'm not certain when that was, this reference¹ indicates that it was still 50 µg/dL in 2014). 30 µg/dL was the limit at the time of writing (5 Dec 2019) and remained correct until 5 June 2020, when this level was reduced further, from 30 µg/dL to 20 µg/dL². For reference though, NSW still retains 30 µg/dL now, which it will not reduce until July 1 2021³ so these changes are both recent and not yet consistent throughout Australia.</p>
62	<p>In July 2019, Safework Australia, defined lead risk work to be any work that will likely cause blood lead levels of a worker to exceed 20 µg/dL or 5 µg/dL for females of reproductive capacity. Safework Australia added that this is a reduction from previous blood lead levels of 30 µg/dL and 10 µg/dL for females of reproductive capacity. A</p>	<p>Yes, these statements are correct, although I was unable to ratify the reference to In July 2019.</p>

¹ <https://www.safeworkaustralia.gov.au/system/files/documents/1702/inorganic-lead-information-information-sheet.pdf>

² <https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work>

³ <https://www.safework.nsw.gov.au/notify-safework-notifications>

Issue #	Issue	Chunxing response
	transitional period of two years applies for these new levels.	
63	In summary, as noted above, the average lead in the blood levels of the workers in China is 23.7 µg/dL.	Agreed
64	This exceeds the Safework Australia new recommended limit from July 2019 of 20 µg/dL, which means that the average concentration of workers in China already exceeds the current July 2019 recommended limit in Australia.	<p>The WorkSafe Vic limit that applied up until 4 June 2020 (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work) was 30 µg/dL.</p> <p>Blood levels of staff in China are unrelated to what Australia's standards are – they relate to levels required in China, which they comply with.</p> <p>Any Victorian operation must comply with blood lead management requirements of WorkSafe Victoria, which Hazelwood North will. This is now 20 µg/dL.</p>
65	'Exemption' of the fugitives stack: I would be most concerned if the proponent was allowed to operate the secondary lead smelter without EPA licencing arrangement governing the stack emissions.	<p>Chunxing has never and would never expect its flue gas emissions stack (main stack) not to be licensed and require monitoring against it.</p> <p>As explained in other parts of this submission response, our reference to 'exemption' was clearly to the fugitives stack.</p> <p>For further detail please refer to Issue #'s 25, 28 and 49 in this document.</p>
66	Section 7 Water Management The section should consider the adequacy of water management system in effectively managing fire-fighting water, in terms of access to sufficient fire-fighting water, collection, treatment and safe disposal.	Appendix 36 Water Management Plan drawing shows 3 x Emergency Site Water Ponds, with a total combined capacity of 6,500 m ³ . This is more than adequate for fire water.
67	Some discussion regarding EPA waste water discharge quantity, licenced discharge points, sampling, testing and reporting via a NATA accredited laboratory would be of value.	<p>There are no EPA water discharge points.</p> <p>There is capacity to discharge to trade waste, which will be done in accordance with agreement with Gippsland Water, whose compliance limits for trade waste are outlined in the Addendum's Appendix 39.</p>
68	Section 8.3.2 – Summary of air quality impact assessment (Appendix G, revised as Addendum Appendix 48) states on page 90: "The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed Chunxing facility's estimated emissions is to ignore it, because the inclusion of the background data modelled (in any of its forms) simply masks the contribution from the facility, enabling no reasonable assessment to be made." My suggestion would to provide both assessments – i.e. with background and without background, which provide the community with the total level of emissions and the contribution of the facility. This would provide greater transparency for the regulator and the community.	<p>Assessments both with background and without it have been supplied with all data from the original WAA onwards.</p> <p>The issue of data with background in it is explored in great detail in Appendix 22 to the Addendum section 8.3.2.2 and underlying workbooks and modelling files.</p>

Issue #	Issue	Chunxing response
69	<p>Table 31 on page 104 advises that “The Chunxing Hazelwood proposal will provide real time public access to stack monitoring data, taken from their Continuous Emission Monitoring System (CEMS). Chunxing are also exploring the possibility of further monitoring infrastructure to be located beyond the site, to enable real time access to air quality monitoring (ground level concentrations from nearby areas.”</p> <p>Referring to Section 2.2.4 – Fugitive emissions – where the proponent on page 41, discusses the likelihood of the company seeking exemption to licence the stack, does the proponent still intend to honour the abovementioned commitment regarding public access to real time stack monitoring and further monitoring infrastructure? It is worth noting that the proponent was exploring the possibility of further monitoring infrastructure in their December WAA, indicating no further development in the “exploring” process.</p>	<p>The issue of ‘exemption’ of the fugitives stack, which is entirely different from the main (flue gas stack) has been covered earlier in the responses to this, and other, submissions.</p> <p>Chunxing stated in the WAA from the beginning that it would explore the possibility of further monitoring infrastructure to be located beyond the site. This has not changed.</p> <p>Chunxing cannot further progress such monitoring plans when the existence of the actual plant is still some years away.</p>
70	<p>Section 4.1 Approach states: “This section presents a review of impacts on health associated with predicted air emissions, relevant to the operation of the facility. The assessment presented has relied on the modelling of emissions to air as presented by Aubin (2019) and Ascend (2020)”.</p> <p>Again, the integrity of the China reference plant emissions data is critical together with the subsequent emissions modelling conducted in terms of the health risk assessment findings.</p>	<p>Regardless of whether the submitter believes in the integrity of the China data, and therefore the Hazelwood modelling data, the fact remains that this level of emission results in the conclusion of the HHRA.</p> <p>Ultimately, the performance of the Hazelwood plant <u>must</u> be proven at commissioning. If it <u>does not</u> meet the extremely low emission levels indicated in the WAA it cannot operate. If it <u>does</u>, then the HHRA conclusion that there is “no risk” to residents, which is based on the application of the most current health science available, applies.</p>
71	<p>It is interesting to note that Rev 2 notes that the revision had been released due to an error that was found in the process calculations for the original stack testing reports. It was found that the Chinese plant was operating at only 300T/day raw throughput at the time the 2017 stack sampling was conducted, and therefore had to be scaled differently to be representative of the Australian sized plant.</p> <p>This confirms issues and concerns raised in both this submission and the submissions submitted in response to the original WAA regarding the integrity and validation of the emissions monitoring systems and processes, which included questions as to whether the plant was operating at full capacity at the time of the testing, quality of the feedstock at the time, operation of monitoring equipment and calibration of monitoring equipment, etc.</p>	<p>This point is incorrect.</p> <p><u>Prior to acceptance of the final WAA</u>, we noticed an error (our Australian-side error in interpretation, not a China plant data error) where we had not adjusted our calculation from China plant throughput to Hazelwood plant throughput for 2017, where only one of the two plants was operating in China.</p> <p>We have been transparent with all of our documentation so, to avoid confusion for EPA (who had seen a Rev 1 draft of the Air Quality Impact Assessment, which the public had not because it was not a final released WAA document at that stage), we annotated Rev 2 with this explanation.</p> <p>This has no implication or relevance whatsoever to questions about integrity of China plant emissions data.</p>

Issue #	Issue	Chunxing response
Submission # 251792		
72	<p>1) Response to EMM point 2 was dismissed as an inference about Dr. Jayaweera; This was not the intent of comment. The issue raised was that with no presence in Victoria or Australia, environmental performance information from the China reference plant and the company should be provided to satisfy this declaration to its fullest.</p> <p>Moreover, since the technology that will be used is a proprietary technology developed internally by Chunxing (China), performance evaluation is more difficult due to lack of existing installation in Australia that utilizes said same technology. It would be prudent that an inspection, by local stakeholders, be conducted to the China reference plant for a more thorough performance assessment and actual operational practices.</p>	<p>As the WAA and all communications from the beginning of the process have stated: Chunxing Corporation Australia is an Australian company (with Australian company Directors), New Chunxing Resource Recycling Group are the major shareholder of Chunxing Corporation Pty Ltd and they are also the supplier of the plant and equipment (technology). The legal occupier and operator of the Hazelwood project is Chunxing Corporation Australia and Dr Lakshman Jayaweera has around 38 years of experience (in Australia) as a pioneer in the metal recycling and metallurgical field.</p> <p>By comparison, the sole ULAB full processor in Australia:</p> <ul style="list-style-type: none"> - is a registered Australian company - is wholly foreign owned (Philippines) - uses foreign proprietary technology (Italy) - was established with a lack of existing installation of this technology in Australia. <p>In the planning and approval processes for this company's operation, the relevant state government does not appear to have required the 'fit and proper person' information suggested by EMM, any of the layers of other information suggested by EMM or overseas inspections by "local stakeholders".</p> <p>Chunxing has maintained, from the beginning, an open welcome to anyone from Australia to visit the operating plant in China, including EPA.</p>
73	<p>There is insufficient information provided to justify the noise level measurements obtained from the reference plant specifically the noise descriptor (LAep, LA10 etc.) or the measurement methodology.</p>	<p>Further confirmation of the noise estimate, via an additional verification methodology suggested by EPA, has been supplied in the Addendum, Section 4.</p>
74	<p>3) Regarding CEMS data; In Appendix 35 China plant 2 - CEMS monitoring Jan 2020 (minute averages), and from Figure S2: China plant #2 (2017 Commissioning) key pollutant mass balance block diagram in Addendum to WAA and the flow rate in the CEMS data of approximately 2500m³/min. Calculating the concentration from the above numbers gives $(28/2500) \times 1000 \text{g/mg} = 11.2 \text{mg/m}^3$, which is taken to be an average, as the SO₂ results from Table 9.3-9 test results of stack flue gas emission (average) in Appendix 4 are of a similar order of magnitude, 4mg/m³ to 11mg/m³ with an average of 8mg/m³. SO₂ value within the CEMS data in App. 35 has a max of 12.72 mg/m³. This stack Sulphur levels are claimed actual capabilities of the China reference plant, with the same</p>	<p>Your approach uses a flow rate from one set of data (2,500m³/min CEMS data from Jan 2020) and combines it with a mass rate from a different set of data (SO₂ at 28 g/min taken from commissioning data shown in Appendix 4, carried out in Nov 2017), to get a concentration for SO₂ of 11.2mg/m³. This is clearly invalid – data for flow rates and concentration must be collected at the same time.</p> <p>The average flow rate at commissioning was 4,206m³/min and the average concentration of SO₂ was 6.67 mg/m³ (see Appendix 4 for original data). These calculate a mass rate of 28,000 mg/min, as demonstrated by Appendix 5, 'Flows & mass balance (China 2)' tab, cell L94.</p>

Issue #	Issue	Chunxing response
	<p>technology to be utilized in the proposed Chunxing Plant in Australia. As such we believe that the said maximum Sulphur level of 11 mg/m³ from Table 9.3-9 should be included in their developmental approval and license, if approved.</p>	<p>The Hazelwood mass balance indicates an SO₂ concentration 2,841mg/min out of the scrubbers, which is further reduced by 50% due to additional controls (water scrubber/ mist plate) installed at the stack base, which was not in place in the China plant at commissioning, which gives a stack exit SO₂ concentration of 1,136mg/min. At the Hazelwood flow rate of 552 m³/min (Addendum Figure 10), this indicates a stack exit concentration of 2 mg/m³, according to commissioning data-based derivation.</p> <p>We have taken a more conservative approach from the beginning in the WAA, by using all quarterly monitoring data from both China plants. Table 17 of the WAA Air section provides mass rates for SO₂ derived from this, which we have used to underpin all of our modelling results. When converted to concentration, using the 552 m³/min Hazelwood flow rate, the emission concentrations we have provided to EPA range from 0.9 mg/m³ to 6.3 mg/m³, with an average of 3.9 mg/m³. These are the numbers that EPA will consider when decided licence limits. You seem to be advocating for a more lenient limit (11 mg/m³).</p>

Emailed Sub 1:

75	<p>This approach has not addressed the specific issues raised in the various public submissions. I know that some of the specific issues that I raised in my submission have not been addressed. An example is provided below in relation to the Health Risk Assessment.</p>	<p>The Human Health Risk Assessment was not requested nor done at the time of the first consultation period. Consequently it could not be addressed at that time.</p>
76	<p>China reference plant emissions concerns and Appendix No. 48 – Air Quality Impact Assessment refers to Revision 2 which notes that the Rev 2 had been issued due to an error that was found in the process of calculations for the original stack testing reports.</p>	<p>This point is incorrect.</p> <p><u>Prior to</u> acceptance of the final WAA, we noticed an error (our Australian-side error in interpretation, not a China plant data error) where we had not adjusted our calculation from China plant throughput to Hazelwood plant throughput for 2017, where only one of the two plants was operating in China.</p> <p>We have been transparent with all of our documentation so, to avoid confusion for EPA (who had seen a Rev 1 draft of the Air Quality Impact Assessment, which the public had not because it was not a final released WAA document at that stage), we annotated Rev 2 with this explanation.</p> <p>This has no implication or relevance whatsoever to questions about integrity of China plant emissions data.</p>
77	<p>Table 42 of the original WAA provides a high level risk assessment of potential plant upset conditions. Risk number 14 in Table 42, relates to lead exposure to workers beyond safe limits and defines that:</p>	<p>This statement was correct.</p> <p>The previous regulatory level in Australia was recently changed from 50 µg/dL to 30 µg/dL (though I'm not</p>

Issue #	Issue	Chunxing response
	<p>“Actual recent blood testing results from ‘on-floor’ workers at the China plant show the lowest of 154 staff measured was 8.4 and the highest was 29.9, with the average at 23.7. All results were below the 30 µg/dL regulatory level, which was recently lowered from 50 µg/dL dL in Australia”.</p> <p>The above statement is incorrect, as defined on pages 145 and 146 of the December 2019 WAA.</p>	<p>certain when that was, this reference⁴ indicates that it was still 50 µg/dL in 2014). 30 µg/dL was the limit at the time of writing (5 Dec 2019) and remained correct until 5 June 2020, when this level was reduced further, from 30 µg/dL to 20 µg/dL⁵. For reference though, NSW still retains 30 µg/dL now, which it will not reduce until July 1 2021⁶ so these changes are both recent and not yet consistent throughout Australia.</p>
78	<p>In July 2019, Safework Australia, defined lead risk work to be any work that will likely cause blood lead levels of a worker to exceed 20 µg/dL or 5 µg/dL for females of reproductive capacity. Safework Australia added that this is a reduction from previous blood lead levels of 30 µg/dL and 10 µg/dL for females of reproductive capacity. A transitional period of two years applies for these new levels.</p>	<p>Yes, these statements are correct, although I was unable to ratify the reference to In July 2019.</p>
79	<p>In summary, as noted above, the average lead in the blood levels of the workers in China is 23.7 µg/dL.</p>	<p>Agreed</p>
80	<p>This exceeds the Safework Australia new recommended limit from July 2019 of 20 µg/dL, which means that the average concentration of workers in China already exceeds the current July 2019 recommended limit in Australia.</p>	<p>The WorkSafe Vic limit that applied up until 4 June 2020 (https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work) was 30 µg/dL.</p> <p>Blood levels of staff in China are unrelated to what Australia’s standards are – they relate to levels required in China, which they comply with.</p> <p>Any Victorian operation must comply with blood lead management requirements of WorkSafe Victoria, which Hazelwood North will. This is now 20 µg/dL.</p>
81	<p>I am concerned about the health impacts on the local schools and playgroups. Will education staff, including cleaning staff at local schools and playgroups be required to “gown up” before wiping down play equipment everytime students go out to play?</p>	<p>As the Human Health Risk Assessment report states, consistent with Chunxing WAA conclusions before it, there are “no risks to the health of residents.” This includes local schools and playgroups.</p>

Emailed Sub 3:

82	<p>China reference plant emissions concerns and Appendix No. 48 – Air Quality Impact Assessment refers to Revision 2 which notes that the Rev 2 had been issued due to an error that was found in the process of calculations for the original stack testing reports.</p>	<p>This point is incorrect.</p> <p><u>Prior to acceptance of the final WAA</u>, we noticed an error (our Australian-side error in interpretation, not a China plant data error) where we had not adjusted our calculation from China plant throughput to Hazelwood plant throughput for 2017, where only one of the two plants was operating in China.</p> <p>We have been transparent with all of our documentation so, to avoid confusion for EPA (who</p>
----	---	--

⁴ <https://www.safeworkaustralia.gov.au/system/files/documents/1702/inorganic-lead-information-information-sheet.pdf>

⁵ <https://www.worksafe.vic.gov.au/are-you-performing-lead-risk-work>

⁶ <https://www.safework.nsw.gov.au/notify-safework/lead-notifications>

Issue #	Issue	Chunxing response
		<p>had seen a Rev 1 draft of the Air Quality Impact Assessment, which the public had not because it was not a final released WAA document at that stage), we annotated Rev 2 with this explanation.</p> <p>This has no implication or relevance whatsoever to questions about integrity of China plant emissions data.</p>
83	<p>Section 22 Notices – response time: The proponent has been very slow in responding to EPA Section 22 Notices. The following opinions are provided to justify this view:</p> <ul style="list-style-type: none"> - S22 Notices 1 & 2: Proponent had to resubmit response to EPA following EPA rejection of original submission - S22 Notice 3: The HHRA report is dated is dated 6 July, Engage Vic website was updated with Addendum 8 July . EPA would not have reviewed the HHRA in any detail. 	<p>S22 Notice 1 was issued on 31 Jan 2020 with the response supplied back to EPA by 11 Feb as a very detailed draft of 129 pages plus 29 Appendices. This was as fast as humanly possible for such detailed information to be developed, documented, collated and reviewed. As you would expect, there is a significant time required for EPA to review this and various communications to occur between the proponent and EPA to fully answer all subsequent enquiries and clarifications. At no stage did EPA “reject the original submission.”</p> <p>S22 Notice 2 was issued on the afternoon of Wed 19 February, with a response date requested of Tuesday 25 February, which incidentally was the date of the Section 20B Conference. There is no consultancy in existence that could digest and respond to 130+ submissions, including some as large as 150 pages each, while preparing for the 20B conference, in <u>3 business days</u>. Despite this impossible task, we prepared a response document focusing on the major themes of the submissions <u>by the due date</u>, and brought printed copies of these responses along to provide to Section 20B Conference attendees on the Tuesday night. We followed up with detailed individual responses to the largest submissions, to complement the major themes response document, to EPA on 3 March. In all, the responses to submissions account for 57 pages (as detailed tabulated responses) of the Addendum. At no stage did EPA “reject the original submission.”</p> <p>S22 Notice 3 was issued on 24 April, for a Human Health Risk Assessment and revised air quality modelling, by 15 May. Both are specialist tasks requiring separate specialist scientists. A comprehensive Notice response, covering all previous issues from earlier Notices, plus the HHRA and additional modelling, was supplied to EPA on 29 May. This was a new 169 page document (the Addendum), with 54 Appendices. Understandably, there were a number of back and forth communications with EPA for clarification before the documentation was finalised. EPA did have time to review the HHRA – the 28 May report had a typo correction done in response to EPA’s review, which is why the final version is dated 6 July.</p>

Issue #	Issue	Chunxing response
		<p>The above facts indicate that we have been anything but “very slow” in responding to Notice requests. It doesn’t stand to reason that a proponent would want to contribute to lengthening its own approval process.</p>
84	<p>The responses to the public submissions, in some instances, do not address all of the issues or concerns raised and therefore should be re-worked.</p>	<p>Chunxing has provided an extensive, detailed, 57 page response to community comments, in addition to this response document.</p>
85	<p>“Chunxing would be likely to apply for exemption from licensing of this fugitives stack at the commissioning stage”.</p> <p>The possibility is a real concern and I believe the community would also be very concerned given the location of the secondary lead smelter to the local Hazelwood North primary school, local residents and the broader Latrobe Valley community.</p> <p>The prospect of the Latrobe Valley community having a secondary lead smelter operating in close proximity to the Hazelwood North primary school and playgroup, residential residences and a major residential area, with no operating licence for the stack discharges, would be a major concern for the Latrobe Valley community.</p>	<p>The WAA outlines on p.71: “The Environment Protection (Scheduled Premises) Regulations 2017 (‘the Scheduled Premises Regulations’), Part 3, Regulation 10, contain mass emission rate criteria for various pollutants, below which a general exemption from Works Approval can be applied.”</p> <p>There are <u>two stacks</u> as part of the Hazelwood plant: the main flue gas stack, and the stack that collects all fugitive emission vent points throughout the plant, puts them through pollution control equipment and exhausts them at a similar height to the main stack. As explained in a number of parts of the Addendum and its appendices, the fugitive stack emissions are massively lower than the main stack’s emissions.</p> <p>The reference to applying for an ‘exemption’, for the fugitives stack only, is because the emission levels are estimated to be 6,000 times below this very exemption level, set by EPA as a cut off for the need to regulate (an individual stack).</p> <p>Commissioning requires independent stack testing under operating conditions. Any application for exemption (for the fugitives stack only) would only be made after testing evidence was gathered confirming that negligible levels were in fact coming out of that stack. EPA may decide not to grant such an exemption.</p> <p>The main stack will be licensed, have licence discharge limits and will require monitoring against that limit, specifically for lead and other pollutants. If EPA would like the fugitives stack licensed and monitored as well, for assurance sake, then we would do that as part of licence requirements.</p> <p>There is <u>absolutely no prospect</u> of the Hazelwood North facility operating with no operating licence for stack discharges.</p>
Emailed Sub 3: Table 2 – Addendum to WAA dated 29th June 2020 – Feedback Comments		
86	<p>This figure only references the emissions SO₂, dust and lead and not the full list of pollutants. Other sections of Addendum to the WAA also only reference these three pollutants and not the full range of pollutants – e.g. Table S1 page xi. This</p>	<p>The Commissioning data only looked at particulates, SO_x and Pb because these are the primary pollutants of interest in ULAB thermal processes. This data has been supplied purely to verify the use and validity of China quarterly monitoring data. The latter measures</p>

Issue #	Issue	Chunxing response
	limited list of three pollutants is referenced in other sections of the WAA. For example: Table 7, page 34.	all pollutants which have been estimated and reported throughout the WAA.
87	<p>The proponent's response to some issues identified is "to ignore it". This approach is used in a number of areas with the WAA, for example: Addendum to WAA - Page xiv - The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed Chunxing facility's estimated emissions is to ignore it. This approach however does not provide the total level of emissions that the community will be exposed to.</p> <p>Appendix 22 – Section 8 Air emissions – page 92 – The proponent states: "While Chunxing understands the nature of the six-tenths rule in applying scales of cost for engineering equipment, construction and projects, we do not believe there is any evidence that justify its application to industrial emissions performance of different scales of identical plant"- that is: in summary, ignore it!</p>	<p>In every example provided, the Addendum and all its underlying data files <u>fully examined</u> each of the issues raise here as 'ignored'. In every case we have used scientific reasoning to explain why inclusion of a certain data point is unhelpful, unrepresentative or masks the real issue being examined. Everything is put on the table, then scientific judgements are made with that information. Nothing has been ignored in terms of being hidden or not explored.</p> <p>For example: The actual statement on p. xiv of the Addendum is: "The most appropriate treatment of background data in the case of the Latrobe Valley and the proposed Chunxing facility's estimated emissions is to ignore it, because the inclusion of the background data modelled (in any of its forms) simply masks the contribution from the facility, enabling no reasonable assessment to be made."</p> <p>This statement is correct. The dot points prior to this statement, Section 3.1 of the Addendum and Section 8.3.2.2 of the Addendum's Appendix 22 go into lengthy quantitative detail about background levels – the issue is far from disregarded.</p> <p>We have not 'ignored' background in data submitted – it has been in the WAA and supporting data from the beginning. The point that we made was simply that if you want to know what the emissions are from the Hazelwood plant, which is the purpose of the Air section of the WAA, you must take out the existing background (for particulates) or else you can't see Chunxing contribution at all, because it is so much smaller than background.</p> <p>And another: The sixth-tenths rule applied to emissions is provided in Section 8.3.3.1 of the revised Air Section (Appendix 22 to the Addendum), as requested by EPA.</p> <p>We wanted to be clear that we didn't believe it had any logical merit being applied to emissions performance of two scales of plant. Given we have modelled that scenario in the section above, we obviously didn't ignore it.</p>
88	HHRA and blood lead levels of workers in China	Identical issue to that raised in issues # 77-80 - see corresponding responses.
89	Fugitive emissions and fugitive stack 'exemption'	Identical issue to that raised in issues # 85 - see corresponding response.
90	Carwash and carpark for workers cars .. it is understood that the Wagga Wagga plant has the	There is a single carpark at the front of the facility, as shown in Appendix 9b (site plan). The HHRA and air

Issue #	Issue	Chunxing response
	employee carpark located some distance from the plant to limit pollutants being deposited onto employees' cars.	quality modelling demonstrate that there will be no 'deposition' of pollutants on workers cars that could in any way be measurable. Unlike the Wagga Wagga plant, the Hazelwood North plant has an extensive fugitive vent capture system, pollution control and high-stack dispersion of fugitives.
91	Some discussion regarding EPA waste water discharge quantity, licenced discharge points, sampling, testing and reporting via a NATA accredited laboratory would be of value.	There are no EPA water discharge points. There is capacity to discharge to trade waste, which will be done in accordance with agreement with Gippsland Water, whose compliance limits for trade waste are outlined in the Addendum's Appendix 39.
92	Appendix 48 (AQIA) Rev 2 'error' justifying concerns about China plant emission data quality	Identical issue to that raised in issues # 82 - see corresponding response.
93	Air quality background issue	Identical issue to that raised in issues # 68 - see corresponding response.

Emailed Sub 4:

94	WHO. The proponent in Section 8.1.1.1 - Emissions could impact human health, on page 95 dismisses the relevance of the WHO and states: "The WHO's document is actually written to address a worldwide problem of lead impacts from unregulated, sometimes backyard..... This is not correct. Australia is a signatory to the WHO including the publication: "Recycling Used Lead-Acid Batteries: Health Considerations" and therefore the requirements provided by WHO in their publication apply to Australia and not just "developing" countries as the proponent states. The proponent seems to pick and choose as to when the WHO document is applicable, to suit their argument at the time.	"The WHO's document is actually written to address a worldwide problem of lead impacts from unregulated, sometimes backyard.." is correct, because Australia does not have the poor levels of control, regulation and subsequent dangerous emissions of operations in other countries, particularly developing countries. At the outset the WAA author was well aware of the WHO document, using it to frame aspects of best practice. He also made the effort to contact the author of the WHO document and exchange emails about the subject matter in the publication. We recognise that Australia is a signatory to the WHO and we recognise that this document also 'applies' to Australia.
95	Firman's Lane Wetlands. I also understand that the Firman's Lane Wetlands facility has not been designed properly to clean up the contaminated wastewater drainage from the site. The construction of the proposed lead smelter may further add to the toxic wastewater discharges from the area. If the wetlands facility has not been designed correctly and is not able to effectively clean up the wastewater discharges, the surrounding environment will be further polluted. This issue was raised in my previous submission, but has not been addressed in the Addendum to the WAA.	There will be no contaminated stormwater discharge offsite. There is capacity to discharge to trade waste, which will be done in accordance with agreement with Gippsland Water, whose compliance limits for trade waste are outlined in the Addendum's Appendix 39. The Addendum details aspects of stormwater collection, treatment, use on site and management.

Emailed Sub 5:

96	Referring to the Addendum to the WAA, many of the drawings and figures provided are very difficult to read and should be updated with more legible drawings, etc. I believe the proponent has not fully complied with this Section 22 Notice.	This is a limitation of getting highly detailed engineering documents into Word format, which is subsequently PDF'd. The proponents approach to this issue was to also refer to unadulterated, high-resolution original files as Appendices. You will find these appendices much easier to read.
----	---	--

Issue #	Issue	Chunxing response
Emailed Sub 6:		
97	<p>“EPA exclusion zones” on the site, the nature of contamination and construction related management decisions, onsite and offsite impacts.</p>	<p>The audit identifies two primary areas of impacted groundwater on the site; both take up very small areas. These are the area of contamination at the northern boundary and the 45m by 45m square from the previously sited Effluent Oxidation Tank (EOT) on the southern boundary, identified by the auditor as the “building restriction zone.” These issues are discussed in Section 11.1 of the WAA.</p> <p>Construction of the proposed facility will be undertaken in accordance with the Construction Environmental Management Plan (CEMP), and the conditions of the Council planning permit, as described in Section 13.2 of the WAA. Section 11.2 also touches on</p> <p>Section 13 of the WAA also touches on the management implications of the site during the construction period. These cover off the WAA’s requirements for construction environmental management. Some of the issues raised in this submission, such as stormwater management, or what will occur with any contaminated soil from site work are operational issues for the CEMP to direct. There is a clear management framework in Victoria for the classification, transport, tracking and management of all prescribed wastes, including contaminated soils (https://www.epa.vic.gov.au/about-epa/publications/iwrg621).</p>

Submission #'s 251113, 251161, 251205, Emailed Sub 2, Emailed Sub 7:

No new issues raised (requiring Chunxing’s response) beyond those previously responded to.