PEER REVIEW – AIR QUALITY ASSESSMENT
CITY OF RYDE
PROPOSED SCRAP METAL WASTE MANAGEMENT FACILITY
50-52 BUFFALO ROAD, GLADESVILLE

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1. INTRODUCTION

Benbow Environmental was commissioned by City of Ryde to conduct an Independent Peer Review of the Air Quality Impact Assessment prepared by Todoroski Air Sciences dated 31 August 2022, and the Plan of Management prepared by MOD Urban dated February 2023. The Air Quality Impact Assessment was undertaken for a scrap metal waste transfer station located at 50-52 Buffalo Road, Gladesville NSW 2111.

2. PEER REVIEW

2.1 METHODOLOGY

The peer review provides a qualitative assessment of the contents of the Air Quality Impact Assessment prepared by Todoroski Air Sciences dated 31 August 2022, and the Plan of Management prepared by MOD Urban dated February 2023. Missing information or aspects that would typically be addressed in reports of such nature, are also indicated.

Peer review observations regarding content assessment are listed as discrete entries and their potential significance are then qualified by the descriptors outlined in Table 2-1. Note that the suggested hierarchy is not necessarily intended as an assessment of *error* but in most instances will simply relate to a lack of adequate justification for the use of data or a stated assumption. Additionally, details on missing information are further discussed in Table 2-3.

Table 2-1: Peer Review Observation Significance Hierarchy

High	The issue has a significant implication on the conclusions of the assessment
Medium	The issue has an implication that may alter the conclusions of the assessment
Low	The issue needs to be addressed but is considered unlikely to alter the conclusions

2.2 PEER REVIEW OBSERVATIONS

Peer review observations are listed and discussed in Table 2-2.

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
Air Quality Impact Assessment prepared by Todoroski Air Sciences dated 31 August 2022				
1	2.1/2	*Places where people work such as the adjoining and nearby industrial/ commercial operations would only have healthy adults present who are unlikely to reside for more than 24-hour (based on typical working hours). The applicable air quality impact assessment criteria for dust impacts are based on a 24-hour and annual average periods and do not strictly apply at such locations. Thus, these locations have not been assessed as discrete receptors.*	In accordance with the Approved Methods: *Sensitive receptor: A location where people are likely to work or reside;* Furthermore, from industry experience Benbow has received feedback from the NSW EPA requiring industrial receptors to be considered as sensitive receptors for the air quality impact assessment. This has been the case for over 7 years. **Recommendation:** The neighbouring receptors be considered sensitive receptors.	High
2	2.1/2	The area surrounding the site is predominately comprised of commercial/ industrial premises with the nearest residential properties identified approximately 0.2km to the northwest and southeast.	Apart from the figure, the locations of the receptors and type are not specified. **Recommendation**: The addresses, lot and DP numbers, distances to site and type of receiver be specified.	Low
3	2.2	The materials are to be sorted accordingly and loaded onto trucks for dispatch to offsite processing facilities.	No mention is made of the method of sorting. Is it via manual picking stations or is equipment to be used? **Recommendation**: Specify the method of sorting and any equipment required in the process. The site plan also does not specify the location of the equipment to be used. **Recommendation**: Update the site plans to reflect this.	Medium Low

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
4	5.3.1/12	Table 5-4: The 24-hr $PM_{2.5}$ and PM_{10} background levels adopted are 22.0µg/m^3 and 48.2µg/m^3.	A level 1 assessment has been undertaken in these assessments. In accordance with the Approved Methods, this requires the maximum background concentration to be added to the 100th percentile impact from the site. However maximum backgrounds exceed the criteria as shown in table 5-3. Therefore, a level 2 assessment of contemporaneous additions is required in accordance with the approved methods. It appears the method used adopts the highest background level that does exceed the criteria and adds the 100th percentile impact. It is acknowledged that this method demonstrates no additional exceedances, it is not strictly in accordance with the methods provided in the Approved Methods.	Low
			When considering the neighbouring receptors (see point 1) a level 1 assessment undertaken using the methodology presented in this report may result in non-compliance **Recommendation:** A level 2 contemporaneous assessment of impacts at the neighbouring receptors be undertaken.	High
5	6/13	Dispersion Model used: CALPUFF	Based on a recent literature review, it is Benbow's understanding that AERMOD is a better predictor of impacts at nearfield receivers than CALPUFF. However, remodelling is not considered warranted. **Recommendation:** None	Low

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
6	6.3.1/17	Daily maximum production rate 83 tonnes per day	A worst-case scenario for 24 hours is to be adopted. The average based on the 25,000 tpa for a 6 day work week is 80 tpa. 83 tonnes per day is not much higher than the average and could easily underpredict the worst case daily tonnage. However, a review of the calculations indicate the emission factors appear to be of handling materials that are likely dustier than scrap metal components. **Recommendations:** None	Low
7	6.3.2	Construction emissions	The potential impacts from dust during construction works is considered high given the proximity to other uses. There is no nominated method for ensuring any of the suggested construction dust mitigation measures are adopted. **Recommendation:** A construction environmental management plan be implemented including a dust monitoring and control procedure.	High
8	7	Table 7-1 results	Results for the neighbouring industrial receptors are not provided.	High
9	7.1	Cumulative 24-hour averages	As discussed in point 4 this is not strictly a Level 1 elevated background assessment as maximum backgrounds are not used. **Recommendation:** A level 2 contemporaneous assessment of impacts at the neighbouring receptors be undertaken.	High

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
10	8	*Activities to be assessed during adverse weather conditions and modified as required (e.g. cease activity where reasonable levels of dust cannot be maintained using the available means).*	It is unclear how feasible the implementation of this control may be.	Medium
		Weather forecast to be checked prior to undertaking material handling or processing.	It is unclear what weather conditions would trigger what response	Medium
		Engines of on-site vehicles and plant to be switched off when not in use	It is unclear how this will be enforced.	Low
		Vehicles and plant are to be fitted with pollution reduction devices where practicable.	It is unclear how this would be applicable to the proposed development.	Low
		Vehicles are to be maintained and serviced according to manufacturer's specifications.	It is unclear how this would be applicable to the proposed development.	Low
		Visual monitoring of activities is to be undertaken to identify dust generation.	It is unclear how this will be enforced.	Medium
		Store material is designed bays	It is unclear what material will be stored where and how the bays will be constructed from the site plans.	Medium
		Regularly inspect haul roads and maintain surfaces to remove potholes or depressions	It is unclear how this will be enforced.	Low
		Driveways and hardstand areas to be swept/cleaned regularly as required etc	It is unclear how this will be undertaken. Will there be a road sweeper on site. How frequently will the driveway be cleaned. How feasible will the hardstand where materials are handled be cleaned.	High
		Record all air/ dust incidents. Complaints are logged and investigated.	It is unclear how this will be enforced.	Medium

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
			Recommendations: • An environment management plan be implemented included an air quality management plan. ▸ This is to include proposed auditing methods. ▸ Sweeping details (aka. If a road sweeper will be used). ▸ Frequency of cleaning the external hardstand area. ▸ Details of how the recommended mitigation measures will be implemented and enforced. In addition: • Designated storage bays and their construction are to be shown on the plans. • Maximum quantity of waste/materials to be stored at any one time is to be indicated.	High
11	8	*For the operations of the Project, dropping scrap metal at different heights is unlikely to have a tangible effect on dust generation as scrap metal is not inherently dusty and would be dropped onto a sealed surface. Drop heights are not a recommend control measure for the operations.*	Benbow Environmental agrees with this statement regarding air quality.	N/A
12	9	Conclusions	Predicted compliance has not been shown at the neighbouring facility. It is unclear how the site would ensure/enforce dust mitigation measures.	High
13	10	Appendix B – Table B-1	Typo in units for Hauling on sealed surfaces kg/VKT should read g/VKT	Low

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
14	11	Appendix B – Table B-2	Rounding errors, using EF and intensity values for unloading material to dispatch trucks and wind erosion results in different emission results due to rounding. Specify which equipment is being modelled for each activity (excavator, front-end-loader, forklifts).	Low
Plan of Management prepared by MOD Urban dated February 2023				
	Accepted waste types, table 2	No hazardous materials are to be brought onsite.	Lead-acid batteries are considered hazardous.	Medium

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
	General waste handling process 1.1	Storage of materials	In table 2, it says e-waste will be stored in bins. Then in the diagram, it states the e-waste is to be stored in cages. The table states that ferrous steel and aluminium will be stacked, then that they are stored in bins in the diagram. Recommendation: Clarify what the materials will be stored in. Present designated storage type and waste type and storage bay construction in the plans.	Low Low
		Reject loads	The diagram states that rejected loads will be transported offsite by the customer. What happens if the unacceptable waste is not identified during the initial screening and it is within an accepted load? Recommendation: Provide a more detailed plan of managing unacceptable waste. A Quarantine area is recommended to be shown on the plans.	Low
		Records	How will records be kept, and for how long?	Low

Table 2-2: Peer Review Observations

Ref.	Section/Page	Aspects	Comment/Recommendation	Significance
14	Mitigation Measures/18	Air Quality and Odour Section	This is identical to those from the Air Quality Impact Assessment with one additional point recommending an Operational Environmental Management Plan. The plan of management (POM) is limited to waste management with no procedures (only a list of mitigation measures) for any other environmental aspects. **Recommendations:** See point 10 above.	High

2.3 MISSING INFORMATION

The following table addresses missing that is typically required. The table also details the significance of this absent information.

Table 2-3: Missing information/details

Ref	Aspects/Missing Information	Comments	Significance
Air Quality Impact Assessment prepared by Todoroski Air Sciences dated 31 August 2022			
15	Source configuration and assumptions	The details regarding the source assumptions are not provided. Such as source type, source location, size, release height is not provided.	Low
Plan of Management prepared by MOD Urban dated February 2023			
16	Construction dust mitigation measures not included	Only operational mitigation measures from the Air Quality Impact Assessment are included, construction dust mitigation measures are not included. It is recommended a construction environmental management plan be prepared including a dust monitoring and control procedure.	Medium
17	Mitigation/Measures	The plan of management (POM) is limited to waste management with no procedures for any other environmental aspects. It recommends an operational environmental management plan be undertaken.	Medium

3. SUMMARY AND CONCLUDING REMARKS

Benbow Environmental was commissioned by City of Ryde to conduct an Independent Peer Review of the Air Quality Impact Assessment prepared by Todoroski Air Sciences dated 31 August 2022, and the Plan of Management prepared by MOD Urban dated February 2023. The Air Quality Impact Assessment for a scrap metal waste transfer station located at 50-52 Buffalo Road, Gladesville.

The peer review provides a brief and qualitative assessment of the contents of the above document, as well as indicates any missing information or aspects that would typically be provided or that are expected to be addressed in a report of this nature.

While there were 16 issues identified in the peer review the major issues are as follows:

Air Quality Impact Assessment

- The neighbouring sites are not considered in the assessment, they are required to be assessed as sensitive receptors in accordance with the Approved Methods and given the elevated background levels a level 2 contemporaneous assessment is required.

Plan of Management

- The plan of management (POM) is limited to waste management with no procedures for any other environmental aspects. Therefore, there is no documentation detailing the procedures for the management of dust during construction or operations.

Recommendations

- The Air Quality Impact Assessment be revised to include the neighbouring sites as receptors and a level 2 contemporaneous assessment be conducted at these locations in accordance with the Approved Methods.
- A Construction Environmental Management Plan be implemented including a dust monitoring and control procedure.
- An Operational Environmental Management Plan be prepared or included within the Plan of Management which includes a dust management procedure:
  - This is to include proposed auditing methods.
  - Sweeping details (aka. If a road sweeper will be used).
  - Frequency of cleaning the external hardstand area.
  - Details of how the recommended mitigation measures will be implemented and enforced.
- Plans are to be updated.
  - Bins, designated storage bays, their construction and waste type are to be shown on the plans.
  - Maximum quantity of waste/materials to be stored at any one time to be shown.
  - Equipment locations.

This concludes the report.

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4. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use of City of Ryde, as per our agreement for providing environmental services. Only City of Ryde is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

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