

Our Ref: 1003592

**ENVIRONMENT PROTECTION ACT 1970
SECTION 22(1)
NOTICE TO SUPPLY FURTHER INFORMATION**

TO: JOHN ROBERT GILBERT C/O JULIAN HOWARD

**OF: GREAT SOUTHERN WASTE TECHNOLOGIES PTY LTD
GROUND FLOOR
19 SHIERLAW AVENUE
CANTERBURY
VIC 3126**

WHEREAS an application by you for a WORKS APPROVAL in respect of premises situated at 70 ORDISH RD, DANDENONG SOUTH VIC 3175, Victoria was received by the Environment Protection Authority ("the Authority") on 23 OCTOBER 2019.

AND WHEREAS we consider the information specified herein is necessary and relevant to the consideration of the application.

NOW TAKE NOTICE that pursuant to section 22(1)(a) of the Environment Protection Act ("the Act") you are **HEREBY REQUIRED** to supply to the Authority by 17:00 hours on the 02 March 2020 the information specified in Attachment A of this notice.

DATED: 11 February 2020



Andrew Halliday
Senior Project Manager
DELEGATE OF THE
ENVIRONMENT PROTECTION AUTHORITY

ATTACHMENT A

GREAT SOUTHERN WASTE TECHNOLOGIES PTY LTD should provide responses to the following requests:

<i>Item</i>	<i>Reference</i>	<i>Page</i>	<i>Request details</i>
1	Application	PDF p78	Provide updated Table 5-6 - "Project-Relevant SEPP (Air Quality Management) Design Criteria" that includes the following design criteria, or provide explanation / justification for exclusion of any of the listed parameters: <ul style="list-style-type: none"> - PM2.5 (24h average) - Hydrogen fluoride (HF) / Fluoride - (7 and 90 day) - Hydrogen chloride (HCl) - Ammonia (NH3) - Dioxins and Furans (DF) (see SEPP(AQM)) - Polycyclic Aromatic Hydrocarbons (PAH) as Benzo(a)Pyrene (B(a)P) - Hexavalent chromium (Cr (VI)) - Cadmium (Cd)
2	Application	PDF p80	Provide reference facility data summaries in format of "Table 1: Reference Facility Emissions Layout" - (see Attachment B)
3	Appendix F	PDF p 14	Please provide updated Table 2, 3 and 4 (in Appendix F), formatted as per item 1 in this notice (updated Table 5-6 from APPLICATION)
4	Appendix F - Air Emissions	-	Update modelling to include time varying background for each scenario and consider emissions impact in addition to existing ambient air quality.
5	Application / Appendix F - Air Emissions	-	Provide further explanation of the links between emissions, facility processes, and proposed pollution control approaches (technological or operational)
6	Application - s4.5.5.6 Odour	PDF p 69	A) Provide further information on the expected odour impacts, including odour performance and BATT in reference facilities. B) Provide further supporting information specified in s4.5.5.6 statement: "Based on evidence from similar facilities currently operating overseas, this will eliminate most, if not all, odours."
7	Appendix F - Air Emissions	-	For AERMOD outputs: provide modelled 99.9th percentile value for worst-affected sensitive receptor in a table/ tables
8	Appendix F - Air Emissions	-	For AERMOD outputs: provide modelled plot with sensitive receptors clearly labelled/numbered
9	Appendix F - Air Emissions	-	For AERMOD outputs: provide 99.9th percentile for each BoM year.
10	Appendix F - Air Emissions	-	Provide a table with pollutants, and the % of IED limits under BATT emissions controls scenarios and proposed emissions control scenario

Item	Reference	Page	Request details
11	Appendix F - Air Emissions	-	Provide AERMOD summary tables for: - Criteria pollutants - 99.9th percentile one-hour averages: for CO, NO2, and SO2, including hourly time varying background data where available. - PM2.5, including hourly-varying background data where available and 99.9th percentile one-hour average for comparisons with SEPP(AQM) design criterion. - Maximum 24-h average and annual average for comparisons with SEPP(AAQ) objectives. - HF, for comparisons with design criteria: with 24-h average, 7-day average and 90-day average (all maxima). - 99.9th percentile 3-minute averages for other pollutants of varying toxicity: with HCl, NH3, Dioxins and Furans (DF), PAHs as B(a)P, Cr(VI) and Cd.
12	Appendix F - Air Emissions	-	Explain how accidental or emergency emission releases have been considered in accordance with EPA (2013b), Recommended separation distances for Industrial Residual Air Emissions.
13	Appendix F - Air Emissions	-	Provide further information considering non-steady-state emissions in relation to steady-state emissions and design criteria and emissions limits, in tabulated form.
14	Appendix O - HRA	-	Provide updated HHRA that takes into account: a) the updated Appendix F; b) gives consideration to all parameters in IED and item 1 of this attachment; and c) gives consideration to exposure consisting of combined background and modelled emissions.
15	Appendix O - HRA	-	Identify any recreational uses of Dandenong Creek and consider in HHRA
16	Appendix O - HRA	-	Update Table 3: Substances and routes of exposure to include all relevant emissions listed in Appendix F.
17	Appendix O - HRA	-	Clarify if the HRA evaluated combined impacts of emissions from the proposed works and background concentrations, or solely emissions from the proposed works.
18	Appendix F - Air Emissions	-	Provide detail on proposed continuous and periodic monitoring of air emissions.
19	Appendix Q - Fuel Specification	-	Provide information explaining how fuel specification compliance will be monitored and managed
20	Appendix Q - Fuel Specification Application	s6.3.3.3 PDF p 109	A) Provide explanation and supporting information for s6.3.3.3 claim "Significant feedstock variation is not considered likely due to the pre-sorted nature of municipal, commercial and industrial waste accepted at the facility", given s4.2.1.3 states "Waste composition data is impacted by seasonal changes and as such further testing should be conducted to confirm the above findings". B) Provide a plan for further testing/monitoring of feedstock to determine properties and the seasonal variation of these.

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21	Application	PDF p45 / p104	<p>The application lists unacceptable waste types and s4.1.10 gives an overview of quality control for feedstock.s5.7.4.2 gives an overview of rejected wastes management.</p> <p>A) Provide further detail of the "routine audit process" in s4.1.10. Include plan details of analytes and frequency of analysis for "processing and analysis in accordance with a statistically representative methodology" (at a laboratory).</p> <p>B) Provide procedure or plan for how these waste types will not be mixed in with fuel, and how contamination will be detected and managed.</p>
22	Appendix F - Air Emissions Application s4.1.10.1	Application PDF p44	<p>Provide updated Air Emissions assessment and modelling to determine what will end up on bottom ash and fly ash to support resource efficiency claim (Application s4.1.10.1 / s4.1.8)</p>
23	Application	PDF p74	<p>A) Please elaborate on the statement quoted below. Please include further consideration to adjustment of this variation of waste composition and its impact on the design of the process, over the life of the proposed facility.</p> <p>"It should also be noted that some of the parameters used in the assessment would change over the life of the proposed facility, including:</p> <ul style="list-style-type: none"> • waste composition – various factors will influence the composition of waste coming into the proposed facility, which would affect the calorific value of the waste, influencing both biogenic and non-biogenic fractions" <p>B) Provide explanation and supporting information for achieving net calorific value fuel specification through addition of C&I to MSW, given the statement quoted below.</p> <p>"Net calorific value (NCV) for the MSW is 7.2 MJ/kg; less than specification limit. However, NCV will be adjusted / increased by combining with C&I (Approximately 15-20 per cent) and would also increase through the implementation of FOGO separation"</p>
24	Application	A) PDF p99 B) PDF p56	<p>A) Provide explanation and supporting data for determining the following claims in s5.7.1:</p> <p>"It is expected that bottom ash will likely be categorised as 'non-prescribed industrial waste', while fly ash will likely be categorised as either 'Category B PIW' or 'Category C PIW', with the potential for some of the heavy metal species to exceed thresholds for Category A."</p> <p>B) Provide further information regarding the following statement from s5.7.2.2, including explanation for not testing for leachability and further characterisation, given claimed likely classification of industrial waste for bottom ash. Give consideration to variation between Victorian and European waste fuel properties.</p> <p>"Analysis of the Forus bottom ash sample (ALS, 2019) indicates</p>

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			the material would be classified as 'industrial waste', pending leachability analysis and further characterisation in accordance Industrial Waste Resources Guidelines. It is anticipated that further investigations into classification of the bottom ash will be ongoing"
25	Application	-	The Non-Prescribed Industrial Waste and Industrial waste terms have been used in the WA application for bottom ash. Please clarify the differences between descriptions used of Non-Prescribed Industrial Waste and Industrial waste.
26	Application	-	It is reported in the international literature that bottom ash generated through MSW EtW facility may also contain levels of dioxins. In consideration of this, provide further information to clearly address the management options for disposal of bottom ash, with consideration to the management and treatment of hazardous boiler ash + APC residues before any disposal to landfill.
27	Application	PDF p19	Provide further information on waste disposal from the facility – how will waste generated at the facility be handled, monitored and stored before it is sent for reuse or disposal in accordance with EPA requirements?
28	Submissions	-	Provide a response to the Public Submissions (2 PDF files) published to Engage.Vic WA webpage (see Supporting Documents section) .

ATTACHMENT B

Table 1: An Example of Reference Facility Emissions Format

Pollutants (general)	Emission Limit (mg/Nm ³) 100th percentile	Emission Limit (mg/Nm ³) 97th percentile	Model Averaging time	Emission Rate (g/s)
Pollutants - Industrial Emissions Directive 2010/75/EU (IED)				
Pollutants (general)				
Total dust	10	–	24 hour	
Total organic carbon (TOC)	10	–	24 hour	
Hydrogen chloride (HCl)	10	–	24 hour	
Hydrogen fluoride (HF)	1	–	24 hour	
Sulphur dioxide (SO ₂)	50	–	24 hour	
Oxides of nitrogen (NO _x) as nitrogen dioxide (NO ₂)	200	–	24 hour	
Carbon monoxide (CO)	50	–	24 hour	
Total dust	30	10	0.5 hour	
Total organic carbon (TOC)	20	10	0.5 hour	
Hydrogen chloride (HCl)	60	10	0.5 hour	
Hydrogen fluoride (HF)	4	2	0.5 hour	
Sulphur dioxide	200	50	0.5 hour	
Oxides of nitrogen (NO _x) as nitrogen dioxide (NO ₂)	400	200	0.5 hour	
Carbon monoxide (CO)	100	–	0.5 hour	
Carbon monoxide (CO)	150	–	10-minute	
Pollutants (heavy metals)				

Pollutants (general)	Emission Limit (mg/Nm3) 100th percentile	Emission Limit (mg/Nm3) 97th percentile	Model Averaging time	Emission Rate (g/s)
Cd + Tl	0.05	–	0.5 hours	
Hg	0.05	–	0.5 hours	
Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V	0.5	–	0.5 hours	
Pollutants (other toxic)				
Dioxins / furans (D/Fs)	0.1 (ng/m3)	–	6 hours	
Pollutants – other				
Ammonia (NH3)	30	–	1 hour	
Polycyclic Aromatic Hydrocarbons (PAHs) as Benzo-a-Pyrene (BaP)	0.0133	–	1 hour	