

Notice

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

**TO: ENERGY BRIX AUSTRALIA CORPORATION PTY LTD (EBAC)
(ABN: 79074736833)**

**OF: UNIT 9 / LEVEL 1 / 677 SPRINGVALE RD / MULGRAVE VIC 3170, VICTORIA,
3030.**

WHEREAS an application by you for a works approval in respect of premises situated at 412 Commercial Road, Morwell, Victoria was received by the Environment Protection Authority ("the Authority") on 19 January 2018.

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") EBAC is **HEREBY REQUIRED** to supply to the Authority by 4.00pm on the *12th* day of March 2018 the information specified in Attachment A of this notice.

DATED: 2 March 2018

.....
QUENTIN COOKE
DELEGATE OF THE
ENVIRONMENT PROTECTION AUTHORITY

Notice

ATTACHMENT "A"

Re: Works approval application SO 1003002 from Energy Brix Australia Corporation Pty Ltd to establish an asbestos landfill at 412 Commercial Road, Morwell.

Please submit the following information which needs to be prepared by suitably qualified professionals.

1. Provide information on long-term undisturbed groundwater water quality.

- The groundwater is likely to be Segment B but further information is needed to confirm this. Essentially there are only two samples providing information about TDS levels in GW15. Whilst the samples are a year apart they are both in the same season (September 2017 and October 2016). This is not considered to provide sufficient temporal and spatial representativeness, as required by SEPP GoV (Clause 8)

An additional GME was conducted in March 2018. Refer below for further discussion of this GME.

- This information is required to assess compliance with Clause 15(3)(3) of the Waste Management Policy (Siting, Design and Management of Landfills) (WMP).

In our opinion, the results of the four GMEs provide sufficient information on which to assess compliance with the Policy.

- Is there any field EC data that could be used to extend the coverage and provide more information about the TDS in GW15? If there is such data please provide.

Field EC data for GW15 has been provided in the WAA (refer to Table 7) for the Oct 2016 GME, Sep 2017 GME, Dec 2017 GME and March 2018 GME.

- What is the timing of the 53X environmental audit and is it scheduled to collect additional samples of TDS in GW15 and at the site? **Please obtain some additional analyses so as to represent a different season.**

A GME was undertaken on 8 December 2017 by Aurecon as part of the site assessment for the 53X Audit. After corresponding with EPA, GHD also completed a GME in March 2018 for background bore GW15. EPA advised via email on 05/03/2018 that sampling of GW15 in March 2018, would satisfy the requirement for additional analyses to represent a different season. TDS analytical data has been provided in the WAA (refer to Section 4.6.5). Laboratory reports for Dec 2017 and March 2018 will be provided to EPA.

- It was mentioned that there were anomalies in the laboratory analyses, however, these have not been adequately explained. Please provide an explanation for these anomalies.

The laboratory analysis reports have some anomalies in term of some of the analytes concentrations in groundwater being different to those used in the GHD Phase 2 ESA. GHD has completed a review of the anomalies and concluded that the anomalies have not affected the outcome of the Phase 2 ESA. The TDS, and hence the classification, of the groundwater beneath the site was the important matter. This matter has been addressed through three subsequent GMEs, which report TDS for background bore GW15 as groundwater segment B classification.

Notice

As part of our internal QA process, GHD will be reissuing the Phase 2 ESA with an erratum to specify the changes made to the report to address these anomalies. GHD will provide EPA, the client and 53X auditor (Stephen Cambridge) with a copy for your records.

2. Provide information on long-term undisturbed groundwater level for the site

- Long term undisturbed groundwater level is required to assess compliance with Clause 16(2) of the WMP. It appears that the groundwater level has been determined based on two years of water level monitoring data which is inadequate.
- The following information is required to determine whether the 2m separation will be provided:
 - Long term undisturbed groundwater level (in m AHD)
[Please refer to Section 4.6.6 for further discussion.](#)
 - Survey data of Bore GW17B; (in m AHD)
[Please refer to Table 8 for RL top of bore casing.](#)
 - Survey data of the proposed landfill site; (in m AHD)
[Please refer to Appendix I for existing survey of the landfill.](#)
 - The maximum depth of the landfill cell(s) (in m AHD)
[Please refer to Section 4.6.6.](#)

3. Provide preliminary design drawings

- A contour map of the current natural ground (in m AHD) and the top of cap contour map should be provided. These plans should be “Pre-settlement” top of waste and “pre-settlement” top of cap contours shown in m AHD.
[Please refer to Appendix I.](#)
- Provide preliminary liner profile showing barrier layers including the drainage layer in compliance with Best Practice Environment Management Guideline for landfills (BPEM, EPA Publication 788.3). Note that the proposed drainage layer thickness (as per the WAA) is 200mm. However, the BPEM requirement is that the thickness to be 300mm with a hydraulic conductivity of not less than 1×10^{-3} m/s, and it is one of the “required outcomes”. Under such circumstances, provide an explanation how the proposal will comply with clause 15(3)(c) of the Waste Management Policy which states that an applicant for a landfill works approval must meet **each** “required outcome” of the BPEM.
[First, we would like to clarify that the 200 mm thick layer placed on the base of each cell is not a drainage layer. As specified in Section A of Drawing No. 31-35300-C002 \(Appendix D\), this layer is a Soil Protection Layer. It is provided to protect the underlying compacted clay layer from vehicular damage \(ie. as the forklift traverses the landfill to place asbestos loads\). Section A of Drawing No. 31-35300-C002 also provides the liner profile of the landfill.](#)
[Second, we acknowledge that the proposed design does not meet BPEM; this matter was discussed at our 12 January 2018 meeting including the rationale for departing from the Landfill](#)

Notice

BPEM, that is, the alternative design provides a better health and safety outcome for placement of waste in the landfill (as described in Section 4.8.5 of the WAA). If EPA determines that achieving policy outcomes is of higher importance than the OH&S considerations and cannot deviate from clause 15(3)(c) of the Waste Management Policy, the application will be updated to reflect the required outcomes of the BPEM.

4. An assessment on potential risks on receptors

- Some receptors appear to be within the recommended buffer. Therefore, a comprehensive risk assessment is required;
- The amended WAA (received on 19 Jan 2018) has not provided additional and operational measures required to ameliorate the risks associated with a reduction of the buffer distance identified in Table 5.2 of the BPEM.
- It is likely that this is not purely a monofil asbestos landfill. There is potentially a mix of wastes some of which could produce gas and may contain some other contaminants (i.e. oils and other contaminants from gaskets etc.). Therefore, any likelihood of risks due to landfill gas and other potential contaminants needs to be contained/addressed.
- Please provide a risk assessment of the potential for gas generation and the risks to nearby receptors and the additional and operational measures required to ameliorate the risks (from gas and/or other contaminants) as a result of a reduced buffer distance.

[A comprehensive risk assessment is provided in Appendix H.](#)

5. Provide a detailed assessment of leachate management

- The proposed leachate management actions are not adequate. Because of the uncertainties of other contaminants and the likelihood of the presence of hydrocarbons an onsite leachate treatment or disposal to an approved off-site facility should be included in the leachate management procedures. It is noted that asbestos may contain other components from building demolition works (i.e. timber, metal, bricks etc). Leachate will be generated from such material and needs to be collected, removed and managed. Also any rainfall that falls within the landfill (while it is open) will end up in the waste and will become leachate. This needs to be collected, removed and managed. Furthermore, ‘design and construction of the most robust liner and leachate collection system’ is also a required outcome of BPEM. Please outline how this will be done and how the proposal will comply with clause 15(3)(c) of the Waste Management Policy which states that an applicant for a landfill works approval must meet **each** “required outcome” of the BPEM.

[Section 4.8.5 of the WAA provides a description on the management leachate for the proposed landfill.](#)

[To address EPA’s comments the WAA has been updated to specify that leachate will be pumped from the sumps to 1000 L intermediate bulk containers \(IBCs\) located in a bunded area adjacent to the landfill. Leachate will be tested from the IBCs for asbestos presence and other parameters including, but not limited to, hydrocarbons, nutrients and heavy metals. Depending on the leachate](#)

Notice

quality it will be disposed of via the site's existing stormwater drainage system (if suitable quality) or licensed trade waste disposal, or transported offsite for disposal at an EPA licensed wastewater treatment facility. The site's existing stormwater drainage system has management conditions under EPA Licence No. 11269. Any leachate to be discharged via the stormwater system will be accordance with the water conditions of the licence.

6. Stormwater Management

- Explain in greater detail how stormwater flows will be managed and how contaminated stormwater will be managed onsite to ensure that no contaminated stormwater is released from the site. This should show how the stormwater management at the proposed landfill will make use of the existing stormwater management infrastructure at the site, and should cover both the operational and post closure phases of the landfill.

[Section 4.8.6 has been updated to address this requirement.](#)

7. Processing of asbestos waste

- It is not clear in the application how the asbestos waste could be separated/sorted to ensure that the waste is 100% or close to 100% asbestos and is not contaminated with other materials. Explain how this would be accomplished or if significant amounts of non-asbestos wastes are likely to be included identify the probable types and amounts of such materials and the associated risks.

[As explained at our 12 January 2018 meeting and discussed in the WAA, it is likely that other inert material such as bricks and steel from asbestos gaskets will be adhered to the asbestos and cannot be safely removed prior to disposal. The extent of such 'contamination', in particular bricks, will not become apparent until asbestos removal works commence. Further explanation as to the probable types and amounts of such materials and the associated operational risks and requirements has been provided in Section 4.12.2. The landfill will only be licensed to accept asbestos \(Class I and Class II\) and will not accept any other type of PIW and therefore, any asbestos gaskets that contain residual hydrocarbons will be cleaned in a bunded area prior to disposal in the landfill.](#)

8. Update of the site EMP

- The current site 'Environment Management Plan' dated January 2017 (Appendix B in Documents 1 and 2) does not provide for the establishment and management of the proposed Asbestos Landfill. Please update this EMP to capture all aspects regarding the siting, design, operation and rehabilitation of the proposed landfill.

[Please refer to Appendix B. Addendum 1 \(Landfill EMP\) has been added to the existing site EMP.](#)