

Our Ref: MA008315

Mr Michael Baker
Secretary, Environment and Planning Committee
Legislative Council, Parliament of Victoria

Via: [REDACTED]

Dear Mr Baker

**Parliamentary Inquiry Into Recycling And Waste Management -
Matters Taken On Notice on 6 November 2019**

Thank you for the opportunity to appear before the Legislative Council Environment and Planning Committee on Wednesday 6 November 2019 to provide further evidence regarding Environment Protection Authority's (EPA) role in the regulation of pollution and waste in Victoria.

I have sought further advice in response to matters taken on notice following questions asked by Dr Samantha Ratnam MLC, and Clifford Hayes MLC regarding the EPA's regulation of waste to energy facilities and provide EPA's responses below. This response also incorporates advice received from Sustainability Victoria, and Department of Environment, Land, Water and Planning.

What is the current management regime and regulation for top and bottom ash from waste to energy (incineration) facilities in Victoria?

The regulation and monitoring of waste to energy facilities in Victoria is provided under the *Environment Protection Act 1970* (EP Act) and includes works approvals, commissioning approvals and licensing issued by EPA.

At the works approval stage a waste to energy facility proposal needs to demonstrate control of dioxins and furans (classified as class 3 indicators) to the maximum extent achievable as required by the State Environment Protection Policy (Air Quality Management). The most common controls involve high temperature oxidation of the flue gas to destroy the dioxins and furans; followed by rapid cooling of the flue-gas from temperatures above 400 °C to below 250 °C to prevent the these particles reforming. This is followed by the use of activated carbon (PAC) to adsorb any residuals in a baghouse prior to dispersing the emission through an appropriately designed flue stack.

During the commissioning stage of a waste to energy facility the performance of these pollution control systems is verified by stack testing to show that the controls are effective in reducing the emission to air (including dioxins and furans) to the required standard. If commissioning trials are successful then EPA may issue a licence to allow continued operation of the waste to energy facility subject to required monitoring and reporting conditions overseen by EPA.



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During commissioning the fly ash from the baghouse and bottom ash from the furnace is sampled and tested to confirm the hazard category of the waste in accordance with EPA Publication IWRG631 *Solid Industrial Waste Hazard Categorisation and Management* and the level of treatment required prior to landfill disposal.

Ongoing regulation and monitoring is determined by the risk associated with the solid wastes that are generated and their intended disposal or other use.

Does Victoria require another toxic waste disposal facility to accommodate ash waste from waste to energy facilities?

Victoria has different infrastructure needs for managing, treating, containing and disposing of hazardous wastes. In accordance with the EP Act and subordinate legislation, materials from any thermal waste to energy facility which pose risks to human health and the environment will need to be managed to ensure that those risks are mitigated. All Victorian Government planning for waste infrastructure takes these principles into consideration.

All landfill facilities have finite capacities. The need for new landfill facilities that are licensed to take hazardous wastes is being considered by Sustainability Victoria in the development of the next iteration of the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP).

EPA is a statutory authority responsible for the assessment and regulation of scheduled activities, including landfills, via the *Environment Protection (Scheduled Premises) Regulations 2017*.

Is it safe to reuse ash from waste to energy facilities in road base construction?

The reuse of bottom ash and in some cases fly ash from waste to energy facilities in roadbase and construction materials is a common practice internationally and is considered suitable, in certain circumstances, under the Victorian waste hierarchy which prioritises reuse and re-cycling above disposal in the management of waste.

Under the regulations EPA can assess a reuse proposal where the reuse is time limited, is for a specified quantity of material, the reuse option is fit for purpose; and the waste is consigned for the reuse purpose only.

Ash is tested and categorised prior to determining suitability for any particular reuse. Generally, ash wastes that have been produced through an industrial process can be categorised as either industrial waste or Prescribed Industrial Waste on the basis of the concentration and leachability of certain pollutants.

For unspecified pollutants, such as dioxins and furans, an assessment is required to identify the hazards associated with the specific reuse proposal. If the leachability does not meet the requirements for the proposed use, further treatment might be required to stabilise the material, or it may not be considered suitable for reuse. The EPA may attach conditions to the reuse to ensure ongoing compliance with the intended destination of the material.

Yours sincerely



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