TRONOX

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Comment on discussion paper: *Waste Reform Project Proposed approaches for legislative reform: July 2017*

Thank you for the opportunity to comment on this discussion paper.

Tronox operate an integrated titanium minerals/pigment production venture comprising the Cooljarloo Mine at Cataby, a mineral separation and synthetic rutile production plant at Muchea and a titanium dioxide pigment plant at Kwinana.

Tronox's Chandala and Kwinana operations produce mineral residues, as well as general domestic and commercial type wastes. Waste management programs implemented by Tronox at all sites seek to minimise waste generation and maximise recycling and reuse.

The mineral residues generated by Tronox are buried in a licensed landfill at the Cooljarloo Mine, owned and operated by Tronox. Domestic and commercial wastes are generally managed in commercial arrangement with local government authority and/or other commercial suppliers.

Tronox's primary focus in this submission is on the implications of the matters raised in the discussion paper for the management of the mineral residues.

The discussion paper does not appear to specifically address mineral residues or industrial process waste more generally. For example, the paper proposes "*amending key terms in the Waste Avoidance and Resource Recovery Regulations 2008 (WARR Regulations), WARR Levy Act and Waste Avoidance and Resource Recovery Levy Regulations 2008 (WARR Levy Regulations) to ensure the levy applies to all waste disposed to land;*" yet does not clarify whether this would include industrial process waste or not.

The current *Western Australian Waste Strategy* (2012) established under the WARR Levy Act, specifically identifies that the management of nuclear waste, mining spoil, agricultural wastes or industrial wastes (where these are managed onsite under license) should remain outside the levy and the Waste Strategy. Tronox considers this approach is appropriate and should continue. A number of justifications for this are provided in following text against key matters raised in the discussion paper (highlighted in bold italics).

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Attaching a levy to process wastes provides a disincentive for local downstream processing and incentivises the direct export of minerals.

Applying a levy to industrial process wastes disadvantages local integrated downstream processing. As a result, companies mining and processing within Western Australia will be disadvantaged relative to those who mine and export raw commodities.

This is particularly the case for Tronox who mine titanium bearing mineral sands and downstream process these to ultimately produce TiO_2 pigment. The ratio of mineral residue produced relative to titanium dioxide pigment product across the entire integrated venture is approximately 1:1. An operation mining minerals sands and exporting the raw products (Ilmenite, rutile etc) the ratio of waste to product is about 1:10, although it is likely that, as tailings, these residues would not attract a levy at all. Operations exporting heavy mineral concentrate from a mining operation would not likely be subject to a levy at all.

Western Australia, while a relatively reliably and predictable (and thereby attractive) place for investment, is already a very expensive, (labour, energy) and complicated place to do business. This proposal would compound existing already significant disincentives to investing in downstream processing in Western Australia. As such, the levy should only target "waste" streams where there is a real prospect of reduction.

Other States' exclusion of industrial waste from levies

The discussion paper briefly examines the statutory framework for waste within a number of other Australian States. A brief review of these indicates that most address industrial wastes separately and a number exempt industrial wastes, particularly mineral residues from levies.

Only wastes with real, economically viable prospects for recovery, reuse or recycling (redirection from landfill) and pose a real material and significant environmental risk should attract the levy.

The purpose of the levy is to encourage waste reduction, and, as such, will only be effective where there is a real prospect of reducing waste. While many industrial wastes contain potentially usable materials, a great portion of these are not recoverable with current technology, and it is not economically feasible for the current producers to develop suitable technology and markets.

Mining and extractive industries are subject to considerable other government fees and payments and the rate of the waste levy is disproportionate.

Tronox pay 5% royalty on all minerals produced, annual environmental licence fees and various other taxes. With current (chloride grade) ilmenite prices at approximately $200/tonne, a $60/tonne levy on waste produced equates to approximately 6 times the current combined ilmenite royalties and annualised licence fees.

Other more general comments addressing individual sections of the Discussion Paper document are provided below.

Executive Summary

Clarifying the legislative relationship between the EP Act and WARR Levy Act to make waste policy objectives, including the Waste Strategy, relevant considerations in the granting of licences and attachment of conditions under Part V Division 3 of the EP Act;

Given the core premise of the EP Act is the prevention of pollution and environmental harm, where the Waste Recovery Act focusses on sustainable resource use through waste reduction, Tronox would question the suitability of tying WARR Levy Act and EP act Part V licencing. They are separate legislative instruments and should remain so.

Amending key terms in the Waste Avoidance and Resource Recovery Regulations 2008 (WARR Regulations), WARR Levy Act and Waste Avoidance and Resource Recovery Levy Regulations 2008 (WARR Levy Regulations) to ensure the levy applies to all waste disposed to land;

Tronox do not consider that all waste disposed to land should be subject to the levy. Only wastes where there is a reasonable prospect of improving waste reduction, within the short to medium timeframe through this mechanism, should be subject to the levy.

The discussion paper refers to "pricing and incentive mechanisms" and highlights that "environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems". The waste levy is identified as such a mechanism. In accordance with this, Tronox advocates that prior to imposing the levy to any particular waste stream, an evaluation of the cost benefits, and the prospect of reduction resulting from the levy be conducted. This would affirm whether there is any benefit in applying the levy in terms of reducing waste and any corresponding environmental harm.

Amending Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) to streamline and reform landfill and other waste categories to encompass a broader range of waste disposal methods;

Tronox are supportive of a simple, effective, consistent and reliable regulatory regime and considers that the approach to regulation should be commensurate with the risk and outcomes being sought. In the context of waste, controls (assessment, approvals and permitting) and charges (License fees, levies) should thereby be scaled commensurate to the risk and opportunity each waste type presents. As such, any simplification and streamlining should be mindful that different wastes carry significantly different risks to the environment, and prospects for reduction (reuse, recovery and recycling).

Similarly, any change to legislation should seek to remove any duplication. For example, any facility paying a waste levy should not have to also pay a license fee under Part V of the EP Act.

Amending the WARR Levy Regulations and WARR Regulations to improve the measurement and recording of waste;

Tracking systems should be reasonable, cost effective and not unnecessarily burdensome.

Improving reporting of movement of waste under the WARR Levy Regulations.

Tronox currently track and report all waste landfilled via Annual Environmental Reports in accordance with Part V EP Act license conditions and see no reason this should alter.

Application of the Levy to stored wastes

Timelines should be reasonable and allow for recovery and reuse. Suggest that two years is a minimum period but should be considered on a case by case basis. A process for allowing exemptions should also be available. Often materials may be stored for considerable periods (five to ten years) prior to a viable market being available to support the recovery and sale.

For additional information, please contact Nick Sibbel nick.sibbel@tronox.com or 08 9571 9342.

Yours sincerely,
For Tronox Management Pty Ltd

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