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**Mr Danny Childs**

Stockpile Taskforce  
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**METAL RECYCLING SHREDDING INDUSTRY RESPONSE TO THE INTERIM WASTE MANAGEMENT POLICY (RESOURCE RECOVERY FACILITIES) 2017**

Dear Danny,

**1.0 INTRODUCTION**

Golder Associates Pty Ltd (Golder) has been engaged by the Metal Recycling Shredding Industry Group (the Industry Group), whose membership comprises each of the operators of Victoria's three primary metal recycling shredding facilities, namely Sims Metal Management, Norstar Recycling and Liberty OneSteel, to assist the Industry Group in its response to the *Interim Waste Management Policy (Resource Recovery Facilities) 2017* (the Interim WMP).

The Environment Protection Authority (EPA) has invited the Industry Group to provide EPA with its comments on the application of the Interim WMP, and its supporting guideline '*Management and storage of combustible recyclable and waste materials*' (EPA Publication 1667.1), as it applies to the metal recycling shredding industry. The Industry Group appreciates EPA's invitation, and this letter presents its collective comments and feedback in relation to the Interim WMP and EPA Publication 1667.1, and thoughts on the regulation and management of combustible recyclables going forward.

**2.0 COMMENTS IN RELATION TO THE INTERIM WMP**

The following comments present the Industry Group's thoughts on the Interim WMP, as it relates to metal shredding and recycling.

**1. Objective**

The Industry Group:

- Endorses the broad objective of the Interim WMP, with its intent to minimise the risks of fire resulting from the inappropriate management and storage of combustible recyclable and waste material.
- Interprets the inclusion of the word "combustible" to not include those non-combustible feedstocks to, and products from, their facilities. In this regard, in-bound wastes such as sheet metal, rod, bar and wire would not be regulated by the Interim WMP and EPA Publication 1667.1. Similarly, nor would the non-

combustible ferrous and non-ferrous metal recovered from the metal shredder and stockpiled and/or baled at the site.

## **2. Commencement**

The Industry Group assume that the Interim WMP, having been declared under Section 18B of the *Environment Protection Act* (1970) (the Act) will expire on 29 August 2018, unless replaced by a new policy developed under Section 18A of the Act.

The Industry Group expects that a policy impact assessment (PIA) would be required in the establishment of a new policy under Section 18A of the Act. The Industry Group further expect that the PIA considers the financial implications, as well as the possible adverse social and environmental outcomes resulting from backlogs of recyclable metal materials in the market, as required under Section 18C(b) of the Act. As will be described, the blanket application of the Interim WMP and EPA Publication 1667.1 has the potential to significantly impact the trading capacity of the Industry Group members' operating sites. The stockpile dimensions noted in EPA Publication 1667.1 would require the members of the Industry Group to eventually turn material away. This would place the community at further risk as material would be sent to businesses and smaller scrap metal dealers, who may not have the systems or standards in place, nor the resources on site to effectively manage the associated fire risks. This is not to mention the financial implications to the operating revenues of the Industry Group members through the loss of feedstock.

## **3. Definitions**

### *Metals*

The Industry Group requests that the term 'metals' be removed from the list of material types defining Combustible Recyclables and Waste Material (CRWM). We believe that the fire risk associated with the stockpiling of inert, non-combustible metals is not commensurate to that of, for example, recovered and baled rubber, plastics, wood, cardboard or paper. For example, the 'ignition temperature' of a material is the minimum temperature required for it to burn in air, and is a good indicator of the ease to which certain materials catch alight. The ignition temperatures of paper (218°C), wood (190-260°C), rubber (260-316°C) and plastics (349-580°C) are vastly lower than even the melting points of aluminium (600°C), steel (1100-1600°C), iron (1535°C) and titanium (1670°C), which are the main metals stockpiled by the Industry Group members. The theoretical ignition points of these metals exceed their melting points and are unattainable outside of very specific laboratory conditions. One reason why these materials are not combustible is because they conduct heat so effectively, heat is dissipated faster than it can be generated from a burning reaction, and thus a self-propagating fire is impossible under regular site conditions. As such, we believe defining inert, non-combustible metals as a CRWM is a mis-categorisation because they present no fire risk in the context of how these materials are stored by the Industry Group.

It is acknowledged that there are several reactive and combustible metals, such as sodium, lithium, calcium and potassium, which present a significant fire risk when stored. If the EPA wishes to include these metals under a future policy, then it is requested that these combustible metals are explicitly distinguished apart from inert, non-combustible metals and their alloys.

Further to the above, recognising the potential fire risk posed by shredder flock, it is recommended that a future policy include "*flammable residual wastes from metal recycling*" as an explicitly defined combustible material type. This is to recognise it as a source of potential fire risk as distinct from the inert, non-combustible metals.

### *Combustible*

The Industry Group believes that a future policy should consider flammability in addition to burn temperature in the definition of CRWM, and the setting of risk-based controls and requirements for these materials. Flammability can indicate the ease or likelihood of a fire starting, while burn temperature can indicate the severity of the fire once alight, and the amount of firefighting water required to suppress it. As recommended in 'Licence Assessment Guidelines' (EPA publication 1321) both likelihood and consequence should be considered when assessing risk. Therefore, for a future policy to be truly risk-based, it must consider flammability in conjunction with a definition of combustible. Measures taken to reduce ignition sources (i.e. good house-keeping practices to reduce litter and vegetation) should be recognised in EPA guidance as reducing the likelihood of combustion, with this then reflected in variations to stockpile dimensions, setbacks and separation distances.

#### **4. Policy Clauses**

##### *Clause (5)*

In the absence of an EPA Licence regulating resource recovery facilities, the Industry Group request that greater clarity be provided regarding how "...or risks are otherwise mitigated to an equivalent level through other means" would be applied by EPA. It is necessary to define what assessments and actions operators would be required to have completed, and the form of evidence that EPA require they produce, to demonstrate the effectiveness and suitability of these "other means". Operators need to be able to forward plan, and where necessary budget for potential upgrades that may be needed at their facilities, and cannot continue to operate under a system of rolling Pollution Abatement Notices, as has been the recent experience. The Industry Group members are prepared to undertake the necessary risk assessments, and where necessary upgrade their facilities following a risk-based approach to prioritising mitigation measures and actions, but EPA's (and the relevant fire authority's) expectations and guidance must be clear on what is required. The current wording in this clause, and the guidance provided in EPA Publication 1667.1 does not currently provide this clarity.

### **3.0 COMMENTS IN RELATION TO EPA PUBLICATION 1667.1**

The following comments present the Industry Group's thoughts on EPA Publication 1667.1, as it relates to metal shredding and recycling.

#### ***Section 1: About this Guideline***

The Industry Group request that the EPA amend Section 1.3, which currently lists 'metals' as a CRWM. The metals processed by the Industry Group are inert and non-combustible, and should not be subject to the same controls as other combustible material.

The Industry Group accepts that there is a potential fire hazard from some materials processed and generated at metal recycling facilities, such as shredder flock. Therefore, a possible replacement for the term 'metals' in section 1.3 could be:

*"flammable residual wastes from metal recycling".*

This would intend to capture the management and control of shredder flock, rather than recovered non-combustible metal product. If the EPA is concerned about a fire hazard presented from pre-processed metal-based material, which may contain traces of combustible materials (such as car bodies or appliances) then a possible addition to the CRWM list could be:

*“metallic materials which contain a mixture of CRWM exceeding 30%, OR pose a significant fire risk when stored.”*

However, if the EPA were to include this in the CRWM definitions, the Industry Group request that the EPA also state that pre-processed metals that do not include combustible materials such as, for example, sheet metal, rod, bar and wire, are not considered CRWM.

### **Section 3: Fire Prevention**

Section 3 outlines safe work procedures which must be employed as part of a facility’s daily operations. While most of the procedures listed are considered reasonable by the Industry Group, the implementation of the ‘hot work activity’ procedure would present a significant challenge to the metal recycling industry. The Industry Group request that this procedure is altered to consider the location of the activity for two reasons. First, metal recycling facilities undertake significantly more hot work activities than other recycling facilities considered in the Interim WMP. Requiring a mandatory procedure every time one of these activities is performed would present a significant challenge to the industry and reduce productivity. Secondly, such a procedure would be redundant for many areas of the site which contain no CRWM and therefore have negligible fire risk presented from the activity. The Industry Group proposes the following alteration:

*“ensure that there is a mandatory hot work permit procedure for all activities that could cause a fire, such as cutting, welding and grinding type activities **when occurring within 10m of a combustible material or stockpiled CRWM**”.*

This ensures that the genuine fire risk presented from these activities is managed in a way that is effective and reasonable in the context of site operations.

### **Section 4: Risk Assessment**

Section 4 briefly outlines that occupiers must conduct risk assessments to assess the fire risk presented by the stockpiling of CRWM. The Industry Group requests more specific details about the risk assessment process in the following areas:

- Detail who would be qualified to make these risk assessments, recognising that the specialist nature of these assessments would typically fall outside the expertise of Environmental Consultants who would ordinarily complete environmental risk assessments of industrial facilities.
- Clarify the expectations of the fire authorities regarding the content of the risk assessment and fire management plans. This should detail how the application of risk mitigation measures can reduce the likelihood of fire, and therefore allow variation to the CRWM stockpile dimensions, setbacks and separation distances.
- Outline the evidence and documentation that is required to be retained to demonstrate that the assessment has been done.
- Outline the evidence and documentation that is required to show that these have informed the risk-based controls applied at a site.

The Industry Group believes that, while reviewing the risk assessment is important, the timing stated in the Interim WMP is too frequent. Half-yearly reviews are too onerous an obligation for an operation that does not change considerably from one year to the next. The Industry Group requests a bi-annual timeframe for the review of risk assessments.

### **Section 5: Fire mitigation**

Section 5 discusses a variety of fire mitigation measures that must be considered when planning controls. The Industry Group requests that distinction between CRWM and non-combustible stockpiles be considered when planning and building fire mitigation infrastructure. For example, fire mitigation infrastructure should be focussed around the locations of stored CRWM, rather than non-combustible metal stockpiles, which present minimal risk. Similarly, bunding and liquid management controls should only be required to contain firefighting water from a potential fire within CRWM stockpile areas, rather than be a blanket requirement for all stockpiled materials.

### **Section 7: CRWM Storage**

Section 7 outlines acceptable conditions for the stockpiling of CRWM. It details the stockpile dimensions; separation distance between stockpiles; distances between stockpiles and buildings; and, when walls can separate buildings and materials. If the Industry Group's previous request to remove 'metals' from CRWM is accepted, it will be expected that the following measures would not apply to non-combustible metal stockpiles:

- Stockpile dimensions;
- Stockpile separation distances between other stockpiles;
- Stockpile separation distances between buildings and site boundary; or,
- Requirement for fire walls containing metal stockpiles.

The conditions above would also not apply to pre-processed, inbound metal which is not contaminated with combustible material (e.g. sheet metal, rod, bar and wire), but may apply to pre-processed inbound material that contains a mixture of metallic materials and CRWM. As shredder flock should be defined as a CRWM, the Industry Group accepts that the conditions outlined in Section 7 will apply to this material.

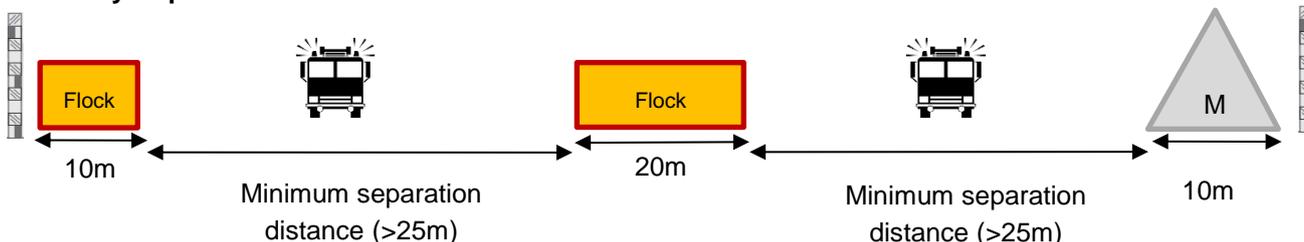
Golder and the Industry Group believe that, in addition to burn temperature, flammability should be a fundamental consideration in setting applicable stockpile dimensions, setbacks and separation distances. Flammability gives an indication of the ease to which a material can catch alight. The lower the flammability, the lower the likelihood of a fire starting and therefore the lower fire risk presented.

The Industry Group also requests the EPA clarify the separation distances required for stockpiles of mixed materials, for example shredder flock and pre-processed metallic materials, which may have a reduced burn temperature or lower flammability than a homogenous CRWM stockpile. Pre-processed metallic materials in particular, may vary in the percentage and category of CRWM mixtures depending on the source of the material (e.g. vehicle bodies, appliances, construction materials). Subjecting these mixed materials to the same separation distances as pure CRWM would be a significant burden, and is considered excessive given the likely reduced flammability and combustibility.

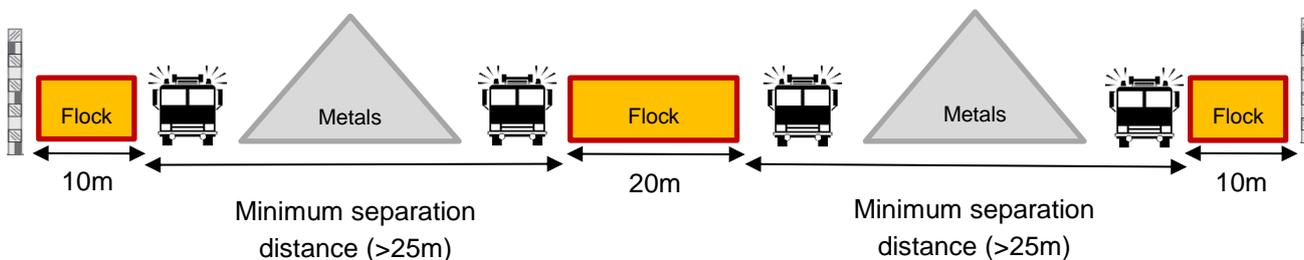
Finally, as a non-combustible material, metal that is not co-contaminated with CRWM should be permitted to be stockpiled near combustible materials. In this regard, non-combustible metal stockpiles could act in a similar way to non-combustible fire walls, reducing the risk that a fire could spread through them to adjacent stockpiles. Despite metal stockpiles being non-combustible, they can inhibit fire vehicle access if not planned carefully, and therefore the Industry Group acknowledges that they must consider fire vehicle access, and manage their combustible and non-combustible stockpiles in a manner that does not inhibit emergency vehicle access.

An example of the requested changes is presented in Figure 1 below:

**Currently required**



**Requested**



**4.0 CLOSURE**

The Industry Group appreciate this opportunity to provide EPA with its thoughts in relation to the application of the Interim WMP and EPA Publication 1667.1. The Industry Group members are committed to the effective management of their individual fire risks, but in a way that is undertaken in an equitable, risk-based manner.

We hope to be able to meet with representatives from the EPA and MFB to discuss our thoughts further. Should you wish, please contact me on 03 8862 3662 to arrange a time to meet and discuss further.

**Golder Associates Pty Ltd**

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