



Lead-painted steel disposal or recycling in the USA & NSW & Australian ULAB waste permits - email discussion, August 2019

From: The LEAD Group Inc

Sent: Thursday, August 8, 2019 4:52 PM

To: Hazardous Waste Act (HWA) section, Australian federal department of the Environment;
hazardous.materials@epa.nsw.gov.au

Subject: What are the options now for disposing of lead-painted steel beams?

Dear HWA and NSW EPA Hazardous Materials sections,

I've had an enquirer this week who told me he could no longer use a company he used to use, who would send lead-painted steel beams to China for recycling. I decided I would phone HWA to ask if any company still has a permit to export lead-painted steel beams overseas, and I advised the enquirer to contact NSW EPA and Enirgi Power Storage but when he did he was advised that ARA in Alexandria are no longer an option for lead waste or lead-bearing materials disposal due to closure of the site. I also know that Enirgi Power Storage Recycling (EPSR) at Bomen is the only lead smelter in NSW but the lead scrap (usually used lead acid batteries or lead metal such as flashing) must be >60% lead, though other lead scrap could be considered by Ben Pritchard from EPSR on mob 0400830270. My enquirer said that when he rang Ben he was advised that EPSR could not take his lead-painted steel.

I understand that in NSW, residential leaded waste can go to GSW (General Solid Waste) Landfills but non-residential leaded waste must undergo leachate testing and be classified.

My question to both of you is:

what happens if the leachate test results in a classification of "hazardous waste"? I believe that is or will be the outcome in this case.

When I phoned the enquirer back to ask what was the result of lead testing of the paint, he said that he had just heard back from NSW EPA and the issue was sorted.

I phoned Ben Pritchard [of Enirgi Power Storage Recycling (EPSR)] to ask if he knew what would be the possible solution to disposing of lead-painted steel beams and he said it probably can't go to China anymore because the Chinese have changed their waste guidelines as regards what they'll accept. Ben said that there may be other countries that still accept lead-painted steel for recycling – but he couldn't name a company here that has a permit for that. He also said, you'd have to put either the lead painted steel in a Class 5 Landfill at \$1000/tonne but I imagine it would not be economically feasible to do that so instead it would need to be abrasive-blasted in a controlled environment, then the paint waste and blast material would be containerised and disposed of in the Class 5 Landfill.

Just so I don't have to send the next similar enquirer round in circles (and risk having them give up and dump it illegally), can either of you tell me of any company/ies in Australia that have a permit for exporting lead-painted steel overseas for safe recycling, and can NSW EPA Hazardous Materials branch tell me of any company/ies that can safely



strip lead paint from steel and where a list of Class 5 Landfills (to receive the presumably “hazardous” paint/abrasives waste) would be?

I think this is worth an article in LEAD Action News so please reply with a view to being quoted in our quarterly e-newsletter.

Yours Sincerely
Elizabeth O'Brien,
Lead Scientist and Lead Adviser
The LEAD Group Inc. (environmental health charity)
Editor, LEAD Action News
PO Box 161 Summer Hill NSW 2130 Australia
www.lead.org.au
www.leadsafeworld.com
LEAD Action News is published at both the above websites and is free to all. This online-only quarterly newsletter is often illustrated with Lead-Safety entries from our Volcano Art Prize website:
www.volcanoartprize.com

From: Environment Line, NSW Environment Dept
Sent: Thursday, August 8, 2019 4:03 PM
To: The LEAD Group Inc
Subject: Lead disposal in NSW

Hi Elizabeth,

Please see below information about lead disposal in NSW.

Re: Changes to options for disposal of lead waste in NSW

Australian Refined Alloys (ARA) no longer an option for lead waste disposal

ARA in Alexandria (Sydney) have previously accepted various lead containing wastes from the community and industry for processing and metal recovery.

ARA have now advised the EPA they are no longer accepting lead waste or lead bearing materials for processing due to the impending closure of the site. ARA have consequently requested staff in the EPA and elsewhere cease advising people to send lead waste to ARA.

Other NSW options for lead waste disposal

With respect to alternative lead waste processing facilities, the Enirgi Power Storage Recycling (EPSR, formerly Renewed Metals Technologies) facility (EPL #12878) at Bomen near Wagga Wagga, owned by Enirgi Power Storage Recycling Pty Ltd (who previously owned ARA) is the only other lead smelting facility currently operating in NSW.

The EPSR facility is permitted to accept lead scrap and lead acid batteries for processing (smelting), however it is specifically designed to process lead acid batteries. Lead bearing materials (scrap) containing a high percentage of lead (>60%) can generally be economically processed at the EPSR facility, however lead containing wastes (which generally only contain a small amount of lead) cannot. Nevertheless EPSR management has advised they will assist the EPA to provide advice regarding the potential processing of lead scrap and wastes at the EPSR facility.

EPSR have advised that Ben Prichard is the appropriate point of contact for any enquiries EPA may



receive regarding lead materials. Ben is happy to talk to people who have lead materials/scrap/wastes and can advise on the suitability or not for processing at EPRS, disposal prices and other matters. Ben's contact information is as follows:

Ben Pritchard
Strategic Buyer
Enirgi Power Storage
M: 0400 830 270
E: ben.pritchard@enirgipower.com.au

Immobilisation of lead contaminated materials and wastes

In accordance with Step 3 of the [Waste Classification Guidelines, Part 1: Classifying Waste, EPA 2014](#) ('the Guidelines'), wastes *contaminated with lead* from residential premises or educational or child care institutions are pre-classified as general solid waste (non putrescible) (GSW) and thus can be landfilled at GSW landfills without further chemical assessment, or treatment. However, waste that is contaminated with lead other than these specified land uses requires chemical assessment in accordance with Step 5 of the Guidelines. Any waste classified as hazardous waste based on the total concentration or leachable concentration for lead cannot be disposed to landfill. It must either remain onsite, or be treated to a lower waste classification. HIEH – Hazardous Materials Unit manages the EPA's immobilisation (immobilised contaminants approval) framework and provides advice on the treatment of lead wastes via immobilisation, allowing these waste to be reclassified and disposed of at an appropriate landfill.

Lead paint wastes arising otherwise than from residential premises or educational or child care institutions, are pre-classified as hazardous waste. This may include lead paint waste from commercial or industrial sites. Options for managing this waste stream are explained above.

Contact hazardous.materials@epa.nsw.gov.au for further information on the EPA's immobilisation framework and requirements for immobilisation approvals.

Kind Regards

Yasmin

Environment Line

From: Hazardous Waste Act section, Australian federal department of the Environment

Sent: Friday, August 9, 2019 11:29 AM

To: The LEAD Group Inc

Subject: RE: What are the options now for disposing of lead-painted steel beams?

Dear Elizabeth

The following website has the list of permit applications, and permits granted or refused, in a searchable format. The first page results are given in the image below for searching on *lead* for *Decision permit granted* and reflect most of the current permits for lead – see <http://www.environment.gov.au/protection/hazardous-waste/application-and-permit-notice>



Permit No.	Permit Holder	Permit Title	Permit Status	Date
190001	Hydromet Corporation Pty Ltd	Export of lead waste and scrap derived from used lead acid batteries to the Philippines	Granted	17 Dec 2019
190002	ETV	Transit of used lead acid batteries	Granted	11 Nov 2019
190003	Hydromet Corporation Pty Ltd	Export of lead waste and scrap derived from used lead acid batteries to India	Granted	19 Sep 2019
190004	Hydromet Corporation Pty Ltd	Export of lead waste and scrap derived from used lead acid batteries (ULABs) to the Republic of Korea	Granted	23 Jul 2019; 19 Jun 2019; 6 Nov 2018; 30 Aug 2018; 6 Aug 2018; 18 May 2018
190005	Hydromet Corporation Pty Ltd	Export of lead waste and scrap derived from used lead acid batteries to Bulgaria	Granted	10 Jul 2019

The results indicate that the lead waste being exported is *lead waste and scrap derived from used lead acid batteries*. This could not include lead paint on steel beams.

To determine whether the material was hazardous waste or not under the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*, we would need to understand the specific context and be provided with analytical results. As a general guide, however, if the material contains constituents at levels higher than “Industrial Waste Upper Limits” (see pages 7 - 9 in the attached guide), an export permit would be needed.

Please let me know if you have further questions.

Regards

Greg R

Dr Greg Rippon Assistant Director

Chemicals Management and Hazardous Waste Section | Chemicals Management Branch
 Environment Standards Division | Australian Government Department of the Environment and Energy

Permits granted during 2018 and 2019 in Australia for export of ULABs

Editor’s Note - as the attached image of the first page of results (above) was illegible, Elizabeth O’Brien downloaded the following “Permits granted” list on 25th January 2020, and copied in the date granted (or dates granted when the exact same permit was granted more than once). The original search results are listed on the site in descending date order and I have listed here only the permits for 2018 and 2019:

Notice of Decision to grant a permit to Hydromet Corporation Pty Ltd to export 20,000 tonnes of lead paste and scrap from used lead acid batteries to the Philippines – 17 Dec 2019

Notice of Decision to grant a transit permit to ETV to transit up to 1000 tonnes of used lead acid batteries – 11 Nov 2019

Notice of Decision to grant a permit to Hydromet Corporation Pty Ltd to export lead paste and scrap from used lead acid batteries to India – 19 Sep 2019

Notice of Decision to grant a permit to Hydromet Corporation Pty Ltd to export lead waste and scrap derived from used lead acid batteries (ULABs) to the Republic of Korea – 23 Jul 2019; 19 Jun 2019; 6 Nov 2018; 30 Aug 2018; 6 Aug 2018; 18 May 2018

Notice of Decision to grant a permit to Hydromet Corporation Pty Ltd to export lead waste and scrap derived from used lead acid batteries to Bulgaria – 10 Jul 2019



Notice of Decision to grant a permit to Lex Enviro Services Pty Ltd to export lead waste and scrap derived from used lead acid batteries to the Republic of Korea – 5 Jun 2019

Notice of Decision to grant a permit to Hydromet Corporation Pty Ltd to export lead paste and scrap from used lead acid batteries (ULABs) to Poland – 8 May 2019; 13 Jun 2018

Notice of Decision to grant a permit to Norfolk Island Regional Council to export whole used lead acid batteries to New Zealand – 28 Nov 2018

Notice of decision to grant a permit to Hydromet Corporation Pty Ltd to export lead waste and scrap derived from used lead acid batteries (ULABs) to Spain – 24 Oct 2018; 28 Aug 2018

From: The LEAD Group Inc

Sent: Friday, August 9, 2019 12:22 PM

To: Hazardous Waste Act section, Australian federal department of the Environment

Subject: Re: What are the options now for disposing of lead-painted steel beams?

Dear Greg,

thanks for all the info. You have answered the question as to what is not an option (ie no company in Australia currently has a permit [or has had a permit since May 2017] to export either waste lead-painted steel beams or stripped industrial lead-paint waste), but I wonder if you have any information which might explain my enquirer's belief that China changed their criteria on hazardous waste permitted to be imported – thus cutting off his option to utilise the service of a company which would export the lead-painted steel beams for recycling in China? In other words, is there a company/companies that used to have a permit to export lead-painted metal waste to China, but which has/have not re-applied for a permit recently? OR, is it possible that lead-painted steel used to be exported to China with no permit, because no one in Australia thought about (or was required to think about/test/act on) the hazardous nature of the coating for the steel recycling workers and their communities in China?

Cheers

Elizabeth

From: Hazardous Waste Act section, Australian federal department of the Environment

Sent: Friday, August 9, 2019 1:37 PM

To: The LEAD Group Inc

Subject: RE: What are the options now for disposing of lead-painted steel beams?

Dear Elizabeth

I cannot speculate what may have happened. I can indicate that we have had no export permits to China for any material since 2011.

Regards
Greg R

Editor's note: the oldest permit granted that is listed on the website

<http://www.environment.gov.au/protection/hazardous-waste/application-and-permit-notice> is:



Notice of Decision to grant a permit to Hydromet Corporation Pty Limited to export lead waste and scrap (paste and grid) derived from used lead acid batteries to Spain – 16 March 2017

So it is not possible to check online whether permits granted to export any waste to China before 2012, or to any country before 2017, included lead-painted steel waste.

From: The LEAD Group Inc

Sent: Saturday, August 10, 2019 1:56 PM

To: Adina, Institute of Scrap Recycling Industries (ISRI) USA

Subject: How does ISRI recommend lead painted steel beams be disposed of or recycled safely?

Dear Adina,

I've been asked by an Australian contractor (in Sydney, New South Wales) who is trying to dispose of lead painted steel beams, to ask around as to how this is done now that the company he used to take them to is no longer able to export them to China for recycling (he thinks, due to China changing their guidelines about the level of lead in the paint that they'll accept coming in on the beams). It's been so difficult for me to find an answer to how the lead painted steel beams can be disposed of safely, that I've decided to write an article for my e-newsletter **LEAD Action News**, on the topic. Please reply with a view to be quoted in my article.

I know from the lab analyst at Sydney Analytical Laboratories that the old industrial lead paint on such things as steel beams can contain up to 64% lead, and I have skimmed ISRI's "Scrap Specifications Circular 2013" at <http://www.globalresources.net.au/wp-content/uploads/2014/01/SpecsJan2013.pdf> but I have not found any mention of painted steel beams in that Circular, so I was wondering if you could let me know how ISRI recommends that lead-painted steel beams be disposed of or recycled safely, either within the USA or by exporting them to another country?

Yours Sincerely

Elizabeth O'Brien,

Lead Scientist and Lead Adviser

The LEAD Group Inc. (environmental health charity)

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www.volcanoartprize.com

ISRI, USA recommend lead painted steel beams be disposed of or recycled safely or not at all

From: Adina, ISRI

Sent: Wednesday, August 14, 2019

To: The LEAD Group Inc

Subject: How does ISRI recommend lead painted steel beams be disposed of or recycled safely?



I was reaching out to the ISRI brain trust, and they have provided a number of resources that, we hope, will be helpful to you.

ISRI aligns with the U.S. Department of Labor's Occupational Safety and Health Administration ([OSHA](#)) and the Department of Health and Human Services National Institute for Occupational Safety and Health ([NIOSH](#)) requirements shown in [29 CFR 1910.1025](#). OSHA has a website dedicated to lead (<https://www.osha.gov/SLTC/lead/>).

I have also attached a few documents that may help.

- “OSHA3348” [“Guidance for the Identification and Control of Safety and Health Hazards in Metal Scrap Recycling” from <https://www.osha.gov/Publications/OSHA3348-metal-scrap-recycling.pdf>]: Starting on page 21 are the guidelines for processing materials with lead on or in them.
- “Training Safety Point (TSP) Lead” from <https://www.isri.org/docs/default-source/safety-point-newsletter/lead.pdf?sfvrsn=4&sfvrsn=4> and “TSP National Emphasis Program for Lead” from <https://www.isri.org/docs/default-source/safety-point-newsletter/program-for-lead.pdf?sfvrsn=8&sfvrsn=8&sfvrsn=8&sfvrsn=8> : Short overviews we use in our facility trainings (which includes Spanish translations because we have many non-native speakers in our facilities)
- “Safe Handling of Scrap Lead” [perhaps at http://www.lni.wa.gov/Safety/Research/files/lead_scrap.pdf] and “RIOSWebinar” [Cirone, ISRI Safety – “Lead Concerns in the Recycling Industry”]: Also used in training sessions – they are great how-tos on handling materials with lead.
- “The Widespread Hazards of Lead” by Lindsay Holst, from “ScrapMag”: An article about lead hazards from our magazine. It was written 12 years ago, but much of the substance is still relevant.

[Editor's note: the first article and the final two articles listed above form the basis of the following three articles in this issue of LEAD Action News]

As you know, this is a very serious issue that can have far reaching effects on the employee and others around them. So ISRI's number one recommendation when working with lead is that it must be done **safely, or not at all**. The attachments to this email help to outline how that can be accomplished.

Regards,
Adina

From: Adina, Institute of Scrap Recycling Industries

Sent: Friday, August 16, 2019

To: The LEAD Group Inc

Subject: How does ISRI recommend lead painted steel beams be disposed of or recycled safely?

As to your final questions, here is what I learned from two experts:

I cannot say with certainty that the lead is NOT systematically stripped from painted steel prior to the steel being recycled. It might be. Some companies may require it to be removed and other companies may have a lead & respirator program in place to protect



the workers from the hazard. I think that it will be up to the recycler and how they bid a job and purchase the scrap. There are companies in the US <https://www.lead safelist.com/> who are certified to strip the paint but I do not know if specific scrap recyclers consult with these companies prior to purchasing or processing this type of material.

The work must be done by EPA certified contractor and the residual paint chips will be a hazardous waste. Typically, the contractor will use dry ice as a blasting medium in order to minimize the amount of waste generated. Lead-based primers were very popular and effective. This was due to the fact that the paint going over the primer was a higher grade, industrial paint and there may be several layers of paint. Dust control during the stripping operation is critical. Obviously, fixing this at the point of purchase with knowledgeable buyers is the best solution but a stripping operation could be set up in-house.

Regards,

Adina

Adina Renee Adler
Assistant Vice President, International Affairs
Institute of Scrap Recycling Industries, Inc. (ISRI)
1250 H Street, NW, STE 400 Washington, DC 20005 USA
www.isri.org

From: The LEAD Group Inc
Sent: Friday, August 16, 2019 12:01 PM
To: Adina Renee Adler
Subject: Re: How does ISRI recommend lead painted steel beams be disposed of or recycled safely?

Thanks Adina!

The list at <https://www.lead safelist.com/directory/> links to Environmental Innovative Technologies' home testing kits at <https://certifiedkit.com/product-category/home-testing-kits/> which could usefully be used both in the homes of scrap recycling workers and at scrap metal yards too, before deciding whether paint should be stripped before painted steel or other painted metal scrap is recycled. Just a thought!

[Editor's note: in Australia, LEAD Group Kits available for purchase from www.lead safeworld.com/shop have been available for the same purpose as Environmental Innovative Technologies' "Certified Kits" for over a dozen years, since 2007, and the more recent US Kits seem to replicate what LEAD Group Kits have done since 2007 ie provide sampling instructions and equipment, accurate laboratory analysis, and reports with recommendations based on the results.]

Cheers

Elizabeth
The LEAD Group Inc
Australia



“We provide lead knowledge today to guide your actions towards a lead-safe tomorrow”
Check out our Volcano Art Prize (VAP) and enter your photos, artworks or short films to win the great prizes including cash prizes! Photos or film taken while collecting samples for a lead test Kit make excellent entries. Go to: www.volcanoartprize.com



2015 Winner of Volcano Art Prize: “Roaster” from “Entropy One” – a series of photographs showing the Australian town of Zeehan in Tasmania’s lead mining and smelter history, demonstrates that painted metal if not recycled will certainly cause lead contamination as it degrades over time. Photo: **Isla MacGregor**. <https://volcanoartprize.com/portfolio-item/entropy-1/>
