Arsenic, Lead and Mercury (Heavy Metals) Management Plan

(Worked Example)

In accordance with the H&S at Work Act 2015 the aim of this organisation is

to eliminate risks to health and safety, so far as is reasonably practicable; and

if it is not reasonably practicable to eliminate risks to health and safety, to minimize those risks so far as is reasonably practicable when handling poisons.

1) Identifying our hazards:

1) Catalogue all the arsenic, lead and mercury (heavy metal) items that you have in your institution. This may include taxidermy items, Victorian and Edwardian textiles, Top hats and bowler hats, plus pewter mugs and plates and lead figurines.
2) Have an inventory of your heavy metal items and suspected heavy metal items.
3) Ideally take photographs of your heavy metal items.

2) Assess the risks from your hazards:

a) The risk of creating a dust cloud when handling old taxidermy or textiles. The "dust cloud" may contain high levels of arsenic and/or mercury, and may be inhaled. This may lead to heavy metal poisoning.
b) The risk of a mercury spill if any of your mercury thermometers or mercury switches were to break.
c) The risk of absorption through the skin, accidentally or otherwise, when handling items that contain arsenic, lead or mercury.
d) Use the Worksafe hierarchy of controls and risk rating table to determine what are the possible actions you can take (https://www.worksafe.govt.nz/topic-and-industry/hazardous-substances/managing/risk-management/) e.g. do you want members of the public handling taxidermy samples that may contain very high levels of arsenic and mercury There is a risk of prosecution for non-compliance of workplace exposure standards. You can find out about these standards here: https://www.worksafe.govt.nz/topic-and-industry/monitoring/workplace-exposure-standards-and-biological-exposure-indices/applying-the-workplace-exposure-standards/ You can also find out about the risks from arsenic, lead and mercury on the Tūhura Otago Hidden Hazards website.

3) Have processes for accidents, incidents, emergencies, and disposal:

a) If a taxidermy item got dropped/knocked over and split open, do you have procedures for cleaning up the immediate mess and for cleaning up all the dust that has been created. Are there procedures/instructions telling the staff what to do and who to contact. Do you have spill kits and Personal Protective Equipment (PPE) and do you have simple procedures on how to use them?
b) Have a procedure for cleaning up a mercury spill? The procedure should include having a mercury spill kit and detailing to dispose of the mercury spill waste.
c) If a staff member or visitor accidently or otherwise ingested some of the heavy metal dust, are there procedures/instructions telling the other staff what to do and who to contact. Is there a private area where they can look after the injured person until help arrives.
d) Similarly, follow the same process if someone scratches themselves with a heavy metal containing item.
e) Ensure that your staff know how to wear the correct Personal Protective equipment (PPE) when handling heavy metal items.

Keep your procedures simple and easy to read. Ensure that any emergency contact numbers are in large bold print on the front page e.g. NZ poisons centre 0800 764 766 they can give advice on heavy metal poisoning.

4) Document staff training:

a) Keep training records for all your staff, this should include the dates the training was received.
b) Ensure staff have regular training sessions and that training is updated at least every 2 years.
c) Ask staff for feedback on training sessions to determine if the training is regarded as useful and/or effective.
You can view the "How to clean up a mercury spill," and other relevant safety videos on the Tūhura Otago Museum Hidden Hazards website.

5) Review the plan for effectiveness:

a) In the light of any accidents, incidents, emergencies, or disposals, review your procedure to see: 1) if it worked and 2) if it did not work, what do you have to do to ensure that it will work next time.
b) Document and date any changes you make to your procedures.