IMPLEMENTATION

In compliance with Dubai Municipality Standard DMS 20-Specification for Paints and Varnishes, the following heavy metals and their compounds must not exceed the required levels in paints or other materials: cadmium, lead, chromium VI, mercury, and arsenic. The maximum limits of these materials that are allowed in any product are stated in Table 701.04 (1).

Table 701.04(1): Maximum Permissible Limits for Heavy Metals

Heavy Metal	Maximum Limits Allowed (mg / kg)
Lead	100
Cadmium	500
Chromium VI	500
Mercury	100
Arsenic	100

Prior to renovating, refurbishing or demolishing an existing building, investigation should be carried out to determine the presence of lead-based paint or other heavy metals. If lead-based paint or other heavy metals are identified, safe work practices must be undertaken to avoid heavy metal exposure to workers, occupants or any other people near the building.

Occupational Safety & Health Administration (OSHA)'s Technical Manual Section V, Chapter 3: Controlling Lead Exposures in the Construction Industry: Engineering and Work Practice Controls details acceptable means of lead-based paint handling and removal through engineering and work practice controls.

Engineering controls, such as ventilation and good work practices are the preferred methods of minimising exposures to airborne lead at the worksite. The engineering control methods that can be used to reduce or eliminate lead exposure are substitution, isolation and ventilation.

Work practice control include: (1) good housekeeping (2) use of appropriate personal hygiene practices (3) periodic inspection and maintenance of process and control equipment (4) use of proper procedures to perform a task (5) provision of supervision to ensure that the proper procedures are followed (6) use of administrative controls.

Administrative control involves scheduling construction activities in ways that minimise employee exposure levels. Alternatively, worker rotation that requires rotating employees into and out of contaminated areas in the course of a shift can be implemented, thereby reducing the full-shift exposure of any given employee. When workers are moved out of the work that involves lead exposure, they should be assigned to a worksite that does not involve lead exposure.

The following general guidelines act as industry best practices and can be followed by contractors for removing lead-based paint:

- Initial assessment should be done to determine the concentration level of lead in existing paint systems. As required by Technical Guideline No.8, prior to disposal of the hazardous lead waste, analysis report from any DM accredited laboratories is required.
- Containment/ventilation systems should be designed and operated so as to create a negative pressure within the structure, which reduces the dispersion of lead into the environment.