Lead Soldering

Keys to New Policy

- Specifies ventilation method for high temperature and low temperature lead-tin soldering.
  - Weller Charcoal fan for electronics soldering at 400 C.
    - Primarily to remove rosin fumes from employees breathing area.
  - HEPA Filter Fume Extractor for higher temps over 1750 C (BP of Lead).

- Specifies best practices to prevent lead exposure:
  - Use disposable gloves.
  - Wash hands and don’t eat in contaminated areas.
  - Employ regular housekeeping to minimize lead contamination in work area.

- Specifies proper waste collection/disposal method through Risk Management.

April 10, 2018

SOSC Semi-Annual Meeting
Lead Soldering
Revised Policy Issues I

- Policy states, “Dermal- Lead can be absorbed through the skin.”
  - Is lead absorbed through the skin? **Some forms, but not lead used in solder.**
  - Lead used in soldering is inorganic lead, whose primary exposure pathway is via ingestion.
  - Only organic lead can be absorbed transdermally (i.e tetraethyl and tetramethyl lead was used in leaded gasoline).
- **Recommend this sentence be deleted or modified.**
Lead Soldering
Revised Policy Issues II

- Recommend modifying the following sentences:
  - Policy states, "Any lead soldering activities that operate at or above the 1750C BP should use a fume extractor (Weller Fume Extracting System)."
    - By definition anything over 450C is considered brazing according to the American Welding Society.
    - A cutting torch may be able to produce these temperatures, so statement is more appropriate for a general lead safety policy.
    - Change sentence to "Any activity that involves lead and operates at or above the 1750C BP should use a fume extractor (Weller Fume Extracting System) or other UA Risk Management approved ventilation system."

  - Policy states, "Inhalation- Lead fumes, which are odorless, are produced during soldering."
    - Change to, "Inhalation- Lead fumes, which are *odorless*, are not produced during normal soldering operations, but can be produced at temperatures above 1750C."

- Same reason as above.