



Subject: Mercury-Containing Thermometer Elimination

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SUMMARY: Mercury-containing thermometers are used at the University of Michigan for research, teaching and operational functions. Mercury has been well known as a bio-accumulative environmental contaminant for several decades. In an effort to reduce the risk of environmental contamination, human exposure, and costly clean-up activities associated with accidental thermometer breakage, the Department of Occupational Safety and Environmental Health (OSEH) has established this mercury-containing thermometer elimination guideline.

SCOPE: This Guideline applies to all units and departments within the University of Michigan.

REFERENCE

REGULATIONS: None

DEFINITIONS: *Bio-accumulative:* to magnify in specie as the species type gets physically larger.

RESPONSIBILITY: Deans, Directors, and Department Heads

Coordinate the implementation of mercury thermometer replacement within their departments.

Ensure an environment where principal investigators and other personnel are encouraged to follow this Guideline.

Actively support this Guideline within individual units.

Principal Investigators/Departmental Managers

Implement procedures in accordance with this Guideline.

Ensure that all staff are aware of this Guideline, and instructed on the details of implementation.

Assign resources to support the implementation of this Guideline.

Occupational Safety and Environmental Health (OSEH)

Provide guidance and coordinate mercury containing thermometer elimination programs. Provide resources to collect mercury-containing thermometers for proper disposal/recycling. Provide technical advice pertaining to mercury use and potential hazards. Provide emergency response to mitigate potential hazards from broken thermometers.

Employees

Comply with this guideline and any further safety recommendations initiated by the supervisor.

PROCEDURES: Standard Operating Procedures (SOP)

1. All mercury-containing thermometers should be replaced with solvent-filled or digital non-mercury containing thermometers.
2. The mercury-free alternatives should be purchased through vendors under contract with Purchasing Services.
3. Personnel who are in the process of replacing the mercury-containing thermometers should coordinate the disposition of the old thermometers with the OSEH Hazardous Materials and Remediation Services program area by calling 763-4568.
4. Personnel should take precautions during the replacement operation not to break the mercury-containing thermometers. If a mercury-containing thermometer is accidentally broken the department must call the OSEH Hazardous Materials and Remediation Services program area at 763-4568 or Department of Public Safety at 763-1131 if after four p.m.
5. If personnel replacing a mercury-containing thermometer are having difficulty obtaining a mercury-free alternative that meets their technical requirements they should notify the OSEH Hazardous Materials and Remediation Services program area to obtain technical assistance.
6. Once all of the mercury-containing thermometers have been replaced with non-mercury alternatives the department shall continue to use the mercury free alternatives from that point forward. If a solvent-filled mercury free alternative accidentally breaks the unit shall be replaced with a similar mercury-free alternative.

7. After the mercury-containing thermometer process has been completed the department shall contact the OSEH Hazardous Materials and Remediation Services program area and report the total number of mercury-containing thermometers that were eliminated.

**RELATED
DOCUMENTS:**

OSEH Mercury Thermometer Elimination Guidance Document
(see attached)

**TECHNICAL
SUPPORT:**

OSEH (763-4568) will provide technical support for the implementation of department specific mercury-containing thermometer elimination initiatives. OSEH will collect all of the mercury-containing thermometers from the generator and provide economic resources as necessary to have these thermometers recycled.