



**MERCURY CONTROL**

**SOP #19000-021**

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Next Review Date: January 2018

Area: SCEP

Document Owner: Environment, Health and Safety Manager

Document Contact: Safety/Hygiene Advisor

**SCOPE AND PURPOSE:**

This Standard identifies controls required to reduce the risk of exposure to mercury at the St. Clair Ethanol Plant.

**ROLES AND RESPONSIBILITIES:**

The **Safety and Industrial Hygiene Advisor** is accountable to provide support, as necessary, to ensure appropriate control of worker exposure to mercury and conformance to this Standard.

**Lab and Electrical Personnel** are accountable to adhere to the outlined risk controls and loss of containment steps outlined in this standard.

**IDENTIFICATION OF MATERIALS:**

Sources of mercury at the St. Clair Ethanol Plant include:

1. Mercury Thermometers in the Laboratory
2. Fluorescent Lighting – Tubes throughout the facility

**RISK CONTROLS:**

**Engineering and Administrative Controls**

Mercury inside thermometers and fluorescent light tubes is contained within sealed glass and is not intended to be released during normal use.

**Work and Hygiene Practices:**

Care must be taken when performing the following activities to prevent personnel exposure to mercury:

- Handling mercury thermometers
- Transporting and replacing fluorescent light tubes
- Fluorescent light tubes should only be replaced when personnel are not present in the immediate area.
- When SCEP electrician is replacing fluorescent lighting, a Mercury Spill Kit is brought to the jobsite when bulb change outs occur. The portable mercury spill kit must be in the immediate area in the event a tube is broken.

**Personal Protective Equipment:**

In addition to Lab and general plant PPE, additional PPE must be worn in accordance with the table below:

	Impervious Gloves (Nitrile/Neoprene)	Goggles	Respirator <sup>1</sup>
Cleaning spilled mercury in a fume hood	✓	✓	
Cleaning spilled mercury, outside of a fume hood	✓	✓	✓

1 Half-face piece air-purifying respirator equipped with mercury vapour cartridge



# Environment, Health & Safety Mercury Control Standard

**Loss of Containment:**

If a new fluorescent light tube is broken, the area should be vacated and ventilated to allow dissipation of mercury vapour prior to re-entry.

Any releases of liquid mercury must be cleaned up immediately using the contents of the Mercury Spill Kits, which are maintained in the following locations:

- Laboratory – Red case above fridge
- Maintenance Shop – Red Case on shelf by electrical office

Broken fluorescent lighting or mercury containing thermometers must be reported immediately

A safe and thorough clean-up shall be performed in accordance with the procedure located inside the spill kit. The spill area should be vacated of all people who are not directly involved in the clean-up until the clean-up is complete.

Contaminated materials are to be placed in appropriate waste disposal containers and St. Clair Ethanol’s Environmental Advisor must be contacted to arrange for proper disposal. Upon completion of the clean-up, the mercury spill kit must be restocked, as appropriate, to ensure it is in proper condition for future use.

**REFERENCES TO RELATED DOCUMENTS:**

*Ontario Regulation 490/09, “Designated Substances”*

*SOP #19000-020 Mercury Assessment*

**END OF PROCEDURE**

REVISIONS			
No.	Date (mm/dd/yyyy)	Author	Description
0	01/11/2016	J. Eldridge	Created
1	03/20/2017	J. Eldridge	Updated work practice to reflect changes in Mercury Assessment doc.