

Standard Operating Procedure

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Table of Contents	
TABLE OF CONTENTS_	1
1.0 PERSONS AFFECTED	2
2.0 PURPOSE	2
3.0 RATIONALE	2
4.0 SCOPE	2
5.0 POLICIES AND REGULATORY REQUIREMENTS	2
6.0 ROLES, RESPONSIBILITIES AND PREREQUISITES	3
7.0 TOOLS AND EQUIPMENT	3
8.0 PLANNING AND PREPARATION CHECKLIST	3
9.0 PROCEDURE	4
10.0 ACRONYMS, DEFINITIONS AND SYMBOLS	6
11.0 COMPONENTS	7
12.0 OWNER	8
13.0 REFERENCES	8



Standard Operating Procedure

#### **1.0 Persons Affected**

This Standard Operating Procedure (SOP) affects:

Any person that is required to identify equipment containing PCBs.

### 2.0 Purpose

This SOP provides:

• A standard procedure to identify equipment containing PCBs.

#### 3.0 Rationale

This SOP ensures the following:

- Equipment containing PCBs is identified for proper handling.
- Equipment containing PCBs is handled in compliance with PCB Legislation.

#### 4.0 Scope

#### In-the-Scope of the Procedure

- The procedure includes the following:
  - Assessing equipment to determine if PCBs may be present.
  - ° Taking samples to be sent to lab for analysis.

#### Out-of-the-Scope of the Procedure

- The procedure does not include the following:
  - ° Handling oil-filled equipment
  - Handling PCB equipment
  - Emergency response procedure
  - Storage of PCB equipment
  - Transportation of PCB equipment

#### 5.0 Policies and Regulatory Requirements

This SOP is a result of the following policies, regulations, industry standards, and corporate directives and standards:



Standard Operating Procedure

#### **Policies:**

Health, Safety and Environment Policy

#### **Regulatory Requirement(s)**

- PCB Regulations SOR/2008-273
- Canadian Environmental Protection Act, 1999
- The PCB Waste Storage Regulations, 1989
- The Environmental Spill Control Regulations, 1981
- The Environmental Protection Act, 2002
- The Saskatchewan Employment Act, 2014

#### Other

- SaskPower Safety Rulebook
- Applicable Health, Safety and Environmental Policies, Standards and Processes

#### 6.0 Roles, Responsibilities and Prerequisites

In-the-Scope of the Procedure Role(s)	Quantity Required	Responsibilities	Prerequisites
SaskPower employee/ contractor	1	<ol> <li>Assess equipment</li> <li>Gather information</li> <li>Take sample</li> <li>Based on lab report, determine how to handle</li> </ol>	<ol> <li>Current WHMIS training</li> <li>PCB training relevant to this SOP</li> <li>Be aware of and able to undertake immediate spill response needs as required</li> </ol>

### 7.0 Tools and Equipment

#### **Tools and Equipment and Quantity Required:**

- Required Personal Protective Equipment (PPE)
- Spill Kit
- Sample Kit

### 8.0 Planning and Preparation Checklist

#### Things to Check Before Starting the Procedure:

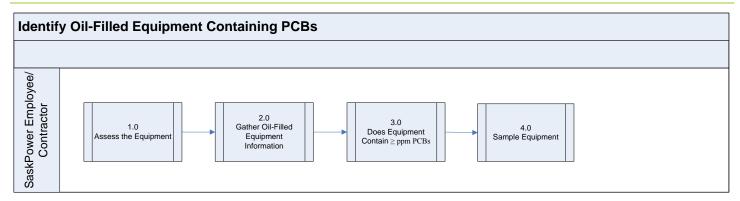
☐ Complete Hazard and Risk Assessment



Standard Operating Procedure

$\square$ Applicable Personal Protective Equipment (PPE) is available and in good condition	
Spill Kit available	
☐ Sample Kit available	
9.0 Procedure	
9.0 Procedure	

#### **High Level Flowchart**



#### The Procedure

Assumption: Equipment contains PCBs unless identified as PCB free.

#### 1.0 Assess the Equipment

- 1.1 Assess the Equipment for Fire Damage
  - 1.1.1 The SaskPower employee/contractor shall determine if equipment is burnt.
    - Visual inspection of the equipment
    - If equipment is burnt, refer to Identify Oil-Filled Equipment Containing PCBs - Burnt Equipment Handling Reference Document

**Note:** If equipment is burnt, the assumption is that it is leaking.

- 1.2 Assess the Equipment for Leakage
  - 1.2.1 The SaskPower employee/contractor shall determine if the equipment is leaking.
    - Visual inspection of the equipment
    - Compare manufacture oil volume to current oil volume
    - If equipment is leaking, refer to Identify Oil-Filled Equipment Containing PCBs - Spill Response Procedure Checklist

#### 2.0 Gather Oil-Filled Equipment Information

- 2.1 Gather Equipment Information
  - 2.1.1 The SaskPower employee/contractor shall gather equipment information.



Standard Operating Procedure

- The information required is dependent on the type of equipment and data sources available
- Serial number
- Location (functional location or land location)
- Date of manufacture, etc.
- 2.2 Does Equipment Contain ≥ 2 ppm PCBs?
  - 2.2.1 The SaskPower employee/contractor shall determine if equipment may contain ≥ 2 ppm PCB.
    - Refer to Identify Oil-Filled Equipment Containing PCBs SOP Binder:
      - Light Ballasts PCB Ballast Identification Reference Source,
      - Distribution Transformers Identification of Non PCB Oil-Filled Equipment Reference Source
      - In-service Distribution Transformers PCB Data in FieldSmart Job Aid
      - Oil-Filled Bushings Bushing Database Job Aid
      - Historic PCB Results PCB Database
      - Transmission Equipment SAP Data Job Aid
    - If no: handle as non PCB equipment
    - If yes: It does or may contain PCBs, go to 2.3 Has Sample been taken Previously?
- 2.3 Has a Sample Been Taken Previously?
  - 2.3.1 The SaskPower employee/contractor shall determine if a sample has been taken previously.
    - If one of the job aids above identified the equipment to be containing < 2
      ppm PCB, a sample is not required</li>
    - If the equipment was not identified in one of the job aids above (no sample results), a sample must be taken

#### 3.0 Sample Equipment

- 3.1 Can a Sample be Taken?
  - 3.1.1 The SaskPower employee/contractor shall determine if a sample can be taken.
    - If yes, go to 3.2 Take Sample
    - If no, assume it contains PCBs. Refer to Handling/Transportation/Temporary Storage of Oil-Filled Equipment Containing PCBs Standard Operating Procedure
- 3.2 Take a Sample
  - 3.2.1 The SaskPower employee/contractor shall take sample.



Standard Operating Procedure

- Refer to Identify Oil-Filled Equipment Containing PCBs Distribution PCB
   Oil Sampling Procedure Checklist or Identify Oil-Filled Equipment
   Containing PCBs Transmission PCB Oil Sampling Procedure Checklist
- 3.3 Send Sample to Lab
  - 3.3.1 The SaskPower employee/contractor shall send the sample to the Lab using the job aid applicable to the equipment. Once results are returned, proceed to 3.4.
- 3.4 Does Equipment Contain ≥ 2 ppm PCBs?
  - 3.4.1 The SaskPower employee/contractor shall determine from the lab report if the sample contains ≥ 2 ppm PCBs.
    - If equipment is non PCB, handle as non PCB equipment
    - If yes, proceed to Handling/Transportation/Temporary Storage of Oil-Filled Equipment Containing PCBs Standard Operating Procedure

#### 10.0 Acronyms, Definitions and Symbols

#### **Acronyms and Abbreviations**

PCB - Polychlorinated Biphenyls

**PPE** - Personal Protective Equipment

WHMIS - Workplace Hazardous Materials Information System

PPM - Parts Per Million

**TDG** - Transportation of Dangerous Goods

SRC - Saskatchewan Research Council

#### **Definitions**

**SaskPower Employee/Contractor -** Any person(s) working for or on behalf of SaskPower.

SaskPower Manager - Out-of-Scope Supervisor

**Contract Administrator** - Any SaskPower employee responsible for contracted staff/resources

**Equipment -** Any material that contains PCBs in a concentration greater than or equal to 2 ppm or unknown.

#### **Symbols**

N/A



Standard Operating Procedure

### 11.0 Components

The following is a list of components for this SOP which can be accessed through the SOP System:

Component Name	Component Type	Component Description	Location of Component
Identify Oil-Filled Equipment Containing PCBs - Distribution PCB Oil Sampling Procedure Checklist	Checklist	This checklist outlines the procedure to take a Distribution PCB oil sample.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Transmission PCB Oil Sampling Procedure Checklist	Checklist	This checklist outlines the procedure to take a Transmission PCB oil sample.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Identification of Non PCB Oil- Filled Equipment Reference Source	Reference Source	This reference source lists acceptable and non-acceptable PCB indicators.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - PCB Ballast Identification Reference Source	Reference Source	This reference source identifies common light ballasts containing PCBs	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Burnt Transformer Handling Reference Source	Reference Source	This reference source provides information required to limit exposure risks to PCBs, dioxins and furans.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Spill Response Procedure Checklist	Checklist	This checklist describes the actions to take following a PCB spill.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Bushing Database Job Aid	Job Aid	This job aid explains the process of locating PCB sample results within the Bushings Database.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - PCB Data in FieldSmart Job Aid	Job Aid	This job aid explains the process of identifying PCB content using FieldSmart.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - SAP Data Job Aid	Job Aid	This job aid explains the process of locating PCB content results in SAP.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Flowchart	Flowchart	The high level and mid-level flowchart for this Standard Operating Procedure.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Spill Kit Reference Source	Reference Source	This reference source provides information on spill kits.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - PCB Quantity Table Reference Source	Reference Source	This reference source contains information illustrating how many litres of oil it takes to equal 1 gram of PCBs.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment	Video	This video demonstrates how to take a	SOP Online - SOP Bundle:



Operations

# Identify Oil-Filled Equipment Containing PCBs

Standard Operating Procedure

Containing PCBs - Distribution PCB Oil Sampling - Padmount Video		PCB oil sample from an out-of-service padmount transformer.	Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Distribution PCB Oil Sampling - Pole Top Video	Video	This video demonstrates how to take a PCB oil sample from an out-of-service pole top transformer.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs
Identify Oil-Filled Equipment Containing PCBs - Routine DGA and ASTM Sampling Video	Video	This video demonstrates how to take oil samples from in-service power class transformers.	SOP Online - SOP Bundle: Identify Oil-Filled Equipment Containing PCBs

### **12.0** Owner

Owner

Director of Environment

### 13.0 References

References	Location of Resource	
Emergency Response Procedures	Safety Management System	