



Distribution Substation End to End

Standard
Operating
Procedure

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1.0 Persons Affected

This Standard Operating Procedure (SOP) affects:

All Powerline Technicians required to operate and work in District Substations

2.0 Purpose

This SOP provides:

The information is intended provide safe reliable work procedures and operations that PLT workers are likely to encounter in District Substation operations

\insert'high'level'flowchart (end to end process)

3.0 Rationale

This SOP ensures the following:

- This SOP will provide PLT users with direction on how to safely perform district substation operations complying with the SaskPower Standard Protection Code, and the SaskPower Rulebook
- This SOP will reduce the risk of serious injury or death from hazards associated with district substation operations

4.0 Scope

In-the-Scope of the Procedure

- The procedure includes the following:
 - Procedures associated with working in District Substations

Out-of-the-Scope of the Procedure

- The procedure does not include the following:
 - Working alone
 - Does not negate the responsibilities of the end user to preform hazard and risk assessments, identify and implement any safety steps, and required barriers
 - Operation of Testing for Absence of Potential
 - Identify Limits of approach

5.0 Policies and Regulatory Requirements

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

Policies:

- Personal Protective Equipment



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- Job Hazard Assessment Policy

Regulatory Requirement(s)

Saskatchewan Occupational Health & Safety Regulations

- Part XXX, Sections 450 to 467(1)

Other

- SaskPower Standard Protection Code
- SaskPower Safety Rulebook

6.0 Roles, Responsibilities and Prerequisites

In-the-Scope of the Procedure Role(s)	Quantity Required	Responsibilities	Prerequisites
Power Line Technician	1 or more	<ol style="list-style-type: none">1. Inspect tools and equipment prior to use2. Test for absence of potential3. Obtain required permits4. 'insert'item	<ol style="list-style-type: none">1. Standard Protection Code Distribution Course2. Bonding and Grounding Course3. Standard Protection Code Distribution Course4.
Issuing Authority	1	<ol style="list-style-type: none">1. Follow standard protection code permit requirements	<ol style="list-style-type: none">1. Successful completion of Standard Protection Code training

7.0 Tools and Equipment

Tools and Equipment and Quantity Required:

- Refer to Job Aid for the specific task to be completed.

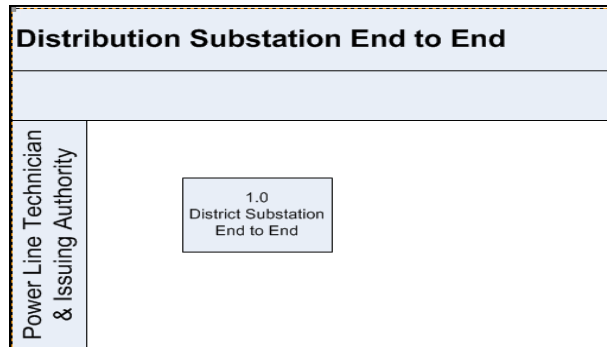
8.0 Planning and Preparation Checklist

Things to Check Before Starting the Procedure:

- Complete Hazard and Risk Assessment
- Applicable Tools and Personal Protective Equipment (PPE) is available and in good condition.

9.0 Procedure

High Level Flowchart



The Procedure

All persons who are required to operate or perform maintenance within a substation shall refer to and use the following job aids:

1.0 District Substation End to End

1.1 District Substation Operator Guide Training Manual

1.1.1 The Power Line Technicians shall as needed use the following job aids when performing required substation operations:

- 1. Operator General Safety
- 2. One Line Substation Layout Diagrams
- 3. Operation of Circuit Switcher
- 4. Operation of Fused Cutout & Transformer Line Switches
- 5. Operation of Power Transformer
- 6. Operation of PTs and CTs
- 7. Operation of Circuit Protection Panel
- 8. Operation of Battery Charger Panel
- 9. Operation of Single Phase Protection
- 10. Operation of Disconnects
- 11. Operate Feeder by OCR with Electrical Interlocks
- 12. Operation of RVE, WVE & PWVE
- 13. Operation of Monitoring Devices
- 14. Operation of PMH & MESG Switch Gear
- 15. Operation of Troubleshooting & Maintenance of a Substation Transformer Troubleshooting Fused Substation
- DOSEP Abbreviations



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10.0 Acronyms, Definitions and Symbols

Acronyms and Abbreviations

Refer to Job Aid - "DOSEP Abbreviations".

Definitions

N/A

Symbols

N/A

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
\insert\item	\insert\item	\insert\item	\insert\item

12.0 Owner

Owner

Operations and Maintenance Director - Kevin Schwing

13.0 References

References	Location of Resource
- Substations Operator Guide Training Manual (December 4, 2003)	- Weyburn Training Library
- SaskPower Standard Protection Code	- Safety Net
- SaskPower Safety Rule Book	- Safety Net