



Straighten Poles in the Alive State

Standard
Operating
Procedure

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1.0 Purpose

This SOP provides:

The SOP is meant to provide the approved method for workers to safely perform the task of straightening single pole structures in the alive state.

2.0 Roles and Prerequisites

Role(s)	Quantity Required	Prerequisites
SaskPower Employees/Contractor Workers	1 or more	<ol style="list-style-type: none"> Standard Protection Code Training Material handling Aerial device training for the equipment being used

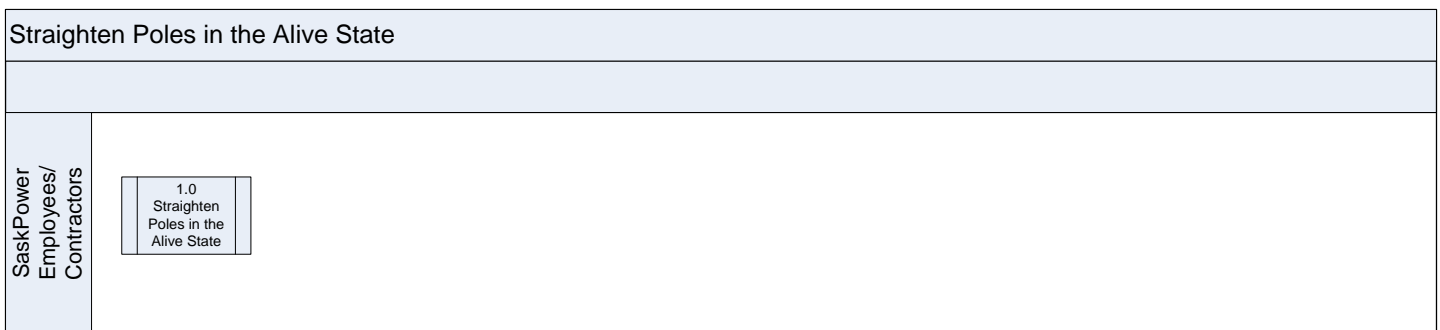
3.0 Tools and Equipment

Minimum Tools and Equipment Required:

- Hydraulic tamper
- Excavating device - Hydro-vac or Backhoe
- Boom truck/all terrain boom equipment

4.0 Procedure

High Level Flowchart



The Procedure

The following requirements shall be met prior to the start of the procedure:

- Complete Hazard/Aspect and Risk Assessment
- Applicable Personal Protective Equipment (PPE) is available and in good condition
- Consider Environmental Best Management Practices when accessing the work location

NOTE: If there is an underground dip of any voltage on the pole it is to be isolated prior to straightening the pole. Once the pole is straight, check the cable(s) at the bottom of the guard to ensure no damage has happened prior to making the underground alive

The Procedure

1.0 Straighten Poles in the Alive State Using a Boom with Winch

1.1 Two methods to straighten poles in the alive state

1.1.1 The SaskPower employees/contractor(s) shall use the following steps to straighten single pole structures in the alive state by **pushing** the pole -

Preferred Method:

- *Test the pole using an approved pole test procedure. If the pole fails inspection, then it is not to be moved. Arrange for replacement*
- *Visual inspection of adjacent structures for defects and loose hardware*
- *Get a Stand-Off Permit for the circuit being worked on*
- *Ground Truck*
- *Rope off or ribbon the area to keep the public back from work area if applicable*
- *Latch boom on to the pole before excavation begins. Ensure to maintain Limits of Approach at all times*
- **NOTE:** *Ensure the winch is attached at an adequate height to hold the structure in the event of unexpected failure at the base of the pole.*
- *Dig out or Hydro-vac pole on the opposite side the pole is leaning.*
- *Other workers on site are not to touch the vehicle, temporary ground probe or pole while the Operator is straightening the pole*
- *The Operator of the boom shall remain on the vehicle while straightening the pole and until the pole is back filled and tamped.*
- *Listen at all times for structure failure while straightening*
- *Lash the winch cable to the pole, but do not over tighten the pole into the cradle of the boom, leave some slack*
- *Cradle the pole in the stinger of the boom*
- *Slowly push the pole until it is slightly past the straight position, being careful to prevent any in-line movement of the pole*
- *Tamp the pole in this position-install pole(s) key if available for added support*
- *Slowly let the pole go back into its natural position*

1.1.2 The SaskPower employees/contractor(s) shall use the following steps to straighten single pole structures in the alive state by **pulling** the pole:

1.1.3 Alternate Method

- *Test the pole using an approved pole test procedure. If the pole fails inspection, then it is not to be moved. Arrange for replacement*
- *Visual inspection of adjacent structures for defects and loose hardware*
- *Get a Stand-Off Permit for the circuit being worked on*
- *Ground Truck*
- *Rope off or ribbon the area to keep the public back from work area if applicable*
- *Latch boom on to the pole before excavation begins. Ensure to maintain Limits of Approach at all times*
- *Dig out or Hydro vac pole on the opposite side the pole is leaning*
- *Other workers on site are not to touch the vehicle, temporary ground probe or pole while the Operator is straightening the pole*
- *The Operator of the boom shall remain on the vehicle while straightening the pole and until the pole is back filled and tamped.*
- *Listen at all times for structure failure while straightening*
- *Lash the winch cable to the pole, ensuring that the cable attachment point on the pole is at the same height as the boom tip*
- *Cradle the pole in the stinger of the boom, but do not over tighten the pole into the cradle of the boom, leave some cable slack*
- *Slowly pull the pole until it is slightly past the straight position, being careful to prevent any in-line movement of the pole*
- *Tamp the pole in this position- install pole key(s) if available for added support*
- *Slowly let the pole go back into its natural position*

2.0 Straightening a pole using a long rope/cable

2.1 Step to pull a pole straight

- *Line **SHALL** be de-energized. This is to ensure that if the pole goes over center that the de-energized conductor will not create any hazards to the worker(s)*
- *Connect the rope over the balance point of the pole*
- *Listen at all times for structure failure while straightening*
- *Tamp the pole in this position- install pole key(s) if available for added support*
- *Slowly let the pole go back into its natural position*



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5.0 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
Straighten Poles in the Alive State - Flowchart	Flowchart	High Level and Mid-level for this procedure	SOP Online - SOP Bundle: Straighten Poles in the Alive State - SOP

6.0 Acronyms, Definitions and Symbols

Acronyms and Abbreviations

N/A

Definitions

N/A

Symbols

N/A

7.0 Policies and Regulatory Requirements

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

Regulatory Requirement(s)

- The Occupational Health and Safety Regulations
 - Part XXX, Sections 451, 452, 464

Policies & Standards

- SaskPower Standards and practices in support of Corporate Safety Policies
- Hazard/Aspect and Risk Assessment Policy

Other

- SaskPower Standard Protection Code
- SaskPower Safety and Environment Rulebook
- Deviation from Safe Work Procedures Standard
- Environmental Best Management Practices Manual



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8.0 References

References

N/A