



72kV and 138kV Live Line Hotstick Rules

Standard
Operating
Procedure

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1.0 Purpose

This SOP provides:

- The standard which addresses live-line hot stick work being performed at 72kV and 138kV to ensure safe work procedures are in place.

2.0 Roles and Prerequisites

Role(s)	Quantity Required	Prerequisites
Out-of-Scope Supervisor	1	1. Understand and be familiar with the work methods to be conducted.
Qualified Electrical Worker On-site Supervisor	1	2. Powerline Technician Certificate 3. Standard Protection Code Training 4. Use and Care of Hot stick Training 5. Clear understanding of the information in this procedure
Qualified Electrical Worker(QEW)	1 or more	6. Use and Care of Hot stick Training 7. Clear understanding of the information in this procedure
Dedicated Observer (QEW)	1	8. Use and Care of Hot stick Training 9. Clear understanding of the information in this procedure

3.0 Tools

- All Applicable PPE
- Aerial Device - Certified for voltage being worked on (Boom Cover Removed)
- Insulated Vehicle Access Device
- Audible Warning Device
- Dedicated Clean Gloves and Storage Bag
- Clean Silicone Rags
- Live Line Hot Sticks

4.0 Procedure

The Procedure

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

- Complete Hazard/Aspect and Risk Assessment (HARA)
- Applicable Personal Protective Equipment (PPE) is available and in good condition
- Consider Environmental Best Management Practices
- Weather conditions, in particular wet conditions (Rain, sleet, wet snow)
- Ensure test dates on equipment and hotsticks are current



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- Obtain SaskPower Standard Protection Code and other required Permits

It is the responsibility of every worker to follow the Use and Care of Hot stick work rules. It is the role of the person in charge at the job site to ensure that all relevant work procedures are communicated at the tailboard and followed by the workers.

All approved SOP's for the work task at hand must be incorporated in the job plan. Any deviations from the approved SOP's shall be documented in the HARA. If no documented SOP is available, the pre-job planning process will include the preparation and documentation of the work plan. Any significant change must be documented and reviewed by the Live-Line Methods Specialist(s) and approved by their out of scope Manager.

If there are any deviations from the approved SOPs please refer to the "Deviation from Safe Work Procedures Standard"

1.0 Preparation for Live Line Hot Stick Work

NOTE: Refer to the SOP "Field Care of Hotsticks"

1.1 Safe Stick Handling from Stick Trailer to Initial Contact

1.1.1 SaskPower personnel shall follow the stick handling procedures from stick trailer to initial contact of energized conductor;

- *Only handle stick with clean gloves dedicated to the sole use of stick work.*
- **NOTE:** *Ensure Live Line hot stick is not laid down, leaned on trucks, does not come in contact with foreign objects, or compromised in any way from its cleaned state. It is recommended to use stick stands and tarps etc. to aid in keeping sticks contamination free.*
- *Place stick(s) on appropriate bucket hanger while being lifted into work zone, keeping fiberglass insulation clear and free from damage or contamination.*
- *Apply marking device (ie; electrical tape, rubber band etc) to stick at Minimum approach distance for voltage to act as a reference point.*

1.2 Determine Weather Conditions for Live Line Hot Stick Work

1.2.1 Personnel shall check weather conditions before performing live line hot stick work;

- *Review weather conditions to ensure live line hot stick work can be performed.*
- *If there is potential for lightning to develop refer to "Working Near Lightning" SOP.*
- *In temperatures below zero degree centigrade, ensure that the live line hot sticks are at the same ambient outdoor temperature or warmer than the environment they working in prior to use. This avoids condensation build up or micro-icing on the insulated stick.*

- **Note:** No live line hot stick work shall be conducted where rain, wet snow or other adverse weather conditions can affect the integrity of the insulating equipment.

1.3 Prepare Vehicles

1.3.1 All vehicles and equipment working in proximity of energized circuits shall be barricaded and grounded.

- Refer to the "Barricade and Ground Mobile Equipment Near Energized Apparatus" SOP
- Workers Will not access, enter or exit live line vehicles once procedures have begun unless necessary. Communication with the workgroup must be made and Work must stop, or an approved Insulated Access device must be used.

1.4 Dedicated Observer

- A Dedicated Observer is Required
- The On-site Supervisor shall ensure a qualified dedicated observer is available during live line hot stick work.
- Refer to "Transmission and Distribution Dedicated Observer" SOP for further information.
- Shall have an appropriate audible device to warn workers and stop work if any hazards are recognized.
- **NOTE:** Examples of appropriate audible devices are whistle, air horn, etc.

1.5 If using a Class A Aerial Device

1.5.1 When performing live line hot stick procedures, aluminum bucket liners may remain in the bucket.

- **Note:** Aluminum bucket liners are normally used for Barehand work methods.
- Secure wands and bonds inside the bucket while hot stick work is being conducted.
- This step is to be documented on the job plan and the designated observer will ensure this step is confirmed before the stick work commences.

1.6 Preparation Before Contact with Energized Apparatus

1.6.1 Personnel shall ensure the following:

- Position themselves clear of all second points of contact (i.e.: ground wires etc.) before the Live Line hot stick comes in contact with energized apparatus.



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- *No hot stick work is to be performed on more than one phase at a time*
- *No work is to be performed on the ground wire or shield wire while hot stick work is in process*
- *Declare verbally that they are "Going On" to ensure everyone is aware of the intentions, and "Off the Line" when they are clear of the energized apparatus*

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
N/A			

6.0 Acronyms, Definitions and Symbols

Acronyms and Abbreviations

PPE - Personal Protective Equipment

HARA - Hazard/Aspect and Risk Assessment

FRC - Fire Retardant Clothing

MAD - Minimum Approach Distances

QEW - Qualified Electrical Worker

Definitions

Qualified Electrical Worker - Occupational Health and Safety Regulation 465 (c)

- *(i) the holder of a journeyperson's certificate in the electrician trade issued pursuant to The Apprenticeship and Trade Certification Act, 1999, and includes an apprentice in the trade while under the supervision of a journeyperson;*
- *(ii) the holder of a journeyperson's certificate in the power lineperson trade issued pursuant to The Apprenticeship and Trade Certification Act, 1999, and includes an apprentice in the trade while under the supervision of a journeyperson; or*
- *(iii) for the purpose of design, calibrating of equipment, inspection, monitoring, testing, and commissioning of equipment in high voltage installations, electrical engineers, applied science technologists or certified technicians who have achieved professional certification within an electrical, electronics, industrial or instrumentation discipline*

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Approved electrical insulating protective equipment used for live line work methods to create a safe work zone

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)

- Occupational Health and Safety Regulations, 1996 - Section 465

Policies

- Hazard/Aspect and Risk Assessment Policy
- Personal Protective Equipment Policy

Standards

- Deviation from Safe Work Procedure Standard
- Personal Protective Equipment Standard
- Hazard/Aspect and Risk Assessment Standard
- Operation of Powered Mobile Equipment Standard

Other

- Safety and Environment Rulebook
- Environmental Best Management Practices

8.0 References

References

CAN/ULC-S801-14
Transmission and Distribution Dedicated Observer SOP
Field Care for Live Line Hotstick SOP'
SaskPower Arc Flash Tables
Barricade and Grounding of Equipment near Energized Apparatus SOP