



Low Voltage Measuring 750V and Less

Document Number: RGP0021A	Procedure – Maintenance	Facility: Oil Sands/Fort Hills
Revision Date: 2017/03/01 Revision: 2 Review Cycle: 3 Years		Applies To: Oil Sands / Fort Hills
Document Owner (Title): Manager, Maintenance Stewardship & Optimization		

Summary of Changes

Rev	Section Changed	Revisions Made
1		New Document
2		Changed responsibility from Electrician to Competent Tradesperson in procedure 1.1 to 1.14.

Scope The scope of this document is taking manual voltage readings with a meter on low voltage equipment.

Purpose The purpose of this procedure is to ensure hazards are identified and safety risks effectively managed while measuring voltages up to 750V.

Compliance This document applies to work performed at Suncor Energy operating sites in the Wood Buffalo Region
All operating areas within the Rural Municipality of Wood Buffalo are to comply with this practice by February 29, 2016.

Roles and Responsibilities The following individuals and groups have the following roles and responsibilities:

- Document Owner**
 - Ensures this document is reviewed according to the required revision cycle.
 - Ensures the document is updated to accommodate changes to Suncor, provincial, and federal regulation.
 - Ensures the document is updated to mitigate risks found as the result of an incident.
- Document Approver**
 - Ensures this procedure is necessary and that it aligns with management and company direction.
- Managers**
 - Responsible for change management, communication and training regarding this practice.
- Supervisors/Leaders**
 - Ensure this practice is properly applied as required for voltage

WARNING - Uncontrolled when printed. The current revision of this document is available in LiveLink.

Approved By: Nick Skaronek, Manager Electrical/Instrumentation, Heinrich Bosman, UPG Area Mtce Manager
Isabelle Varney, Manager, Maintenance Stewardship & Optimization

Continued

Responsibility	Step	Action
Competent Tradesperson	1.2	Verify that correct equipment has been identified for voltage measurement via drawings, permit, or via discussion with Operator, as applicable.
	1.3	Assure that other people are prevented from accessing within the arc flash or limited approach boundaries.
	1.4	Verify that lighting, measurement points, body position and other potential hazards do not present an unacceptable risk of a fault with the test meter or leads.
	1.5	Choose the correct voltage detector – minimum Category III. Perform pre-use check and visual inspection.
	1.6	Set meter to VOLTAGE position and ensure leads are in the correct jacks for voltage testing.
	1.7	Test voltage detector on a known voltage source to ensure it reads correctly. Note: The test shall be done on a known voltage source (e.g. a 120 volt ac receptacle near the work location). Testing individual battery cells with an energized string meets this requirement for DC.
	1.8	Proceed to step 1.10 if the digital multi-meter displays the correct reading on the known source. If the meter does not display the correct reading of the known source then replace the meter. Follow steps 1.5 to 1.8 to prove the integrity and correct functionality of the replacement meter.
	1.9	Ensure digital multi-meter is on the voltage setting and at the highest range.
	1.10	Attach ground/negative (black) lead to ground.
	1.11	Touch positive (red) lead to the point being tested of each phase (zero or line-to-neutral volts should be observed).
	1.12	Test between all 3 phases, A-B, B-C, and C-A. These steps shall be performed once the phases to ground tests are complete (Zero or line-to-line volts should be observed).
	1.13	Test digital multi-meter on a known source to ensure it reads voltage correctly and ensure it is working. If the digital multi-meter does not display the correct reading of the known voltage source, replace the meter and repeat 1.5 to 1.13 before proceeding to Step 1.14
	1.14	Proceed with the next work task.

End of Procedure**WARNING - Uncontrolled when printed. The current revision of this document is available in LiveLink.**

Approved By: Nick Skaronek, Manager Electrical/Instrumentation, Heinrich Bosman, UPG Area Mtce Manager
Isabelle Varney, Manager, Maintenance Stewardship & Optimization



The following individuals have approved and signed this document.

UserName: Nick Skaronek (nskaronek)
Title: Mgr - MEM Electrical
Date: Wednesday, 01 March 2017, 12:54 PM Mountain Time
Meaning: Approver 1 Signed

=====

UserName: Isabelle Varney (ivarney)
Title: Mgr Mtce Stewardship & Optimization
Date: Wednesday, 01 March 2017, 12:59 PM Mountain Time
Meaning: Approver 2 Signed

=====

UserName: Heinrich Bosman (hpbosman)
Title: Mgr Area Maintenance
Date: Wednesday, 01 March 2017, 02:40 PM Mountain Time
Meaning: Approver 3 Installed

=====