

## **QUALITY MANUAL – Work Instruction**

### **C-13 Annual Distribution System Inspections & Maintenance**

**All Printed Quality Documents shall be considered uncontrolled**

#### **1.0 PURPOSE**

- 1.1 To describe the process for Erie Thames Powerlines (ETPL) Annual Inspection and Maintenance Practices for the Distribution System.
- 1.2 To ensure compliance with the Ontario ESA Regulation 22/04, Electrical Distribution Safety.

#### **2.0 SCOPE**

- 2.1 This procedure applies to ETPL Overhead and Underground Distribution System Inspection & Maintenance Practices.
- 2.2 Inspections will be done on the Distribution System each year as per following schedule:
  - Overhead & Underground Distribution System Inspections Poles/Overhead Lines/Underground Lines and associated equipment as well as Ancillary Equipment <750volts (1/3 of system annually)
  - Tree Trimming Maintenance (1/3 of system annually)
  - Distribution Sub-Station Inspections (bi-monthly)
  - Oil Analysis of Distribution Sub-Station Transformers (annual written report on results required)
- 2.3 Ancillary Equipment operating at <750volts and third party attachments that is not a direct part of the Distribution System (i.e. Telecommunications Equipment/Street Lights/Traffic Lights/Signs/Decorations, etc.)

## QUALITY MANUAL – Work Instruction

### C-13 Annual Distribution System Inspections & Maintenance

All Printed Quality Documents shall be considered uncontrolled

2.4 When a problem is identified, the condition will be graded on the severity of the situation as follows:

- Grade 1 - requires immediate attention and corrective action shall not exceed 10 working days. (i.e. broken pole/potential shock hazards/limb on line/floating conductor/low wires/pad mount transformer off base)
- Grade 2 - requires attention within 90 days (i.e. connections heating up/ rotten pole/signage)
- Grade 3 - continue monitoring/work as schedule allows/budget for (i.e. equipment/pole deterioration/transformer painting required/tree trimming)

### 3.0 REFERENCE

- 3.1 Ontario ESA Regulation 22/04 section 4
- 3.2 QP 4.18 Training
- 3.2 QP 4.16 Control of Quality Records

### 4.0 PROCEDURE

- 4.1 ETPL to develop and maintain an ongoing Maintenance Schedule for the distribution system, refer to Appendix “A”- (ETPL Distribution System Inspection/Maintenance Schedule).
- 4.2 ETS will perform inspections on Poles/Overhead lines/Underground lines and associated equipment including pad mount transformers/switchgear and all Ancillary Equipment attached to the distribution system as per ETPL 3-year schedule, grading the severity of problems identified (see Form: 68 - ETPL Distribution System Inspection Log & Form: 69 - Tree Trimming Inspection).
- 4.3 All Grade 1 issues found will be reported to the Line Division Superintendent or Designate immediately.
- 4.4 Line Division Superintendent will notify ETPL or the appropriate party of any Grade 1 issues requiring immediate corrective action.

## **QUALITY MANUAL – Work Instruction**

### **C-13 Annual Distribution System Inspections & Maintenance**

**All Printed Quality Documents shall be considered uncontrolled**

- 4.5 Distribution Substation Inspections will be completed bi-monthly and Oil Analysis on each Transformer within the substation done once annually with a written report submitted to ETPL identifying any problems found.
- 4.6 ETPL will evaluate all inspections and approve maintenance projects. The work required to correct the issues identified is to be completed in the time line that is appropriate with the severity of the situation.
- 4.7 Tree trimming will be conducted on a 3 year cycle as per ETPL's schedule.
- 4.8 Completion of all Inspections and Maintenance issues will be recorded and kept on file by the Line Division Superintendent.
- 4.9 Substation bi-monthly inspections and yearly oil analysis will be kept on file by the Vice President & General Manager or Designate for ETPL.

# QUALITY MANUAL – Work Instruction

## C-13 Annual Distribution System Inspections & Maintenance

All Printed Quality Documents shall be considered uncontrolled

ETPL DISTRIBUTION SYSTEM INSPECTION/MAINTENANCE SCHEDULE												
AREA & INSPECTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
<b>ALL SUBSTATIONS</b>												
BI-MONTHLY SUBSTATION INSPECTIONS												
ANNUAL SUBSTATION OIL ANALYSIS												
<b>YEARLY INSPECTIONS</b>												
<b>O/H DISTRIBUTION SYSTEM AND ASSOCIATED EQUIPMENT INSPECTIONS</b>												
INGERSOLL	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
THAMESFORD	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EMBRO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BEACHVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TAVISTOCK	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NORWICH	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
OTTERVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BURGESSVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AYLMER	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
PORT STANLEY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BELMONT	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>U/G DISTRIBUTION SYSTEM (PADMOUNT TX/SWITCHGEAR) AND ASSOCIATED EQUIPMENT INSPECTIONS</b>												
INGERSOLL	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
THAMESFORD	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EMBRO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BEACHVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TAVISTOCK	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NORWICH	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
OTTERVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BURGESSVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AYLMER	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
PORT STANLEY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BELMONT	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>TREE TRIMMING SCHEDULE</b>												
INGERSOLL	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
THAMESFORD	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EMBRO	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BEACHVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
TAVISTOCK	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NORWICH	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
OTTERVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BURGESSVILLE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AYLMER	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
PORT STANLEY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BELMONT	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016



Form: 68-00

**LIMB ON LINE TO BE REPORTED IMMEDIATELY TO LINE DIVISION SUPERINTENDENT**