Consumers Energy
Laboratory Services
135 W. Trail St., Jackson, MI 49201

CUSTOMER:	Ilsco	**LOCATION:**	Laboratory
SUBJECT:	Ilsco 18Volt battery operated Crimp tools		
SERVICE:	Dielectric	**REPORT DATE:**	June 1-2018
REQUESTOR:	Bill Mitchell	**SAP/ PO NO:**	NCO
REPORT BY:	Rusty Richardson	**MAT PROJECT NO:**	1800648
DISTRIBUTION:	File		

INTRODUCTION

Two battery operated Crimp Tools, with one battery each, were submitted to the Laboratory for testing. The Laboratory was asked to determine if the tool would function normally when connected, and after connection, at 35KVdc, 70KVdc, 100KVdc.

SUMMARY OF RESULTS

The crimp tool (TB-12U1000-P) was hooked up to the power source, with the trigger zip tied in the on position. The tool shut down after a few seconds (before voltage was applied) and is believed to be a normal operating feature of the tool. A crackling sound began at approx. 20kV into test and continued throughout all 3 test voltages. The Crimper was in the on position but not running for the test. After the 3 minute test at each voltage (35kV, 70kV, 100kV), the tool was removed from the testing structure and operated normally.

Crimp tool (TB6W500BODY-I) was hooked up to the power source, with the trigger zip tied in the on position. 5 seconds into the first voltage test (35kV), the tool seemed to bog down. After 1m14s of testing at 35kV, the tool stopped working. A crackling noise was heard throughout the exam. After the 3 minute test at each voltage (35kV, 70kV, 100kV), the tool was removed from the testing structure and operated normally.

All tests were performed in conjunction with a simulated insulated aerial work platform in the engaged position (See Test Results).

TEST MATERIAL

Item:	Battery Operated Crimp Tools	Batteries Lithium 18 V
Manufacturer:	Ilsco	
Model:	Taskmaster TB-12U1000-P	
	Taskmaster TB6W500BODY-I	
SN:	PA178367	
	175998	

TEST EQUIPMENT

Instrument	S/N	Cal Due Date
Von Dielectric Unit	100419	01-02-19
Resistance Meter	2823A09119	12-21-18

TEST PROCEDURE

See Attachment A.

TEST RESULTS

	Energized Conductor Test Leakage at Three Voltages		
Voltages	**35KV**	**70KV**	**100KV**
Battery Operated Crimp Tool			
TB-12U1000-P	18µA	84µA	2mA
TB6W500BODY-I	31µA	94µA	1.9mA

ACCEPTANCE REQUIREMENTS

To be determined by requestor.

MATERIAL DISPOSITION

Return to requestor.

Prepared By Rusty Richardson

Reviewed By

ATTACHMENT A

TEST PROCEDURE

Using the ANSI A92.2 standards for in field tests of insulating aerial devices it was determined that 50µ amps of leakage is allowed for category A or B aerial devices. A resistor array was used to simulate the aerial device. The resistance was adjusted to produce 50µ amps of leakage at 100kVdc. The working end was connected to the high voltage source with the resistor array connected to the handle of the tool using foil to simulate the hand of the user. The other end of the resistors was connected to ground through an DC amp meter to measure leakage current.

The tool was then secured to an insulator and 35kVdc, 70kVdc and 100kVdc was applied for three minutes for each voltage with the tool operating.

Approved By  Date 6-1-18