

<b>PEARL Reconditioning Standards</b>			
<b>LOW VOLTAGE TRANSFORMERS INSTRUMENTATION VOLTAGE</b>	Revision		
	Section	Number	Date
	<b>1430</b>	3	2-11-03

The term "reconditioning" is defined as "the process of returning electrical equipment to safe and reliable operating condition based on the design of the original manufacturer at the time of manufacturing."

## **I TEST EQUIPMENT**

The following test equipment is required to perform the testing requirements of this reconditioning standard:

1. Insulation Resistance Test Set (Megohmmeter) 1000 Vdc minimum

One of the following pieces of test equipment is required to perform the transformer ratio verification testing requirements of this reconditioning standard:

1. Transformer Turns Ratiometer
2. AC Voltage Supply and Voltmeter (+/- 0.5%)
3. Self-Contained Transformer Test Set

One of the following pieces of test equipment is required to perform the transformer polarity testing requirements of this reconditioning standard:

1. AC Voltage Supply and Voltmeter
2. Self-Contained Transformer Test Set

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## **II RECONDITION EVALUATION**

These steps are used to determine what will be required to recondition this product under this standard.

### **1 INSPECTION**

#### **1.1 Case/Frame**

- 1.1.1** Ensure that the nameplate data is legible.
- 1.1.2** Ensure that the third party listing service label is legible.
- 1.1.3** Inspect for signs of corrosion.
- 1.1.4** Inspect for cracks.
- 1.1.5** Inspect for signs of overheating.
- 1.1.6** Inspect fuse clips for signs overheating.
- 1.1.7** Inspect fuse clips for proper connection.
- 1.1.8** Record results on appropriate PEARL Inspection and Test Form.

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### **III RECONDITIONING PROCEDURES**

The following procedures are in a recommended order and are required to recondition this product. PEARL recognizes that, based on actual product design and as found condition, some of these procedures may not be applicable. The testing requirement must be completed before the product can be labeled as a PEARL reconditioned product.

#### **1 RECONDITIONING**

##### **1.1. Case/Frame**

**1.1.1** Disassemble to clean.

**1.1.2** Clean all parts of contamination and corrosion.

##### **1.2 Missing or Defective Components, Parts and Hardware**

**1.2.1** Replace or repair any missing or defective components, parts and hardware found during the inspection phase of this standard.

##### **1.3 Final Assembly**

**1.3.1** Ensure that frame is plumb and square.

**1.3.2** Cover any unused openings.

**1.3.3** Ensure that the nameplate/label data is complete, correct and legible.

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## 2 TESTING

### 2.1 Insulation Resistance

#### 2.1.1 Primary to ground test

2.1.1.1 Perform an insulation resistance test at test voltage specified in Table 6 of Section 6000. The test duration shall be for 1 minute.

2.1.1.2 Correct for temperature, if necessary (Table 11).

2.1.1.3 Record results on appropriate PEARL Inspection and Test Form.

#### 2.1.2 Secondary to ground test

2.1.2.1 Perform an insulation resistance test at test voltage specified in Table 6 of Section 6000. The test duration shall be for 1 minute.

2.1.2.2 Correct for temperature, if necessary (Table 11).

2.1.2.3 Record results on appropriate PEARL Inspection and Test Form.

#### 2.1.3 Primary to secondary test

2.1.3.1 Perform an insulation resistance test at test voltage specified in Table 6 of Section 6000. The test duration shall be for 1 minute.

2.1.3.2 Correct for temperature, if necessary (Table 11).

2.1.3.3 Record results on appropriate PEARL Inspection and Test Form.

2.1.4 Compare test results to manufacturer's recommendations or Table 6 of Section 6000.

2.1.5 The test results must be within the guidelines recommended in order for the product to become a PEARL labeled product.

### 2.2 Transformer Turns Ratio Verification

2.2.1 Perform a turns ratio test on each phase from primary to secondary.

2.2.2 Record results on appropriate PEARL Inspection and Test Form.

2.2.3 Compare test results to manufacturer's recommendations or industrial standards.

2.2.4 The test results must be within the guidelines recommended in order for the product to become a PEARL labeled product.

### 2.3 Transformer Polarity

2.3.1 Perform a polarity test on the voltage transformer.

2.3.2 Record results on appropriate PEARL Inspection and Test Form.

2.3.3 Compare test results to manufacturer's recommendations or industrial standards.

2.3.4 The polarity must be correctly marked in order for the product to become a PEARL labeled product.

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#### **IV PEARL CERTIFICATION**

This product has now been reconditioned under the PEARL Reconditioning Standard. The PEARL label and/or seal may be placed on it.