

# Waukesha® UZD® LTC Major Inspection Form

| TRANSFORMER DESCRIPTION   | INFORMATION  | NOTES/EXPLANATIONS |
|---|--|--------------------|
| Manufacturer  |  |                    |
| Year Manufactured   |  |                    |
| Serial Number   |  |                    |
| High Voltage  |  |                    |
| Low Voltage   |  |                    |
| MVA   |  |                    |
| Substation Name   |  |                    |
| Transformer Designation   |  |                    |
| INSPECTION DATA   |  |                    |
| Date of Inspection  |  |                    |
| Inspected by  |  |                    |
| ANNUAL INSPECTION   |  |                    |
| Annual Inspection Requirements<br>(see Annual Inspection Form)                                  | <input type="checkbox"/> Completed                                       |                    |
| SWITCH COMPARTMENT (LIQUID FILLED)<br>TAP SELECTOR SWITCHES                                     |  |                    |
| Measure Remaining Arcing Tip on Stationary Tap Selector Switch Contacts (54 Contacts)           | PHASE A _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE B _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE C _____ Average in mm _____ Worst in mm _____ Position             |                    |
| Gap between Tap Selector Switch Roller Contacts (18 Gaps)                                       | PHASE A _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE B _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE C _____ Average in mm _____ Worst in mm _____ Position             |                    |
| Measure Roller Diameters (36 Rollers)   | PHASE A _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE B _____ Average in mm _____ Worst in mm _____ Position             |                    |
|   | PHASE C _____ Average in mm _____ Worst in mm _____ Position             |                    |
| Confirm Rollers Turn Freely   | <input type="checkbox"/> Y <input type="checkbox"/> N                    |                    |
| Check Roller Contact Pressure (18 Rollers)  | PHASE A _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
|   | PHASE B _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
|   | PHASE C _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
| Check Main Current Carrying Tap Selector Switch Contact Pressure                                | PHASE A _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
|   | PHASE B _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
|   | PHASE C _____ Average in lbs _____ Worst in lbs _____ Position           |                    |
| Check Contact Pressure of Slip Ring (Bow-Tie) Contacts  | A ___ lbs B ___ lbs C ___ lbs<br>A ___ lbs B ___ lbs C ___ lbs           |                    |
| Check Proper Contact Alignment in All Tap Positions in Both Directions and Adjust, if necessary | <input type="checkbox"/> OK<br><input type="checkbox"/> Adjustments Made |                    |
| Check Transition Resistor   | A ___ Ω B ___ Ω C ___ Ω  |                    |
|   | A ___ Ω B ___ Ω C ___ Ω  |                    |
| Contact Resistance Measurement (hub of bow-tie to fixed contact)                                | A ___ μΩ B ___ μΩ C ___ μΩ   |                    |

| SWITCH COMPARTMENT (LIQUID FILLED)<br>TAP SELECTOR SWITCHES <i>continued</i>                             | INFORMATION  | NOTES/EXPLANATIONS    |
|--|--|-----------------------|
| Were Any Contacts Replaced (include photos)?   | <input type="checkbox"/> Y <input type="checkbox"/> N                            | Which ones:           |
| Liquid Level Gauge and Contact Functioning   | Trips at correct level?<br><input type="checkbox"/> Y <input type="checkbox"/> N |                       |
| Check for Leaks  | <input type="checkbox"/> No Leaks <input type="checkbox"/> Leaks                 | Location:             |
| All Protective Devices Functioning Properly  | <input type="checkbox"/> Y <input type="checkbox"/> N                            | If no, which devices: |
| REVERSING CHANGE OVER SELECTOR (REVERSING) SWITCHES  |  |                       |
| Check Contact Pressure of Reversing Switches (6)   | A ___ lbs B ___ lbs C ___ lbs<br>A ___ lbs B ___ lbs C ___ lbs                   |                       |
| Check Contact Pressure of Slip Ring (Bow-Tie) Contacts   | A ___ lbs B ___ lbs C ___ lbs<br>A ___ lbs B ___ lbs C ___ lbs                   |                       |
| Check Proper Contact Alignment in Both Tap Positions   | <input type="checkbox"/> Good<br><input type="checkbox"/> Needs Adjustment       |                       |
| Contact Resistance Measurement (hub of bow-tie to fixed contact)   | A ___ $\mu\Omega$ B ___ $\mu\Omega$ C ___ $\mu\Omega$                            |                       |
| Were Any Contacts Replaced (include photos)?   | <input type="checkbox"/> Y <input type="checkbox"/> N                            | Which ones:           |
| SPRING DRIVE COMPARTMENT (DRY COMPARTMENT)   |  |                       |
| Check for Leaks  | <input type="checkbox"/> No Leaks <input type="checkbox"/> Leaks                 | Location:             |
| Check Nylon Brake Roller for Wear and Play; Replace, if necessary  | <input type="checkbox"/> OK <input type="checkbox"/> Replaced                    |                       |
| Verify Brake Only Engaged when Roller is in Slot and Stops within Range; Adjust Brake, if necessary      | <input type="checkbox"/> OK<br><input type="checkbox"/> Required Adjustment      |                       |
| Apply Lubrication per Field Maintenance Manual, Figure 23 (page 35)                                      | <input type="checkbox"/> Completed   |                       |
| Check Access Panel Gaskets; Replace, if necessary  | <input type="checkbox"/> OK <input type="checkbox"/> Replaced                    |                       |
| MOTOR DRIVE MECHANISM COMPARTMENT  |  |                       |
| Apply Lubrication in BUE Motor Drive Mechanism per Field Maintenance Manual, Figures 32–35 (pages 44–46) | <input type="checkbox"/> Completed   |                       |
| Check Both Indicator Flag and Flywheel Brakes for Proper Adjustment                                      | <input type="checkbox"/> Completed   |                       |
| Check Wiring and Controls  | <input type="checkbox"/> Completed   |                       |
| Check Limit Switch Operation   | <input type="checkbox"/> Completed   |                       |
| Check Mechanical Stop Operation  | <input type="checkbox"/> Completed   |                       |
| GENERAL  |  |                       |
| Describe Any Other Conditions Found or Areas of Concern (include photos)                                 |  |                       |
| Oil Filled Compartment Door Gasket Replaced?   | <input type="checkbox"/> Y <input type="checkbox"/> N                            |                       |
| Check of 90 Regulating Relay   | <input type="checkbox"/> Completed   |                       |

For assistance or more information, please contact our Waukesha® Components group at 800-338-5526.