

1. DESIGN STANDARD:

- 1.1 Testing criteria per the IEEE Red Book and Westinghouse Transformer Tests. Discuss exact testing procedure with Rice University's Project Manager to further refine required testing procedure. Test results for "essentially identical" units will be acceptable where this is the normal industry practice.
- 1.2 Coordinate with Rice University's Project Manager to determine if transformer(s) are to be installed indoor or outdoor.

2. PRODUCT STANDARD:

- 2.1 Windings for transformer to be Copper.
- 2.2 Pad mount transformers shall be equipped with load-break switch and fuses on the primary (medium voltage) side.
- 2.3 Pad mount transformers shall be equipped with bushings for dead front elbow terminations.
- 2.4 Dry-type transformers located in buildings to be 115 degree temperature rise type.
- 2.5 Tests for oil-filled transformers (outdoor transformers) to include:
 - 2.5.1 Turns ratio test at all tap positions
 - 2.5.2 Exciting current and no-load losses
 - 2.5.3 Resistance measurement
 - 2.5.4 Load losses
 - 2.5.5 Impedance
 - 2.5.6 Dielectric absorption
 - 2.5.7 Insulation resistance and insulation power factor (transformers 1000 kVA and larger)
- 2.6 Tests for dry-type transformers (indoor only) to include:
 - 2.6.1 Insulation resistance
 - 2.6.2 Dielectric absorption

2.6.3 Turns ratio test at all tap positions

2.6.4 Winding resistance