



Standard for

Installing and Maintaining Liquid-Filled Transformers



NEIS

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Table of Contents

- Foreword**iii

- 1. Scope**1
 - 1.1 Products and Applications Included1
 - 1.2 Products and Applications Excluded1
 - 1.3 Regulatory Requirements1

- 2. Definitions** 2

- 3. Receiving, Inspecting, Handling, and Storage** 4
 - 3.1 Receiving and Inspecting4
 - 3.2 Handling5
 - 3.3 Storage6
 - 3.4 Pre-Installation Checks6

- 4. Installation** 7
 - 4.1 General Installation Requirements7
 - 4.2 Transformer Pad and Mounting7
 - 4.3 Grounding and Bonding7
 - 4.4 Lighting Arresters8
 - 4.5 Electrical Connections8

- 5. Inspecting, Testing, and Commissioning**10
 - 5.1 Visual and Mechanical Inspection10
 - 5.2 Acceptance Testing10
 - 5.3 Restore Transformer Finishes11
 - 5.4 Energizing Transformers11

- 6. Project Close-Out Deliverables**14
 - 6.1 Test Data and Manuals14
 - 6.2 Training14
 - 6.3 Spare Parts and Special Tools14

- 7. Inspections and Maintenance**15
 - 7.1 Safety Procedures15
 - 7.2 General16
 - 7.3 First Year of Operation17
 - 7.4 Routine Inspections17

7.5	Annual Maintenance	19
7.6	Comprehensive Electrical Testing	21
7.7	Re-energizing Transformers	21
7.8	Operating Transformer Switches	21
7.9	Reconnectable Terminations	22
8.	Inspection and Re-energizing After Adverse Operating Conditions	23
8.1	Inspection and Testing Following a Short-Circuit or Ground-Fault	23
8.2	Transformer Soaked By or Submersed Under Water	23
9.	Electrical and Thermal Testing	24
9.1	General	24
9.2	Contact Resistance Test	24
9.3	Insulation Resistance Test	24
9.4	Polarization and Dielectric Absorption Index	25
9.5	Turns Ratio Test	25
9.6	Excitation Current Test	25
9.7	Winding Resistance Test	25
9.8	Insulation Power Factor Test	26
9.9	Core Insulation Resistance Test	26
9.10	High Potential Test	26
9.11	Infrared Scan	27
10.	Sampling and Testing of Insulating Liquid	28
10.1	General	28
10.2	Sampling for Insulating Liquid Characteristics	29
10.3	Sampling for Dissolved Gas Analysis	29
10.4	Test Results	31
Annex A: Overview of Dissolved Gasses		32
Annex B: Reference Standards		34

1. Scope

1.1 Products and Applications Included

This recommended practice describes installation procedures for pad-mounted, sealed, self-cooled, compartmental, single- and three-phase liquid-filled distribution and power transformers with primary windings rated from 2400 Volts to 35 kV AC, nominal, and rated from 75 kVA through 5000 kVA, and associated accessories, designed for outdoor installation at grade level with underground entrance of primary and secondary conductors, and used for supplying power, heating and lighting loads for commercial, institutional, and industrial use in nonhazardous locations.

It also covers periodic routine maintenance procedures for transformers, and special procedures used after adverse operating conditions such as a short-circuit, ground-fault, or immersion in water.

1.2 Products and Applications Excluded

This publication does not apply to the following:

1. Dry-type transformers,
2. Specialty transformers such as control, industrial control, instrument, current, potential, metering, buck-boost transformers, or lighting and ballast transformers,
3. Autotransformers,
4. Cast coil transformers,

5. Arc furnace transformers,
6. Rectifier transformers,
7. Network transformers,
8. Unit substation transformers, or
9. Transformers with more than two sets of windings.

1.3 Regulatory and Other Requirements

All information in this publication is intended to conform to the National Electrical Code (ANSI/NFPA 70). Installers should always follow the NEC, applicable state and local codes, manufacturer's instructions, and contract documents when installing liquid-filled transformers.

Only qualified persons familiar with the construction and installation of liquid-filled transformers should perform the work described in this publication.

General requirements for installing electrical products and systems are described in the latest version of NECA 1, *Standard Practices for Good Workmanship in Electrical Contracting* (ANSI). Other *National Electrical Installation Standards* provide additional guidance for installing particular types of electrical products and systems. A complete list of *NEIS* is provided in Annex B.