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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

DL/T 1432.2-2016

**Testing specification for on-line monitoring device of
transformation equipment - Part 2: On-line monitoring device of
gases dissolved in transformer oil**

(English Translation)

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Foreword

DL/T 1432 Testing specification for on-line monitoring device of transformation equipment is divided into 5 parts.

- Part 1. General testing specification;
- Part 2. On-line monitoring device of gases dissolved in transformer oil;
- Part 3. On-line insulation monitoring device of capacitive equipment and metal-oxide surge arrester;
- Part 4. On-line partial discharge monitoring device (UHF) of gas insulated switchgear;
- Part 5. On-line monitoring device of the earthing current of power transformer core.

This Part is Part 2.

This Part was proposed by the China Electricity Council.

This Part shall be under the jurisdiction of the National Technical Committee for Standardization of Condition-based Maintenance and On-line Monitoring of Electrical Power Units.

Major drafting organization of this Part. China Electric Power Research Institute.

Major participating organizations of this Part. State Grid Zhejiang Electric Power Company, State Grid Hebei Electric Power Company, Electric Power Research Institute of Guangdong Power Grid Corporation, Ningbo Ligong Online Monitoring Technology Co., Ltd, Henan Zhongfen Instrument Co., Ltd, and Sieyuan Electric Co., Ltd.

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Testing specification for on-line monitoring
device of transformation equipment -
Part 2. On-line monitoring device of gases
dissolved in transformer oil

1 Scope

This Part specifies the test conditions, test items, instruments and materials, test contents and requirements, test result processing and test cycle for the on-line monitoring device of gases dissolved in transformer oil.

This Part is applicable to the testing of special test items for the on-line monitoring device of gases dissolved in transformer oil.

2 Normative references

The following documents are essential to the application of this document. For dated references, only the editions with the dates indicated are applicable to this document. For undated references, only the latest editions (including all the amendments) are applicable to this document.

GB 2536 Fluids for electrotechnical applications - Unused mineral insulating

oils for transformers and switchgear

GB/T 7597 Method of sampling for transformer and turbine oils in electric power industry

GB/T 17623-1998 Determination of component contents of gases dissolved in insulating oil by gas chromatography method

DL/T 722 Guide to the analysis and the diagnosis of gases dissolved in transformer oil

DL/T 1432.1-2015 Testing specification for on-line monitoring device of transformation equipment - Part 1. General testing specification

DL/T 1498.2-2016 Technical specification for on-line monitoring device of transformation equipment - Part 2. On-line monitoring device of gases dissolved in transformer oil

3 Test conditions

The test conditions are as follows.

- a) ambient temperature. 15°C ~ 35°C;
- b) relative humidity. 25% ~ 75%;
- c) atmospheric pressure. 86kPa ~ 106kPa; and
- d) the supply voltage and power shall conform to the requirements given in the manual for the on-line monitoring device of gases dissolved in transformer oil.

Note: When the equipment cannot be tested under the above conditions for some reason, the actual weather conditions shall be recorded in the test report.

4 Test items

The tests for the on-line monitoring device of gases dissolved in transformer oil are divided into type test, exit-factory test, commissioning test and field test.

The test requirements for general items are in accordance with DL/T 1432.1-

2015 Testing specification for on-line monitoring device of transformation

equipment - Part 1. General testing specification. The special items shall be implemented in accordance with this Standard. The specific test items are shown in Table 1.

Table 1 -- Test Items for the On-line Monitoring Device of Gases

Dissolved in Transformer Oil

S/N Test item Standard Clause Type test

Exit-

factory

test

Commissioning

test

Field

test

1 Structure and appearance inspection

DL/T 1432.1-

2015 4.2 - - - -

6 Electromagnetic compatibility test

DL/T 1432.1-

2015 4.7 - o o o

5.3 Standard gas mixture for calibration

The standard gas mixture, accompanied with the content of components, inspection certificate and effective life, shall be prepared by the organization(s) authorized by the national metrology department, which is mainly used for the calibration of laboratory gas chromatograph.