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JJG

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

JJG 656-2013

Replacing JJG 656-1990

**Verification Regulation of Nitrate-Nitrogen Automatic Analyzers
(English Translation)**

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Introduction

JJG 656-2013 "Nitrate Diver" is JJG 656-1990 "nitrate Diver" Amendments. Compared with JJG 656-1990 "nitrate automatic monitoring instrument", in addition to editorial changes, the main technical change of the following.

- Name change procedures to "nitrate nitrogen Diver";
- Revised overview of Nitrate automatic monitor Principle and purpose (see 2);
- Remove the original statutes of electric meter performance requirements;
- Revised stability program technical requirements and test methods (see Table 1 and 5.3.4);
- Revised indication error, repeatability, stability and response time test project using standard mass concentration solution (See 5.3.2,5.3.3,5.3.4,5.3.5);

- Increased dielectric strength and leakage current test project requirements (see 4.2 and 5.3.6);
- Increased the list of test items of measuring instruments control (see Table 2);
- Revised Appendix 1 for preparing standard solution and the buffer solution (see Appendix A).

Nitrate Diver verification procedures

1 Scope

The order applies to electrode method based on spectrophotometric and online automatic monitor nitrate initial verification, follow-up inspection and given the use of checks.

2 Overview

Nitrate Diver automatic continuous monitoring of groundwater, surface water, sewage and industrial waste water and other water bodies the nitrate concentrations.

Nitrate Diver measurement method and the main electrode. Spectrophotometry by measuring a specific wavelength the absorbance of water samples quantitative determination of nitrate nitrogen content; electrode is obtained nitrate in water samples by measuring the electrode potential Acid nitrogen content.

Instrument consists of sampling, processing water samples, testing, data acquisition, processing, display and transmission unit.

3 metering performance requirements Performance measurement instrument requirements in Table 1.

Table 1 nitrate nitrogen automatically monitors the performance measurement requirements

Project Performance Requirements Indication error $\pm 10\%$ Repeatability $\leq 3\%$ no more than $\pm 10\%$ within 4h stability Response time * $\leq 10\text{min}$ Note. Fields marked "*" are the only electrode instrument calibration project, the same below.

4 General technical requirements

4.1 Appearance

4.1.1 All equipment parts and accessories should be tight and not loose; connector should be connected well; moving parts should be free movement Live, smooth; pipe connection ports inside and outside the various instruments must be reliably sealed to prevent leakage. After the instrument is powered, the components are to work properly, all knobs, buttons shall be able to adjust the display unit displays the results should be clear and complete.

All newly manufactured instrument plating surface 4.1.2 There shall be no peeling, painted surface color should be uniform, not Ariake Obvious scratches, show the bottom of cracks, blistering and corrosion phenomenon, the exposed parts joints should be neat, no rough

phenomenon.

The use of the instrument should not affect the normal operation of its damage.

4.1.3 Instrument nameplate should be marked with the instrument name, model, serial number, date of manufacture, manufacturer's name, manufacturing measurement Appliance license logo and number.