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

SN/T 1492-2015

Replacing SN/T 1492-2004

**Standard practice for laboratory bias evaluation using single
test result from standard material**

采用标准材料的单个测试结果评估实验室偏倚的方法

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

Instead of the standard SN/T 1492-2004 "standard material deviation from a single test result evaluation laboratory method." this standard compared with SN/T 1492-2004, the main changes are as follows.

- Modify the standard name, "Deviation" to "bias";
- Modify the Normative references cited in the standard;
- An increase of some terms and definitions;
- Increase the significance and use of the basic needs of the chapter;
- Increased by 6.7, 6.8;
- Remove the result of the determination, the part is incorporated Procedure 6.13, 6.14, 6.15;
- Added Appendix A in A.4.1, A.4.7, A.4.8, A.4.9.

The standard reference used by the US ASTM D6617-08 standards.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Liaoning Province Exit Inspection and Quarantine.

Introduction

Because of the inherent imprecision in all test methods, the laboratory when performing the verification standard (CS) materials testing, can not of Hope to get the test results are equivalent to the acceptance of the reference value (ARV) of. If the test results can be reasonably close to ARV value, you can guarantee real Laboratory testing methods perform

operations no bias, or that although bias can be considered negligible disregarded. Hypothesis testing results ARV of the difference exceeds a predetermined amount, the laboratory is necessary to take corresponding measures.

This can be used for standard laboratory, when the CS or CCS test material, according to the combined uncertainty epsilon and the expected first I Error class to establish its acceptable tolerance range, in order to ensure the implementation of test methods without bias. This standard is based on the tolerance interval set, to properly assess the effectiveness of different bias amount detection, investigation detection capability of true bias. And further depending on the desired category I errors Bias detection capability to meet specific business needs. CS testing activities described in this standard, internal quality control laboratory is a party

--- MR statistical method combined dynamic tracking supplementary monitoring technology.

This standard assumes that the measured system in a controlled state statistics, we can use a normal (Gaussian) distribution to describe and predict.

Single standard material test results of the assessment Laboratory method bias

1 Scope

This standard specifies the difference between the results of one test to its standard value (ARV) between the assessment of the verification standard (CS) material and determine the appropriate Acceptable tolerance interval estimate single test result falls outside the tolerance interval probability methods.

Laboratory test method is applicable to the continuous generation of numerical results determining the presence or absence of bias, does not apply to on-site or precision Under the same condition to obtain an evaluation by a plurality of test results with a CS material.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 5487 Determination of gasoline octane number (research) GB/T 6379.1 measurement methods and results of Accuracy (trueness and precision) - Part 1. General principles and definitions GB/T 27407 laboratory quality control use performance statistics for quality assurance and control chart technical evaluation and analysis of the measurement system JJF1001 common measurement terms and definitions

3 Terms and Definitions

JJF1001 define the following terms and definitions apply to this document.

Accepted reference value; ARV Agreed upon for comparison standard value, it comes from.

- a) based on scientific principles or theoretical values determined value;
- b) certification based on the specified value or values of experimental work in some countries and international organizations;
- c) based on scientific or engineering organizations agree experimental work under the auspices of the value or the value of certification;
- d) When a), b), c) can not be obtained, then use (measurable) amount of expectation, which provides that measures the overall average.

[GB/T 6379.1-2004, the definition 3.5] 3.2 Accepted tolerance interval
acceptabletolerancezone Limited to $0 \pm k\epsilon$ (k value determined in accordance with Class I error probability selected by the user, ϵ value see 3.9). If the test method of CS single difference between the results of its ARV falls within the interval, the laboratory or testing organization to perform the test method of operating an unbiased Make assumptions be accepted, the difference can be regarded as normal random testing methods contribute fluctuations. On the contrary, the difference falls within the range, the assumptions made not be accepted.

Verification standard checkstandard; CS Quality control measurements with standard reference material values.

Note: This material is reference material, interlaboratory comparison or reference values assigned to the material used to determine the accuracy of the measurement system.

[GB/T 27407-2010, the definition 3.1.14]