FACTSHEET FOR ANSI/ASB STANDARD 175, 1ST Ed., 2024

Standard for Interpreting, Comparing and Reporting DNA Test Results Associated with Failed Controls and Contamination Events

WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy-to-understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a published standard.

WHAT IS THE PURPOSE OF THIS STANDARD?

This standard provides a comprehensive framework for interpreting, comparing, and reporting DNA data without retesting in certain circumstances when it is associated with control failures or contamination events during forensic DNA testing.

Forensic science service providers (FSSPs) must use this standard in conjunction with their documented quality assurance program, follow documented procedures and validated methods, and be free from bias by shielding decision-makers from irrelevant information.

Data associated with failed controls or contamination cannot be reported without thorough evaluation, nor can essential DNA test controls be eliminated.

WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

This standard requires a systematic approach to the evaluation of DNA test data in scenarios where a testing control and or contamination occurs. Using these DNA test results in a criminal case may be valuable, especially when a person of interest can be excluded from a DNA profile. Not re-testing may meet Brady v U.S. 397 U.S. 742 (1970) requirements and preserve sample for future technological advancement.

By requiring comprehensive documentation of control failures/contamination events and the decision-making process when data are deemed suitable without retesting, this standard not only bolsters confidence in forensic results but also provides a defensible scientific basis decisions made.

HOW IS THIS STANDARD USED, AND WHAT ARE THE KEY ELEMENTS?

The standard is used by FSSPs to assess and address control failures and contamination events during DNA testing. When such events occur, FSSPs are required to follow a series of steps, including conducting a root cause analysis, assessing the suitability of DNA data for interpretation, and determining whether retesting is necessary. The requirements in this standard may be applied to any type of forensic DNA testing technology and methodology used by an FSSP.

The standard requires that every event is evaluated on a case-by-case basis in conjunction with the FSSP's validated and verified protocols for data interpretation, comparison, reporting, and quality assurance (see ANSI/ASB 018, 1st Ed., 2020; 020, 1st Ed., 2018; 040, 1st Ed., 2019; and 139, 1st Ed., 2024). An assessment will include a determination of the possible cause and effect of the failed control or contamination and an assessment of the risks associated with moving forward with data interpretation vs. those associated with re-testing.

It provides direction for what to do if the data are deemed suitable without retesting, as well as if the data are unsuitable for use. Documentation of the assessment is required.

The standard includes an annex that describes different scenarios where samples are associated with a failed control or contamination event with some possible outcomes that meet the requirements of this standard.

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