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IFIA Americas Committee Inc.

Laboratory Subcommittee

Position Paper

Revision to ASTM D4294-90, Method for Sulfur Content

This is to address the recent publication of an extensive revision to the ASTM D4294-90 method for Sulfur content. *As with all such changes Inspection Companies will adopt the new procedure as soon as possible.* However, following review IFIA Members have noted one critical change which could possibly have an effect on specification limits and contractual requirements.

The change is as follows:

- ♦ ASTM D4294-90 requires rounding & reporting results to two decimal places. (Examples. 1.00, 0.10, 0.05 etc.)
- ♦ ASTM D4294-98 requires rounding & reporting results to three significant digits. (Examples. 1.00, 0.100, 0.0500 etc.)

In this, all results below 1.00% will have to be reported to an extra one or two decimal places. The effect of this could result in the following:

Example: ASTM D975 has a specification limit of 0.05% for #2 Diesel.

- ♦ The print out from most analyzers yield four decimal places so by D4294-**90** we might obtain a result on a sample of 0.0510 which when legitimately rounded would be reported as **0.05%**.
- ♦ The same sample tested by D4294-**98** yielding the same result will have to be reported as **0.0510%**.
- ♦ On the surface it would appear that the sample is now out of specification, which would likely result in a dispute as to validity under the contract. However, according to the rules of significant digits and how they apply with conformance to specifications as detailed in ASTM E29, the specification of 0.05% contains only one significant digit; therefore, while we report 0.0510% this result is technically in specification. Unfortunately, this may not be clear to nontechnical people involved in trading and banking functions.

IFIA members request that all interested parties review this notice and make appropriate arrangements, within instructions and contracts, to accommodate the revised method and reporting requirements. The parties referred to should include banking institutions, as documentary letter of credit requirements could cause difficulty. All parties to a transaction should be aware of the potential impact in contractual terms.

Interested parties should also note that a cargo tested to be on-specification at the loading port using the 1990 method could appear to be off-specification if the laboratory at the discharge port uses the 1998 method. IFIA AC therefore recommends that the discharge port laboratory be notified of the exact test method used at the loading port.”

Chairman: G. Lees - Executive Director: M. Bush - Secretary: C. Updike

3942 North Upland Street, Arlington, VA 22207
Tel: (703) 533-9539
Fax: (703) 533-1612
E-mail: lfianac@aol.com