

**Revision #12 November 2000**  
**D09 POLICY GUIDE**

**1. SCOPE**

1.1 This guide sets forth statements of policy adopted by Technical Committee D09 to guide its members in the preparation of standards. It is the direct responsibility of D09.94 to act as custodian of this guide. Revisions and review of this guide are under the jurisdiction of D09.94. This guide is distributed annually with the membership package.

**2. SIGNIFICANCE**

2.1 These policies are intended to provide guidance to the members of D09 who initiate, review, or revise standards which fall under the jurisdiction of D09.

2.2 None of the policies set forth herein are known to conflict with, or be contrary to, the ASTM Regulations Governing Technical Committees, the D09 Bylaws, or the "BLUE BOOK" on Form and Style for ASTM Standards.

**3. POLICIES**

NOTE 1?The following policies were adopted by action at duly constituted meetings of Technical Committee D09. Parenthetical entries appearing after policy statements refer to the section in the minutes which reported the action.

**3.1 RESPONSIBILITIES ASSIGNED TO D09.94 BY POLICY ACTIONS.**

3.1.1 D09.94 will review the report sections of all D09 standards. (27 Feb. 1964)

3.1.2 Where applicable, D09.94 may write suitable standardized hazard statements for use in D09 standards. (79.3.9.6)

3.1.3 D09.94 will prepare recommendations for the labeling of terminology in all D09 standards. (91.1.12.3)

**3.2 AUTHORITY GRANTED TO INDIVIDUALS BY POLICY ACTION.**

3.2.1 Ballot material sent in for letter ballot of the main committee will be withheld from that ballot if the document is not sufficiently legible. (994.85.61)

**3.3 POLICIES PERTAINING TO LETTER BALLOTS (LB).**

3.3.1 Letter Ballots of the Main Committee are normally preceded by an editorial review of D09.94 (994.85.61)

3.3.2 Simultaneous LB of D09 and editorial review of D09.94 may be authorized by vote in a D09 meeting.

3.3.3 Editorial changes in D09 standards do not need a LB. If editorial revision is appropriate, action to revise in the form of a simple motion made and passed at a regular D09 meeting is sufficient.

NOTE 2 (Added as part of Draft #5) ASTM Headquarters personnel are the sole judge as to whether or not any specific change is "editorial" or "substantive". Substantive revisions require a letter ballot.

### 3.4 POLICIES WITH RESPECT TO USE OF METRIC UNITS

3.4.1 Wherever practicable, the use of metric units is preferred over non-metric units. The judgment about "practicable" is determined by the subcommittee having jurisdiction over the standard under consideration.

3.4.2 Give preference to the use of "hard metric" units over the use of "soft metric" units.

FOR EXAMPLE: If a tensile strength specimen has historically been specified as having a length of 8 inches, it is preferred that this length be specified as 200 mm rather than 203.2 mm or 8 inches. The use of a specimen of 200 mm length will not have any significant effect on the tensile strength values compared to the value determined on a specimen 203.2 mm long.

3.4.3 Give preference to the use of SI units in those standards using metric units.

3.4.4 The SI unit for density is kilograms per cubic metre. The practical metric unit for density would be grams per cubic centimetre (g/cc). The use of g/cc is permitted by D09.

3.4.5 In its Standard P-945 (Preferred Metric Units for Use in Electrical Electronic Science and Technology), the IEEE proposed terms and units for use in IEEE documents. Three terms and the IEEE preferred Units for each are taken from P-945 as:

Electric Field Stress	kV/mm
Resistivity	ohm-metre
Conductivity	siemens per metre

D09.94 agrees with the use of kV/mm but not with the use of units given for resistivity and conductivity. D09.94 supports the use of ohm-cm for resistivity and siemens per cm for conductivity since these units more closely represent the dimension at which measurements typically are made.

### 3.5 OTHER POLICY ACTIONS

3.5.1 In any D09 omnibus test method standard, include a significance statement for each individual test method therein.

3.5.2 USE OF ABBREVIATIONS or ACRONYMS-When ANY generic name of a material first appears in a D09 standard, write out the full name of the material followed by the abbreviation or acronym in parentheses. The shortened version is then permitted for use in subsequent sections of the standard. (72.2.9.7)

3.5.3 Reference to any governmental regulation in a D09 document is permitted only if

the reference contains the specific regulation by title and number (if applicable). The policing of this policy is assigned to D09.94 and the intent is to prevent the use of a generalized reference to any governmental regulation.

3.5.4 D09 policy prohibits the inclusion in D09 standards of any statements that make mandatory the transmittal of test results between user and producer. Such transmittal is contractual rather than mandatory in an ASTM standard.

3.5.5 The D09 policy on making changes in government specifications which misuse ASTM standards has been established. ACTION ON SUCH MATTERS SHALL BE TAKEN AT A FULL D09 MAIN COMMITTEE MEETING AND THE ACTION WILL CARRY THE FORCE OF D09. No subcommittee shall initiate changes directly to the governmental body having jurisdiction over the government specification. (67.3.5)

#### **4. SPECIFIC HAZARD CAVEATS FOR USE IN D09 STANDARDS**

##### **4.1 CAVEAT FOR MERCURY HAZARD**

Mercury metal vapor poisoning has long been recognized as a hazard. When using equipment containing or requiring the use of mercury, take all precautions and care to avoid the escape of mercury vapor or the spillage of mercury. Maximum limits for mercury concentrations in industrial atmospheres are set by governmental agencies. These limits are usually based upon recommendations made by the American Conference of Governmental Industrial Hygienists\*. It is possible for the concentration of mercury vapors accompanying spills from broken thermometers, barometers, and other instruments using mercury to exceed these limits.

Mercury, being a heavy liquid with high surface tension, readily disperses into small droplets after spills, lodging in cracks and crevices. Resultant increased surface area of the mercury due to this dispersion promotes higher mercury concentrations in the surrounding air. Mercury vapor concentrations are readily measured using commercially available instrumentation. To monitor environmental hazards it is advisable to make periodic checks for mercury content at locations where mercury is exposed to the atmosphere. Use a spill kit for clean-up whenever spillage occurs. After spills and clean-up, make thorough checks for mercury vapor concentrations in the atmosphere.

\*In 1993, this Conference had headquarters located in Building D-7 at 6500 Glenway Drive, Cincinnati, Ohio 45211.

##### **4.2 CAVEAT FOR HIGH VOLTAGE HAZARD**

4.2.1 Lethal voltages are a potential hazard during the performance of this test. It is essential that the test apparatus, and all associated equipment electrically connected to it, be properly designed and installed for safe operation.

4.2.2 Solidly ground all electrically conductive parts which it is possible for a person to contact during the test.

4.2.3 Provide means for use at the completion of any test to ground any parts which were at high voltage during the test or have the potential for acquiring an induced charge during

the test or retaining a charge even after disconnection of the voltage source.

4.2.4 Thoroughly instruct all operators as to the correct procedures for performing tests safely.

4.2.5 When making high voltage tests, particularly in compressed gas or in oil, it is possible for the energy released at breakdown to be sufficient to result in fire, explosion, or rupture of the test chamber. Design test equipment, test chambers, and test specimens so as to minimize the possibility of such occurrences and to eliminate the possibility of personal injury. If the potential for fire exists, have fire suppression equipment available.

### 4.3 CAVEAT FOR OZONE HAZARD

4.3.1 Ozone is a physiologically hazardous gas at elevated concentrations. The exposure limits are set by governmental agencies and are usually based upon recommendations made by the American Conference of Governmental Industrial Hygienists located in Building D-7 at 8500 Glenway Drive, Cincinnati, Ohio 45211. Ozone is likely to be present whenever voltages exist which are sufficient to cause partial, or complete, discharges in air or other atmospheres that contain oxygen. Ozone has a distinctive odor which is initially discernible at low concentrations but sustained inhalation of ozone can cause temporary loss of sensitivity to the scent of ozone. Because of this it is important to measure the concentration of ozone in the atmosphere, using commercially available monitoring devices, whenever the odor of ozone is persistently present or when ozone generating conditions continue. Use appropriate means, such as exhaust vents, to reduce ozone concentrations to acceptable levels in working areas.

## 5. POLICY WITH RESPECT TO PRECISION & BIAS STATEMENTS

5.1 Generally the precision and bias statements in OMNIBUS method standards can refer the reader to the referenced method of test for precision and bias statements pertaining to a given property. But many OMNIBUS standards also contain references to very generalized methods of test such as D-150; D-149; D-257; or D374. Referencing precision and bias statements of these standards and other such generalized test methods in an OMNIBUS standard is unsatisfactory. The precision and bias of many generalized test methods for electrical insulation are influenced by the material under test.

5.2 For those D09 test methods which lack the round robin data and analysis requirements set forth in the BLUE BOOK, use one of the following formats:

5.2.1 Use CASE I where work will be indefinitely postponed but there are estimates of precision that can be suggested in the interim.

5.2.2 Use CASE II where work is being, or has been, planned but where laboratory evaluation is not yet started.

5.2.3 Use CASE III where laboratory evaluation is in progress but the final results are not yet available for analysis.

5.2.4 Use CASE IV where the method has been in use for many, many, years but no round robin work is being contemplated. It is likely that voluntary participation in such a program

would be minimal at best and most likely none at all.

**CASE I** The precision of this method has not been determined. Operators familiar with this method estimate that the coefficient of variation of the observations within a single laboratory by a single operator is approximately \_\_\_\_%.

**CASE II** The precision of this method is under consideration and is awaiting evaluation.

**CASE III** The precision of this method is awaiting the final results of a round robin evaluation currently in progress.

**CASE IV** This test method has been in use for many years, but no statement of precision has been made and no activity is planned to develop such a statement.

5.3 For those D09 test methods having available round robin data and calculated values of repeatability and reproducibility meeting the requirements of the BLUE BOOK, the use of one of the following formats taken from a D20 standard D-4966 is recommended but is not mandatory:

5.3.1 Use FORMAT A for data which are expressed in units that are the test results determined using the method.

5.3.2 Use FORMAT B for data which are expressed as percentages of the average.

#### FORMAT A

TABLE _____	_____	TITLE
Thickness or other Material condition		Values are in units of Average $S_r$ $S_R$ $r$ $R$
(Name 1)		
(Name 2)		
(Name 3)		
(etc.)		

where:

$S_r$  = the within-lab standard deviation of the average,  
(median/ or other function)

$S_R$  = the between-labs standard deviation of the average,  
(median/ or other function)

$r$  = the within-lab repeatability limit -  $2.8 \times S_r$

$R$  = the between-labs reproducibility limit -  $2.8 \times S_R$

#### FORMAT B

TABLE _____	_____	TITLE
Thickness or other Material condition		Values are in units of
(Name 1)		Average
(Name 2)		$v_f$ $v_R$ $r_v$ $R_v$
(Name 3)		
(etc.)		

where:

$v_f$  = the within-lab standard deviation of the average,  
(median/ or other function)

$v_R$  = the between-labs standard deviation of the average,  
(median/ or other function)

$r_v$  = the within-lab repeatability limit -  $2.8 \times S_f$

$R_v$  = the between-labs reproducibility limit -  $2.8 \times S_R$

EDITOR's NOTATION The  $v$  used on this page is meant to represent a Greek lower case nu.

---

## 6. POLICY WITH RESPECT TO TERMINOLOGY

6.1 ASTM D-1711 needs revision as soon as practicable to include all of the definitions (standard definitions) encompassed by the scope of D-1711.

6.2 Each subcommittee of D09 should decide whether the terminology aspects of each of its standards are "standard definitions" or "definitions of terms" (pertinent only to the standard). (See BLUE BOOK Part E particularly E2.2). Once the subcommittee has decided on "standard definitions", propose these terms for addition to D-1711 by letter ballot of D09.94 and D09.

6.3 Standard definitions shall be identical to the definitions appearing in any D09 standard and in D-1711.

6.4 The intent of D09 is that ALL of the definitions in individual D09 standards are suitable for inclusion in D-1711.

6.5 The Subcommittees of D09 are expected to give serious consideration to the use of definitions which are already in the Society Compilation of Standard Definitions. The use of existing definitions is preferable to creating another "standard definition" for a term already defined.

## 7. POLICY WITH RESPECT TO WEIGHT VS. MASS

7.1 In an existing D09 standard in which the usage is generally recognized by persons familiar with that standard, the use of "weight" shall not be deprecated in favor of "mass". New standards, however, shall use "mass" unless a clear-cut objection to its use instead of "weight" can be shown.

## 8. POLICY WITH RESPECT TO ISO AND IEC EQUIVALENCY STATEMENTS

8.1 These statements are added as a Note at the end of the Scope Section of a Standard.

8.2 All ISO or IEC equivalency statements must be balloted through the full ballot process.

8.3 When the IEC/ISO equivalence is not known, an IEC/ISO statement is not required. Negatives or comments may be ruled not persuasive if the person commenting cannot assist the chairperson to choose an appropriate equivalency statement from section 8 of the Policy Guide.

8.4 IEC can be substituted for ISO in the five model equivalency statements, below.

? There is no similar or equivalent ISO standard.

? This standard resembles ISO xxxx-year "FULL TITLE," in title only. The content is significantly different.

This standard resembles ISO xxx-year "FULL TITLE," in a number of ways, but is not consistently similar throughout. The data obtained using either standard (may or may not be) technically equivalent.

? Although this standard and ISO xxxx-year, "FULL TITLE," differ in approach or detail, data obtained using either are technically equivalent.

? This standard and ISO xxxx-year, "FULL TITLE," are identical in all technical details.