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FIRE PROTECTION HISTORY-PART 74: 1934 (AMERICAN STANDARD A. S. A. A2-1934)

By Richard Schulte

Appendix A of Report BMS71, *Fire Tests of Wood- and Metal-Framed Partitions*, includes a reprint of the 1934 edition of American Standard A. S. A. No. A2, *Standard Specification For Fire Tests of Building Construction and Materials*. The following are a few excerpts from the 1934 edition of A. S. A. No. A2:

> "*[Prepared by the Sectional Committee on Fire Tests of Materials and Construction, under the joint sponsorship of the National Bureau of Standards, the A. S. A. Fire Protection Group and the American Society for Testing Materials, functioning under the procedure of the American Standards Association.]*
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> *The performance of walls, columns, floors, and other building members under fire exposure conditions is an item of major importance in securing constructions which are safe and which are not a menace to neighboring structures nor to the public. Recognition of this is registered in the codes of many authorities, municipal and other. It is important to secure balance of the many units in a single building, and of buildings of like character and use in a community; and also to promote uniformity in requirements of various authorities throughout the country. To do this it is necessary that the fire-resistive properties of materials and assemblies be measured and specified according to a common standard expressed in terms which are applicable alike to a wide variety of materials, situations, and condition of exposure.*
>
> *Such a standard is found in the specifications which follow. They prescribe a standard exposing fire of controlled extent and severity. Performance is defined as the period of resistance to standard exposure elapsing before the first critical point in behavior is observed. Results are reported in units in which field exposure can be judged and expressed.*"
>
> "*TEST STRUCTURES*
>
> 5(a). *The test structure may be located at any place where all the necessary facilities for properly conducting the test are provided.*
>
> (b). *Entire freedom is left to each investigator in the design of the test structure and the nature and use of fuel, provided the test requirements are met.*

7. *The test sample shall be truly representative of the construction for which classification is desired as to materials, workmanship, and details such as dimensions of parts, and shall be built under conditions representative of those obtaining as practically applied in building construction and operation. The physical properties of the materials and/or ingredients used in the test sample shall be determined and recorded.*"

It is interesting to note that, while the stated purpose of the test standard is to "*promote uniformity*" in the methodology of determining fire resistance of construction elements, the standard provides "*entire freedom*" in the construction of the test furnaces utilized in the test. Today, it seems obvious that the construction of the furnace used in testing will have an effect on the results of fire resistance tests.

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