Designation: E 1806 – 96 (Reapproved 2001)

Standard Practice for Sampling Steel and Iron for Determination of Chemical Composition[1]

This standard is issued under the fixed designation E 1806; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the sampling of all grades of steel, both cast and wrought, and all types (grades) of cast irons and blast furnace iron for chemical and spectrochemical determination of composition. This practice is similar to ISO 14284.

1.2 This practice is divided into the following sections.

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1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.4 For specific precautions, see 6.4.3.5, 9.4.4.3, and 12.5.1.1 as well as Section 5.

2. Referenced Documents

2.1 *ASTM Standards:*

A 48 Specification for Gray Iron Castings[2]

A 751 Test Methods, Practices, and Definitions for Chemical Analysis of Steel Products[3]

E 135 Terminology Relating to Analytical Chemistry for Metals, Ores, and Related Materials[4]

E 415 Test Method for Optical Emission Vacuum Spectrometric Analysis of Carbon and Low-Alloy Steel[4]

E 1010 Practice for Preparation of Disk Specimens of Steel and Iron for Spectrochemical Analysis by Remelting[4]

E 1087 Practice for Sampling Molten Steel from a Ladle Using an Immersion Sampler to Produce a Sample for Spectrochemical Analysis[5]

2.2 *ISO Documents:*

ISO 9147 Pig irons–Definition and classification[6]

ISO 14284 Steel and iron—Sampling and preparation of

[1] This practice is under the jurisdiction of ASTM Committee E01 on Analytical Chemistry for Metals, Ores, and Related Materials and is the direct responsibility of Subcommittee E01.01 on Iron, Steel, and Ferroalloys.

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[2] *Annual Book of ASTM Standards,* Vol 01.02.

[3] *Annual Book of ASTM Standards,* Vol 01.03.

[4] *Annual Book of ASTM Standards,* Vol 03.05.

[5] Discontinued 1995; see *1994 Annual Book of ASTM Standards,* Vol 03.06.

[6] Available from American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.

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