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Continuous analyzer for mercury in flue gas

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Electric Measuring Instruments Manufacturers' Association (JEMIMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (JIS B 7994: 2016), which has been technically revised.

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Continuous analyzer for mercury in flue gas

JIS B 7994: 2021

1 Scope

This Japanese Industrial Standard specifies requirements for analyzers for performing continuous measurement of flue gas emitted from a fixed source for the purpose of monitoring its gaseous mercury concentration (hereafter referred to as analyzers). The principle of the measurement specified in this Standard is based on the reduction of metallic mercury or mercury compounds in the flue gas using a reducing agent and the atomic absorption spectrometry.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7551	Variable area flowmeters
JIS C 1302	Insulation resistance testers
JIS K 0095	Methods for sampling of flue gas
JIS K 0212	Technical terms for analytical chemistry (optical part)
JIS K 0215	Technical terms for analytical chemistry (Analytical instrument part)
JIS K 0222	Methods for determination of mercury in stack gas
JIS K 8136	Tin(II) chloride dihydrate (Reagent)
JIS K 8139	Mercury (II) chloride (Reagent)
JIS K 8541	Nitric acid (Reagent)
JIS K 8780	Pyrogallol (Reagent)
JIS K 9502	L(+)-Ascorbic acid (Reagent)
JIS Z 8103	Glossary of terms used in measurement

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in JIS K 0212, JIS K 0215, JIS K 0222 and JIS Z 8103 apply.

3.1

sample gas

flue gas which is introduced into the spectrometer after being pretreated through a filter or the like

3.2