

Code for Facilities, Technology and Inspection for Manufacturing of Portable Butane Stoves

Personnel

Gas Technical Standards Committee

Chairman	Kwang-Won Lee, Professor of Hoseo University
Vice-Chairman	Seung-Hoon Nam, Principal Researcher of KRISS
Ex Officio Member	Hui-Won Lee, Manager of Energy Safety Department, Ministry of Trade, Industry & Energy
	Hae-Myeong Yang, Director of Technology and Safety, Korea Gas Safety Corporation
High-Pressure Gas	Seung-Hoon Nam, Principal Researcher of KRISS
	Beom-Seok Lee, Principal Professor of Kyung Hee University
	Dong-Myeong Ha, Professor of Semyung University
	Chang-Gi Kim, Principal Researcher of Korea Institute of Machinery and Materials
	Hyuk-Myun Kwon, Director General of Occupational Safety & Health Research Institute
	Su-Dong Byun, CEO of Q-Best
Liquefied Petroleum Gas	Doo-Seon Park, Managing Director of Daesung Industrial Gas Co., Ltd
	Hyeong-Hwan Ann, Professor of Korea National University of Transportation
	Byeong-Hak Choei, Professor of Gangneung-Wonju National University
	Seong-Min Lee, Director of KOGAS Research Institute
	Yong-Gwon Lee, Vice-President of EG CNE Co.,Ltd
	Gi-hyeon Jang, Director of Kiturmi
	Jeong-Sik Chon, Direto of E1 CO., Ltd.

History of Establishment and Revision of KGS Code		
Code Number	KGS AB336 ²⁰¹⁸	
Code Title	Code for Facilities, Technology and Inspection for Manufacturing of Portable Butane Stoves	

Date of	Description
Establishment/Revision	
December 31, 2008	Established (Notification of the Ministry of Knowledge Economy No. 2008-380)
May 15, 2009	Revised (Notification of the Ministry of Knowledge Economy No. 2009-193)
September 24, 2010	Revised (Notification of the Ministry of Knowledge Economy No. 2010-374)
January 5, 2012	Revised (Notification of the Ministry of Knowledge Economy No. 2011-635)
June 26, 2012	Revised (Notification of the Ministry of Knowledge Economy No. 2012-313)
May 27, 2014	Revised (Notification of the Ministry of Trade, Industry & Energy No. 2014-231)
November 17, 2014	Revised (Notification of the Ministry of Trade, Industry & Energy No. 2014-589)
November 4, 2015	Revised (Notification of the Ministry of Trade, Industry & Energy No. 2015-578)
January 8, 2016	Revised (Notification of the Ministry of Trade, Industry & Energy No. 2016-6)
December 15, 2016	Revised (Notification of the Ministry of Trade, Industry & Energy, No. 2016-638)
December 13, 2018	Revised (Notification of the Ministry of Trade, Industry & Energy No. 2018-607)

I

Table of Contents

Table of Contents

1. General	1
1.1 Scope	1
1.2 Validity of Code	1
1.3 Reference Codes and Standards	2
1.3.1 Inspection standard for new technology products	2
1.3.2 Registration standard for manufacturing of foreign pro-	ducts <newly established="" or<="" td=""></newly>
June	2
1.4 Definitions	2
1.5 Application of Codes and Standards	3
1.6 Interim measures <revised 2015="" 4,="" november="" on=""></revised>	3
1.7 Types of Stoves	4
1.8 Restriction to Use of Parts	4
2. Manufacturing Installation Standard	4
2.1 Manufacturing Facilities	4
2.2 Inspection Facilities	5
3. Manufacturing Technology Standard	6
3.1 Materials	6
3.2 Construction and Dimensions	7
3.2.1 Common	8
3.2.2 Cassette type	9
3.2.3 Direct coupling type	10
3.2.4 Split type	11
3.3. Devices	12
3.3.1 Power failure safety device (not applicable)	13
3.3.2 Head wind prevention device (not applicable)	13
3.3.3 Flame supervision device	13
3.3.4 Other devices	13
3.4 Performance	13
3.4.1 Product performance	14
3.4.2 Material performance	16
3.4.3 Operating performance	17
3.5 Heat Treatment (currently not used)	19
3.6 Marking	19

3.6.1 Product marking	19
3.6.2 Acceptance mark	19
3.6.3 Enclosure of manual <revised 2017="" 9,="" january="" on=""></revised>	20
3.6.4 Marking of gas safety instructions	20
4. Inspection Standard	22
4.1 Kinds of Inspections	22
4.1.1 Manufacturing installation inspection	22
4.1.2 Product inspection	22
4.2 Object Audit of Process Inspection	24
4.2.1 Application for audit	24
4.2.2 Audit method	25
4.2.3 Adjudication committee	26
4.3 Inspection Items	26
4.3.1 Manufacturing installation inspection	26
4.3.2 Product inspection	26
4.4 Inspection Method	29
4.4.1 Manufacturing installation inspection	29
4.4.2 Product inspection	29
4.5 Other Inspection Standards	33
4.5.1 Inspection of imported products	33
4.5.2 Partial omission of inspection	33
4.5.3 Disposal of rejected products (not applicable)	34
4.5.4 Detailed inspection standards	34
Appendix A General Standard for Operation of Quality Control System for	Gas Appliance
Manufacturing Plants	35
Appendix B Test Conditions for Portable Butane Gas Stoves <newly established="" on<="" td=""><td>May 27, 2014></td></newly>	May 27, 2014>
	40
Appendix C Performance Test Method for Portable Butane Gas Stoves < Newly estal	olished on May
27, 2014>	42

Code for Facilities, Technology and Inspection for Manufacturing of Portable Butane Gas Stoves

1. General

1.1 Scope

- **1.1.1** This Code applies to facilities, technology and inspection for manufacturing of portable butane stoves (hereinafter referred to as "stoves") which use jointed or welded gas canisters filled with liquefied butane gas among the combustors in conformity to the Enforcement Regulation of the Safety Control and Business Regulation of Liquefied Petroleum Gas Act (hereinafter referred to as "Enforcement Regulation"), Table 3 No. 10 and Table 7, No.4-j. <Revised on November 4, 2015>
- **1.1.2** The combustors excluded from the gas appliances subject to license in conformity to the Enforcement Regulation, Table 7, No.5-b are as follows:
- (1) Gas torches used for welding and cutting,
- (2) Dryer combustors used in casting sand dryers, printing ink dryers, concrete dryers, etc.,
- (3) Combustors for heat treatment furnaces or heating furnaces used in metal heat treatment furnaces, glass and ceramic furnaces, atmosphere gas furnaces, etc.,
- (4) Melting furnace combustors used in metal melting, glass melting, etc.,
- (5) Combustors attached to gas canisters of which internal volume is less than 100 mL, and
- **(6)** Other combustors acknowledged by the Minister of Trade, Industry & Energy to have no safety problem.

1.2 Validity of Code

1.2.1 This Code has passed the deliberation and resolution by Gas Technical Standards Committee (Bill No. 2018-9, November 23, 2018) in conformity to the High Pressure Gas Safety Control Act (hereinafter referred to as "High Pressure Gas Act"), Article 33-2 in accordance with the Safety Control and Business Regulation of Liquefied Petroleum Gas Act (hereinafter referred to as "Act"), Article 45Clause 1, has been approved by the Minister of Trade, Industry & Energy (Notification No. 2018-607 of the Ministry of Trade, Industry & Energy, December 13, 2018) and is valid and

I