

Code for Facilities, Technology and Inspection for Manufacturing of Gas Grills

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 AB335 ²⁰¹⁸ | |
| Code Title | Code for Facilities, Technology and Inspection for Manufacturing of Gas Grills | |

| 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) |
| April 5, 2012 | Revised (Notification of the Ministry of Knowledge Economy No. 2012-179) |
| June 26, 2012 | Revised (Notification of the Ministry of Knowledge Economy No. 2012-313) |
| May 20, 2013 | Revised (Notification of the Ministry of Knowledge Economy No. 2013-087) |
| 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) |
| January 9, 2017 | Revised(Notification of the Ministry of Trade, Industry & Energy No. 2017-3) |
| December 13, 2018 | Revised (Notification of the Ministry of Trade, Industry & Energy No. 2018-607) |
| | |
| | |
| | |
| | |
| | |
| | |

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 products | 2 |
| 1.4 Definitions | 2 |
| 1.5 Application of Codes and Standards | 3 |
| 2. Production Installation Standard | 3 |
| 2.1 Manufacturing Facilities | 3 |
| 2.2 Inspection Facilities | 4 |
| 3. Manufacturing Technology Standard | 5 |
| 3.1 Materials | 5 |
| 3.2 Construction and Dimensions | 6 |
| 3.3 Devices | 7 |
| 3.3.1 Power failure safety device | 7 |
| 3.3.2 Head wind prevention device (not applicable) | 8 |
| 3.3.3 Flame supervision device | 8 |
| 3.3.4 Other devices | 8 |
| 3.4 Performance | 8 |
| 3.4.1 Product performance | 8 |
| 3.4.2 Material performance | 9 |
| 3.4.3 Operating performance | 10 |
| 3.5 Heat Treatment (currently not used) | 13 |
| 3.6 Marking | 13 |
| 3.6.1 Product marking | 13 |
| 3.6.2 Acceptance mark | 13 |
| 3.6.3 Enclosure of manual | 14 |
| 4. Inspection Standard | 14 |
| 4.1 Kinds of Inspections | 14 |
| 4.1.1 Manufacturing installation inspection | 14 |
| 4.1.2 Product inspection | 14 |

| 4.2 Object Audit of Process Inspection | 17 |
|--|-------------|
| 4.2.1 Application for audit | 17 |
| 4.2.2 Audit method | 17 |
| 4.2.3 Adjudication committee | 18 |
| 4.3 Inspection Items | 18 |
| 4.3.1 Manufacturing installation inspection | 18 |
| 4.3.2 Product inspection | 18 |
| 4.4 Inspection Method | 21 |
| 4.4.1 Manufacturing installation inspection | 21 |
| 4.4.2 Product inspection | 22 |
| 4.5 Other Inspection Standards | 25 |
| 4.5.1 Inspection of imported products | 26 |
| 4.5.2 Partial omission of inspection | 26 |
| 4.5.3 Disposal of rejected products (not applicable) | 26 |
| 4.5.4 Detailed inspection standards | 26 |
| Appendix A General Standard for Operation of Quality Control System for Ga | s Appliance |
| Manufacturing Plants | 27 |
| Appendix B Test Conditions for Gas Grills | 32 |
| Appendix C Test Methods of Gas Grills | 35 |

Code for Facilities, Technology and Inspection for Manufacturing of Gas Grills

1. General

1.1 Scope

- **1.1.1** This Code applies to facilities, technology and inspection for manufacturing of the liquefied petroleum gas or city gas grills (hereinafter referred to as "grills") which come under the following (1) to (3) 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) Total heat input rate is not over 7.0 kW (6,000 kcal/hr).
- (2) The heat input rate of one burner is not over 4.2 kW (3,600 kcal/hr).
- (3) The working gas pressure is not over 3.3 kPa.
- **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 be free of any problem in safety control.

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, Clause 2 in accordance with the Safety

I