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Factory Registration Manual
for Manufacturers of Overseas Gas Cylinders, Cylinder Valves(including safety valves) and Pressure Vessels

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1. Purpose

The purpose of this manual, under the Article 5, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law regulations, is to guide the outline of the factory registration system of manufacturers wishing to export high-pressure Cylinders, Cylinder Valves(including safety valves) and Pressure Vessels to Korea and those subject for re-registration under the Enforcement Ordinance Article 5, Paragraph 2, Item 1 of the same law. This manual also helps to describe the procedure and method of technical examination and factory Audit, which are the factory registration conditions for manufacturers, that is run by the Korea Gas Safety Corporation under the Article 5, Paragraph 2 of the Enforcement Ordinance regulations.

2. Enactment Background and Outline of the Registration System

2. 1 Enactment Background of the Registration System

To preliminarily prevent gas-related accidents due to high-pressure gas vessels that are not manufactured to the national standards or imported by unverified manufacturers for manufacture and testing. And also, to only allow foreign manufacturers verified for its quality assurance through factory Audits to export goods into Korea.

2. 2 Term Definitions Related to Factory Registration

☐ High-Pressure Gas

This relates to compressed gases (1 MPa or higher), liquified gases (0.2 MPa or higher), or other gases defined in Article 2 of the High-Pressure Gas Safety Management Law in room temperature.

☐ Vessels and Vessel Accessories

Vessels must be mobile and are required to charge high-pressure gases. Vessel accessories are components such as valves (including safety valves) that can be attached and detached from the vessels.

□ Specified Equipments

These equipments are designed for producing high-pressure gases of which are specified by law to perform design examination, material examination, and process examination in order to prevent any accidents. Such equipments include storage tanks, tanks installed on vehicles, pressure vessels, and safety valves.

□ Storage Tanks

These tanks are installed on the surface or underground to charge and store high-pressure gases.

□ Tanks Installed on Vehicles

These tanks are installed on vehicles to transport high-pressure gases.

□ Pressure Vessels

The product of pressure (MPa) and capacity (㎥) of these vessels exceeds 0.004. The pressure at 35℃ or the designed pressure is 0.2 MPa or more in the case of a liquified gas and is 1 MPa or more in the case of a pressured gas.

□ Welded Vessels

The plates of these vessels are molded and welded to each other.

□ Seamless Vessels

The plates of these vessels are molded with no seams.

□ Bonded or Soldered Vessels

These are disposable vessels that are 1 liter or less in capacity and is made by molding each of its plates and then bonding or soldering it in methods other than seam welding.

□ Special High-Pressure Gas

These are high-pressure gases utilized for special uses that are approved by the Minister of Commerce, Industry, and Energy. These gases include pressurized monosilane, pressurized diborane, liquid arsine, phosphine, hydrogen selenide, germane, and disilane utilized for uses such as semi-conductor cleaning.

2. 3 Subjects for Factory Registration

Overseas cylinders and other equipments are subject for manufacture under the regulations of Article 5, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law.

☐ Manufacture of Cylinders to contain high-pressure gases (excluding capacities less than 3㎗)
☐ Manufacture of high-pressure Cylinders accessories (valves, safety valves)
☐ Manufacture of high-pressure storage tanks, tanks installed on vehicles, or Pressure vessels

2. 4 Subjects for Registration Exemption

These include overseas vessels and other equipments specified by the enforcement regulations of Article 9, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law.

☐ Vessels and other equipments imported for experimental, research, and development uses
☐ Vessels and other equipments imported for use in foreign facilities based in Korea
☐ Vessels and other equipments imported attached to industrial machineries
☐ Vessels and other equipments imported as samples
☐ Vessels and other equipments imported to import high-pressure gases that are returned in 1 year or less
☐ Vessels and other equipments for special high-pressure gases
☐ Aerosol vessels
☐ Vessels and other equipments imported for exporting purposes
☐ Other vessels and equipments regulated by Article 5, Item and also those announced and recognized by the Minister of Commerce, Industry, and Energy that are deemed difficult for manufacture registration.

2. 5 System Procedure of Factory Registration

Factory registration procedures of the manufacturers subject for registration consists of technical examination, which is a document study of manufacturing standards, examination equipment abilities, and quality management per process, and factory inspection, which is a field inspection of the technical examination matters and quality management regulations.

In order to receive registration, set the type of equipment, such as a vessel, to register then produce its required papers and apply for the technical examination.

After receiving a technical examination paper by adapting the registration standards of technical examination results, apply for and receive factory inspection from the Korea Gas Safety Corporation upon technical examination matters and quality management regulations.

When the factory inspection results are suitable, a results paper on the factory inspection will be issued. Attach a technical examination paper and a factory inspection results paper on it to apply for and receive factory registration by the Ministry of Commerce, Industry, and Energy.

3. Related Laws of the Registration System

The laws related to factory registration for overseas manufacturers are as follows.

[Law] Article 5, Paragraph 2, High-Pressure Gas Safety Management Law

[Enforcement Ordinance] Article 5, Paragraph 2, High-Pressure Gas Safety Management Law

[Enforcement Regulations] Enforcement Regulations Article 4~Article 9 Paragraph 2, High-Pressure Gas Safety Management Law

[Enforcement Regulations Table] Enforcement Regulations Attachment Table 10, 12, High-Pressure Gas Safety Management Law

[Combined Notice] Section 12~17, High-Pressure Gas Safety Management Standards Notification

4. Registration Standards

4. 1 Classification of Manufacture Registration

Manufacturers subject for registration must register accordingly to the registration division on manufacturing methods and types of overseas cylinders, cylinder valves, tanks and pressures.

No.	Registration class of the manufacturing methods and the types of overseas vessels and other equipments	
1	Steel seamless cylinders	Spinning type
2		Billet type
3		Deep-Drawing type
4	Aluminum seamless cylinders	Spinning type
5		Billet type
6		Deep-Drawing type
7	Welding cylinders with capacity less than 500ℓ	
8	Cryogenic cylinders with capacity less than 500ℓ	
9	Welding cylinders and Cryogenic cylinders with capacities higher than 500ℓ	
10	Bonding cylinders	
11	Composite cylinder	Steel liner
12		Aluminum alloy liner
13		Non-metallic liner
14	Non refillable cylinders	
15	cylinder accessories (valves, safety valves)	
16	Storage tanks	
17	Tanks installed on vehicles	
18	Drums	
19	Heat exchangers	
20	Towers	
21	Reactors	
22	Other overseas Cylinders, Cylinder Valves, Tank, and Pressure Vessels	

4. 2 Equipment Standards of Manufacture and Examination

Manufacturers subject for registration must prepare manufacture examination equipments set by the facility standards under the enforcement regulations Table 10 and 12 of the High-Pressure Gas Safety Management Law or manufacture examination equipments of overseas standards that are recognized and deemed appropriate as manufacture facility standards by the Minister of Commerce, Industry, and Energy. Each equipment must maintain the appropriate competence and accuracy upon the manufacture examination of the overseas vessels and other equipments set to register.

□ Related Standards

[Table1]Refer to the competence standards of manufacture equipments
[Table2]Refer to the competence standards of examination equipments

4. 3 Technical Manufacturing Standards

The technical manufacturing standards of the manufacturers subject for registration are set as the technical standards under the enforcement regulations Table 10 and 12 of the High-Pressure Gas Safety Management Law or foreign standards that are deemed appropriate by the Minister of Commerce, Industry, and Energy.

□ Related Standards

[Table3] Refer to the technical standards of manufacture

4. 4 Quality Management Regulations of Registered Manufacturers

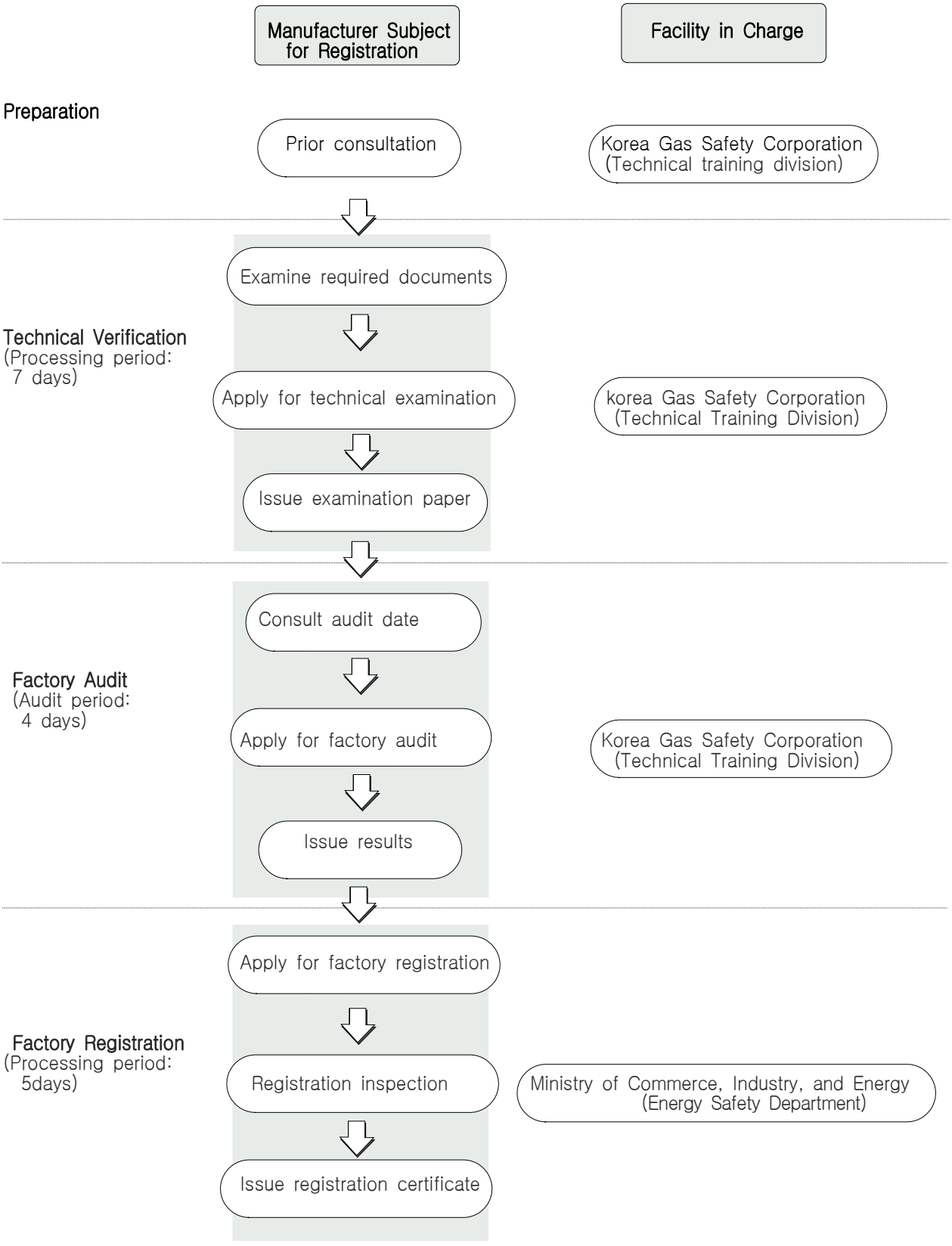
Manufacturers subject for registration must operate as a quality management system that can assure the safe quality of products through quality management per process and the entire factory.

Quality management inspection is processed through paper inspection, field inspection, and worker interviews where the appropriate fulfillment of quality management regulations is inspected for.

□ Related Standards

[Table 4] Quality management regulation standards

4. 5 Factory Registration Work Flow



5. Registrations

Manufacturers subject for registration must be checked for its quality assurance competence through technical verification and factory inspection by the Korea Gas Safety Corporation under the regulation Article 5, Paragraph 2 of the High-Pressure Gas Safety Management Law.

5. 1 Technical Verification

Technical verification deals with verifying documents on the manufacturers' current status, technical standard of manufacture and inspection, quality management per process, manufacture and inspection equipments, and outside firm quality management.

5. 2 Factory Inspection

Factory inspection is a procedure that surveys on-the-spot technical examination matters and quality management regulations. It consists of manufacture-inspection equipments, quality management per process, quality management of outside processes, and verification on quality management regulations.
Results that does not meet the inspection standards must take a reinspection.

5. 3 Factory Registration

Factory registration inspects the appropriateness of registration stand ards of factory inspection results and technical examination docume nts on the inspection of manufacture-examination equipments and it s technical standards, examination standards, and procedures along with quality management regulations.

6. Application of Registration Inspection

6. 1 Application of Technical Examination

Application of technical examination for manufacturers subject for registration must be carried out by attaching the required documents (3 pages) on the 'Technical Examination Application Form' and submit it to the Korea Gas Safety Corporation.

All documents related to factory registration must be prepared in Korean. An English alternative can be submitted when the Korean counterpart cannot be prepared.

6. 1. 1 Fill In the Technical Examination Application Form

1)Applicant (name of business, name of representative, business address)
Fill in the name of business, name of representative, and the address of business. Applicants not representing the business must attach a letter of attorney from the representative.

2)Overseas cylinders, cylinder valves, tanks and pressure vessel Types
Fill in the vessel wishing to register accordingly to the classifications.

6. 1. 2 The Required Documents for Technical Examination Application Form

1)Present Status of the Manufacturer
The present status of the representative, company history, and address (including pamphlets)

2)Facility Installation Planning
Submit the guide map, factory equipment arrangement plan, and installation planning of the registered company.

3)Technical Manufacturing Standards and Quality Management per Process

[Technical Standards]

1.Strength calculations and design data
2.Material standards and material welding test standards
3.Manufacturing standards, standards and procedures of test and examination
4.Welding procedures (WPS, PQR, WPQ) and heat-process design data
5.Other technical standard matters

[Manufacture Process and Instruction Manual]

1.Manufacture process upon manufacturing standards
2.Process examination standards of each process
3.Outer manufacture process map and process examination standards
4.Other instruction manuals of manufacture processes

4)Manufacture and Examination Facility Details

-Manufacture Facility Details (citations)

Manufacture Facility	Type	Manufacturer	Format	Features	Quantity
1)Parent Material Cutting Equipment	Shearing M/C	A Inc.	S-100	Nominal maximum measurement 2.7m thickness 6㎜	1
2)End Plate Molding Equipment	Blanking M/C	B Inc.	B-30	Pressurization 300t Dummy treatment density ±0.2㎜	2

- Examination Facility Details (citations)

Examination Equipment	Type	Manufacturer	Format	Features	Quantity
1)Measuring Instrument	Micrometers	A Inc.	Q-100	Measuring range 0~200㎜	10
	Ultrasonic thickness measuring instrument	B Inc.	B-30	Measuring range 0~300㎜	2
2)Material Tester	Tensile, Bending, Flattening tester	C Inc.	M-90	Maximum load 500kN	1

5)Specification and Drawing of the Manufacture of Overseas cylinders, cylinder valves, tanks and pressure vessels.
-Drawing (including assembly drawing and component drawing) and Specification

6)Related Documents of Outside Manufacturers (identical to manufacturer)
-Current status of outside manufacturers
-Specifications of manufacture and examination equipments & examination standards upon work requirement paper
-Quality management per outer process

6. 1. 3 Technical Examination Costs

The cost of applying for a technical examination is stated under the cost regulations of Article 22 of the High-Pressure Gas Safety Management Law.

□ Technical Examination Costs
-3 or less types of Cylinders, Cylinder Valves, tanks and Pressure Vessels to register: ₩ 3,000,000
-4 or more types of overseas Cylinders, Cylinder Valves, tanks and Pressure Vessels to register: ₩ 4,200,000

6. 2 Application of Factory Inspection

To apply for a factory inspection (including regular, re-inspection, and re-registration), attach the required documents to the Factory Application Form under the Issue 8, Format 2 of the High-Pressure Gas Safety Management Law and present it to the Korea Gas Safety Corporation.

6. 2. 1 Filling the Application Form

1) Business Type
Write down the type of overseas vessels and other equipments to receive technical examination and register to the Ministry of Commerce, Industry, and Energy.

2) Audit Date

Write down the date to receive Audit. Factory Audit team, total time required, and the Audit schedule can be discussed and altered with the person in charge of the Audit.

6. 2. 2 Required Documents of the Application Form for Factory Audit

1)Facility installation plan (excluding cases where submission carried out during technical examination)

2)Instruction manuals about the following (excluding cases where submission carried out during technical examination)

- Design, purchasing, process management, examination, testing
- Purchasing procedure and warehouse examination
- Revision of testing and examination equipments
- Documents or record management related to the manufacture of overseas vessels and other equipments

3) Certificate of quality system (only for manufacturers possessing the ISO9000 series certifications)

6. 2. 3 Factory Audit Costs

The cost of applying for a factory audit is stated under the cost regulations of Article 22 of the High-Pressure Gas Safety Management Law.

(1) Factory Audit

□The total factory inspection cost is the price of each type of overseas vessels and other equipments (₩600,000) plus the basic charge of ₩5,000,000. If a manufacturing facility that has completed factory inspection wishes to add an item, the basic cost becomes ₩1,500,000.

□Overseas Audit additionally appends ₩900,000 (₩450,000 for less than 4 hours of flight time) with flight fare, hotel expenses, food expenses, and daily expenses. However, food and daily expenses are set in a 4-day basis excluding the travel time. If the applicant provides the flight, lodging, and food, the corresponding costs

are regarded as paid.

(2) Re-Audit and Re-registration Audit

The expenses of re-audit and re-registration are equivalent to a new audit and the number of audit days is arranged according to the company regulations of the Korea Gas Safety Corporation, Factory Audit Process Guide. Audit details and dates can be discussed with the applicant.

6. 3 Application of Factory Registration

To apply for a factory registration, attach the required documents to the registration form under the Issue 4 of the High-Pressure Gas Safety Management Law and present it to the Korea Gas Safety Corporation.

6. 3. 1 Required Documents for Factory Registration

1)Business Plans

Business plans related to the registration

2)Technical Examination Documents and Factory Audit Results

The technical examination and the factory audit results issued by the Korea Gas Safety Corporation.

6. 3. 2 Factory Registration Costs

The cost of issuing a certificate of factory registration is stated under the enforcement regulations Table 35 of the High-Pressure Gas Safety Management Law

(1) Factory Registration Cost ₩25,000
(2) Revised Factory Registration Cost ₩15,000

7. Registration Inspection

7. 1 Technical Examination Enforcement

□Technical examination is processed in less than 7 days after reception. In the case where a complement is required or if there are any insufficient matters in the presented papers, then a complementary paper on the matter must be presented where its term is not assessed.

□The results of technical examination are processed as appropriate or inappropriate and follows by a complement report.

- -Appropriate: Presented papers are deemed appropriate to the registration standards
- -Complement Report: A notice is issued asking for complementary papers in cases where the submitted papers are insufficient or inappropriate to the registration standards
- -Inappropriate(return): If no complementary actions are taken after 2 complement reports, the entire application form is return with no refunds

□If the technical examination results are appropriate, the technical examination specifications are attached to the three submitted papers where one is sent to the applicant and the other two is stored by the Korea Gas Safety Corporation.

□If there are changes made in the registration matters, a technical examination on the change must be received to change the registration where the enforcement method is identical to a new technical examination.

7. 2 Factory Audit

□Audit days and inspection personnel can be discussed and settled with the applicant.

- Audit Days and Personnel

· Quality Management Inspection:
This is an inspection on the general factory software matter, the quality management system, where a 4 man-day is the standard.

· Manufacture Process Inspection:
This is an inspection on the manufacture process matters such as equipments that matches the sectional properties of manufacture registration and also quality management per process where a 8 man-day is the standard per each type of manufacture registration section.

· Audit Personnel:
A 12 man-day standard is divided into 3 personnel X 4 days for equipment inspection, manufacture processing inspection, and quality management inspection.

□ Preliminary Preparations for Audit

- Preparations of interpretations and Korean translations of the inspection data must be done by the applicant.
  · Design papers, drawings, catalogs, handling manuals, and etc. of manufacture equipments
  · Specifications, calibration certificates, handling manuals, and etc.
  · Related papers of outside process equipments in the case of outer process
- Related Papers of Quality Management
  · Related papers such as ISO/QC manuals and procedures or quality management regulations

□ The audit results are notified to the applicant in paper after audit based on the results of each auditor.

7.3. Factory Registration

□ Factory registration checks the appropriateness on the registration standards and on matters necessary for other quality assurances based on technical examination and the factory inspection results.

☐ The process term of factory registration is processed in less than 5 days after reception to issue the certificate of manufacture registration.

8. The Term of Factory Registration

☐The factory registration expires in 3 years. To maintain the registration, one must receive factory inspection prior to expiration and apply for registration at the Ministry of Commerce, Industry, and Energy to receive a new certificate of registration.

9. Obligations of Registered Manufacturers

☐ Maintaining the Registration Standards
Manufacturers that do not qualify for the registration standards and tries to register through an illegal method or violates other orders will have their registration suspended or cancelled under the regulations Article 9, Paragraph 3 of the High-Pressure Gas Safety Management Law.

☐ Registration Changes
Registered manufacturers must change registration according to the Enforcement Regulations Article 4, Item 2 of the High-Pressure Gas Safety Management Law if the followings have changed since the registration.

①Change of business office location
②Change in the type of overseas Cylinders, Cylinder Valves, tanks and Pressure Vessels
③Change of the manufacture process of overseas Cylinders, Cylinder Valves, tanks and Pressure Vessels

☐ Reporting Obligations
Registered manufacturers must immediately report registered matters that have been altered and is in need of revision registration to the registered agency.

☐ Indication of Cylinders, Cylinder Valves, tanks and Pressure Vessels

Registered manufacturers must label or indicate their Cylinders, Cylinder Valves, tanks and Pressure Vessels during import examinations under Table 25 of the High-Pressure Gas Enforcement Regulations

☐ Public Announcement Order

Overseas Cylinders, Cylinder Valves, tanks and Pressure Vessels distributed in Korea must gathered for examination under Article 44 of the High-Pressure Gas Safety Management Law and those with defects are collected, refunded, and exchanged of which its matters must be announced.

☐ Declaring the Abolition of Registration

If a registered manufacturer wishes to abolish its registered business, it must compose the format of Enclosure issue 9 under the Enforcement Regulations of the High-Pressure Gas Safety Management Law and report it to the Minister of Commerce, Industry, and Energy.

[Table 1] Equipment Competence Standards of Manufacture

1. Seamless Cylinder

Equipment	Equipment Competence Standards	Note
Cutting Equipment	The nominal maximum cutting facilities must be higher than the maximum measurement of the material used	
Billet Pressing Equipment	Must be able to press the material (maximum inside diameter) of a vessel: pressurization, pressurization stroke	Billet Type
Forming Equipment	The diameter of the forming equipment must be appropriate for the cylinder diameter	
Deep-Drawing /Forming Equipment	The diameter of the upper or deep drawing/ forming equipment must be appropriate upon the cylinder diameter while the drawing or diameter of other forming equipment must be appropriate upon the cylinder	Deep-Drawing Type
Upper Forming Equipment	The diameter of the forming equipment must be appropriate for the cylinder diameter	
Heat Treating Equipment	-Heat treating equipment: maximum heat temperature, measurement or speed -Temperature measuring equipment: thermocouple specifications or the specifications of temperature measurement recording equipment	
Cleaning Equipment	-The maximum diameter of vessels capable of processing vessel rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	
Entrance Screw Cutting Equipment	The diameter of the entrance screw cutting equipment must appropriate to the cylinders and accuracy management	
Neck-Ring Machining	The diameter of the neck-ring machining equipment must be appropriate on the vessel	

Equipment		
Protective Painting Equipment	-Painting methods Air spraying, airless spraying, electrostatic painting, powder painting, etc. -Preprocessors Debinding, short-blast, acid-cleaning, anodizing, water-cleaning -Dryers Direct heading, indirect heating	

2. Welded cylinder / Cryogenic welded cylinders

Equipment	Equipment Capacity Standards	Note
Cutting Equipment	The nominal maximum cutting equipment must be higher than the maximum measurement of the material used	
Upper forming Equipment	The material of the cylinder must be able to press: pressurization, press measurement	
Taper forming Equipment	The press pressure of the forming equipment must be able to perform vessel pressing	
Bending Equipment	The competence to bend the cylinder material: Maximum width, maximum thickness, and minimum bending diameter	
Machine Processing Equipment	The competence to process the maximum measurement material of the vessel	
Welding Equipment	Abilities of welders, dryers, ammeter, voltmeter, and temperature measuring instruments	
Cleaning Equipment	-The maximum diameter of vessels capable of processing cylinder rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	

Heat Treating Equipment	Heat treating equipment: maximum heat temperature, measurement or speed -Temperature measuring equipment: thermocouple specifications or the specifications of temperature measurement recording equipment	Excluding Cryogenic cylinder
Pipe Bending Equipment	The maximum diameter and winding competence of the pipes possible for processing	Cryogenic cylinder
Protective Painting Equipment	-Painting methods Air spraying, airless spraying, electrostatic painting, powder painting, etc. -Preprocessors Debinding, short-blast, acid-cleaning, anodizing, water-cleaning -Dryers Direct heading, indirect heating	Excluding Cryogenic cylinder
Vacuum Insulating Equipment	Winding competence of insulation material on the vessel	Cryogenic cylinder
Vacuum Exhaust Equipment	-Vacuum capability of the vacuum pump -Measuring of the degree of vacuum through the vacuum equipment	Cryogenic cylinder
Others	Other instruments and tools required for manufacture	

3. Bonding Vessels

Equipment	Equipment Competence Standards	Note
Cutting Equipment	The nominal maximum cutting equipment must be higher than the maximum measurement of the material used	
Upper forming Equipment	The diameter of the forming equipment must be appropriate for the cylinder diameter	
Taper forming Equipment	The competence to press the cylinder using the pressure of the forming equipment	

Bending Equipment	Bendable limit upon the material and thickness of the cylinder: maximum width, maximum thickness, minimum bending diameter	
Machine Processing Equipment	competence to process the maximum measurement material of the cylinder	
Bonding Equipment	Heat source, temperature measuring instrument, and etc. for Heat source, temperature measuring instrument, and etc. for bonding	
Cleaning Equipment	-The maximum diameter of cylinders capable of processing cylinder rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	
Others	Other instruments and tools required for manufacture	

4. Composite cylinder

Equipment	Equipment Competence Standards	Note
Cutting Equipment	The nominal maximum cutting equipment must be higher than the maximum measurement of the material used	
Billet Pressing Equipment	competence to press the material of maximum internal diameter of the cylinder: pressurization, pressurization stroke	Billet Type
Deep-Drawing /forming Equipment	The diameter of the upper or lower pressurization forming equipment must be appropriate to the diameter of the cylinder and also the mold or diameter of other forming equipments	Deep-Drawing Type
Heat Treating	Heat treating equipment: maximum heat	

Equipment	temperature, measurement or speed -Temperature measuring equipment: thermocouple specifications or the specifications of temperature measurement recording equipment	
Auto-Fretage Equipment	-The booster pressure must be 105% or higher and 115% or lower than the internal test pressure to allow pressure control -The maximum scale of the manometer must be 1.5X of the auto-frettage pressure and below 3X	
Cleaning Equipment	-The maximum diameter of cylinder capable of processing cylinder rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	
Filament Winding Equipment	The rotation speed and inverse speed competence of the vessel	
Machine Processing Equipment	The processing competence of the material of maximum measurement of the cylinder material	
Resin hardening Equipment	-Maximum heating temperature and measurement inside processing room -Specifications of the temperature measuring instrument	
Neck-Ring Equipment	The diameter of the neck-ring equipment must be appropriate on the vessel	
Scale	Measurement must be possible for each 0.1 kg or 1/200 of the cylinder weight	
Protective Painting Equipment	-Painting methods Air spraying, airless spraying, electrostatic painting, powder painting, etc. -Preprocessors Debinding, short-blast, acid-cleaning, anodizing, water-cleaning	

	-Dryers Direct heading, indirect heating	
Others	Other instruments and tools required for manufacture	

5. Non refillable cylinders

Equipment	Equipment Competence Standards	Note
Cutting Equipment	The nominal maximum cutting equipment must be higher than the maximum measurement of the material used	
Pressurization forming Equipment	The material of the cylinder must be able to press: pressurization, press measurement	
Taper forming Equipment	Competence of pressing the cylinder using the pressure of the molding equipment	
Bending forming Equipment	Bending competence of the thickness and material used by the cylinder: maximum width, maximum thickness, minimum bending diameter	
Machine Processing Equipment	Competence of processing the maximum measurement material of the cylinder	
Welding Equipment	Competences of welding equipments such as welders, dryers (welding rods), ammeter, voltmeter. and temperature measuring instruments	
Bonding Equipment	-Heat source and temperature measuring instruments for bonding	
Cleaning Equipment	-The maximum diameter of cylinders capable of processing cylinder rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	

Accessories machining Equipment	The competence to process the material of the cylinder of maximum measurement	
Others	Other instruments and tools required for manufacture	

6. Cylinder Accessories(valves, safety valves)

Equipment	Equipment Competence Standards	Note
Forging Equipment	-The maximum cutting equipment of the material cutting instrument must be equal or more than the maximum measurement of the accessories use material -The heating instrument must have the appropriate heating competence for manufacture -The temperature control device must be able to process temperature management -The competence of the presser must be appropriate	
Casting Equipment	-The molding machine must have the appropriate pressurization on mold manufacture -The melting furnace must have heating and temperature management competence of complete melting -The control device of maximum processing and temperature control of the heat treating equipment must be able to process heat treatment	
Cleaning Equipment	-The maximum diameter of cylinders capable of processing cylinder rotary washer, short blast, and sand blast -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	

Accessories machining Equipment	-Multi-spindle processing equipment: must be appropriate to the processing subject -For equipments other than multi-spindle processing, the diameter of the rack must be appropriate to the diameter of the accessories	
Accessories Assembling Equipment	-Automated Equipment: maximum production, diameter, and ratified torque -For equipments other than automated processing, they must be appropriate to the ratified torque of the accessory using torque wrench	
Others	Other instruments and tools required for manufacture	

7. Storage Tank, Tankers, and Pressure Vessels

Equipment	Equipment Competence Standards	Note
Cutting Equipment	The nominal maximum cutting measurement must be higher than the maximum measurement of the material used	
Pressing Equipment	The ability to press the material of maximum internal diameter of the vessel: pressurization, pressurization stroke	
Curvature forming Equipment	The ability to bend the material and thickness: maximum plate width, maximum thickness, and minimum curvature diameter	
Machine Processing Equipment	The competence to process the maximum measurement material of the vessel: maximum processing measurement, maximum loading	
Welding Equipment	The competence of welding equipments such as welders, dryers (welding rods), ammeter, voltmeter. temperature measuring instruments	
Heat-Treatment Equipment	-Heat treating equipment: maximum heating temperature, length or speed	

	-Temperature measuring equipment: thermocouple specifications or the specifications of temperature measurement recording equipment	
Cleaning Equipment	-The maximum diameter of process vessels and other equipments of rotary washers, short blasts, and sand blasts -The measurement of cleaning tanks or measurement, temperature, and etc. of construction equipments for cleaning equipments using acids or other substances -The maximum length of the rotating axis for rotary washers using instruments such as wires	
Others	Other instruments and tools required for manufacture	

[Table 2] Examination Equipment Competence Standards

1. Seamless Cylinders

Equipment	Equipment Competence Standards	Note
Measuring Equipment	-Vernier calipers, micrometers, ultra-sonic thickness measuring instruments must measure the minimum, the maximum, and the thickness -The screw gage and the taper gage must be able to calculate the image and measurement of the vessel	
Tensile Tester	-The competence and measurement required for examining cylinder, cylinder valves and tank, vessel must be appropriate -Maximum load of the tester, curvature tester jig measurement	
Impact Testing Equipment	-KS B5522 Charpy impact tester or the equivalent or better -Weighing, low temperature preserving	

	equipments (including temperature measuring instruments)	
Metallic Microscope	The magnification of the microscope must be 50X or higher	
Hardness Tester	-Must be appropriate to the KS B5524 Brinell hardness tester, KS B5525 Vickers hardness tester, KS B5526 Rockwell hardness tester, KS B 5527 Shore hardness tester or equivalent standards	
Non-Destructive Testing Equipment	-Testers, scanners, and counter test pieces of a ultrasonic testing Instrument must be appropriate for vessel examination methods -Testing instruments, magnetic particles or examination solutions, standard test pieces or comparative test pieces, infrared lighting instruments must be appropriate -Testing instruments, testing system, and comparative test pieces of the penetration testing instrument must be appropriate	
Internal Pressure Testing Equipment	-The boosting ability of the internal pressure testing equipment must be 1.5X or higher and 3.0X or lower than the maximum scale of the manometer -The expansion measuring instrument must be of a structure where the minimum scale of the burette is 1/100 of the previous increase or is measurable for every 1cc in the aspect of measuring yield increment while the measuring range of the temperature measuring instrument is appropriate to the temperature measurement of the press-in quantity and must not change to any alterations in the pressure	
Disruptive Testing Equipment	The booster of the disruptive testing instrument must have a boosting ability on disruptive test pressure and the manometer must be appropriate to the disruptive pressure measurement	

Scale	Measurement must be possible for each 0.1 kg or 1/200 of the vessel weight	
Leakage Testing Equipment	The boosting ability of the Leakage testing equipment must equal the leakage testing pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the testing pressure	
Endoscope or Lighting Tool	The endoscope or lighting tool must be of a structure to perform internal visual examination of the vessel	
Pressure Iteration Testing Equipment	-The boosting ability and the iteration or pressurization frequency of the iteration testing equipment must be appropriate to the examination method -The recording instrument must have every recording ability on iterated testing enforcement -The maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the maximum scale of the testing pressure -The temperature or humidity maintenance instrument must have the necessary range for the enforcement for environmental pressure iteration test or temperature pressure iteration test	
Others	Other instruments and tools required for examination	

2. Welding Cylinders / Cryogenic welded Cylinders

Equipment	Equipment Competence Standards	Note
Measuring Equipment	-Vernier calipers, micrometers, ultra-sonic thickness measuring instruments must measure the minimum, the maximum, and the thickness -The screw gage and the taper gage must be able to calculate the image and measurement of the vessel	

Tensile Tester	The competence and measurement required for examining cylinders must be appropriate	
Impact Testing Equipment	-KS B5522 Charpy impact tester or the equivalent or better -Weighing, low temperature preserving equipments (including temperature measuring instruments)	
Metallic Microscope	The magnification of the microscope must be 50X or higher	
Hardness Tester	-Must be appropriate to the KS B5524 Brinell hardness tester, KS B5525 Vickers hardness tester, KS B5526 Rockwell hardness tester, KS B 5527 Shore hardness tester or equivalent standards	
Non-Destructive Testing Equipment	-Testing instruments, magnetic particles or examination solutions, standard test pieces or comparative test pieces, infrared lighting instruments must be appropriate -Testing instruments, testing system, and comparative test pieces of the penetration testing instrument must be appropriate	
Radiographic Testing Equipment	Radiographic instrument, exposure materials, penetration borders, observer, and densitometer of the radiographic testing instrument must be appropriate	
Internal Pressure Testing Equipment	-The boosting ability of the internal pressure testing equipment must equal or exceed the internal test pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the testing pressure -The expansion measuring instrument must be of a structure where the minimum scale of the burette is 1/100 of the previous increase or is measurable for every 1cc in the aspect of measuring yield increment while the measuring range of the temperature measuring instrument is appropriate to the temperature measurement of the press-in quantity and must not change to any alterations in the pressure	

Disruptive Testing Equipment	The booster of the disruptive testing equipment must have a boosting ability on the disruptive test pressure and the manometer must be appropriate to the disruptive pressure measurement	
Scale	The measurement per 0.1kg or 1/200 of the vessel must be possible	
Leakage Testing Equipment	The boosting ability of the leakage testing equipment must equal or exceed the leakage testing pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the testing pressure	
Endoscope or Lighting Tool	The endoscope or lighting tool must be of a structure to perform internal visual examination of the vessel	
Insulation Testing Equipment	The flow-meter or weighting instrument of the insulation testing equipment must be appropriate for examinations on equipments such as a vessel	
Others	Other instruments and tools required for examination	

3. Non refillable Cylinders

Equipment	Equipment Competence Standards	Note
Measuring Instrument	-Vernier calipers, micrometers, ultra-sonic thickness measuring instruments must measure the minimum, the maximum, and the thickness -The screw gage and the taper gage must be able to calculate the image and measurement of the vessel	
Tensile Tester	-The competence and measurement required for examining vessels, freezers, or specified equipments must be appropriate -Maximum load of the tester, curvature tester jig measurement	
Safety Valve Testing	-The boosting ability of the safety valve testing equipment must equal or exceed the	

Equipment	operational test pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the internal test pressure -The temperature maintenance instrument must maintain heating at safety valve operation temperatures and the measuring range of the instrument must be appropriate	
Metallic Microscope	The magnification of the microscope must be 50X or higher	
Hardness Tester	-Must be appropriate to the KS B5524 Brinell hardness tester, KS B5525 Vickers hardness tester, KS B5526 Rockwell hardness tester, KS B 5527 Shore hardness tester or equivalent standards	
Non-Destructive Testing Equipment	-Detectors, transducers, and reserved test pieces of the ultrasonic detecting instrument must be appropriate to the vessel examination method -Testing instruments, magnetic particles or examination solutions, standard test pieces or comparative test pieces, infrared lighting instruments must be appropriate -Testing instruments, testing system, and comparative test pieces of the penetration testing instrument must be appropriate	
Pressurization Testing Equipment	-The boosting ability of the pressurization testing equipment must equal or exceed the internal test pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the testing pressure	
Disruptive Testing Equipment	The booster of the disruptive testing equipment must have a boosting ability and the manometer must be appropriate to the disruptive pressure measurement	
Scale	The measurement per 0.1kg or 1/200 of the vessel must be possible	

Leakage Testing Equipment	The boosting ability of the airtightness testing equipment must equal or exceed the airtightness test pressure and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the testing pressure	
Endoscope or Lighting Tool	The endoscope or lighting tool must be of a structure to perform internal visual examination of the vessel	
Rubber Hardness Tester	-The scale gap of the spring-type hardness tester must be even -The load on the pressure surface of the Olzen-type hardness tester must be 22.24±0.21N and the load device must be 13.35±0.07N -The pivot of the 프세이존즈-type hardness tester must be 100±1g and the minimum scale of the diesel gage must be 0.01mm	
Others	Other instruments and tools required for examination	

4. Composite Cylinders

Equipment	Equipment Competence Standards	Note
Measuring Equipment	-Vernier calipers, micrometers, ultra-sonic thickness measuring instruments must measure the minimum, the maximum, and the thickness -The screw gage and the taper gage must be able to calculate the image and measurement of the vessel	
Seal Testing Equipment	-The capability and measurement required for product examination must be appropriate -Maximum load of the tester, curvature tester jig measurement	
Expansion Measurement Tester	-The boosting ability of the expansion measurement tester must equal or exceed the internal test pressure and the maximum scale	

	of the manometer must be 1.5X or higher and 3.0X or lower than the internal test pressure -The expansion measuring instrument must be of a structure where the minimum scale of the burette is 1/100 of the previous increase or is measurable for every 1cc in the aspect of measuring yield increment while the measuring range of the temperature measuring instrument is appropriate to the temperature measurement of the press-in quantity and must not change to any alterations in the pressure	
Metallic Microscope	The magnification of the microscope must be 50X or higher	
Hardness Tester	-Must be appropriate to the KS B5524 Brinell hardness tester, KS B5525 Vickers hardness tester, KS B5526 Rockwell hardness tester, KS B 5527 Shore hardness tester or equivalent standards	
Non-Destructive Testing Equipment	-Detectors, transducers, and reserved test pieces of the ultrasonic detecting instrument must be appropriate to the vessel examination method -The testing instrument, magnetic particle or examination solution, standard test piece or comparative test piece, and infrared lighting instrument of the magnetic particle testing instrument must be appropriate -Testing instruments, testing system, and comparative test pieces of the penetration testing instrument must be appropriate	
Disruptive Testing Equipment	The booster of the disruptive testing equipment must have a boosting ability and the manometer must be appropriate to the disruptive pressure measurement	
Beam Scale	Measurement must be possible for each 0.1 kg or 1/200 of the vessel weight	
Leakage Testing Equipment	The boosting ability of the airtightness testing equipment must be 1.5X or higher and	

	3.0X or lower than the maximum scale of the manometer	
Endoscope or Lighting Tool	The endoscope or lighting tool must be of a structure to perform visual examination of the vessel's interior	
Room Temperature Pressure Iterated Testing Equipment	-The boosting ability and the iteration and pressurization frequency of the room temperature iterated testing equipment must be appropriate to the examination method -The recording instrument must have every recording ability on iterated testing enforcement -The maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the maximum testing pressure	
Environmental Pressure Iterated Testing Equipment or Temperature Pressure Iterated Testing Equipment	-The boosting ability and the iteration and pressurization frequency of the environmental pressure iterated testing equipment must be appropriate to the examination method -The recording instrument must have every recording ability on iterated testing enforcement -The maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the maximum testing pressure -The temperature or humidity maintenance instrument must be appropriate to the needs of the pressure iteration tester	
Minimum Thickness Testing Equipment	-The diameter of the cutting equipment must be appropriate to the vessel diameter and the boost ability and the iteration and pressurization frequency must be appropriate to the examination method -The recording instrument must have every recording ability on iterated testing enforcement -The maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the maximum testing pressure	
Flame Exposure Testing	The fuel type, heat combustion, or the length of wood used for flame testing must	

Equipment	be appropriate to the examination of overseas vessels, freezers, or specified equipments	
Pendulum Type Impact Testing Equipment	-The form, size, and the mass of the pendulum type impact testing instrument must be appropriate to the distance between the pendulum center and the rotation axis -The boosting, iteration, or pressurization frequency competence must be appropriate and the maximum scale of the manometer must be 1.5X or higher and 3.0X or lower than the maximum testing pressure	
Drop Testing Equipment	-The falling surface must be firm and flat -The boosting ability and the iteration and pressurization frequency of the iterate testing instrument must be appropriate to the examination method -The recording instrument must have every recording ability on the iteration testing enforcement -The maximum scale of the manometer must be 1.5X or higher and 3X or lower than the maximum testing pressure	
Protective Painting Acid Resistance Testing Equipment	-The constituent of the testing solution must be appropriate to the examination -The boosting pressure must equal or exceed the testing pressure -The maximum scale of the manometer must be 1.5X or higher and 3X or lower of the maximum testing pressure	
Inter-laminar Shear Testing Equipment	-The test and test piece must be of the KS F2246 standard or equivalent -The tester and measuring instrument must be appropriate	
Others	Other instruments and tools required for examination	

5. Storage Tanks, Tankers, and Pressure Vessels

Equipment	Equipment Competence Standards	Note
Measuring Equipment	-Vernier calipers, micrometers, ultra-sonic thickness measuring instruments must measure the minimum, the maximum, and the thickness	
Tensile Testing Equipment	-The capability and measurement required for product examination must be appropriate -Maximum load of the tester, curvature tester jig measurement	
Impact Testing Equipment	-KS B5522 Charpy impact tester or the equivalent or better -Weighing, low temperature preserving equipments (including temperature measuring instruments)	
Non-Destructive Testing Equipment	-Testers, scanners, and counter test pieces of a ultrasonic testing Instrument must be appropriate for vessel examination methods -Testing instruments, magnetic particles or examination solutions, standard test pieces or comparative test pieces, infrared lighting instruments must be appropriate -Testing instruments, testing system, and comparative test pieces of the penetration testing instrument must be appropriate -Radiographic instrument, exposure materials, penetration borders, observer, and densitometer of the radiographic testing instrument must be appropriate	
Internal Pressure Testing Equipment	-The boosting competence of the internal pressure testing instrument must be higher than the internal test pressure while the measuring range of the high-pressure system must be over 1.5x and below 3.0x than the internal test pressure. The temperature measuring instrument must be in the rage of measuring the temperature of the pressure test media.	
Leakage Testing Equipment	-The boosting competence of the airtightness testing instrument must be higher than the	

	airtightness test pressure while the measuring range of the pressure system must be over 1.5x and below 3.0x than the internal test pressure. The temperature measuring instrument must have 2 or more ranges needed for measuring the temperature of the internal pressure test media	
Others	Other instruments and tools required for examination	

[Table 3] Technical Standards of Manufacture

□ Facilities and Technical Standards Regulation of Article 9 of the High-Pressure Gas Safety Management Law

1. Table 10 states the facility standards and technical standards of manufacturing vessels.
2. Table 11 states the facility standards and technical standards of manufacturing freezers.
3. Table 12 states the facility standards and technical standards of manufacturing specified equipments.

□ Overseas standards that are recognized to be appropriate as the technical standards for manufacture by the Minister of Commerce, Industry, and Energy.

① USA: ASME, DOT, CGA, ANSI
② UK: BS, HSE
② Germany: DIN, AD-Merkblatt
④ France: NF, CODAP
⑤ Japan: JIS, High-Pressure Gas Safety Law
⑥ Australia: AS
⑦ EU: EN Code quote from the BS, DIN

[Table4] Quality Management Regulation Standards of Registered Manufacturers

1. Quality Management System

The CEO of a manufacturer subject for factory registration must establish, document, execute, and maintain a quality management system and must continuously improve its effectiveness. It must be assured that if a certain process that is affecting the quality is processed outside, such processes must be under management.

1.1 Paper Management

A documented procedure must be established in order to manage paper work and it must be under execution management to prevent confusion in work due to misuses of quality documents.

1.2 Record Management

A sequenced procedure must be established in order to manage records of which must be managed to allow easy processing of certificates, improvements, reading, and searching.

2. Management Responsibilities and Management Study

2.1. Management Responsibilities

2.1.1 The CEO must present a practice certificate of will to continuously improve the development, execution, and effectiveness of the quality management system.

2.1.2 The CEO must assure that client requests are settled and that client requests are fulfilled accordingly to the goal of increasing client satisfaction.

2.1.3 By adapting the purpose of the organization, the CEO must set a quality policy including the will of observing the requests and the will of continuously improving the effectiveness while assuring that communication and understandings are crossing within the organization.

2.1.4 The establishment of quality policies and consistent and measurable quality goals must be assured in related features and classes.

2.1.5 The CEO must assure that responsibility and authority is regulated and communicated within the organization.

2.1.6 A management agent must be appointed to responsibly run the entire operation of the quality management system without relations to any other responsibilities.

2.2 Management Study

The CEO must study the quality management system and maintain related records in a scheduled period to ensure continuing appropriateness, implementation, and effectiveness of the quality management system.

3. Resource Management

3.1 Human Resources

3.1.1 The personnel that are running tasks that has a direct effect on the product quality must be qualified through academic background, education training, proficiency, and experience.

3.1.2 Determine the personnel qualification, provide necessary education training, run appropriate evaluations, and maintain related the related records.

3.2 Infrastructure

Determine, acquire, and maintain the necessary development structure in order to attain the appropriateness on the product requirements.

3.3 Work Environment

The organization must determine and manage the necessary work environment in order to attain the appropriateness on the product requirements.

4. Product Attainment

4.1 Planning

The organization must plan and develop the process necessary for product attainment.

4.2 Client-Related Process

The organization must determine the client's requests, keep a

record after examining prior to agreement, and settle upon an effective way for communication.

4.3 Design and Development

The organization must appropriately execute planning, input, output, examination, verification, propriety-check, and modification management for design and development and must also maintain the related records.

4.4 Purchasing

The organization must guarantee that the purchased product suits the regulated purchasing requirements and must choose, evaluate, and revaluate the supplier while maintaining the related records. The organization must ensure the appropriateness of the regulated purchasing requirements and inspect the purchased product prior to communicating with the supplier.

4.5 Manufacture and Service

The organization must plan and establish manufactured and service products under the management conditions. The subjects for management must undergo special process, identification & tracing, client assets, product conservation, monitoring, and measuring device management.

5. Measurement Analysis and Improvement

The organization must plan and perform monitoring, measurement, analysis, and continuous improvement process in order to continuously demonstrate, guarantee, and improve the appropriateness and the effectiveness of the product and system.

5.1 client Satisfaction

Regarding on how The organization handles client requests, the information related to client understanding must be monitored.

5.2 Internal Inspection

The organization must carry out this task in a planned cycle in order to conclude the appropriateness and effectiveness of the system and must establish documented procedures and maintain

an operation record.

5.3 Process Monitoring and Measurement

Process monitoring and measurement must be carried out in order to check whether the planned results are being attained and to demonstrate the process competence.

5.4 Product Monitoring and Measurement

The product features must be monitored and measured to verify that the product requirements are met.

5.5 Management of Inappropriate Products

The responsibility and authority related to managing the process of inappropriate products must be regulated in documented procedures and must ensure identification and management to prevent unintentional use and guidance.

5.6 Data Analysis

The appropriate data must be determined, established, and analyzed to evaluate whether the system effectiveness can be demonstrated and executed continuously.

5.7 Correction Measures

Appropriate measures must be taken in order to remove the causes of inappropriateness and must establish documented procedures and maintain related records.

5.8 Preventive Measures

The organization must take the appropriate measures to remove the causes of latent appropriateness and must establish documented procedures and maintain related records.

[Enclosure 1]

Technical Examination Application Form				Process Term: 7 Days
Applicant	① Name of business			
	② Name of Representative		③ Resident number	
	④ Office address	(Tel :)		
⑤ Business address				
⑥ Business type	☐ Manufacture ☐ Storage ☐ Sales			
⑦ Type of Cylinder, cylinder valves, Tank and Pressure vessel,				

I hereby apply to receive technical examination under the regulations of Article 3 Item 6 of the High-Pressure Gas Safety Management Law and Article 5 Item 2 Number 3 of the administrative regulations.

/ / (Year/Month/Date)

Applicant (Signature)

to : Korea Gas Safety Corporation

※ Required Documents

1. 1 copy of facility installation plan (limited to the corresponding area in the case of changing)
2. 1 drawing and 1 manual on facility standards and technical standards (the corresponding section of change)

Commission :
Under the regulation Article 22 of the High-Pressure Gas Safety Management Law

[Enclosure 2]

Factory Inspection Application Form		Process Term 30 Days
Applicant	①Name of Business	
	②Name of Representative	
	③Office Address	(Tel :)
④Business Type		
⑤Business Address		
⑥Inspection day of choice		

I hereby apply to receive factory inspection under the administrative regulations of Article 7, Item 2 of the High-Pressure Gas Safety Management Law.

/ /

(Year/Month/Date)

Applicant (Signature)

to: Korea Gas Safety Corporation

	Commission :
※ Required Documents	Under the regulation Article 22 of the High-Pressure Gas Safety Management Law

1. 1 copy of facility installation plan (limited to the corresponding area in the case of desired changing)
2. 1 drawing and 1 manual on facility standards and technical standards (the corresponding section of change)

[Enclosure 3]

☐ Cylinders ☐ Freezer ☐ Specified Equipment	Manufacture Registration Application Form			Process Term 5 Days
Applicant	① Name of business			
	② Name of Representative		③ Resident number	
	④ Office address		(Tel :)	
⑤ Business address				
⑥ Business type	☐ Manufacture ☐ Storage ☐ Sales			
⑦ Type of Cylinders				

I hereby apply to receive manufacture registration of vessels (freezer, specified equipment) under the regulations of Article 5, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law.

/ / (Year/Month/Date)

Applicant (Signature)

to : Minister of Commerce, Industry, and Energy Governor

※ Required Documents	Commission : ₩25,000

1. 1 copy of a business project plan
2. 1 copy of the articles of association and 1 copy of register (these will only come under corporations; exemption in the case where each of the copies are already sent to the governor, mayor, or the district chairman and can be verified, or in the case of registering under the regulations of Article 5, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law)
3. 1 copy of technical examination (this concerns only the paper issued by the Korea Gas Safety Corporation and cases where technical examination is being taken under the regulations Article 3, Item 6 of the High-Pressure Gas Safety Management Law or where manufacture registration of overseas vessels, freezers, or specified equipments is being conducted under the regulations of Article 5, Paragraph 2, Item 1.)
4. 1 copy of factory inspection results (this concern cases where manufacture registrations of overseas vessels, freezers, or specified equipments are being conducted under the regulations Article 5, Paragraph 2, Item 1 of the High-Pressure Gas Safety Management Law)

[Enclosure 4]

☐ Cylinders ☐ Freezer **Manufacture Registration Change** ☐ Specified Equipment **Application Form**	Process Term
	4 Days

Applicant	① Name of business			
	② Name of Representative		③ Resident number	
	④ Office address			
⑤ Reasons				

Changed Contents

Section	Before Change	After Change
⑥ Business Location		
⑦ vessel, freezer, or specified equipment type		
⑧ vessel, freezer, or specified equipment manufacturing process		

I hereby apply to change the manufacture registration under the regulations of Article 5, Item 1 of the High-Pressure Gas Safety Management Law.

/ / (Year/Month/Date)

Applicant (Signature)

※Required Documents : 1 document stating the changed details and 1 technical examination certificate (Publications from the Korea Gas Safety Corporation only.)	Commission : ₩ 15,000

[Enclosure5]

Certificate of Manufacture Registration of Cylinders (Freezers & specified equipments)

① Business Type			
② Name of Business			
③ Business Address			
④ Name of Representative		⑤ Resident Number	
⑥ Cylindersl / Freezer / Specified Equipment	Type	Standard	

This certificate is granted for completing the manufacture registration under the regulations of Article 5, Item 1 of the High-Pressure Gas Safety Management Law.

/ / (Year/Month/Date)

Applicant
(Signature)

[Enclosure 6]

Business/Storage Use ☐ Suspension ☐ Abrogation Application Form						Process Term: Immediate
Applicant	① Name of business					
	② Name of Representative			③ Resident number		
	④ Office address			(Tel :)		
⑤ Permissions (Registration)	Type		No.		Date	
⑥ Suspension / Abrogation Date						
⑦ Reasons						

I hereby apply to suspend/abrogate the business or storage use under the regulations of Article 7 of the High-Pressure Gas Safety Management Law.

/ / (Year/Month/Date)

Applicant (Signature)

to : Minister of Commerce, Industry, and Energy

※Required Documents : None	Commission : None

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