

# Quality Control Manual

for

Shop Construction and Field Assembly of Power Boilers, Pressure Vessels, and Parts thereof in accordance with the ASME Boiler and Pressure Vessel Code Section I and VIII Div.1

## ASME Certification Mark with “S” & “U” Designator

Document No.		TWCO-QCM-01
Issue Date		July 24, 2014
Edition No/Rev. No.		1/0
Controlled Copy	Control No.	
	Use	
Uncontrolled Copy	Use	




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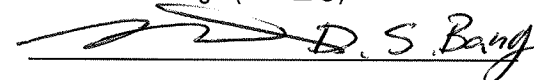
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## 0.1 Table of Contents

<u>Chapter</u>	<u>Description</u>	<u>Rev.</u>	<u>Date</u>
N/A	Cover Sheet (표 지)	0	July 24, 2014
0.1	Table of Contents (목 차)	0	July 24, 2014
0.2	Statement of Policy and Authority (관리 방침)	0	July 24, 2014
0.3	Glossary of Terms (용어해설)	0	July 24, 2014
1	Control of Quality Control Manual (QC 매뉴얼 관리)	0	July 24, 2014
2	Organization (조 직)	0	July 24, 2014
3	Order Entry, Design and Document Control (수주, 설계 및 문서관리)	0	July 24, 2014
4	Procurement and Material Control (구매 및 자재관리)	0	July 24, 2014
5	Examination & Inspection Program (시험 및 검사계획)	0	July 24, 2014
6	Welding Control (용접 관리)	0	July 24, 2014
7	Heat Treatment Control (열처리 관리)	0	July 24, 2014
8	Nondestructive Examination (비파괴 검사)	0	July 24, 2014
9	Nonconformity Control (부적합 관리)	0	July 24, 2014
10	Calibration of Measuring and Test Equipment (측정장비의 검교정)	0	July 24, 2014
11	Record Retention (기록유지)	0	July 24, 2014
12	Stamping, Certification and Registration (스탬핑, 인증과 등록)	0	July 24, 2014
13	The Authorized Inspector (공인 검사원)	0	July 24, 2014
14	Field Assembly (현장조립)	0	July 24, 2014
15	Exhibits (예시)	0	July 24, 2014

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	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	1 of 1

## 0.2 Statement of Policy and Authority

This Quality Control Manual has been developed to be used in the shop construction and field assembly of Power Boilers, Pressure Vessels and Parts to be stamped with Certification Mark with "S" and "U" Designators in accordance with the ASME Pressure Vessel Code Sec. I and VIII Div.1 as applicable.

본 품질관리매뉴얼은 ASME Code Section I 및 VIII Div. 1 의 규정에 따라 "S" & "U" 를 각인하게 될 발전용 보일러, 압력용기의 공장제작과 현장설치에 사용하기 위해 발행한다.

The management of TAEWON Corporation Limited (Hereinafter called "TWCO") is fully committed to supply quality products to our customers.

(주)태원 (이하 "TWCO" 이라 칭한다) 의 경영진은 우리의 고객에게 요건에 부합하는 제품을 공급 하기 위하여 최선을 다할 것이다.

For this purpose, all the staffs of TWCO are directed to follow this QC Manual and the Code.

이와 같은 목적을 위하여, 모든 직원은 제품 제작에 Code와 본 품질관리 매뉴얼을 충실히 이행할 것이다.

This QC Manual describes TWCO's Quality Control System in controlling all activities associated with the construction of the Code Items and filed assembly and shall be strictly adhered to.

본 품질관리 매뉴얼은 Code에 따라 제작과 관련된 모든 행위를 관리함에 있어서 우리회사의 품질관리 체계를 제시하고 또한 엄격히 적용할 것이다.

The QC Team Manager is completely independent from the production, date of delivery and cost, and he has sufficient and well defined responsibility, the authority, and the organizational freedom to identify quality control problems, to stop work, and to initiate, recommend and provide solutions to those problems.

품질관리 팀장은 생산, 납기, 비용과는 관계없이 품질 문제에 대한 판정, 작업중지와 해결책의 모색, 권고 및 제공을 위한 전반적인 권한과 조직적으로 독립된다.

In the event of disagreement among Teams in interpreting ASME Code and this QC Manual, I will make a final decision in strict compliance with the requirements of the ASME Code and this Manual.

본 품질관리매뉴얼을 해석하는데 있어 각 팀간의 불일치가 발생할 경우, 대표이사가 본 품질관리매뉴얼과 ASME 코드 범위 내에서 판단하여 최종결론을 도출하여 해결한다.


D. S. Bang
July 24, 2014  
President
Date

	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	1 of 5

## 0.3 Glossary of Terms

### 1. Definitions and Abbreviations of Terms (용어 및 약어해설)

Definitions and abbreviations for the terms used in this QC Manual are explained as follows:

QC 매뉴얼에서 사용되는 용어정의 및 약어는 아래와 같다.

### 2. Definitions (용어정의)

#### 1) AI (Authorized Inspector) (공인검사원)

An Inspector regularly employed by an ASME accredited Authorized Inspection Agency and holding a valid National Board commission with an "A" or "AR" endorsement.

내셔널 보드 위원회에서 발급한 "A" 또는 "AR" 유자격 자로서 공인검사기관에 등록된 검사원.

#### 2) AIA (Authorized Inspection Agency) (공인 검사기관)

Authorized Inspection Agency accredited by ASME in accordance with the requirements in the latest Edition of ASME QAI-1.

ASME QAI-1 의 최신판에 따라 등록된 공인검사기관을 말한다.

#### 3) Code (코드)

The ASME Boiler and Pressure Vessel Code Section I and VIII Division 1, as applicable, including the referenced Code Sections, and Standards

미국기계학회 보일러 및 압력용기 코드 섹션 1, 섹션 VIII 디비전 1, 관련 코드 및 표준.

#### 4) Code Item (코드 아이템)

Power Boilers, Pressure Vessels and parts thereof constructed in accordance with the ASME Boiler and Pressure Vessel Code Section I, VIII Division 1

자재 및 부품을 포함하는 코드 섹션 1, 섹션 VIII 디비전 1 의 규정에 따라 제작된 제품을 말한다

#### 5) Certification Mark Stamped Part (인증마크 표시 부품)

Prefabricated or preformed pressure part with welding which has been manufactured by a Certificate Holder except welded standard pressure parts as defined in the applicable construction Code.

적용되는 코드에서 정의한 대로 용접된 표준 압력부품을 제외하고 인증업체가 용접으로 제작한 조립품 또는 압력부품을 말한다.

	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	2 of 5

## 0.3 Glossary of Terms

### 6) Construction (제조)

All inclusive term comprising design, material, fabrication, examination, testing, inspection, safety relief, certification and Certification Mark stamping.

설계, 구매, 자재관리, 제작, 시험, 검사, 인증 및 코드 각인을 포함하는 포괄적인 용어

### 7) Customer Supplied Document (고객 공급문서)

A document provided by the User or his agency which sets forth the requirements as to the intended operating conditions in such detail to constitute and provide an adequate basis for selecting materials, design, fabrication, and inspection of the Code Items as required by the Code and/or contract.

사용조건에 맞는 요구사항을 결정하기 위하여 고객이나 대행인이 제공하는 모든 문서들을 말하며, 코드 아이টে에 대한 자재, 설계, 제작, 검사들이 해당코드 및/또는 계약조건에 맞추도록 하기 위함이다.

### 8) Hold Point (Hold 포인트)

A specific operation, inspection or test chosen by the specific party for which his presence, observation, or actual inspection is required. His acceptance or rejection of the result is specifically given at that time, and beyond which subsequent work shall not proceed without the specific party's sign off and date. An "H" mark shall be placed on the Traveler to indicate his Hold Point for the operation he desires to inspect.

특정한 기관에 의해 반드시 입회검사가 필요한 검사 및 시험공정을 말한다. 검사원에 의해 즉시 결과가 나타나야 하며, 검사원의 서명 없이는 다음공정으로 진행할 수 없다. "H"표시는 정지점을 나타내기 위해 트래블러 상에 표시해야 한다.

### 9) Manufacturer's Data Report / MDR (제작자의 자료 보고서)

Manufacturer's Data Report includes Manufacturer's Partial Data Report as applicable.

제작자의 자료 보고서는 특정한 언급이 없는 한 부분적인 자료 보고서를 포함한다.

### 10) Nonconformity (불일치 사항)

Any condition which does not comply with the applicable rules of the Code, this QC Manual, or other specified requirements.

코드, 품질관리매뉴얼, 또는 기타 규정요건에 일치하지 않는 조건을 말한다.

	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	3 of 5

## 0.3 Glossary of Terms

### 11) Review Point (검토포인트)

This point is the review of documents such as RT films and Test or Inspection Reports. Work may proceed upon advanced notification to the personnel who designated this point, but review evidence shall be obtained prior to final pressure test. or certification when there is no pressure test. An "R" mark shall be placed on the Traveler to indicate his Review Point for documents he desires to review.

본 공정은 RT 필름, 시험검사 보고서와 같은 문서 검토점이다. 지정한 자의 서식의 함의가 있을 경우, 그대로 작업이 진행될 수 있으나, 압력시험이나 인증서 발행(압력시험 없는 경우)까지는 검토에 대한 검증이 이루어져야 한다. "R"표시는 검토점을 나타내기 위해 트래블러 상에 표시해야 한다.

### 12) SNT-TC-1A

Recommended practice for "Personnel Qualification and Certification in Nondestructive Testing" issued by the American Society for Nondestructive Testing (Current Code adopted Edition).

미국 비파괴 검사협회(ASNT)에서 발행하고 최신 코드에서 채택한 "비파괴 검사원의 자격부여 및 인증"에 대한 권고 사항.

### 13) Signature and Date (서명 및 날짜)

Whenever review, approval, acceptance and certification are required throughout this QC Manual, the required signature, initial or stamp and date shall be shown on the document.

본 QC 매뉴얼을 통한 검토, 승인, 수락 및 인증이 요구 될 때는 요구되는 서명, 머리글자나, 스탬프 및 날짜가 문서상에 나타나져야 한다.

### 14) Witness Point (입회포인트)

A "W" mark shall be placed on the Traveler to indicate a Witness Point. An inspection, test, and examination or fabrication that is designated to be witnessed by a specific party. The specific party must be notified prior to performing the designated operation in advance. If the specific party is not present, the work may continue.

검사, 시험 또는 제작 공정에서 각 부서에서 입회가 필요하여 선정된 공정을 말한다. 각 부서는 선정된 공정이 진행되기 전에 검사 통보를 해야 하며 각 담당부서에서 선정된 공정이 진행되는 것을 지정된 검사원이 불참시 시는 입회 없이 다음 공정으로 진행할 수 있다.

### 15) Written Practice

A company procedure for qualification and certification of NDE personnel which is prepared based on the guide lines of Recommended Practice No. SNT-TC-1A and Code.

SNT-TC-1A 와 코드에서 요구하는 비파괴 검사원에 대한 자격인정 및 인증 절차를 말한다.

	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	4 of 5

## 0.3 Glossary of Terms

### 3. Abbreviations (약어)

**ASME** : The American Society of Mechanical Engineers (미국기계학회)

**BOM** : Bill of Material (자재리스트)

**KOLAS** : Korea Laboratory Accreditation Scheme (한국교정시험기관인증기구)

**ID** : Identification(식별)

**MDR** : Manufacturer's Data Report (제조자자료보고서)

**MPDR** : Manufacturer's Partial Data Report (제조자 부분자료보고서)

**M&TE** : Master List of Measuring and Test Equipment (측정 및 시험장비 관리대장)

**MTR** : Material Test Report(자재시험성적서)

**NB or National Board** : The National Board of Boiler and Pressure Vessel Inspectors  
1055 Crupper Ave. Columbus, Ohio, 43229, U.S.A (내셔널 보드)

**NDE** : Nondestructive Examination (비파괴검사)

**Organization**: the organization of TAEWON Corporation Limited.

**PO** : Purchase Order (구매발주서)

**POR** : Purchase Order Requisition (구매요구서)

**POS** : Purchase Order Specification (구매시방서)

**PQR** : Procedure Qualification Record (용접절차인정 기록서)

**QC** : Quality Control (품질관리)


**Shop** : Shop of TAEWON Corporation Limited.(주태원의 공장)

**TWCO** : TAEWON Corporation Limited (주태원)

**Welder** : Welder or Welding Operator as applicable (용접사 or 용접 조작자)

**WPS** : Welding Procedure Specification (용접절차시방서)

**WPQ** : Welder Performance Qualification Record (수동용접사 인정기록서)

 <b>TAEWON</b> 주식회사 태원	<h1>Quality Control Manual</h1>	Doc. No.	TWCO-QCM-01
		Ed'/Rev. No.	1 / 0
		Page No.	5 of 5

### 0.3 Glossary of Terms

**WOPQ** : Welding Operator Performance Qualification Record (자동용접사 인정기록서)

**W/O** : Work Order(작업지시서)