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Guidance on Industry Standard for Welded Fabrication and Construction

GIS 18-011

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This is the first issue of Engineering Technical Practice GIS 18-011. This Guidance on Industry Standard (GIS) is a new document, but incorporates elements from the following BP heritage document. Note has also been taken of the following ARCO heritage document when preparing this GP.

British Petroleum (RPSE)

GS 118-3 General Specification for Welded Fabrication and Construction

ARCO (APCES)

ES 42-95 Engineering Standard 42 - General Welding Fabrication and Inspection
for General Refinery Welding

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1. Scope

This GIS covers the application of welding in the design, fabrication, and installation of onshore terminals, refinery and process plant, offshore (fixed and floating) structures including FPSO hulls, storage and process vessels, and process and utilities piping. It also covers mechanical handling equipment, skid mounted packages, and individual components fabricated from forgings or castings, e.g. valve bodies. The welding associated with civil engineering works is also included.

Pipeline welding is excluded.

2. Normative references

The following normative documents contain requirements that, through reference in this text, constitute requirements of this technical practice. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this technical practice are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

American Welding Society (AWS)

AWS A2.4	Standard Symbols for Welding Brazing and Non-Destructive Examination.
AWS A3.0	Standard Welding Terms and Definitions.
AWS B5.16	Specification for the Qualification of Welding Engineers.

British Standards Institute (BSI)/European Standard (EN)

BS EN 22553	Welded, brazed and soldered joints – Symbolic representation on drawings (ISO 2553).
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British Standards Institute (BSI)

BS 499	Welding terms and symbols – Part 1: Glossary for welding brazing and thermal cutting. Supplement – Part 1: Glossary for welding, brazing and thermal cutting Definitions for electric welding equipment.
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European Standard (EN)

EN 29000	Quality systems – Guide to selection and use.
EN 29001	Quality systems – Model for quality assurance in design development, production, installation and servicing.

International Organisation for Standardisation (ISO)

ISO 3834-1	Quality requirements for welding. Fusion welding of metallic materials, Part 1. Guidelines for selection and use.
ISO 3834-2	Quality requirements for welding. Fusion welding of metallic materials. Part 2. Comprehensive quality requirements.
ISO 3834-3	Quality requirements for welding. Fusion welding of metallic materials. Part 3. Standard quality requirements.
ISO 3834-4	Quality requirements for welding. Fusion welding of metallic materials. Part 4. Elementary quality requirements.



ISO 3834-5	Quality requirements for welding. Fusion welding of metallic materials. Part 5. Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3, ISO 3834-4.
ISO 3834-6	Quality requirements for welding. Fusion welding of metallic materials. Part 6. Guidance on implementing ISO 3834.
ISO 4063	Welding and allied processes – Nomenclature of processes and reference numbers.
ISO 9001	Quality management and systems – Requirements.
ISO/DIS 14731	Welding coordination – Tasks and responsibilities.
ISO/TS 29001	Petroleum, petrochemical and natural gas industries sector specific quality management systems – Requirements for product and service supply organisations.

3. Terms and definitions

For the purposes of this GP, the following terms and definitions apply:

BP

BP plc, an associate or subsidiary or other organisation as defined in the conditions of contract.

Contractor

An organisation or company contracted by BP directly or indirectly.

Quality Assurance (QA)

Planned and systematic actions necessary to ensure quality and technical compliance. (i.e., to provide adequate confidence that a product will be fit for its intended service).

Quality Plan (QP)

A document prepared by the contractor, setting out the specific quality practices, resources, and sequence of activities relevant to the particular welding contract.

4. Symbols and abbreviations

ACCP	ASNT Central Certification Program
ASNT	American Society of Non-Destructive Testing
AUT	Automatic Ultrasonic Testing
BINDT	British Institute of Non-Destructive Testing
BGAS-CSWIP	Former British Gas ERS inspector qualification system now administered by TWI Certification under the CSWIP Scheme
C.Eng	Chartered Engineer (UK)
CSWIP	Certification Scheme for Welding and Inspection Personnel
Dipl.Ing.	Diploma Ingenieur (Europe)
EWE	European Welding Engineer

