

GENERAL SPECIFICATION

CIVIL WORKS

GS EP CIV 500

Foundations for onshore structures

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06	09/2015	General revision of test requirements, standards update
05	01/2012	General update
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03	10/2005	Addition of "EP" root to GS identification
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Rev.	Date	Purpose of the revision

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1. Scope

This specification deals with foundations as per below information:

- Specification defines the minimum requirements applicable to the design and the construction of the foundations
- Specification is for onshore structures. Offshore and nearshore structures are excluded
- Foundations can be:
 - Deep, such as driven piles, bored and cast-situ piles, diaphragm walls, micropiles, etc., or
 - Shallow, such as footings, rafts and pads.

2. Reference documents

This document is the TOTAL E&P transposition of the TOTAL S.A. Harmonized GS GR CIV 500.

The reference documents listed below form an integral part of this General Specification.

Where there are national regulations, their particular requirements, and those of the standards or codes to which they refer, shall be applied, supplementing or amending the provisions of this document.

If there are no mandatory national regulations, international regulations, standards and codes shall be applied.

If there are no applicable international standards and codes, the national standards and codes shall meet all the following rules:

- Be chosen from the External Documents listed below, according to the projects in hand
- Be defined in the job specification.

In the absence of a specific exemption, duly justified by the Contractor and agreed by the owner, codes and standards of different origins may not be used in whole or in part.

If certain points in these regulations need to be clarified, the contractor shall deal with the changes and/or additions to be made, according to all the following requirements:

- To be described and justified
- To be adapted to the nature and environment of the structure
- To be considered acceptable only when they have been examined and approved by the Company.

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Standards and codes proposed by the Contractor shall meet all the following requirements:

- A definitive list of regulations be taken from the reference documents defined in this specification and the project's job specification
- As only the main standards are mentioned; Contractor be responsible for compliance with any secondary standards.

The list provided in this document should not be regarded as exhaustive.

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published at the effective date of this document.

External Documents

Reference	Title
ASTM D1143/D1143M	Standard test methods for deep foundations under static axial compressive load
ASTM D4945	Standard test method for high-strain dynamic testing of deep foundations
ASTM D5780	Standard test method for individual piles in permafrost under static axial compressive load
ASTM D5882	Standard test method for low strain impact integrity testing of deep foundations
ASTM D6760	Standard test method for integrity testing of concrete deep foundations by ultrasonic crosshole testing
EN 1536/IN1	Execution of special geotechnical work. Bored piles
EN 1993-5	Eurocode 3 - Design of steel structures - Part 5: Piling
EN 1997 (All parts)	Eurocode 7 - Geotechnical design - All parts
EN 1998 (All parts)	Eurocode 8 - Design of structures for earthquake resistance - All parts
EN 12063	Execution of special geotechnical work. Sheet pile walls
EN 12699	Execution of special geotechnical works. Displacement piles
EN 14199	Execution of special geotechnical works. Micropiles

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Reference	Title
NF P94-150 (All parts)	Soil: investigation and testing - Static test on single pile - All parts
NF P94-151	Soil: investigation and testing - Isolated pile test under static transversal load
NF P94-153	Soil: investigation and testing - Tension rod test
NF P94-261	Justification of geotechnical work - National application standards for the implementation of Eurocode 7 - Shallow foundations
NF P94-262	Justification of geotechnical work - National application standards for the implementation of Eurocode 7 - Deep foundations

Total General Specifications

Reference	Title
GS EP CIV 300	Reinforced and prestressed concrete - Execution
GS EP CIV 401	Minimum requirements for building design and construction

3. Applicability

This specification is applicable to the following engineering & construction tasks:

- Preliminary and basic design
- Development of Project Particular Specifications (PPS)
- Detailed design when PPS do not exist
- Construction
- Expertise.