

CONTRACT TECHNICAL SPECIFICATIONS

**Support of safety design conformance
with requirements**

Technical Specifications

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1 Abstract

This contract covers support of ITER safety and licensing activities in particular ensuring that the detailed design respects the authorization basis represented by the licensing files submitted to the French nuclear safety authorities. It requires a sound knowledge of the ITER project and its documentation, in particular the safety and licensing documents.

2 Background and Objectives

ITER is a nuclear facility and will be licensed under French law as a Basic Nuclear Installation (Installation Nucléaire de Base, INB). In pursuing its nuclear license, the ITER Organization (IO) has submitted to the French authorities a request (Demande d'Autorisation de Création, DAC) in March 2010. This DAC comprises many documents totalling around 5000 pages, and including the Preliminary Safety Report (Rapport Préliminaire de Sûreté, RPrS). The commitments made in this report, such as the provisions assumed in safety analyses, represent the authorization basis on which a decree authorizing the construction of ITER will be based. These requirements are also recorded in Project Requirements and other ITER documents.

The examination of the RPrS by the authorities is ongoing. At the same time, the detailed design of the systems of ITER is progressing, with the requirements and their implementation recorded in Systems Requirements Documents (SRDs), Design Description Documents (DDDs), and others. Changes in the baseline design during this process are subject to change control through Project Change Requests (PCRs). It is essential to guarantee the conformance of the detailed design with the authorization basis, to identify and deviations, and to prepare a justification for the authorities to accompany any request for a change in the authorization basis in later stages of the licensing process. An element of this process is the checking of design documents to ensure that they respect the requirements derived from RPrS. Another is to assess the impact of all PCRs in terms of their potential to deviate from the authorization basis.

This contract will support the Nuclear Safety & Environment Division (NSED) during this process, to assist with the safety design integration through the implementation of requirements, and to assist in the process of monitoring changes for significant impacts on the safety basis. It will also support the review, writing and updating of documents prepared for submission to the regulatory authorities. These documents may be in French or English.

For efficient and timely execution of this work, the contractor must have sound knowledge of the ITER safety approach, ITER project documentation and the ITER safety and licensing documents, in particular RPrS. Experience is also required in developing regulatory requirements and in preparing documentation for submission to safety authorities.

3 Scope of Work

The scope will be defined by tasks to be assigned to the contractor by the NSE Division Head and the Safety Design & Integration (SDI) Section Leader. These assignments will be related to documents, in French or English, to be checked, reviewed and/or revised and updated.

4 Estimated Duration

Total of 100 days between 1st January 2011 and 31st December 2011.

5 Work Description

Details of work to be performed will be specified as the needs arise by the NSE Division Head or the SDI Section Leader. It will include:

- Review design changes and assist with the Authorization Basis Conformance Determination process;
- Review project documents and provide comments and recommendations for improvements, especially in respect of meeting safety requirements;
- Review project documents to identify potential deviations from the authorization basis defined by RPrS;
- Draft documents to be used as part of regulatory submissions, particularly in respect of justifying design changes;
- Develop other documentation related to safety, for example contributing to safety culture and to integrated safety management.

Each work task will be individually specified in consultation with the contractor, and a deliverable date agreed.

The work may be performed at the contractor's own premises. Visits to the ITER offices will be arranged as required, to discuss aspects of the work or to meet with other members of IO staff. The scheduling of these visits will be agreed in discussion with the contractor.

6 List of deliverables and due dates (proposed or required by ITER)

As mentioned above, each specific item of work to be performed will be discussed with the contractor before its commencement, and a deliverable date will be agreed.

7 Acceptance Criteria (including rules and criteria)

Each item of work to be completed according to agreed deliverables shall be reviewed and accepted by the contract Responsible Officer or a nominated representative.

8 Work Monitoring / Meeting Schedule

Completion of work items will be checked by the contract RO. For longer tasks an interim monitoring point may be defined. Meetings, to be held in ITER offices, will be scheduled from time to time as required and in discussion with the contractor.

9 Payment schedule / Cost and delivery time breakdown

Payments shall be effected on a quarterly basis, covering days actually worked, relevant reimbursable expenses and per diems as applicable.