IDM UID
PSTTZL
VERSION CREATED ON / VERSION / STATUS
09 Jun 2017 / 2.2 / Approved
EXTERNAL REFERENCE / VERSION

List

List of ITER-INB Protections Important Activities

This document provides the current list of the main Protection Important Activities for ITER-INB and their associated defined requirements.

Approval Process			
	Name	*Action*	*Affiliation*
Author	**Rodriguez Rodrigo L.**	**09 Jun 2017:signed**	**IO/DG/RCO/SD/EPNS/SCS**
Co-Authors			
Reviewers	**Cortes P.**	**09 Jun 2017:recommended**	**IO/DG/RCO/SD/EPNS/SAA**
Approver	**Elbez-Uzan J.**	**09 Jun 2017:approved**	**IO/DG/RCO/SD/EPNS**
Document Security: Internal Use *RO: Elbez-Uzan Joelle*			
Read Access	**LG: Deputy Head of Dept - SD, AD: ITER, AD: IO_Director-General, AD: OBS - Safety Control Section (SCS), AD: DA, project administrator, RO, LG: SandS writers, GG: MAC Members and Experts, LG: Supplement access, GG: Safety, GG: IO DDGs (and Senior Advisors), GG: DA Heads, Co-ordinators and Management...**		

Change Log			
List of ITER-INB Protections Important Activities (PSTTZL)			
Version	***Latest Status***	***Issue Date***	***Description of Change***
v1.0	Approved	10 Sep 2014	
v1.1	Approved	21 May 2015	Updating of the reference in particular the "Policy on Safety, Security and Environment Protection Management" has been added with the new title and link. PIA transportation extended. Formatting of the tables modified
v2.0	Approved	20 Nov 2015	- Removal of the methodology (now in SBYJXD) - Modification of the scope - Reformulation of the defined requirement to express then as "criterias" and not as "checks". - Reformulation of the PIA “transportation of PIC” - Removal of some activities which are no longer PIA. - Addition of two PIA : - Storage of PIC at the ITER Site - Installation of PIC
v2.1	Approved	01 Mar 2016	Modification of the transportation PIA, according to the letter DG/2016/OUT/0094 (SHJQSX)
v2.2	Approved	09 Jun 2017	Following modification done: 1- Activities for protection of workers, public and environment: defined requirements added 2-Qualification: defined requirements added 3-PIA transportation modified following the IO answer to ASN in "TRS#01 - to ASN - Answer to ASN – ITER Inspection No. INSSN-MRS-2015-0600 - FR (SNH2AA) answer B1" 4-Maintenance of PIC during construction/assembly phase added. Defined requirements added also for maintenance during operation/commissioning

Table of Contents

1 Purpose

The purpose of this document is, in application of the *Guideline for identification of the Protection important activities (PIA)* (SBYJXD), to provide the current list of the main Protection Important Activities (PIA) for ITER (INB no. 174) and their associated defined requirements.

2 Scope

This document applies to all phases of the ITER Project.

3 Definitions and acronyms

ESPN Nuclear Pressurized Equipment

INB French acronym for *installation nucléaire de base,* meaning "basic nuclear installation"

PIA Protection Important Activity

PIC Protection Important Component

SIC Safety Important Class Components

4 References

[1] Order dated 7 February 2012 *relating to the general technical regulations applicable to INB,* called « INB Order » (7M2YKF)

[2] Preliminary Safety Report (*Rapport Préliminaire de Sûreté* - RPrS) (3ZR2NC)

[3] Demand of Authorization of Creation DAC ind 3.0 (English) (73Y8FV)

[4] Procedure for the Safety Review of Regulatory Files (48VD6T)

[5] ITER Policy on Safety, Security and Environment Protection Management (43UJN7)

[6] Framework instruction for safety demonstration - Art 3.8 INB order (PQT8AC)

5 List of Protection Important Activities for INB no. 174 (ITER)

5.1 Common PIA to all the lifecycle of the INB to be applied case by case

PIA's	Defined requirements
Activities for protection of workers, public and environment	– Compliance with the Preliminary Safety Report [2] and the *Policy on Safety, Security and Environment Protection Management* [5]. – Compliance with the environmental code, the Labor Code and IO procedures related to radioprotection and protection of the environment
Safety demonstration	– Compliance with the Preliminary Safety Report [2]
Calculations related to safety demonstration	– Application of an independent control case by case – Application of the *Framework instruction for safety demonstration* [6]. – Compliance with the defined requirements for each PIC
Qualification	– Compliance with the list of defined requirements of PIC's and PIA's – Compliance with the qualification programs or schedules
Management of nuisances and the impact on health and safety for effluent and releases	– Compliance with: o The Preliminary Safety Report [2]. o The Policy on safety, security and environment protection management [5]. – Compliance with administrative authorizations from environmental authorities
Waste management	
Management of emergency situations	– Periodical trials.

PIA's	Defined requirements
Transportation of PIC or ESPN after successful completion of factory acceptance tests prior to final shipping and handover to IO at the ITER Site. Transportation of PIC or ESPN after successful completion of factory acceptance tests prior to final shipping and storage outside ITER site and before handover to IO **on case by case.** Transportation of serial or family of PIC or ESPN after successful completion of factory acceptance tests prior to final shipping and handover to IO at the ITER Site **on case by case sampling selection.**	– Conservation of the PIC capacity to fulfil its defined requirements.
Dismantling provisions	– Compliance with the requirements in the Preliminary Safety Report and Decommissioning plan (file 10 of the Demand of Authorization of Creation [3])
Change tracking and configuration management	– Application of the related IO procedures of ITER quality management system.
Deviation requests.	– Analysis of the feedback experience. – Integration of the lessons learnt into ITER continuous improvement program.
Management of non-conformities, remedial actions preventive and corrective actions,	
Determination of the technical, human and organizational causes of error, non-conformities, incidents & accidents.	
Management of the feedback experience and lessons learned and their integration in the different processes	
Writing of specifications for contracts which include PIC	– Application of the IO procedures and templates – Compliance with the French regulation and RPrS.
Propagation of the defined requirements in the contracts	– Inclusion of the defined requirements in the contracts
Writing of documents related to PIA's and PIC's	– Compliance with French regulation and the defined requirements.

5.2 Specific PIA for each lifecycle of the INB to be applied case by case

5.2.1 Lifecycle: Design

PIA's	Defined requirements
Definition and design-basis studies for systems and components including PIC components	– Compliance with the Preliminary Safety Report. – Compliance with the defined requirements provided for each system – Application of independent monitoring and controls of studies.
Safety studies	
Preparation of manufacturing specifications for systems and components including PIC components	– Inclusion of the defined requirements in the contracts – Sufficient defined requirements for suppliers to be able to manufacture SIC components to the required standards and to meet the specified component reliability requirements.
Writing of technical manufacturing specifications	
Specifications into the contracts including PIC components	
Configuration management-common	– Application of the related procedures of ITER quality management system

5.2.2 Lifecycle: Construction/ manufacturing

PIA's	Defined Requirements
Detailed construction design and working drawings	– Compliance with the defined requirements of PIC's and PIA's – Compliance with the technical specifications. – Compliance with the manufacturing and surveillance plans
Construction/ manufacture in factory	
Assembly carried out in factories,	
Reception of PIC for handover to the ITER Organization at the ITER Site	– Conservation of the PIC capacity to fulfil its defined requirement. – Compliance with the IO reception procedure
Storage of PIC at the ITER Site	– Conservation of the PIC capacity to fulfil its defined requirement. – Compliance with the preservation plan
Individual acceptance tests on components	– The test shall allow to assess if the PIC meets its defined requirements

Installation of PIC	– Compliance with the technical specifications. – Compliance with the manufacturing and surveillance plans – Conservation of the PIC capacity to fulfil its defined requirement.
Maintenance	
Maintenance of Protection Important Component	– Demonstration of the maintainability of the qualification of PIC – Compliance with the maintenance procedures and plans – Compliance with the inspection plans

5.2.3 Lifecycle: Operation/ commissioning activity

PIA's	Defined Requirements
Preparation of operating documents	
Writing temporary General Operating Rules	– Compliance with operation requirements for PIC – Compliance with the collective dose objectives *To be completed at that phase of the lifecycle*
Writing operating instructions	
Writing maintenance procedures and routine tests	
Testing phase	
Writing detailed test procedures	*To be defined at that phase of the lifecycle*
Acceptance test performance	
Test reports	
Operation and maintenance	
Maintenance of Protection Important Component	– Demonstration of the maintainability of the qualification of PIC – Compliance with the maintenance procedures and plans – Compliance with the inspection plans
Acceptance of the Operation of systems at the facilities	*To be defined at that phase of the lifecycle*
Feedback, lessons learned management	