

IDM UID

VERSION CREATED ON / VERSION / STATUS 01 Apr 2009 / 2.1 / APPROVED

EXTERNAL REFERENCE

MQP Procedures

Manufacturing and Inspection Plan

This document describes the requirements for preparing and implementing a "Manufacturing and Inspection Plan" that the ITER Organization will use to monitor quality control and acceptance tests for procurement activities.

Approval Process												
	Name	Action	Affiliation									
Author	Park S.	01-Apr-2009:signed	IO/DG/SQS/QA									
CoAuthor												
Reviewers	Alejaldre C.	02-Apr-2009:recommended	IO/DG/SQS									
	Holtkamp N.	02-Apr-2009:recommended										
	Sands D.											
Approver	Ikeda K.	08-Apr-2009:approved	IO/DG									
		Document Security: level 1 (IO uncl	assified)									
		RO: Croset Jean-Philippe										
Read Access	LG: Central Solenoid Ma	ignet DA PA PT, LG: Central Solen	oid Magnet IO PA PT, LG: Central Solenoid									
			lenoid Magnet IO TRO, LG: Technical Assistant,									
	LG: CS Conductor PA T	RO, LG: PA Reviewers, LG: 5th wo	orking group, LG: [CCS] CCS-All for Ext AM,									
			[CCS] CCS-Doc Control, LG: [CCS] ITER									
			AD: External Collaborators, AD: Division -									
			l, AD: ITER Management Assessor, project									
	administrator, RO, GG:	MAC Members and Experts, GG: S	TAC Members & Experts, GG: Council									
	Preparatory Working Gr	roup (CPWG)										

	Change Log									
Title (Uid)	Version	Latest Status	Issue Date	Description of Change						
Manufacturing and Inspection Plan (22MDZD v2 1)	v2.1	Approved	01 Apr 2009							
Manufacturing and Inspection Plan (22MDZD_v2_0)	v2.0	Signed	30 Mar 2009							
Manufacturing and Inspection Plan (22MDZD_v1_2)	v1.2	Approved	23 Nov 2007							
Manufacturing and Inspection Plan (22MDZD_v1_1)	v1.1	Signed	23 Nov 2007							
Manufacturing and Inspection Plan (22MDZD_v1_0)	v1.0	Signed	13 Dec 2005							



ITER Project Management and Quality Program

Manufacturing and Inspection Plan

This document describes the requirements for a Manufacturing and Inspection Plan (MIP) that must be produced by each supplier and subcontractor, and submitted to the IO for acceptance and mark up of interventions.

	External Number:	Date: 1 April 2009
	Name	Affiliation
Author	Sungkook Park	Procurement QA Officer
Reviewers	David Sands	Head of Quality Assurance Division
	Carlos Alejaldre	DDG for SAS
	Norbert Holtkamp	PDDG
Approver	Kaname Ikeda	Director General

Records of Revision:

Rev. No.	Date	Descriptions						
1.2	11 Apr 2008	Issue for use						
2.0	27 March 2009	Change of document title to "Manufacturing and Inspection Plan (MIP)" from "Work Schedule". Clarification of supplier's requirements for preparing a MIP. Clarification of IO's procedure for managing a MIP. Revision of template with explanations.						
2.1	1 April 2009	Simply article 4.4 to give a distinct meaning (delete elaboration phrase). Clarification of supplier's requirement regarding the notification of IO's intervention points (article 4.8).						

Table of Contents

1	Purpose	.4
2	Scope	
3	Requirements	
	Procedure	
	Records	
e	Attachment	
[Ter	nplate for Manufacturing and Inspection Plan]	6

1 Purpose

This document describes the requirements for preparing and implementing a "Manufacturing and Inspection Plan" (MIP) that the ITER Organization (hereinafter IO) will use to monitor quality control and acceptance tests for procurement activities.

2 Scope

A "Manufacturing and Inspection Plan" should encompass the whole scope of the contract, or Procurement Arrangement (PA), and range from review of drawing, verification of materials, manufacturing operations, inspection and test to delivery.

3 **Requirements**

- 3.1 A Manufacturing and Inspection Plan is a listing of the sequence of operations affecting quality. For each particular operation, the Plan should:
 - identify requirements and instructions applicable to those operations,
 - identify operations to be inspected or witnessed by DA, IO, and (Agreed) Notify Body (ANB), etc.
 - provides for recording the verification and completion of these operations.
- 3.2 The level of detail in a MIP should be such as to prevent the inadvertent by passing of critical operations and to enable adequate planning, monitoring and verification of critical operations.
- 3.3 To ensure that operations are performed as directed in this plan, the document should be directly accessible to those carrying out the work.
- 3.4 A MIP must be written in English for IO record purpose and acceptance, and be easily understood by those carrying out the work. (The operations can be in dual language to facilitate supplier workforce understanding).
- 3.5 Work shall not start until this Plan has been accepted by IO.
- 3.6 IO acceptance of Manufacturing and Inspection Plan shall not relieve the supplier(s) of any contractual obligation and responsibilities.

4 **Procedure**

- 4.1 All suppliers and their subcontractors who perform ITER Project activities shall submit a MIP to the IO Technical Responsible Officer (TRO) of that procurement activity for acceptance, however where Domestic Agencies (DAs) are involved, the MIP shall be forwarded to the relevant DA to enable them to mark up any DA intervention points and approve it before sending to the IO.
- 4.2 The IO TRO shall consult the Quality Assurance Responsible Officer (QARO) for advice on intervention mark-up and who should perform the relevant IO interventions.
- 4.3 Where an(a) (Agreed) Notified Body (ANB) is involved, the IO TRO send the MIP to them for review and mark-up prior to deciding on IO interventions.

- 4.4 After internal review, IO will return the MIP to the supplier (through the DA for in-kind procurement,) with a mark up of IO intervention points.
- 4.5 If the ANB or IO TRO decide that essential operations are missing on the submitted MIP, the MIP will be returned to the supplier (through the DA for in-kind procurement) for correction.
- 4.6 Evidence of IO acceptance of the MIP shall be maintained.
- 4.7 A revised MIP shall be subject to the same acceptance procedure as the original MIP.
- 4.8 It is the supplier's responsibility to notify the IO (through the DA for in-kind procurements) of any forthcoming intervention points (HPs, NPs, and W etc). Adequate notice must be given to permit IO to send a representative to the supplier's facility if deemed necessary.
- 4.9 The intervention points must be signed off and dated at the time of attendance by the relative party by the person performing the intervention.
- 4.10 Compliance with this plan shall be checked and recorded as work progresses.
 - each completed operation must be dated and signed off at the time of completion by the performer or his direct supervisor,
 - the identification of records generated during the performance of the particular operation (e.g. test report, non-conformance report, etc.) must be recorded on the MIP.

5 Records

A Manufacturing and Inspection Plan is an integral part of the contract. Upon completion of the work, completed Manufacturing and Inspection Plan and records relevant operations shall be included in the data package handed over to IO.

6 Attachment

Template of Manufacturing and Inspection Plan.

(Alternative templates may be used provided they contain the essential data required and shall be subject to acceptance of the head of Quality Assurance Division of IO in advance of their intended to use).

[Template for Manufacturing and Inspection Plan]

[Sheet: of]

			MANU	FACTUR	ING	AND	INS	SPECTI	ION PLAN		
Document Number	r:					R	evis	ion Numbe	er:		
ITER PP Number	:	ITER PA/Contrac Number:			ıct			e of Item:			
Name of DA:							S	upplier:			
Prepared b	y supplier		Approved by DA					ITER Acc	ceptance	Code*	
			Name & signatur	e			z signature		HP: Hold Point ATPP: Authorization to Proceed Point NP: Notification Point		
Position: Position Date: Date:					Pos	sitior te:	1:		W: Witness of Operation S1: 100% Inspection, S2: Random Inspection R: Review Report		
			•			•			<pp: pro<="" td=""><td>ocurement Package, PA: Procure</td><td>ement Arrangemer</td></pp:>	ocurement Package, PA: Procure	ement Arrangemer
Operations	Expected				Inspect	spection Body					
(Manufacture,			able procedures,	Supplier DA		DA	ITER		Others ⁽¹⁾	Records (report, non-conformance	Observation(s)
Inspections & Tests, etc.)	Date drawing		s, instructions, etc.	Name, Sign & Date	, Name, Date Sign & D				Name, Sign & Date	number, etc)	
					*		*		*		
	1	I			1		1				1

· · · · · · · · · · · · · · · · · · ·			 			1
					1	
					1	
					i	
					1	
				1	I	
					1	
					1	
					i	
					1	
					I	
					1	
					1	

(1) Others: Third Party Inspection (TPH) or Agreed Notified Body (ANB) or French Safety Authority, etc.

[Code]

- Hold Point (HP): Identifies an operation that must be signed off by an IO representative before work proceeds beyond this point.
- Authorization to Proceed Point (ATPP): Identifies an operation that must be signed off by a DA representative before work proceeds beyond this point.
- Notification Point (NP): Identifies an operation that must be notified to an IO/DA representative. This notification gives the IO/DA representative the opportunity to arrange an inspection visit if deemed necessary therefore adequate notice must be given to permit arrangements for this visit. In the absence of the appointed representative and with IO/DA documented agreement work can proceed.
- Witness (W): identifies an operation that must be witnessed.
- Surveillance (S1): identifies an operation that requires 100% inspection.
- Surveillance (S2): identifies an operation that requires random inspection or spot checks.
- Review (R): identifies a document or report that must be reviewed.

[How to fill out the form]

- Document Number: ITER Project Number (TBD) + DA/Contractor Corresponding Number.
- Revision Number: Number that this document is revised and date made.
- ITER PP Number: Number of ITER Procurement Package.
- ITER PA/Contract Number: Number on Procurement Arrangement (PA) signed between IO and DA concerned (for in-kind procurement) or contract between IO and its supplier (for in-cash procurement).
- Title of Item: Item supplied by DA concerned according to PA, or by IO's supplier.
- Name of DA: The DA to supply the item according to the PA.
- Supplier: The entity which make a contract with the IO/DA.
- Prepared by: A supplier responsible personnel who prepared this template.
- Approved by: The DA TRO (for in-kind procurement).
- ITER Acceptance: The IO TRO.
- Operations (Manufacture, Inspections & Tests, etc.): Title of operations in sequence expected during manufacturing.
- Expected date: An approximation of the date when an operation is scheduled (estimated month).
- Applicable procedures, drawings, instructions, etc: All documents which will be used for designated operation, such as welding procedures, welding drawings, etc.
- Inspection Body: Indicate a code among HP, ATTP and NP etc. in the box marked by *, which entity marked with * will perform the operations.
- Records (report, non-conform. Number, etc.): Documented products issued during the operation. It is also recommended to include identification number of documentation.
- Observation(s): Any special issues raised by inspector during operation which are related to next operations for reference or information, etc.