

Client :
 Project :
 Client project no. :
 Equipment :
 Order no. :
 Manufacturer :

EXHIBIT 6.1 - Quality Plan / Quality Checklist INSPECTION AND TESTPLAN (ITP)

FOR

XXXXXXXXXXXX

Drawn by QC Engineer Date:			Approved by Sr. QC Engineer: Date:			Accepted by Authorized Inspector: Date:		
Revision	Date	Signature	Revision	Date	Signature	Revision	Date	Signature
			Drawing no.			Sheet no.		

Client.:	Project.:	Client project no.:	Drawing no.:	Equipment.:

1. SUMMARY OF QUALITY PLAN / QUALITY CHECKLIST

This Quality Plan / Quality Checklist is made up in parts as indexed hereunder per Checklist. Further it contains a Coversheet(s), section 1: Summary of Quality Plan / Quality Checklist and section 2: Notes and Abbreviations.

Checklist number	Number of pages	Revision number	Title or description of part	Related construction drawing(s) Drawing number SF /
1			General QA requirements	
2			Fabrication of xxxx	

Scope and description of revisions to the am Checklists

Revision Date Description of revision

Quality Plan / Quality Checklists Distributed to

Name	Number
Client / Contractor	1 x
Workshop	1 x
Project manager / File	1 x
Authorized Inspector	1 x

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2. NOTES AND ABBREVIATIONS

1. Applicable codes and specifications.

This Quality Plan is based on ASME BPVC Section xxxx.

2. Sequence of numbering

The numbering of the Inspection Points in this Quality Plan does not necessarily indicate the sequence of inspections or the sequence of manufacturing activities.

3. Visual Inspection (VT)

Extent of examination : 100 % fit-up and finished welds
Personnel qualification : xxxx
Technique : xxxx
Acceptance : xxxx

4: Magnetic Test (MT)

Extent of examination : xxxx % of xxxx connections/welds
Personnel qualification : xxxx
Testing method : xxxx
Technique : xxxx
Acceptance : xxxx

5: Penetrant Test (PT)

Extent of examination : xxxx % of xxxx connections/welds
Personnel qualification : xxxx
Testing method : xxxx
Technique : xxxx
Acceptance : xxxx

6. Radiographic test (RT)

Extent of examination : xxxx % of xxxx connections/welds
Personnel qualification : xxxx
Testing method : xxxx
Technique : xxxx
Acceptance : xxxx

7. Ultrasonic test (UT):

Extent of examination : xxxx % of xxxx connections/welds
Personnel qualification : xxxx
Testing method : xxxx
Technique : xxxx
Acceptance : xxxx

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8. Dimensional Check (Dim. Check):

The tolerances as given by Code will be basis of acceptance.
 On final completion of the item(s) under construction a Dim. Check. will be carried out and reported for the relevant main interface dimensions.
 If item(s) are found out of tolerance a NCR (Non Conformity Report) will be issued.

9. Visual inspection (Vis. Insp.) of fit-up including dimensional check (Dim. Check):

These inspection points covers:

- A: Vis.Insp. of weld bevel preparation.
- B: Dim. Check of weld bevel angle and root gap.
- C: Cleanliness of the weld preparation.
- D: Overall Dim. Check of the part concerned.
- E: Check for availability of the correct WPS for the particular detail.
- F: Check for correct pre-heating if applicable.
- G: Surface damages if material is removed thermally (autogenously cutting / gouging), the area of adhesion shall be subject to full surface examination after grinding (100% MT or 100% PT).
- H: Arc strikes removed by grinding which are outside the weld seam shall also be subjected to a full surface examination (100% MT or 100% PT).

10. Working conditions:

The following conditions shall be avoided during welding, by taking special measures:

- A: Temperature of base material below 5 °C.
- B: Condensation on the base material.
- C: Other conditions which may have a negative effect on weld quality.

11. Welding Procedure Specification (WPS):

- A: The WPS to be used for the particular weld detail is indicated on the welding plan.
- B: The welding procedure specification shall be in accordance to ASME IX.
- C: Further it describes control of pre-heating and post weld heat treatment.

12. Welding Qualification Records (PQR):

PQR's shall be in accordance with ASME IX.

13. Welder qualification:

All welders shall be qualified accordance with ASME Section IX.

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14. Post Weld Heat Treatment (PWHT):

The pressure vessel, the part of the pressure vessel or piping shall be heat treated according Code requirements and material specification and in according the heat treatment procedure of the heat treatment company.

15. AIA:

Authorized Inspection Agency

16. AI:

Authorized Inspector

17. Code:

ASME Boiler and Pressure Vessel Code Section I or VIII Division 1 or NBIC, as specified by the contract for a particular job.

18. Inspection Notification:

Manufacture shall invite the AI and Client for upcoming inspections by e-mail or phone.

19. H = Hold Point:

No work may proceed beyond this operation until the Authorized Inspector has accepted it.

20. W = Witness Point:

No work may proceed beyond this operation until the Authorized Inspector has accepted it or has given his written or verbal permission to waive this inspection point allowing work to proceed. Waived inspections shall be indicated as waived on the ITP by the QC Engineer.

21. R = Review Documents:

Is a review point, which would cover the review of documents and would not require acceptance of the Authorized Inspector before proceeding with the next operation, but must be seen prior to the Stamping of the item.

22. Further abbreviations:

- L.S. = Longitudinal weld seam
- C.S. = Circumferential weld seam

23. Receiving inspection:

Visual inspection (Vis. Insp.) for surface defects.

24. Non Conformance:

Is a deficiency which renders the quality of items or material unacceptable or indeterminate or not according to specified requirements, which occurred during manufacturing and cannot be corrected during inspection.

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Insp. no.		Type of inspection to be carried out by:						Report MDR	Notes no.	Rev.per		
		Manufacturer		Client		AI						
GENERAL QA REQUIREMENTS												
1	Check for approval of:											
a	Calculations									X		
b	Construction drawings									X		
c	NDE Procedures and personnel									X		
d	Welding Procedure Specifications									X		
e	This Quality Plan / Quality Checklist									X		
f	Welder qualifications									X		
g	Heat treatment procedure									X		
h	Design Approval Document by AIA									X		
2	Check during manufacturing period the use of the correct revisions according to the Drawing and Procedure List of:											
a	Construction drawings									X		
b	Welding procedure specifications									X		
c	NDE Procedures and personnel									X		
d	Heat treatment procedure bending company.									X		
e	This Quality Plan / Quality Checklist									X		
f	Welder qualifications									X		
3	Check during manufacturing period the use of the correct materials as indicated on the material lists on the Construction drawings (Only stated materials to be used)									X		
4	Keep up to date during the manufacturing period the list of materials used									X		
5	Check and endorse the necessary remarking and record them on the relevant Certificate of Conformity, remark *									X		
Remarks: - See Notes and Abbreviations as given in front of this Quality Plan / Quality Checklist * If applicable												
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Insp. no.		Type of inspection to be carried out by						Report MDR	Notes No.	Rev.per	
		Manufacturer	Client	AI							
	FABRICATION OF XXXXX										
1	Check and record the material identification marks of the materials to be used for the parts described herein.										
2	Vis. Insp + Dim. Check on completion of machining:										
a	Discription : item XXXX										
b	Discription : item XXXX										
c	Discription : item XXXX										
d	Discription : item XXXX										
e	Discription : item XXXX										
2	Vis. Insp of fit-up including Dim. Check before welding:										
a	CS. item XXXX to item XXXX.										
b	CS. Item XXXX to item XXXX.										
c	CS. Item XXXX to item XXXX.										
3	Welding seams as mentioned under 2a,2b and 2c according to the applicable WPS as indicated on the drawing.										
4	Vis. Insp on completion of welding seams as mentioned under 2a, 2b, and 2c according point 3 of the notes and abbreviations.										
5	N.D.E. examination for the welds mentioned under 2a , 2b and 2c.										
6	Prepare the completed XXXX for hydrotest.										
7	Visual inspection before hydrotest.										
Remarks:											
- See Notes and Abbreviations as given in front of this Quality Plan / Quality Checklist.											
* All radiographs shall be reviewed by Manufacturer.											
Note : If P.W.H.T. is required the N.D.E. examination will be performed after the P.W.H.T.											
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Insp. no.		Type of inspection to be carried out by:						Report MDR	Notes no.	Rev. per insp.pnt.	
		Manufacturer	Client	AI							

FABRICATION OF XXXX												
8	Hydrotest of the completed XXXXXX at barg.											
9	Visual inspection after hydrotest											
10	Release of the M.D.R.											
Remarks: - See Notes and Abbreviations as given in front of this Quality Plan / Quality Checklist												