



# Waste Treatment Plant Project



## 2016 Supply Chain Collaboration Event

### Understanding Supplier Quality Shop Expectations

**(Witness/Hold, MAP, Surveillance) -  
Suppliers**

# Understanding Supplier Quality Shop Expectations

## Discussion Topics

- Lessons Learned
- Supplier Quality R2A2s
- Supplier Quality Oversight Tools
- Preparing for the Initial Visit
- Preparing for Surveillance and Oversight Activities
- Communication with SQR and PSQS
- Open Issues and how to manage to closure
- Plus/Delta

# Understanding Supplier Quality Shop Expectations

## Lessons Learned

- A clearly defined DOR and communication plan better facilitates success
- Preparation of surveillance and oversight packages for each visit minimizes delays
- The MAP, although not a current part of the purchase order, is a valuable tool to share during the initial visit
- Specific hold/witness points may require more than just an SQR to complete (FAT, CGD, etc.)

# Understanding Supplier Quality Shop Expectations

## **Supplier Quality R2A2s (Roles, Responsibilities, Accountabilities, Authorities)**

The Supplier performs inspections of their own equipment and materials and those of their Sub-Suppliers. The SQR does not do any inspections.

The Supplier performs source verification and validation of their own equipment and materials including their own Sub-Suppliers.

The SQR conducts surveillance activities per the MAP of the Prime Supplier and if necessary, their Sub-Suppliers.

The RI&T department at the Project sites performs inspection of the material received from the Supplier.

# Understanding Supplier Quality Shop Expectations

## **Supplier Quality R2A2s (Roles, Responsibilities, Accountabilities, Authorities)**

- Receives direction directly from PSQS
- As directed by the PSQS, notifies Supplier of visit intention per MAP for witness, hold, and in-process surveillance points
- Issues report on each visit with open issues and status of hold and witness points
- Works closely with RE and PSQS to resolve open issues and changes to MR as required
- Reviews QVD package progressively during SQR visits
- Assists with FAT test reviews as requested by RE
- With PSQS concurrence, releases materials for shipment per G-321-V requirements and RFSC

# Understanding Supplier Quality Shop Expectations

## Supplier Quality Oversight Tools

- The Purchase Order & Material Requisition
  - Provides basis for specification requirements in oversight activities and QVD review
  
- MR/PO Section 5/Attachment SQ
  - Establishes Hold/Witness Points beginning with the Initial Visit Meeting
    - [Sample Section 5.pdf](#)
  - Additionally the SQR utilizes the Material Acceptance Plan to define the specifics of each surveillance step (Hold/Witness, etc.)
    - [Sample MAP.pdf](#)
  
- Project Subject Matter Experts (SMEs)
  - Provide additional assistance when specified (IPR, Team Review, DPO)

# Understanding Supplier Quality Shop Expectations

## Preparing for Supplier Quality Initial Visit Meeting

- Know what questions to expect the SQR to ask
  - We utilize a specific form with multiple categories. Advanced copies can be distributed to better prepare the supplier.
- Be prepared to provide the list of personnel to be utilized during execution of the work
  - Welders, NDE Inspectors, Other certified personnel
- If there are any known technical conflicts that impact execution of hold/witness points, this is the time to discuss
- Provide the SQR with a detailed schedule to facilitate early and ongoing planning
- [Sample of Initial Visit Meeting Report](#)

# Understanding Supplier Quality Shop Expectations

## Preparing for Surveillance and Oversight Activities

- Know your Hold/Witness Point(s)
  - What is the notification requirement in the Purchase Order?
  - How well defined is this activity in the Inspection and Test Plan?
  - What is the SQR (or others) looking for?
  - What will they need (documentation, certifications) during this visit?
  - Have I performed a dry run to ensure the activity can be completed?
  - What tells me the SQR has completed each hold/witness point?
  - Who is required to be present for this activity?
  - Can I produce the completed record (if applicable) before BNI leaves the facility?



# Understanding Supplier Quality Shop Expectations

## Communication with the PSQS and SQR

- Communication is the key to success
  - It must be clear what is to be accomplished during the entire visit
  - Clearly define a communication plan at the beginning of the assignment to ensure both the correct Bechtel and supplier personnel are actively involved
  - Noted issues (if any) are to be communicated early and clearly
    - These issues are to be documented in the open issue log

# Understanding Supplier Quality Shop Expectations

## Open Issues and How to Manage to Closure

1. Open Issues are to be vetted by the PSQS with the SQR before delivered to the supplier
2. Weekly changes to the open issue log are to be both communicated with the supplier and provided electronically via e-mail
3. The supplier is responsible for ensuring open issues are addressed and resolved in a timely manner
4. Real time management of issues that may result in DPO or require technical disposition is required to ensure issues do not remain open over long periods of time

# Understanding Supplier Quality Shop Expectations

## **Plus/Delta – Discussion Topics**

Were the topics beneficial?

What topics do we need to further address?

How does Bechtel SQ surveillance and oversight impact you?

What can we do better to ensure collaboration is established early in the procurement and during manufacturing?

## Part 2 - Technical Requirements - Attachment SQ



### BUYER's Quality Surveillance Plan

Bechtel National, Inc.  
Hanford Tank Waste Treatment and Immobilization  
Plant (WTP)

MR Number: XXXXXXXXXX  
Revision Number: XXXXXXXXXX

1.0 **QUALITY SURVEILLANCE** - Quality Surveillance by BUYER is monitoring, witnessing, reviewing, or otherwise observing supplier's performed work, inspections, tests, examinations, and other quality affecting activities, as required by approved plans and procedures. Performed on behalf of BUYER, quality surveillance provides in part, the basis for procured item acceptance. Quality surveillance does NOT constitute final acceptance. Products required by this PO will be subject to quality surveillance by BUYER, Owner, or the authorized representative of either, who shall be granted free access to any and all parts of SELLER's plant(s) or SELLER's sub-supplier's plant(s) engaged in the manufacture or processing of the required Product(s) in accordance with note 3.0.

2.0 **INITIAL VISIT** - Prior to the start of manufacturing, the assigned BUYER Quality Surveillance Representative may conduct an initial visit to review the quality requirements and performance expectations of the Purchase Order with responsible SELLER management.

3.0 **WITNESS AND HOLD POINTS**

**WITNESS POINTS (W)** - Witness points are defined as critical steps in manufacturing and testing, whereby SELLER is obligated to advise BUYER's Quality Surveillance Representative at least five (5) business days in advance of the operation so that it may be witnessed. With prior concurrence from BUYER's Quality Surveillance Representative, SELLER may proceed with work past the witness point if BUYER's Quality Surveillance Representative is unable to attend. In the event BUYER Quality Representative defers a witness point, the next similar operation shall be witnessed. Results of SELLER's inspection/testing shall be available to BUYER's Quality Surveillance Representative for review/surveillance. If a similar operation is not planned, deferment of witness point requires prior written agreement from the BUYER.

**HOLD POINTS (H)** - Hold points are defined as critical steps in manufacturing and testing, whereby SELLER is obligated to advise BUYER's Quality Surveillance Representative at least five (5) business days in advance of the operation so that it may be witnessed. SELLER shall not proceed with work past the Hold Point without witness by BUYER's Quality Surveillance Representative, except by prior written agreement from the BUYER.

The Witness and Hold Points for this order are:

No.	Activity	H	W
1	Initial Visit Meeting	X	
2	Review SELLER's verification of all materials including weld filler material for conformance to specified requirements - type, thickness, and vendor CGD results, as applicable.		X
3	Witness SELLER's verification that cylindrical and conical shells are within permissible out-of-roundness limits.	X	
4	<b>Witness First Operation Fit-up and Welding for each reviewed WPS utilized in fabrication of heads.</b>	<b>X</b>	
5	Witness SELLER's verification that the shapes of formed heads are within permissible tolerances.	X	
6	Witness SELLER's verification that bent pipe dimensions are within specification tolerances.		X
7	Witness SELLER's <b>and sub-supplier's</b> First Operation Fit-up and Welding for each reviewed WPS.	X	
8	Witness SELLER's verification for proper fit-up and <b>welding</b> of all Category A & B weld seams for vessel and PJMs.	X	

**Part 2 - Technical Requirements - Attachment SQ**  
**BUYER's Quality Surveillance Plan**



Bechtel National, Inc.  
 Hanford Tank Waste Treatment and Immobilization  
 Plant (WTP)

MR Number: XXXXXXXXXX  
 Revision Number: XXXXXXXXXX

No.	Activity	H	W
9	<b>Witness SELLER's and sub-supplier's</b> First Operation of NDE (PT/UT/VT) for each reviewed procedure. <b>Witness qualification of UT calibration blocks and UT weld mockups for each different UT configuration prior to application on actual joint. Witness first operation for each different weld configuration.</b> Review to include UT activities confirming no delaminations in base metal.	X	
10	<b>Visually</b> review all pressure retaining welds, all non-pressure retaining welds, adjacent base metal, <b>and adjoining surfaces, for conformance</b> to specified requirements including the following: <ul style="list-style-type: none"> <li>• No cracks allowed</li> <li>• No slag on welds</li> <li>• Weld size and profile</li> <li>• No arc strikes</li> <li>• Reduction in thickness</li> <li>• Over-fill and Under-fill</li> </ul>	X	
11	Visually review internal PJM welds that will be inaccessible after final assembly ( <b>PJM closure weld</b> ) <b>for conformance to specified requirements.</b> SELLER shall advise BUYER's SQR prior to PJM closure welds.	X	
12	Visually review welds that will be covered or become inaccessible after final assembly <b>for conformance to specified requirements.</b> SELLER shall advise BUYER's SQR prior to covering a weld or making a weld inaccessible.	X	
13	Witness SELLER's verification of dimensions as listed in PO Part 2, Section 1.5, Attachment 1 for conformance to specified requirements.	X	
14	Witness SELLER's First Operation of Positive Material Identification (PMI) for each reviewed procedure for conformance to specified requirements.	X	
15	Review all Radiographic (RT) Film <b>and reader sheets</b> for conformance to specified requirements prior to release for shipment.	X	
16	Witness SELLER's First Operation of PT Examination of Thermowells for each reviewed procedure <b>for conformance to specified requirements.</b>	X	
17	Witness SELLER's Helium Leak Testing of all Thermowells for conformance to specified requirements.	X	
18	Witness SELLER's verification of the following for conformance to specified requirements: <ul style="list-style-type: none"> <li>• Nozzle details as listed in PO Part 2, Section 1.5, Attachment 2</li> <li>• Dimension, elevation and orientation of lifting lugs and tailing lug</li> <li>• Nozzle end preps in compliance with requirements</li> </ul>	X	

**Part 2 - Technical Requirements - Attachment SQ**  
**BUYER's Quality Surveillance Plan**



Bechtel National, Inc.  
 Hanford Tank Waste Treatment and Immobilization  
 Plant (WTP)

MR Number: [REDACTED]  
 Revision Number: [REDACTED]

No.	Activity	H	W
19	Independent Peer Review (IPR) of all accessible pressure retaining welds, all accessible non-pressure retaining welds, adjacent base metal, <b>and adjoining surfaces, for conformance</b> to specified requirements. SELLER shall provide access for completion of IPR of all welds internal to the vessel prior to the final closure weld on the vessel.	X	
20	IPR of all remaining accessible welds <b>performed</b> after vessel closure weld (see step 19 above) <b>for conformance to specified requirements</b> . SELLER shall <b>provide access</b> and allow for completion of IPR of welds prior to hydrotest.	X	
21	Witness hydrostatic pressure testing <b>for conformance to reviewed procedures and specified requirements</b> .	X	
22	Witness SELLER's Obstruction Testing to ensure that all internals and internal piping are free from obstructions.		X
23	Final Review of Completed Equipment.	X	
24	Quality Verification Document (QVD) Package is complete.	X	
25	Team Review of Completed QVD Package and Equipment.	X	
26	Confirmation of Shipping Preparations.		X
27	Release for Shipment is authorized.	X	

- 4.0 **IN PROCESS (IP)** - In-process surveillance may be performed on any manufacturing, inspection or testing activity. Specific activities may be identified as in-process quality surveillance points. BUYER's Quality Surveillance Representative shall coordinate in-process quality surveillance according to SELLER's scheduled activities.
- 5.0 **RELEASE FOR SHIPMENT** -SELLER is required to obtain BUYER's Supplier Quality Representative's release for shipment, on all items prior to packaging for delivery, excluding items not subject to final surveillance. As determined by the shipment method and/or sensitivity of the Products being transported, a provisional release for shipment may be provided by BUYER pending further surveillance of Products prior to shipment but packaged for delivery.
- 6.0 **FAILURE TO NOTIFY**  
 Downtime or rework expenses incurred by BUYER as a result of SELLER's or its sub-supplier's failure to provide notice for Witness and Hold points shall be charged to SELLER's account.
- 7.0 **MATERIAL ACCEPTANCE PLAN (For BNI Use Only)**

MAP No. [REDACTED] (For BNI Use only)