



Waste Treatment Plant Project



2016 Supply Chain Collaboration Event

QVRP – How To Get Started

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Discussion Topics

- QVRP: What is it and what is it used for?
- Start With The End In Mind (G-321-V Form)
- Defining the QVRP Process
- Developing Requirement Basis
- When Are We Done?
- Plus/Delta

Quality Verification Records Package (QVRP)

What is it?

What is it used for?



QVD Management for completeness

<http://www.hanfordvitplant.com/supplier-quality-training/>

Quality Verification Document Package Preparation Guide

Quality Verification Records Package (QVRP)



Start With The End In Mind (G-321-V Form)

- The requirements for the QVD/QVRP are detailed in the G-321-V Form.

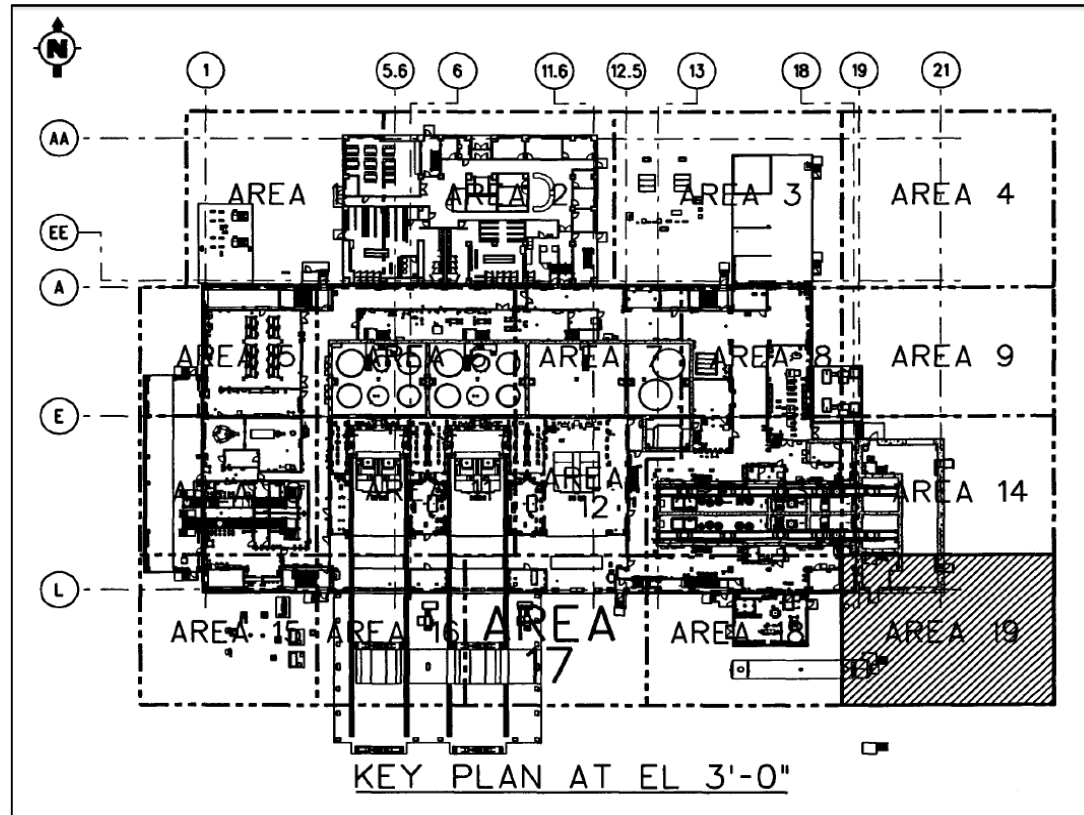
QUALITY VERIFICATION DOCUMENT REQUIREMENTS						
Bechtel National, Inc. Hanford Tank Waste Treatment and Immobilization Plant (WTP)			QUALITY VERIFICATION DOCUMENT REQUIREMENTS			
1. DOCUMENT CATEGORY NUMBER	2. SPECIFICATION PARAGRAPH REFERENCE	3. DOCUMENT DESCRIPTION	4. BECTHEL RELEASE	5. FIELD RECEIPT INSPECTION CHECKBOX	6. REMARKS	7. DOC SUPPLIER PAGE COUNT
	24590-WTP-3FS-MD00-10001	Engineering Specification for Heating, Ventilation and Air Conditioning Systems Installation				
12.0	5.2, 10.4.1	Welding Verification Documents				
14.0	5.2.8, 10.4.2	Major Repair Verification Reports				
15.0	10.4.9	Cleaning and Coating Verification Reports				
17.1	5.2.10, 10.4.3	MTR - Material Test Reports				
17.4	5.2.11, 10.4.4, 10.7	Material Certificate of Compliance		I		
24.0	6.3.2, 10.4.5, 10.4.8	Pressure Test - Hydro, Air, Leak, Bubble or Vacuum Test and Verification Reports				
25.0	10.4.6	Inspection and Verification Reports				
30.0	8.2.3	Supplier Deviation Disposition Request				
8. SUPPLIER'S ORDER NO.			9. SUPPLIER'S PART NO.		10. SUPPLIER'S PART NAME	
12. BECTHEL PO NO. (and Rev) 24590-			13. BECTHEL'S TAG OR EQUIPMENT NO.		14. BECTHEL'S PART NAME	
11. QUANTITY			15. PO ITEM NO.			
16. SUPPLIER'S CONFORMANCE STATEMENT We certify that the work and required documents meet the requirements of the procuring documents.			Authorized Supplier Signature		Title	
17. BECTHEL QUALITY REPRESENTATIVE AT PLANT Work was released based on satisfactory completion of quality surveillance and review of documentation.			WITH AUTHORIZED DEVIATIONS NOTED IN COLUMN 6		Signature of Bechtel BGR	
18. RECEIVING AT THE FIELD This form and the Quality Verification Documents referenced herein have been received and their relationship to the hardware items verified.			NO DEVIATIONS		Signature of Bechtel Field Representative	
19. FORWARD COPIES TO: Unless otherwise directed, the quality verification documents applicable to the shipment are delivered with the shipment. In all cases, the documentation is sufficiently packaged and sealed to prevent damage, loss, or unauthorized reproduction, alteration, or tampering. For all shipments subject to release authorization by a Bechtel BGR, the document packaging and sealing process is witnessed and accepted by the Bechtel BGR.			SPECIAL INSTRUCTIONS: Identify each page of the documentation package with the applicable Document Category <u>24590-WTP-3FS-MD00-10001</u> (column 1) listed above. Do not tabulate the documents (column 7) in more than one category.			
20. REQUISITION TITLE HVAC Installation Subcontract			21. REQUISITION NO. 24590-QL-SRA-MDHM-00001		22. REV. NO. 30	



Quality Verification Records Package (QVRP)



- The SUBCONTRACTOR shall submit a QVRP for each Startup System or Area that is determined by the CONTRACTOR.



Quality Verification Records Package (QVRP)



The QVRP shall contain the following documents at a minimum and be packaged in the preferred sequence with tabulation and pagination:

- BNI QVRP Cover Sheet (Attachment D-X)
- Subcontractor's Cover Sheet
- Master Index
- Certificate of Conformance
- Subcontractor Acceptance Letter
- Completed and signed G-321-V Form
- Boundary (System or Area) Drawings for QVRP, if applicable
- Applicable Inspection and Test Plans (ITPs), or reference to
- All relevant Inspection Records (IRs) and Quality Verification (QV) Documents (Submittals from G-321-V)
 - Including 3rd Party Inspection Documents

Quality Verification Records Package (QVRP)



The SUBCONTRACTOR shall:

- Ensure the QVRP complies with their subcontract's document requirements and referenced quality document criteria.
- Ensure QVRP deficiencies are identified and corrected in accordance with (IAW) the subcontractor's quality program and subcontract requirements.
- Notify the CONTRACTOR in advance of the inspections and tests to ensure that required attendees can attend the required witness and/or hold points and verify in-process accuracy of Quality Verification Records, Inspections Records, and Inspection & Test Plans.
- Complete QVRs after the completion of the testing or inspection, and provide it to the Subcontract Coordinator (SC) for initial quality team review.
- Ensure each QVRP is reviewed and signed off for completeness, accuracy, and subcontract compliance by its own quality team before submittal to the CONTRACTOR for team review.
- Participate in the team review of the QVRP(s) that is held prior to formal submission of the QVRP to the Subcontract Administrator for submission into InfoWorks.
- Ensure accuracy and compliance of quality records as identified in the subcontract.

Quality Verification Records Package (QVRP)



- During the team review with the CONTRACTOR, the SUBCONTRACTOR is responsible for compiling comments, validating the accuracy and compliance of the QVRP(s) based on the applicable technical specifications, codes and procedures.
- Once the QVRP has been found to be in compliance, the package shall be returned to the SUBCONTRACTOR for formal submission to the Subcontract Administrator (SA). The SA will process the document for final review, approval, and submission into InfoWorks.

Quality Verification Records Package (QVRP)



When Are We Done?

1. The supplier has assembled all the required documents defined in the subcontract, performed its internal review, reconciled all outstanding issues and signed the G-321-V form.
2. The completed and supplier signed QVRP package is delivered to the Subcontract Administrator via PDC and is routed for review.
3. When this review is completed and the G-321-V form is signed by the BNI Subcontract Coordinator and issued through PDC.

Lessons Learned

- Ensure to capture the complete scope of work on Inspection Records contained within the QVRP.
- All inspection attributes required by the applicable specifications need to be accepted on the Inspection Records.
- Applicable drawings, procedures and specifications related to the attributes need to be referenced with revision at the time of acceptance.
- G321V may not explicitly capture all attributes which are required to be documented and provided to the Contractor. (Follow the Specifications)

Plus/Delta – Discussion Topics

Were the topics beneficial?

What topics do we need to further address?

How does QVRP review impact you?

What can we do better to minimize QVRP issues early in the subcontract and during final review?



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Inspection and Test Plans

Discussion Topics

- Lessons Learned
- What is a Inspection and Test Plan
- Developing the ITP
- Plus/Delta

Lessons Learned

- An ITP can be used as the inspection record (IR) for a simple task
- An ITP should identify which IRs (Demonstrated evidence) will be used to document each task
- Hold points are required to ensure contractor and subcontractor coordination/oversight
- Releases on Hold Points must be documented on the ITP and/or IR

Inspection and Test Plans (ITP)

Definition:

A subcontractor-generated submittal that outlines the specific inspection and testing requirements, relevant to a specific process, used by BNI to monitor the subcontractor's work installation quality. Identifies the items, materials, and work to be inspected or tested; by whom, and at what stage or frequency; as well as 'Hold' (H) and 'Witness' (W) points, references to relevant standards, and demonstrated evidence.

- **Hold Point (H)** – A mandatory verification point in the progression of construction process activities which may not be passed without being released by the responsible party assigned to release this hold point.
- **Witness Point (W)** – An inspection point established with the expectation that it may be waived at the discretion of the responsible authority when contacted. **NOTE:** Documented approval by the responsible authority is to be provided for waiving a witness point.

Inspections and Testing

- The subcontractor submits an Inspection and Test Plan (ITP) for each activity to be performed.
- The ITP outlines the specific inspection and testing requirements used by the BNI to monitor subcontractors execution of its quality program.
- ITPs identify the items, materials, and work to be inspected or tested; by whom, and at what stage or frequency; as well as “Hold” and “Witness” points, references to relevant standards, and quality monitoring activities.
- The subcontractor prepares and submit appropriate ITPs, in sufficient detail to show all activities that require inspection, along with the frequency of inspection, type of inspection, acceptance criteria, and level of documentation to be recorded to comply with the Subcontract.

Inspections and Testing

- The subcontractor shall prepare and submit ITPs 30 days before the start of specific activities requiring inspection or testing, to allow sufficient time for review and revision as required. No work shall be allowed to take place without an approved ITP unless authorized by the contractor.
- Test and inspection activities shall be defined by the subcontractor in each stage of the Work.
- ITPs shall be required for all the subcontractor welding on-site, including welding of temporary installations.
- ITPs are submitted 30 days before the start of specific activities requiring inspection or testing. No work shall be allowed to take place without an approved ITP unless authorized by the contractor.

Inspections and Testing

- Test and inspection activities shall be defined for each stage of the work.
- ITPs are required for all the subcontractor welding on-site, including welding of temporary installations.
- ITPs shall address each section of the subcontractor's work (e.g., survey, earthwork, concrete, structural steel, welding, equipment installation or painting).
- A separate ITP is prepared for any complex/critical work (e.g., tie back installation, welding).
- Verification of work activities or sequence are specified in the ITP. Inspection or testing must take place in the order required to validate conformance (e.g., inspection of rebar before concrete placement).

Inspections and Testing

- The intent of ITPs is to monitor the subcontractor performance to verify subcontractor is following their quality program and executing work activities in accordance with specified criteria.
- It is not the intent of the ITPs for the contractor to inspect subcontracted work.
- The subcontractor shall notify the contractor, utilizing the Inspection Request Form (IRF) that is provided in at least 24 hours in advance of field inspection and test activities (where possible), to ensure the contractor and other required attendees can attend the required W and/or H points.

Inspections and Testing

- All signed IRs are submitted in accordance with the requirements contained in subcontract technical documents.
- The subcontractor quality representative(s) shall review Quality Verification Records for completeness, and accuracy of technical and quality content, and shall submit a system Quality Verification Record Package (QVRP) containing all relevant IRs and QV records, and indicate the subcontractor approval and concurrence on a cover letter to each QVRP stating such.
- The subcontractor shall provide inspection and restoration results to the contractor before leaving the construction site or before the end of the shift the work was performed unless other arrangements are made with the contractor.

Inspections and Test Plans



Plus/Delta – Discussion Topics

Were the topics beneficial?

What topics do we need to further address?

How does Inspection and Test Plans impact you?

What can we do better to minimize ITP issues early in the subcontract and during final review?